ASPECT IN ENGLISH

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Abstract

Chapter I - The theoretical assumptions underlying the ensuing study of aspect in English are expounded; preference is stated for a framework of transformational case grammar enriched by certain hypotheses of generative semantics. A reanalysis of predication in English is proposed, and the grammatical function 'predicator' is informally defined.

Chapter II - A distinction is made between 'aspect' and 'aktionsart' and the scope of reference for the grammatical category aspect is defined in terms of stages in the development of an event. Constraints are placed on the application of the term to forms in natural languages.

Chapter III - The meaning of the term 'an event' is defined.

Chapter IV - Prima facie evidence is presented to suggest there is a grammatical category aspect in English realised as progressive (be + Ving), aorist [simple] (V), and perfective (have + Vn).

Chapter V - Various descriptions of the meaning and function of the progressive are considered. It is found that it indicates an 'incomplete activity' and falls within the scope of the grammatical category aspect as defined in Chapter II. A diachronic study of the progressive was found to be revealing of its underlying structure in present day English. Progressive aspect appears in deep structure as a predicator on the proposition, dominating semantic elements that correspond to the description 'incomplete activity'.

Chapter VI - Various descriptions of the meaning and function of the simple form are considered and, irrespective of tense, it is found to represent the null or aorist aspect as defined in Chapter II.

Chapter VII - The origin of the perfective and its relationship with the possessive is discussed. Various descriptions of its meaning and function are reviewed, and the question whether the perfective is a tense or an aspect is considered. It is found that the perfective indicates a 'complete event' and that it falls within the scope of the grammatical category aspect as defined in Chapter II. It is observed that the perfective always co-occurs with either the aorist or the progressive aspect in English, never independently. In deep structure, semantic elements corresponding to the description 'complete event' are subsumed to a predicator on the proposition where the perfective aspect co-occurs with the aorist, but where the perfective predicator co-occurs with the progressive, it bears an asymmetric command relation to the progressive predicator on the proposition.

Chapter VIII - There is a summary of findings on aspect in English and some additional points are made.

CONTENTS

[Pages are numbered by Chapters]

Theoretical assumptions and points of grammar on which the ensuing study of aspect is based

I.i. Theoretical assumptions

The discussion of aspect which follows utilises my intuitive knowledge of English grammar, and includes a description of part of it. The only linguistic theory which has explicitly set out to capture the native speaker's internalised knowledge of his language is the theory of transformational grammar that stems from the work of Noam Chomsky (1955, 1957, 1959a, 1959b, 1961, 1962, 1963, 1964, 1965, 1966, forthcoming, to appear, and elsewhere; particular reference is made here to 1965 Chapter 1). The grammatical analyses I shall make are couched in terms of transformational theory, although the hypotheses about linguistic structures that will be presented here deviate from Chomsky's own[1] while remaining within the paradigm[2] of transformational grammar.

In any natural language there are sentences that differ formally from each other, but have the same meaning. Relationships between such sentences exist in the native speaker's 'competence' (i.e. the internalised grammar of his language, cf. Chomsky (1965 p.4 ff.)), and they may loosely be described as 'knowing the different ways of saying the same thing'. The first grammarian to formalise such relationships between sentences was Zellig Harris (1952a, 1952b, 1957) by stating grammatical transformations. The relationships Harris represented by transformations were between distributionally equivalent sentences in texts, and he made no

pretence to describe competence in Chomsky's sense. It was Chomsky, a pupil of Harris, who developed and expanded the notion of transformational grammar in the works cited above. Chomsky (1964) took up the differentiation made by Hockett (1958 Chapter 29) between 'deep' and 'surface' grammar; the linguistic theory he proposed relates deep structures to phonetically specified surface structures by a set of transformations. Deep structures are generated by phrase structure rules which expand symbols (representing sentence constituents) by rewriting them as strings of constituent symbols. The resultant strings of labelled brackettings constitute base phrase markers, which like other phrase markers, may be graphically represented by tree structure diagrams.

The formal properties of tree structures, and the constraints on their correlation with rewrite rules, are discussed by McCawley (1968b) and need not be specified here. Certain relationships which obtain in tree structures, and by implication within phrase markers, are referred to in this dissertation; they are as follows and are illustrated by the tree in Figure 1.

1) x directly dominates y

where x and y are nodes in a tree structure. (1) means that y is an immediate constituent of x and there is no intervening constituent.

2) x dominates z

where z and x are nodes in a tree structure. (2) means that z is

a constituent of x and there may or may not be an intervening constituent w such that w dominates z and x dominates w.

3) y is a sister of w

where y and w are nodes of a tree structure. (3) means that y and w are directly dominated by the same node. Op.

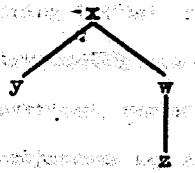


Figure 1

One further relationship that holds between nodes in a tree is the 'command' relationship, first explicated by Langacker (1969):

4) a commands b if it does not dominate b and if both are dominated by the same S node.

Where a and b are nodes in a tree structure and S is the (possibly recursive) symbol that occurs undominated at the root of the tree, and is the symbol for 'Sentence'. We say that

5) a asymmetrically commands b if b is dominated by an S embedded in a constituent of the S node which dominates a.

Katz & Fodor (1963) described a semantic component for a transformational grammar. They proposed that semantic readings be assigned to lexical items inserted under the terminal nodes of the lexical categories in the base phrase marker, and that the semantic interpretation of the sentence is effected by the operation of projection rules on these readings. Katz & Postal (1964) argued that semantic interpretation precedes the operation of transformational rules, and thus deep structure was seen to be a semantically homogeneous base — containing lexical items — on which transformations may operate to generate structurally and phonetically differing surface structures. (Conversely, surface structures that are identical structurally and/or are homophonous may derive from quite different deep structures.) The view of transformational grammar we have presented so far is roughly that elaborated upon in Chomsky (1965) and what Chomsky (to appear) calls the 'standard theory'.

McCawley (1968a, 1968b, forthcoming) and Postal (1968, 1969) have shown that one inadequacy of the standard theory is that it does not systematically include referential indices in deep structure and therefore cannot handle co-referentiality nor take account of certain characteristics of referents that have linguistic significance[3]. Bach (1968) provides independent support for this criticism of standard theory by proposing that nouns are introduced as predicates on referential indices. McCawley (1968a, 1968b, 1968c, 1968d, forthcoming) further argues that there is not both a semantic component and a syntactic component in the grammar with quite distinct kinds of rules, but that both syntactic and semantic representations are of the same formal nature, and that a system of transformational rules relates

syntactically structured semantic representations to surface structure through intermediate stages. Semantic representations are of atomic semantic elements and therefore are not generally in one to one correspondance with lexical items; they have the form of recursive predicates on referential indices with which they appear in the terminal nodes of labelled tree structures. Lexicalisation rules map phonological specifications onto well-formed brackettings of semantic representations, and this insertion of lexical items typically follows the operation of certain transformations but precedes others, cf. McCawley (1968c), Postal (1970), Lakoff (1969, forthcoming). This hypothesis concerning the structure of a grammar, known as 'generative semantics' [4], is clearly contrary to the standard theory hypothesis: according to the standard theory the insertion of lexical items precedes both semantic interpretation and the operation of any transformations.

I accept in principle that generative semantics is of superior descriptive adequacy to the theory so hotly and misappropriately defended by Katz (1970). However, like Katz (1970 p.247) I see difficulties in imposing constraints on the domain of any lexicalisation rule. To avoid this difficulty, since I do not have the time or space to attempt a solution, I have taken the practical step of representing semantic elements as bundles of semantic features in the following way:

6) $\begin{bmatrix} \alpha F_i \\ \dots \\ \alpha F_n \end{bmatrix}$

Where "F_m" is a given feature, and "α" indicates a value of either + or - . Despite the notational contradiction I beg the reader to bear in mind that I do not intend the features in each bundle to be interpreted as members of an arbitrary set, but as constituents of labelled brackettings. I must say something, here, about the names given to features. They are descriptive terms assigned on a commonsense ad hoc basis and serve a memmonic purpose; but they could, from a theoretical point of view, equally well be replaced by constant integers for the purposes of identification. No one, so far as I know, has proposed a definitive set of semantic representations for any language, and I question the possibility of in fact doing so[5].

To conclude this Section, I shall briefly present the assumption made in this dissertation that a transformational Case grammar has superior descriptive adequacy over other kinds of transformational grammar, such as the standard theory[6], in defining the roles of NP within the sentence. The role of the referent of an NP in a sentence with respect to the event referred to in that sentence has linguistic significance, and will be indicated in various ways in different languages. In the surface structure of English the role of NP is indicated, under certain conditions, by a preposition preceding NP, or in one case by a suffix to its head noun. Standard theory grammars fail to capture the role of an NP in an explicit way, and instead assign NP a grammatical function such as 'subject of' or 'object of' which is determined by its place in the configuration of nodes in the base phrase marker (cf. Chomsky (1965 p.68 ff.)). But this is a quite unsystematic method of defining grammatical function (cf. Katz (1970 p.223 ff.)) and its

inadequacy is exacerbated by the fact that certain functions are identified by labels because of the impossibility of otherwise defining them. Anderson (1968a) and Fillmore (1966, 1968a) pointed out this inconsistency in the standard theory and claimed that the notion of the grammatical function of an NP as discussed by Chomsky was a quite superficial matter and that such grammatical functions should be assigned by transformation (cf. Fillmore (1968a p.33 ff.)). They proposed instead that the role of NP should be characterised in the base by deep Case categories, sisters to the verb, and in grammars of English at least, directly dominating a preposition and an NP, or in certain circumstances a recursive S node (cf. Fillmore (1968a p.41)).

Only a limited number of Case categories are referred to in this dissertation, they are: Agentive (A), Objective (O), and Locative (L). The term Agentive is self-explanatory. The term Objective comes from Fillmore and symbolises the semantically unmarked Case (i.e. the Prep node it dominates is semantically void, see below). I use the term Locative to cover spatial, temporal and abstract location, and it therefore includes Fillmore's Dative Case; cf. Anderson (1968a, 1969, forthcoming), Lyons (1967, 1968b). The distinction between these three kinds of location results from the features of the NP which the Locative dominates rather than from the role that NP plays. True Case subcategories of the Locative are such as the Illative, the Allative, the Ablative, the Inessive, etc. each of which is identified by the prepositional features that occur in them. In fact, it appears that in English at least, Case nodes are identified by the features of the Prep node they directly dominate,

and that Case nodes in existing Case grammars are simply convenient cover terms. If I am right, then in an adequate grammar of English the role of NP can be characterised by a prepositional predicate having NP as its argument (cf. Becker & Arms (1969)), and the resulting phrase marker would look very much like some of the phrase markers proposed by Lakoff (1965) and by generative semanticists since. Current Case grammars would then be seen to be weakly equivalent to a more powerful model. Although it would be quite compatible with proposals I shall make subsequently, this suggestion is not taken up in the present dissertation because of lack of time and space: Case nodes are postulated just as described above, sisters to the verb under S, directly dominating sister Prep and NP nodes.

In the dissertation which follows, base phrase markers contain Case nodes, and their terminal category nodes dominate semantic features. Lexical items are assumed to be substituted for the latter (which are convenient notations for labelled brackettings of semantic elements) by the operation of lexicalisation rules. Lexicalisation may, however, be preceded by transformational rules. Terms like 'transformation', 'surface structure', 'underlying structure', etc. have their usual application; for instance a transformation adjoins, permutes, substitutes or deletes symbols or substrings of symbols within a string of symbols for the constituent elements at the terminal nodes of tree structures (i.e. phrase markers).

This concludes the statement of the theoretical framework for the subsequent discussion of fragments of English grammar.

I.ii. Points of grammar

From the time of Plato there has been close association between some of the terms and notions of grammatical theory and of predicate logic. Recently, Bach (1968), Fillmore (1968b), Lakoff (1969, forthcoming), McCawley (1968a, 1968b, 1968c, 1968d, forthcoming) have discussed grammatical structures in terms of modified predicate logic. The dependency systems described by Gaifman (1965), Hays (1964), Heringer (1967) and lately Anderson (1970) are quite similar in some respects to predicate systems. Although unformalised and as yet unproven, such attempts at describing linguistic competence look promising[7]. I mention this since some of the notions contained in the following discussion are diluted derivatives from systems of predicate logic; however, they cannot as they stand be defined within any such system, and I shall therefore explicate the terms I use so that the discussion will stand, so far as is reasonable, independently.

Lyons (1966,p.221) argues quite convincingly that the lexical class of adjectives and the lexical class of verbs are both included in the functional class of grammatical objects which he calls 'predicators'. A predicator is the natural language counterpart of the mathematical notion 'predicate' and may described as asserting or affirming a property of an argument, or a relationship that holds between arguments, if there is more than one. The nature of these 'arguments' in natural language will be discussed shortly. Support for Lyons' hypothesis devolves on the fact, also noted by Lakoff (1966), that the lexical class of adjectives and the lexical class of verbs are both partitioned according to the possession of

a feature [∝ active], where ∝ indicates a value of either + or −. But Chomsky (forthcoming) points out that predicative nominals partition according to the same feature classification, cf.

7) a. Ted is being a hero. [+ active]

b. Go on Ted, be a hero.

c. Robert persuaded Ted to be a hero.

8) a. Euphemia is a virgin. [− active]

b. * Come on Euphemia, be a virgin.

c. * Bertram persuaded Euphemia to be a virgin.

9) a. I believe that felix leonis is a lion. [− active]

b. * I persuaded felix leonis to be a lion.

c. * Come on, be a lion felix leonis.

10) a. David is being a lion. [+ active]

b. I persuaded David to be a lion.

c. Come on, be a lion David.

Chomsky argues that such examples as (7) through (10) demonstrate that the lexical category of nouns would have to be partitioned according to the same feature [∝ active] as adjectives and verbs. He concludes that the [∝ active] feature classification is not sufficient grounds for amalgamating three lexical categories under the functional class of predicators. There are two possible explanations for Chomsky's conclusion: one is that in Standard Theory grammatical functions are defined in terms of the configuration of category nodes in the base, cf. (1965 p.69 ff.)[8]; this theoretical modus operandi would be inapplicable to define the grammatical function predicator that may be expressed by one of three major

lexical categories. A second reason for Chomsky's conclusion may be a problem of terminology: in the earliest classical tradition the term 'verb' was used to describe the grammatical function we have termed 'predicator', and this application of 'verb' has continued in some traditional style grammars up to the present day; moreover, this use of the term 'verb' has been adopted by, for instance, Fillmore (1968a, 1968b) to denote the function of adjectives; this usage seems to me misleading and inappropriate, and it is inhibiting to extend the scope of the term 'verb' yet further to include nouns as well. It seems to me quite possible that this terminological chaos had some bearing on Chomsky's conclusion. This we can reject while accepting his argument that nouns as well as adjectives and verbs partition according to the feature [∝ active] and using it as evidence that nouns too function as predicators, at least in English. We shall bye-pass the problem of formally defining the grammatical function predicator within the model of grammar presented here, just as we bye-passed the problem of defining Cases, but henceforward we shall assume that the grammatical function predicator may be expressed by any one of the major lexical categories verb, adjective or noun.

It is characteristic of nouns to name the arguments of predicators, cf. Lyons (1968a p.324), but this does not conflict with their occurring as predicators. A predicator must be in predicative form, however; that is, it must potentially inflect for aspect, or if not for aspect then for tense, or if not for aspect nor for tense then for person, at least in English. Where these grammatical categories cannot be marked by inflexion on the stem

of the lexical item that realises the predicator, an auxiliary, typically the surface verb be (see Anderson (forthcoming), Bach (1967), Darden (1969), Lyons (1966)) is introduced to carry such inflexions. Predicative adjectives and nominals both combine with be and so, for instance does the passive of a verb. It is characteristic of verbs to predicate, but this does not conflict with their occurring as arguments; when a verb functions as an argument it assumes the nominal form traditionally called the gerund. Adjectives may also function as arguments if they assume nominal form; there are several different ways in which this may be accomplished and they need not concern us here. We can summarise these different grammatical functions of the three major lexical categories in the following way:

> Members of the lexical categories of adjectives, verbs, and nouns, may function as predicators if they are in predicative form; or they may function as arguments if they are in nominal form.

It was suggested in the previous Section that grammatical Cases may eventually be described in terms of the semantics of a prepositional predicate that has NP as its argument (cf. Becker & Arms (1969)), but for the present discussion I shall not consider the grammatical Case to be analysed in this way. I take it that grammatical Cases are those categories dominating NP and a preposition which manifest the role of NP's referent in respect of the event referred to by the predicator. For the sake of simplicity of exposition, no mention was made in the above discussion of Case categories, as indeed, none was made of NP. But in fact, a predicator

has role playing arguments with the roles represented by Case categories. Hence the argument of a predicator will be assumed to consist of a Case dominating a prepositional phrase. In support of this assumption is the fact that NP has always been regarded as endocentric on N, and furthermore some grammarians hold that NP includes prepositions as features, cf. Postal (1966) and Jacobs & Rosenbaum (1968 Chapter 17). If we regard such prepositional features as indicating the role of NP, and that is the view held in this dissertation, then we arrive at the assumption stated above, that each argument of a predicator consists of a Case dominating a preposition sister to NP which in turn dominates N.

Fillmore has up to now (cf. Fillmore (1970)) assumed that the semantic component of the grammar will be interpretive; his view of lexical insertion is therefore in line with that of Standard Theory rather than that of generative semantics. Fillmore (1968a p.27) suggests that the lexical insertion of "verbs" into terminal strings of the base is effected by matching the Case frame of a lexical entry with the Case frame specified by the base. He later suggests (1968b p.387) that lexical entries might, in part, be of the following nature:

11) BREAK
OBJECT (INSTRUMENT (AGENT))

The parentheses in this entry indicate options. Presumably, any sentence having one of the following structures would permit the insertion of the lexical item break as a predicator:

12) Predicator
Objective

13) Predicator
Objective, Instrument

14) Predicator
Objective, Instrument, Agent

A generalised structural description stating the conditions for the insertion of lexical items under the predicator function might be

15) Predicator
$Case_1(..., Case_n)$

where n is a finite number. This means in effect that a sentence consists at least in part of an n-Case predicator: a fact which is independent of one's position with respect to interpretive or generative semantics.

Now consider the structure of the following sentences:

16) The cat purrs.

17) The cat is lost.

18) The cat is black.

19) The cat is a male.

20) The cat is in the garden.

The structure of these sentences appears to be as follows:

16') Predicator [purrs]
Agent [the cat]

17') Predicator [is lost]
Objective [the cat]

18') Predicator [is black]
Objective [the cat]

19') Predicator [is a male]
Objective [the cat]

20') Predicator [is in the garden][9]
Objective [the cat]

It is of interest to discuss the substructure of the Predicator in these sentences. In (16') it is a verb, in (17') it consists of a copula be together with a deverbal adjective, and in (18') it consists of a copula be together with an adjective. I suggest that in both (19') and (20') the Predicator consists of a copula be together with a Case, since it was argued above that every NP is dominated by a Case node. To propose that a Case node may be inserted under P (predicator) is quite revolutionary; on the other hand it defeats common sense to reject this analysis for just that reason at the present stage of discussion: we should be ready, however, to elucidate the constraints on the variety of Cases that may occur under P.

It would hardly be disputed that the Case P dominates in (20') is the Locative Case; but what of (19') ? There are two types of sentences in which we find the predicative nominal: 'characterising' sentences like those in (21) and 'equative' sentences like those in (22).[10]

21) a. Cats are animals.

b. Felix domesticus is a member of the genus felix.

c. My mother is one of my parents.

d. A table is a useful object.

e. Felix is a cat.

f. The cat is a male.

22) a. Hannibal is the leader.

b. Beauty is truth.

c. Schwartz is the man I love.

'Characterising' sentences locate the possibly one member set of referents of the subject nominal among the set of referents of the predicative nominal. (No known natural languages make a distinction comparable to the set-theoretical distinction between the relation 'member of' and the relation 'subset of', cf. McCawley (1968a p.146). Furthermore, the notion of plurality in natural languages lacks direct analogy in set theory; it does not match with notions of individuals and sets.) The differing specification of "Felix" in (21e) and "cats" in (21a) is entirely irrelevant to the locative relationship between subject and predicative nominals. The locative role of the latter is sometimes revealed in surface structure, e.g.

23) a. Among animals a dog makes the best companion.

b. The Prime Minister is the most cunning among/of men.

c. Felix is a poor example of a cat.

These sentences relate respectively to a dog is an animal, the PM is

a man, Felix is a cat. In some languages the locative role of the predicative nominal may be indicated by a preposition or some equivalent: for example in Celtic languages the sentence I am a man may be translated as the equivalent of I am in my man in Irish, Tá mé am' fear, or Gaelic Tha mi 'na mo dhuine; or I am in (a) man in Welsh 'R wyf yn ddyn. In Swahili the predicative nominal may have the locative prefix yu e.g. Juma yu baharia 'Juma Locative sailor'.

'Equative' sentences like those of (22) perhaps represent a special case of 'characterising' sentences, namely that in which the subject nominal is co-referential with the predicative nominal. 'Characterising sentences may be represented by the relation

24) Subject Nominal $\subset$ Predicative Nominal

'Equative' sentences are the case where the relation (24) holds together with the relation

25) Subject Nominal $\supset$ Predicative Nominal

Thus we may conclude that for any sentence having a predicative nominal the (possibly one member) set of referents of the subject nominal is located in the(possibly one member) set of referents of the predicative nominal. For this reason I conclude that the predicative nominal is in the Locative Case, and there is no syntactic counter-evidence in English. The structure of sentences like (19'), (20'), (21) and (22)[11] is represented, in part, in the following phrase marker:

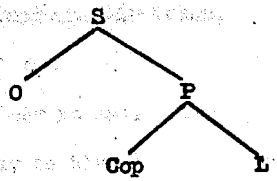


Figure 2

The underlying structure of the superficially distinct sentences (19') and (20') will differ according to the substructure of L, in particular according to the configuration of semantic features that occur under the prepositional constituent.

At this point an interesting question arises in respect of adjectives. Verbs are not normally required to concatenate with be in order to function as predicators, but both Cases and adjectives are subject to this constraint. Nominal predicatives must occur in the Locative Case, and one wonders whether predicative adjectives are in any way associated with the Locative Case. Supposing, for instance, one were to accept Ross's argument (1969) that adjectives derive from NP nodes, would it be reasonable to propose that these NP are dominated by Locative Case nodes, as all other predicative nominals are? There is no direct evidence from English to support such a proposal. The only adjectives that concatenate with locative prepositions are colour adjectives; but these double as nouns elsewhere and are presumably nominal here since prepositions otherwise concatenate only with nominalised adjectives, cf. John was angry when he struck Mary = John struck Mary in anger. In some other languages however, predicative adjectives do concatenate with locative prepositions,

or the equivalent; for instance, in Welsh,

26) a. Mae 'r car yn las.
[The car is blue.]

b. Mae ef yn hen.
[He is old.]

c. Mae y gath yn yr ardd.
[The cat is in the garden.]

And in Swahili the locative prefix yu that sometimes concatenates with predicative nominals, may also concatenate with predicative adjectives. There is therefore some evidence that predicative adjectives are associated with the Locative Case in natural languages. Implicitly this strengthens the argument for predicative nominals being dominated by a Locative Case node; however, it does not necessarily follow that one would wish to derive adjectives from such a node in a model of English grammar. All that we can be sure of is that the analysis of predicative nominals we have made is not incompatible with facts concerning predicative adjectives. It will not be my concern in this dissertation to propose a derivation for adjectives.

John Anderson (forthcoming) has proposed that the sentences in (27) and (28) should derive from the same underlying structure, and this view is representative of generative semantics.

27) The apples are in the box.

28) a. The apples are contained in the box.

b. The box contains the apples.

This poses a problem for our analysis of the structure of sentences like (27) when the phrase marker for the structure underlying (27) in Figure 3 is compared with that underlying (28) in Figure 4.

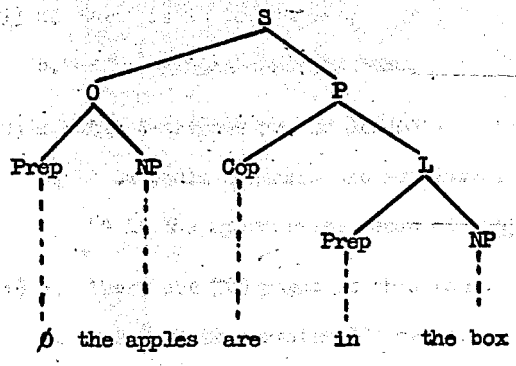


Figure 3

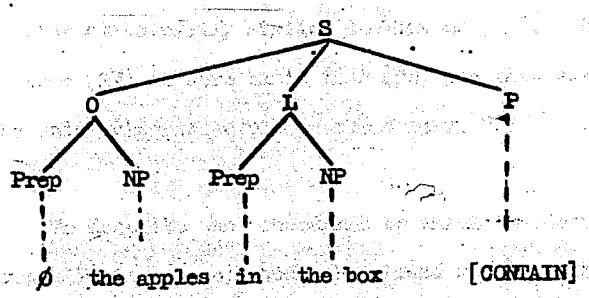


Figure 4

Figure 3 differs from Figure 4 in one notable way: from the latter either the Objective Case constituent or the Locative Case constituent can become the subject of the sentence; from the former only the Objective Case constituent may become the subject of the sentence because no Case node directly dominated by P may do so. We might

consider whether (27) or (28) has the more basic underlying structure. There are many sentences like (27) which have no paraphrases like (28), e.g.

29) a. John is in the garden.

b. * The garden contains John.

30) a. The Americans are in Cambodia.

b. * Cambodia contains the Americans.

[* in the appropriate sense of contain]

31) a. There are 300 pages in this book.

b. * This book contains 300 pages.

But there are no examples of sentences with the predicator contain (in the appropriate sense) that cannot have paraphrases containing a predicator structurally similar to that of (27). This suggests the sentence (27) is more basic than (28) and that the latter derives from the underlying structure of the former.

To describe the procedures by which the derivation of (28) from (27) is accomplished, the phrase marker in Figure 3 needs to be expanded. The terminal nodes of phrase markers are filled by configurations of semantic features which are later subject to lexicalisation rules that will ascribe phonological shape to sets of such configurations. Thus underlying (27) would be a phrase marker (in part) like that in Figure 5: —

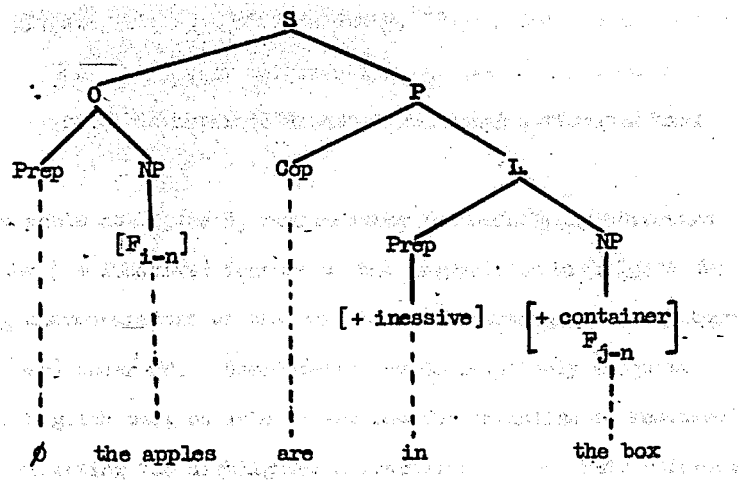


Figure 5

Notice that I have picked out one feature [+ container] from the Locative NP, but left the others unspecified. There can be little doubt that in sentence (27) the primary function of "the box" is as a <u>container</u>; contrast with this the primary function of "the box" in

32) The apple is on the box.

In (32) the primary function of "the box" is as <u>an object having a surface on which things (like apples) may be situated</u>. What we are remarking here is that different prepositions 'highlight' different semantic features of their sister NP, representing the fact that the different roles played by the referents of NP highlight different characteristics of them. For instance, compare the slightly differing interpretations of "this sugar" in the following sentences:

33) a. This sugar tastes dusty.

b. This sugar weighs a ton.

c. This sugar fell onto Abraham and suffocated him.

If we look again at Figure 5, representing the underlying structure of (27), the [+ inessive] feature of the preposition highlights the containing characteristic of the box, hence the noting of the feature [+ container] under NP. Undoubtedly any descriptively adequate grammar of English must be able to account for 'highlighted features' of NP, representing the highlighted characteristics of their referents; unfortunately I know of no principled way for identifying highlighted features in a more precise way than that described above. Out of necessity, therefore, I shall presuppose that there is some way of discovering segments consisting of highlighted features.

When the highlighted features of NP are taken together with the features of its sister Prep they identify those characteristics of NP's referent which manifest the particular role it plays; thus, the combination of the features of Prep and the highlighted features of NP identify the predominant characteristics of the Locative in Figure 5. In deriving (28) from (27) this set of features which identify the predominant characteristic of L, which in this instance is the role of containing, are copied out under L to form a segment. I propose that this operation is effected by a Segment Copying Transformation, the formalisation of and constraints upon which cannot at present be determined; however, such a transformation appears to be necessary in generating such structures as appear in the first clause of McPeak was in the process of climbing the stairs when the tread

snapped in two and he tumbled to his death, cf. Chapter V.viii. The Segment Copying Transformation will operate on the phrase marker in Figure 5 to derive that in Figure 6:

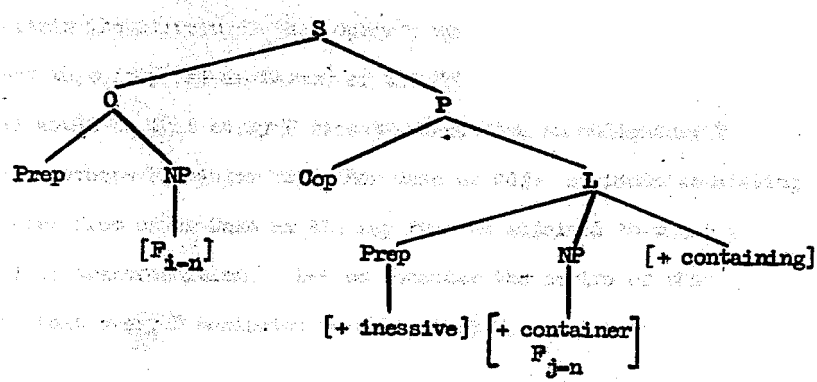


Figure 6

Whether the feature [+ containing] should be located directly under L, or whether it should be attached under NP is a matter for further investigation; I shall not undertake any such investigation here because the Segment Copying Transformation is only tangental to the main topic of this dissertation and imprecision about the details of it will not affect the general theme. However, the next step in the derivation is of greater consequence.

It is now necessary to move the segment [+ containing] from under L to a V node directly dominated by P. There are two ways in which this may be effected. One is by the operation of a Predicator Segment Recategorisation Transformation which takes a segment from under a sister node to Cop and recategorises it as a verb.

The objection to this transformation is that it introduces a major category node into the existing structure, whereas there has been a principle in transformational grammars that transformations may only adjoin, permute, substitute or delete constituents that already exist within the structures they operate upon. I am therefore forced to reject this proposal in favour of the following. A preferable proposal would be that every P directly dominates an obligatory V which may perhaps be sister to either Case or Adj; segments consisting of features from under Case or Adj may then be adjoined to their sister V by transformation. Let us consider the merits of the proposal that every P dominates an obligatory V.

Consider the underlying phrase markers for the sentences

34) John is in London.

35) Fred went to London.

on the hypothesis that P does not necessarily directly dominate V. The phrase marker for (34) is similar to that in Figure 5, viz.

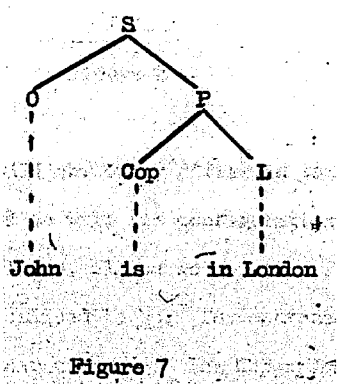


Figure 7

We said above that Cases directly dominated by P could not become sentential subjects; by implication Cases sister to P may do so. What then is the underlying phrase marker for (35)? Since the Locative "to London" cannot become the subject of a sentence, *London is gone to by John, we must assume that it is dominated by P. But this Locative cannot appear in a phrase marker like that in Figure 7 where L is directly dominated by P, because its sister Cop will then develop be, and there is no way of representing the semantics of go. It is no use pretending that go is a realisation of be when the sentential subject is an Agentive Case, because this will not explain the structure of sentences like Bud walked to London, and Zutty fell in the hole, etc. We must alter our view of the constituent structure of P to include in it an obligatory V, so that all these sentences may be accounted for. The partial phrase marker for both (34) and (35) will on this hypothesis be

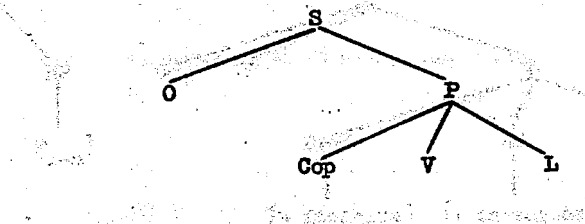


Figure 8

The substructure of L will obviously differ in the derivation of these different sentences, and so will the configuration of features under V. For sentence (34) there will be no semantic features under V, which will then be lexicalised to be; for sentence (35) the semantic features of go will appear under V. The Cop node in Figure 8 has been

reduced to the status of a mere collecting box for inflexions which will subsequently be attached to the lexical item under V. I shall retain this Cop node, with its rather inappropriate title, for the purpose of registering inflexions, even though I suspect it could be done away with altogether in a representation of underlying structure[13]. It should be noted that in this analysis P is quite different from standard theory Predicate Phrase or VP, since it does not dominate the 'object of' the sentence. It is also quite unlike the Pred nodes of generative semantics, which, hypothetically, are atomic semantic elements, cf. pp.I - 4 f., V - 45 f..

Given this new hypothesis concerning the substructure of P, Figure 6 must be redrawn as Figure 9:

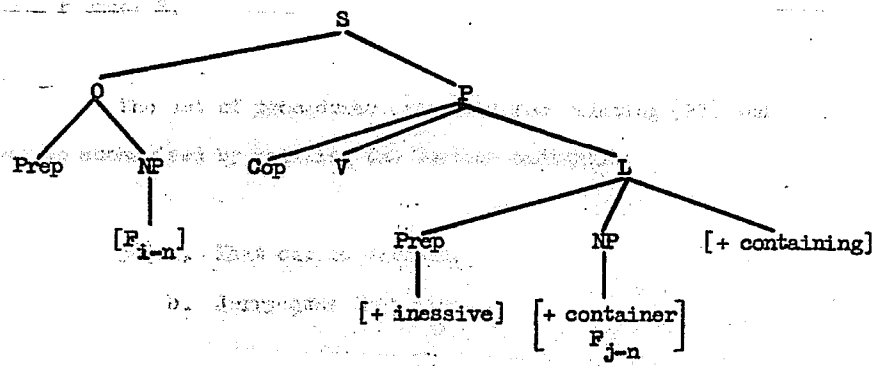


Figure 9

On this phrase marker the Predicator Segment Movement Transformation operates to move the highlighted segment from under the Case node to its sister V node. Thus we derive the phrase marker in Figure 10.

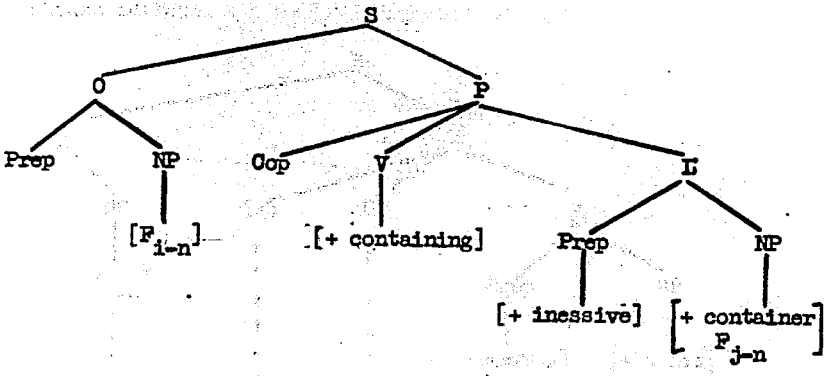


Figure 10

To develop the phrase marker which underlies (28), one which will be substantially similar to that in Figure 4, there is a Predicative Locative Extraposition Transformation which extraposes L to sisterhood with P under S.

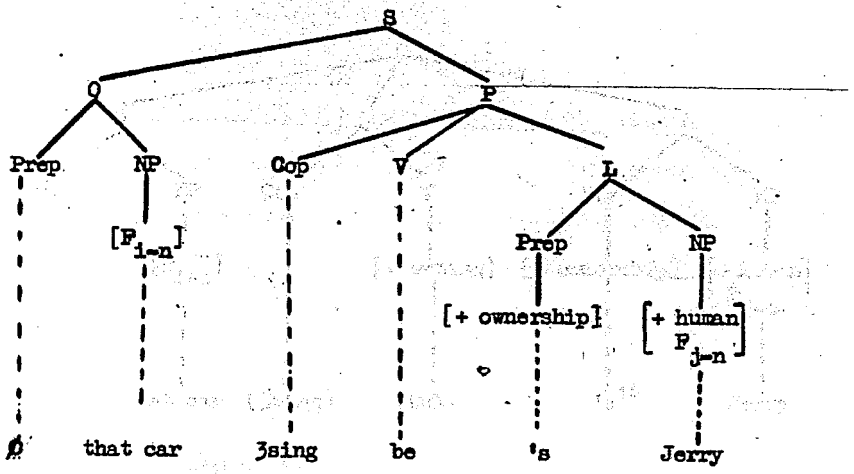
The set of procedures described for relating (27) and (28) may be summarised by relating two further sentences:

36) a. That car is Jerry's.

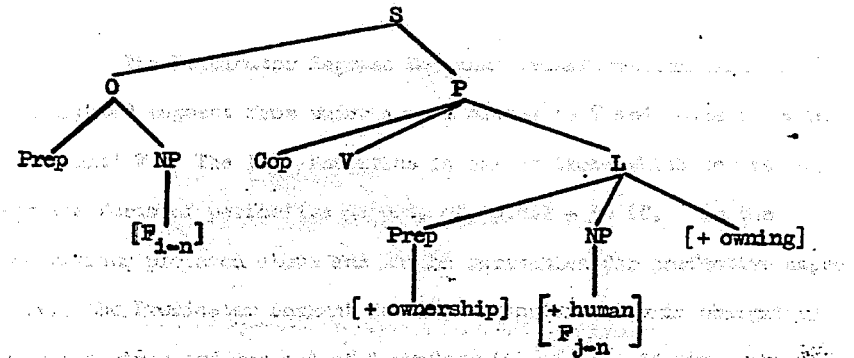
b. Jerry owns that car.

We shall assume that the structure underlying (36b) derives by transformation from that which underlies (36a); the sequence of procedures is as follows:

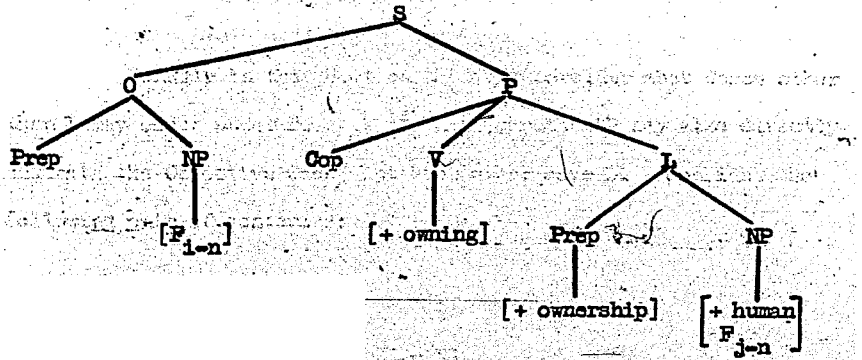
Base phrase marker



Segment Copying Transformation ====>



Predicator Segment Movement Transformation ====>



Predicative Locative Extraposition Transformation ====>

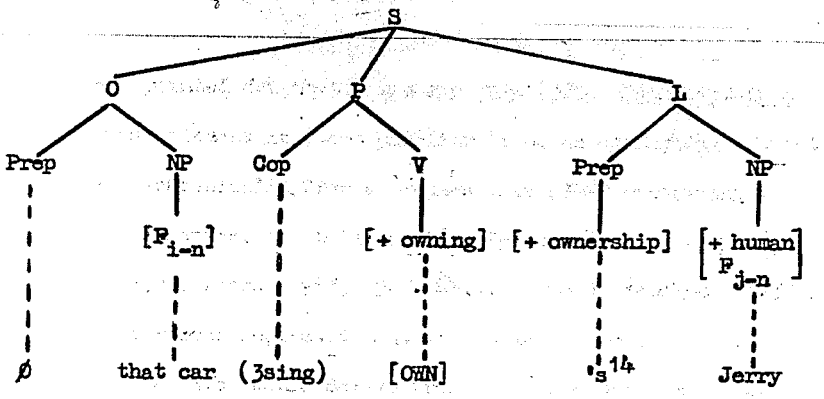


Figure 11[15]

The Predicator Segment Movement Transformation takes a highlighted segment from under a node sister to V and poses it under its 'aunt' V. The transformation is one of those which derive the surface forms of perfective aspect, cf. p.VII - 30 ff. In the derivations proposed above and in the derivation for perfective aspect (q.v.) the Predicator Segment Movement Transformation is obligatory within a given ordered set of transformations; should its application generate any ill-formed substructures to V they could be blocked by their failure to satisfy the conditions for lexicalisation.

Finally in this Section we might consider what Cases other than L may occur under P. It would appear that P may also directly dominate the Objective Case, but none other save L. Consider the following pair of sentences:

37) a. The car is Enoch's.

b. Enoch has a car.

It has been pointed out that sentences like (37b) which contain a Locative Case element in theme position (i.e. as sentential subject) developed diachronically from sentences like (37a) containing a predicative Locative, cf. Bally (1926), Benveniste (1952, 1960), Ginneken (1939), Lyons (1967, 1968a §8.4., 1968b), Vendryès (1937). It has further been suggested that in a model of synchronic grammar sentences like (37b) would derive from the structure underlying sentences like (37a), cf. Bach (1967), Bendix (1966), Fillmore (1968a), Lee (1967), Lyons (opp.cit.). However I think this view is incorrect because (37a) and (37b) are not synonymous, even allowing for the difference in definiteness between "the car" and "a car"; proof of this claim lies in the disparity between

38) a. * Samuel's car is Enoch's.[16]

b. Enoch has Samuel's car.

(38a) would not be unacceptable if (37a) were truly synonymous with (37b). Sentence (38b) has the paraphrase Enoch has the car which is Samuel's, and a comparable paraphrase of (*38a) would be *The car which is Samuel's is Enoch's (cp. Footnote 16). Quite clearly (37b) is ambiguous between Enoch has a car which is his and Enoch has a car which is not his, but there is no such ambiguity in (37a). I therefore maintain that we cannot derive (37b) from the same underlying phrase marker as (37a).

The so-called 'possessive' have is an intransitive verb; only the Locative Case element can occupy subject position in a sentence like (37b). Let us therefore suppose that the Objective Case element in (37b) is directly dominated by P, viz.

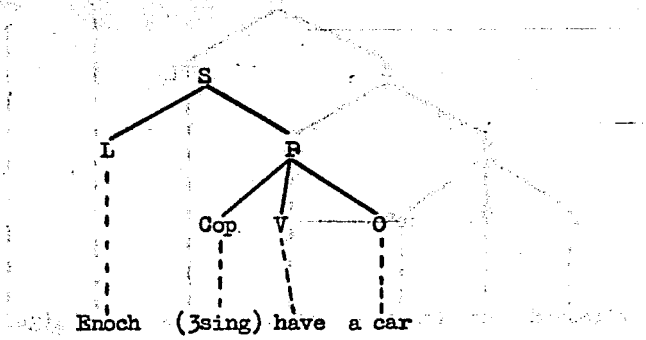


Figure 12

Compare this with the phrase marker for (37a)

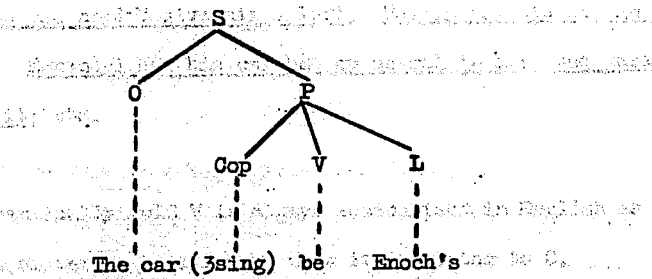


Figure 13

And a sentence like (38b) would have an underlying phrase marker similar to that in Figure 14; this phrase marker would also underlie

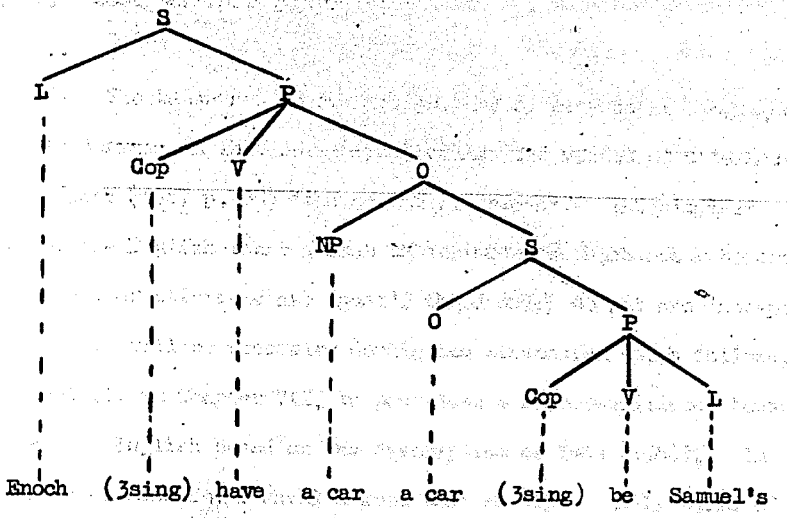


Figure 14

sentences like the following on condition that the two Locatives were co-referential: John has his car but not his wife; Enoch has his car so you needn't give him a lift; Philip has his car and Bertrand his; Emmanuel has his car but no petrol in it; the garage has a car in it; etc.

Semantically void V is always lexicalised in English as be when it is sister to L, and have when it is sister to O.

I.iii. Some terminology for tense

The tense system of English, and of many other languages too, is defined on what Bull (1960) calls "the moment of utterance", Reichenbach (1947 p.288) "the moment of speech". The simplest view of the English tense system is that events which occur before the moment of utterance are 'past', those which do not are 'non-past'. However, it will be necessary during the discussion which follows, particularly in Chapter VII, to postulate a more complicated tense system for English based on the description of Bull (1960). In traditional fashion, I shall assume that we may identify three of what Bull calls 'axes of orientation'; each one is identifiable with a set of specifiers[17]: e.g. yesterday, in 1920, etc. identify the past axis of orientation; tomorrow, next week, etc. identify the future axis of orientation; now identifies the present axis of orientation. Following Bull I assume that each axis is oriented to or defined by some point on it. For example, the specifier now may refer variably to extents of time between seconds and millenia, but it is defined by the necessary inclusion within it of the moment of utterance: the moment of utterance defines the present axis of orientation and is the 'point of orientation' for the axis. Each of the other axes is analogously defined by a point of orientation.

The value of Bull's description of the tense system of English (which is all that interests us in this dissertation) is that it provides a clear way for distinguishing between pasts and perfects - if the latter are to be analysed as tenses (see Chapter VII for detailed discussion of this). Bull (1960 p.31), Jespersen (1924 p.269,

1931 pp.2, 361), Reichenbach (1947 p.290 ff.) have all described the English perfect in terms equivalent to the following: the perfect indicates an event which has occurred before the point of orientation. But among these and other descriptions and analyses of the English perfect (as a tense) known to me, only Bull's schema permits the perfect to be distinguished in a clear way from any past. In his schema the perfect is located on the same axis of orientation as the point of orientation, whereas pasts are located on a different axis of orientation, each axis being on a separate plane. For this reason we use Bull's terms 'axis of orientation' and 'point of orientation' in the body of this dissertation; however, in Chapter VIII reasons are advanced for believing that the simpler binary analysis of the tense system of English into 'past' and 'non-past', stated at the beginning of this Section, is preferable to the more complicated system of Bull.

FOOTNOTES

1) See Chomsky (to appear) for his comments on such deviations.

2) In the sense of Kuhn (1964).

3) See Allan K. 'Referential Indices and a Referential Component', Unpublished MS, Edinburgh (1969).

4) Aspects of generative semantics are expounded in the following: Anderson (1968b), Bach (1968), Green (1969, 1970), Gruber (1965, 1967), Lakoff (1969, forthcoming), Lakoff & Ross (1967), McCawley (passim), Newmeyer (1970), Postal (1968, 1969, 1970). Gruber was the first transformationalist to explore syntactic and semantic relations among lexical items and propose that the grammar should be able to account for them. Anderson's paper independently argued that, for instance, the lexical item walk should derive from the same underlying structure as the phrase travel on foot, that the synonymy of my mother and the woman who bore me ought to be accountable for in an adequate grammar of English that claims to model the native speaker's competence, and that "sentences containing may and possible are variants of the same underlying structure" (op.cit. p.309), etc.: he suggested, and I paraphrase, that there should be a set of lexicalisation rules which map phonological specifications onto syntactically well-formed brackettings of semantic elements.

One might wish to add two further names to the above list.

Lakoff (1965) proposed VP that were sometimes quite unlike the VP of contemporary standard theory, and which were precursors of the predicates we find in the tree structures of generative semantics. Weinreich (1966) trenchantly criticised the semantic component of the standard theory and proposed that semantic features should be inserted in the base. He also wrote the following about the form of dictionary entries:

> In short, ... , every relation that may hold between components of a sentence also occurs among the components of a meaning in a dictionary entry. This is as much as to say that the semantic part of a dictionary entry is a sentence — more specifically, a deep structure sentence, i.e. a Generalized Phrase Marker.
>
> (Weinreich (1966 p.446))

Weinreich says in effect that the so-called 'syntactic component' and the so-called 'semantic component' of a grammar have identical formal structure, which is just what McCawley claims counter to the standard theory hypothesis.

5) For discussion see Allan K. 'Referential Indices and a Referential Component', Unpublished MS, Edinburgh (1969).

6) With the exception of Anderson (1968b) most work done so far within the field of generative semantics may in this respect be placed with the standard theory. See Anderson (1968a, forthcoming).

7) There have, of course, been attempts since Classical times to describe natural languages in terms of logic. There was a renaissance in such attempts after the Second World War with the development of information theory and high hopes of constructing automata that would translate texts from one natural language into another; (for those with a passing interest in this period perhaps the best guides are Bar-Hillel (1964), Carnap (1956), and Cherry (1957)). After the publication of Syntactic Structures, however, linguists of logical bent put more faith in the transformational grammar of Chomsky with its development of rewrite systems, cf. Chomsky (1955, 1956, 1957, 1959a, 1961, 1962a, 1962b, 1963), Chomsky & Miller (1963), Chomsky & Schützenberger (1963). I should mention that strides are being made today in expressing natural language in terms of logical systems by people working in the field of machine intelligence and programming computors or robots to respond to natural language, cf. Coles (1968, 1969), Sandewall (1968), Schwarcz (1967, 1969).

8) Category nodes will be shown below to have the same relevance as "lexical category" to this reasoning.

9) Cp. Lakoff (1965 F-10, F-11).

10) Existential sentences like There are three elephants in my bedroom do not contain predicative nominals, cf. Allan (forthcoming).

11) The analysis of equative sentences is not very satisfactory since it is apparently only a matter of thematisation, usually regarded as a quite superficial operation, that decides which nominal ends up

in predicative position and hence in the Locative Case. This situation requires further consideration that, unfortunately, I cannot afford to give it here; I do not think, however, that the proposed analysis of predicative nominals is substantially undermined by it.

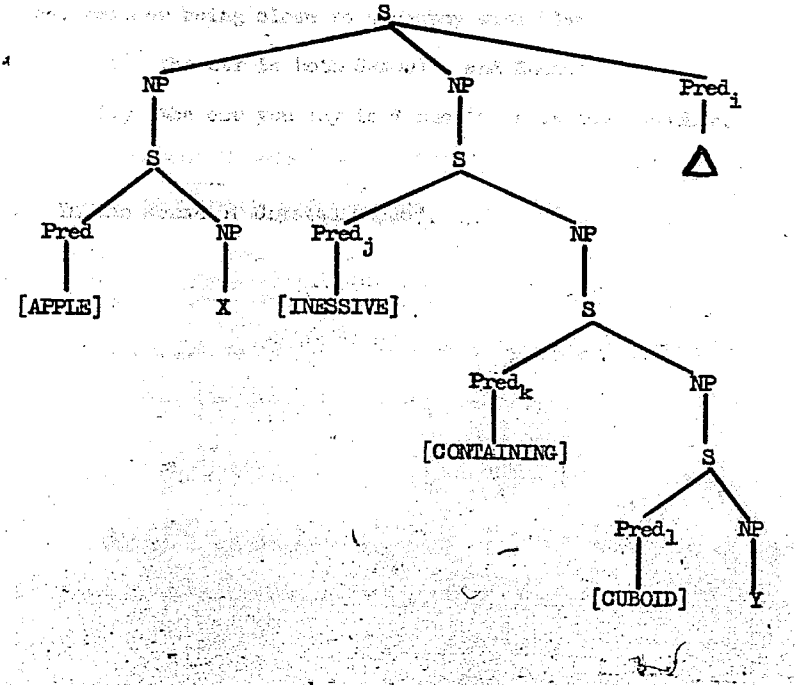
12) This establishes that every P will dominate a lexical item that is a verb even when the V node is semantically void. I do not claim that my analysis of P is language universal, but it is worthy of note that we could explain why in some languages the semantically void V is not lexicalised by the fact that lexicalisation rules must be language specific.

13) I have to admit that the decision to retain Cop in deep structure representations is a direct result of the fact that a great deal of the present dissertation had been typed up when I came to the conclusion (following a hint from John Anderson) that an obligatory V occurred in the substructure of every P, thus making Cop, as I originally envisaged it, redundant. It now appears to me that because Cop duplicates information already present in underlying structure it should be excluded; on the other hand, there are many instances when it does seem to represent a distinct morpheme.

14) There must be doubt whether the feature [+ ownership] is ever realised as 's in this phrase marker, since in surface structure it only occurs as by. Quite often where there is no Agentive, an animate Locative takes on the distributional characteristics of the Agentive, and in the passive co-occurs with the preposition by, cf.

Two languages are known by everyone in this room; That girl was well-liked by me; see Anderson (1969).

15) An alternative analysis of the relationship between (27) and (28) is to propose for both of them an underlying phrase marker closer to those postulated by generative semanticists like McCawley, i.e. in which the semantic elements are represented as predicates (not 'predicators'). The notion of 'highlighted feature' might then be susceptible to definition by its position within the configuration of predicates in the phrase marker. Suppose therefore we have a phrase marker in which the prepositions appear as predicates on NP (in the following representation no account is taken of definite articles, and NP symbolises any argument):



The Predicate Raising Transformation described by McCawley (1968c; see p.V - 44 ff. below) lifts $Pred_1$ to $Pred_k$ and then lexicalisation takes place, $Pred_i$ being lexicalised to <u>be</u> (to be honest, the literature provides no justification for the dummy symbol under $Pred_i$): the result will be (27). Sentences in (28) can be generated in one of two ways: either the Predicate Raising Transformation lifts $Pred_k$ to $Pred_j$ and then the resulting combination to $Pred_i$ before lexicalisation produces <u>contain</u> under $Pred_i$, and somehow <u>box</u> from $Pred_1$; or, and I think preferably, $Pred_k$ is copied onto $Pred_i$ (cp. the Segment Copying Transformation p.I - 23 f.). The advantage of the analysis proposed in this footnote over that proposed in the text is that neither (27) nor (28) is in any sense basic to the other.

16) Sentence (38a) may in fact be acceptable in one of the following senses, neither being close to synonymy with (38b):

i) the car is both Samuel's and Enoch's

ii) the car you say is Samuel's is in fact Enoch's.

17) In the sense of Crystal (1966).

What is aspect?

In this chapter I offer an answer to the question What is aspect? But I am not interested here in the kind of answer one might find for instance in Roberts English Syntax (1964):

> Aspect is a grammatical term used to refer to forms that give a particular meaning to verbs — for example, the meaning that distinguishes 'John is speaking English' from 'John speaks English'.
>
> (Frame 479)
>
> Like all grammatical terms, aspect is essentially defined only by its rewrite rule: aspect -> (have + part[iciple]) + (be + ing). That is, aspect 'means' the meaning imparted to the verb phrase by the addition of have + part or be + ing, whatever that meaning is.
>
> (p.84)

Such a description as this does no more than identify which morphological forms are to be classed together under the term 'aspect' in Roberts' grammar. We shall consider the meaning of this term aspect as it is described by a number of scholars, and then discuss a Hypothetical Aspect System which establishes a scope of reference for the term aspect that is not proper to any one language but which obtains, I hope, for all natural languages.

The word aspect is a translation of the term used by Slavic grammarians to refer to the grammatical category that governs the distinction between those verb forms traditionally described as

'imperfective' and 'perfective' (cf. Polish niedokonany, dokonany). In other words,

> the function of verbal aspect is to show whether the verb means that the action it stands for is in its development or in a state of completion
>
> (Spalatin (1959 p.84))

cf. Bodelsen (1948), Curme (1931), Goedsche (1940), Kruisinga (1931), Marchand (1955), Strang (1962), Zandvoort (1962). I must interpose here a word on terminology. The authors cited above all refer to 'verbs' when discussing aspect; this is not surprising since they assumed a bi-unique relationship between the lexical class of verbs and their predicative function. However, it was argued above (Chapter I.ii) that adjectives, and the Locative and Objective Cases as well as verbs may function as predicators provided they are in predicative form. In this dissertation, therefore, the term 'verbs' will not refer -- except in quotation from other authors -- to the extension of the functional class of linguistic objects called predicators, but only to members of a particular lexical class. For reasons that will become clear in due course, aspect is associated with the functional class of predicators and not with any particular class of lexical items.

Spalatin is quite within tradition to describe the "verb" or predicator as denoting an action, but in fact predicators denote both states and actions (cf. Lakoff (1966), Lyons (1966)); consequently, it is necessary in principle that we have a term hyponymous both to action

and state which refers to the kind of phenomenon denoted by all predicators. I shall employ the term 'event' to refer to just those actions and states which are denoted by the functional class of predicators.[1] However, we cannot overlook the fact that every event is particularised by its context, its spatio-temporal location, the participants in it and the contingent modifications of it, such that reference to any event implies a sentence; this fact was noted in traditional pedagogic grammars, exploited by Tesnière (1959), and since then in dependency grammars, cf. Anderson (1970), Gaifman (1965), Hays (1964). Thus with the proviso that every event implies a sentence, I shall use the term event to refer to the denotata of predicators.

We can see from what Spalatin says in the quotation above that the grammatical category aspect is concerned with the linguistic expression of different ASPECTS of events. In the phrase "ASPECTS of events" I am using "ASPECTS" in a non-technical everyday sense (cp. Curme (1931 p.373)); despite its being somewhat counter-intuitive I shall indicate the non-technical sense of the word in upper case and refer to the grammatical category in lower case letters, simply as a matter of convenience. Only two ASPECTS of the events denoted by predicators have been mentioned hitherto, 'imperfective' and 'perfective'; a number of writers, for instance Spalatin and Zandvoort (opp. cit.), have claimed that these are the only two ASPECTS of an event which may be legitimately subsumed under the category aspect. This is a short-sighted view and in accordance with those who will only envisage grammatical categories of restricted definition formulated in terms of the superficial structures in some privileged language or group of languages; it is short-sighted because perfectivity and imperfectivity

as comprehended thus are a typological feature of the Slavic verb just as the lack of morphological distinction between the syntactic classes of nouns and verbs is a typological feature of Nootka (cf. Hockett (1958 §26.3)). I am not suggesting that we may readily apply the term 'imperfective' to a verb form in Russian and to say, an appropriate verb form in English and expect that the constraints on the use of one will be exactly equivalent to the constraints on the use of the other; clearly this is not the case. Consider Jespersen's caveat:

> I think it would be better to do without the terms perfective and imperfective except when dealing with the Slavic verb, where they have a definite sense and have long been in universal use. In other languages it would be well in each separate instance to examine carefully what is the meaning of the verbal expression concerned.
>
> (Jespersen (1924 p.288))

The problem we have is one of matching terminology with empirically observable phenomena which vary slightly between different languages. In other words we shall have to consider the application of the term aspect to non-linguistic phenomena i.e. ASPECTS of events and also examine the relationship of the various linguistic expressions of these phenomena to one another both within and across languages.

Within grammars of Slavic languages one finds reference made to other ASPECTS of events than are expressed by the imperfective or perfective; for instance

> An analysis of verb forms from the point of view of their meaning shows that with many of them the representation of

> some sort of development of the action-condition, of some sort of movement of it, is combined more or less definitely as something concomitant. The evaluation of the development of and the movement of the action condition is produced by the speaker in dependence on those conditions in which the action-condition flows: the speaker can have in view either its continuing course or the fullness of its revelation in its beginning or end, or the result in general; further he can have in view the momentary revelation of the action or the limitation of the action by certain intervals of time, or finally, the definiteness or indefiniteness of a given motion etc. Certain of such aspect categories have acquired morphological expression, others are defined syntactically.
>
> (Šaxmatov Russkij Sintaksis (1941 p.472), quoted by Ferrell (1951 p.105))

Notice the last sentence of this quotation from Šaxmatov, it alludes to a situation that has been the cause of much confusion in the past. ASPECTS of events, if this phrase is understood in its widest sense, may be expressed in a number of different ways summarised as follows by Jespersen.

> (1) the ordinary meaning of the verb itself, (2) the occasional meaning of the verb as occasioned by context or situation, (3) a derivative suffix, and (4) a tense form [sc. a formative attached to the predicator].
>
> (Jespersen (1924 p.286))

As examples of the four kinds of expression we may consider begin or finish under (1), "fall" as in fall in love under (2), "-en" as in blacken under (3), and be + Ving under (4). It is obvious that these different expressions will each be derived differently in the grammar.

(1) The configuration of semantic features which composes the lexical entry for such lexical items as begin or finish[2] may refer to some ASPECT of the development of an event. Nevertheless such entries do not form part of the aspectual system of a language for a reason that will be discussed below. Lexical items such as these will typically combine with true aspectual formatives.

(2) Fall in love means much the same as begin to be in love and in this context "fall" has been supposed by some people to take on an aspectual mantle similar to that attributed to begin, which we have rejected. As in (1) some ASPECT of the development of an event is referred to by a configuration of semantic features but not this time one which corresponds to a single lexical item. In terms of Katz & Fodor (1963) any supposed aspectual element in the phrase fall in love would result from the operation of semantic projection rules. Presenting a far more complicated manifestation of the same kind of reference to some ASPECT of an event is Poutsma's example of the "ingressively durative aspect" of "be aware" in Just then he was aware of a band of boys who had come round the corner (1926 p.290). As was said in (1), the configuration of semantic features underlying the phrases and sentences instanced here may effectively express some ASPECT of an event but this is irrelevant to the consideration of the aspectual system in a language.

(3) Blacken means either become black or make something black and clearly the intransitive or non-ergative synonym refers in some way to an ASPECT of the development of an event be black. However, I propose that the suffix "-en" on blacken and similar lexical items does not form part of the aspectual system in English but is instead a device for

changing lexical entries that normally evolve stative adjectives so that they generate active verbs; comparison may be made with the -ment formative that may be combined with lexical entries that normally develop verbs like nourish in order to generate de-verbal nouns like nourishment, and with the manner adverb formative -ly which converts lexical entries that normally develop adjectives. The attachment of the -en suffix is restricted to just one lexical class and cannot be effected on members of other lexical classes which function as predicators. True aspectual formatives however combine with elements from all the lexical classes that function as predicators. Furthermore, lexical items with -en attached will typically combine freely with true aspectual formatives.

(4) There are certain non-lexical formatives which indicate ASPECTS of the development of an event and which, subject to certain constraints, combine with members from any lexical class which functions as a predicator. Only such formatives as these will be regarded as forming the true aspectual system of a language in this dissertation.

ASPECTS of events that are referred to — as in (1) or (2) above — by a configuration of semantic features will be henceforward described as aktionsarten. Agrell (1908), Bodelsen (1948), Goedsche (1940), Koschmieder (1929), Spalatin (1959), and Zandvoort (1962) have all identified aspect as a grammatical category and aktionsart as of a semantic nature. But many other writers have not distinguished between aspect and aktionsart and, as will shortly become clear, this leads to an impossible situation. The lack of distinction between aspect and aktionsart was a consequence of the assumption that linguistic expressions

in Germanic languages that are translation equivalents of aspectual forms in Slavic languages or which simply refer to ASPECTS of events constituted instances of the grammatical category aspect whether they were in fact aspects in the sense defined here or aktionsarten in the sense defined here (cf. Isačenko (1962 pp.385-6)); Streitberg (1891) appears to have been the source for such assumptions. Many grammarians have employed the term 'aspect' for a composite of what I have called aspect together with aktionsart: for convenience I shall refer to this composite phenomenon as aspect-aktionsart. The problem of defining all the terms that one would require to identify all the instances of aspect-aktionsart is exactly similar to the problem of defining all the terms which constitute the set of semantic features in a language, since in both cases these terms would constitute an unbounded set. For instance, the discussion of the "characters" of the English verb in Poutsma (1921, 1926) is in fact a discussion of the aspect-aktionsart expressed by the verbs — as was pointed out in Kruisinga's (1921) review of the earlier work. In his review Kruisinga criticises the superfluous number of quotations Poutsma adduces and the multifarious fine distinctions drawn between the meanings associated with the predicators that occur in them. It is worth quoting Kruisinga's comments verbatim since they point to the impossibility of describing aspect-aktionsart as a discrete system, and hence to the necessity for making a distinction between aspect and aktionsart; in this quotation I have replaced Kruisinga's "aspect" with [aspect-aktionsart] in order to bring the terminology in line with that used here, Kruisinga himself identifies "aspect" with "aktionsart" earlier in the review (p.85).

> What the discussion amounts to, therefore, is an examination of the meanings of English verbs with reference to the [aspect-aktionsart] they express. It follows that it is difficult, in not a few cases, to follow the author in his explanations. For the fact that English has generally no forms to express [aspect-aktionsart] causes the speakers to have no strong feeling for differences of [aspect-aktionsart]. In many cases we cannot say that a verb expresses, in itself, any [aspect-aktionsart] at all, and even in a given context it is often impossible to say what the [aspect-aktionsart] of a verb is.
>
> (Kruisinga (1921 p.86))

It is clear that Kruisinga in not distinguishing between aspect and aktionsart concludes there is no system in English comparable with aspect in Slavic languages; had he made a distinction of the kind we have made above, he may not have come to such a conclusion.

If one makes a liberal interpretation of the phrase ASPECTS of events and concurrently fails to distinguish between aspect and aktionsart, then there are few constraints on the quantity of aspect-aktionsarten that may be discovered. This is the position in which Mirambel finds himself:

> Le temps relève essentiellement de lui-même, et se conçoit en fonction d'une loi de necessité. L'aspect, au contraire, ne présente pas ce caractère de necessité: il est contigent; ce qui le prouve, c'est qu'il offre, selon les langues, de jeux d'opposition qui, certes, peuvent être en relation les uns avec les autres, mais ne s'identifient pas forcement, et ne dépendent pas d'un principe auquel sont assujettis tous les phénomènes naturels, ceci quelle que puisse être dans l'absolu la valeur de ce principe (rélativité du temps, rapport du temps à l'espace, etc.).
>
> (Mirambel (1960 p.78))

And further witness the following pessimistic remark from Vendryès:

> il semble impossible de ramener l'aspect à une catégorie unique dont dépendrait par subordination rigoreuse des manifestations diverses.
>
> (Vendryès (1942-45 p.85))

The consequences of the failure to distinguish aspect from aktionsart were understood by Bodelsen; he did differentiate them and wrote:

> It would e.g. be a logical consequence of adopting aktionsart as an English category to regard 'live' and 'die', 'go' and 'come' as representing aktionsarten, and one might in fact just as well establish special classes of English verbs according as they denote something hard or soft, or pleasant and unpleasant: (/ he tapped her cheek /: soft aktionsart; / he slapped her cheek /: hard aktionsart:).
>
> (Bodelsen (1948, quoted from 1964 p.146))

Goedsche puts the matter more succinctly:

> Theoretically, there are as many Aktionsarten as verbs
>
> (Goedsche (1940 p.191))

I think it is obvious that if we are to advance an adequate answer to the question What is aspect? we must separate aspect from aktionsart and consider only the former.

I shall now propose a Hypothetical Aspect System which will define which ASPECTS of the event denoted by a predicator may be included

in the scope of reference of the term aspect. An event may be viewed in the beginning of its development, at the end of its development, or during the intervening period (cf. Bull (1960 p.17)); an event may also be viewed at completion of its development. Finally, an event may be viewed without reference to any ASPECT of its development. These five possible views or ASPECTS form the basis for a Hypothetical Aspect System containing the following terms:

H_1 : the initiation of an event

H_2 : the ongoingness of an event

H_3 : the termination of an event

H_4 : the completion of an event

H_∞ : the event per se with no reference to an aspect of its development.

The label 'H' indicates that we are dealing with a hypothetical postulate that must be distinguished from aspects in natural languages; the descriptions of the Hypothetical Aspects attempt to be unprejudiced in favour of any particular language. H_1, H_2, H_3 and H_4 are ordered in respect of each other such that H_2 presupposes H_1 to have taken place, H_4 presupposes H_3 and therefore H_2 and H_1 to have taken place[3]. H_∞ is a different kind of aspect from the others; it can be thought of as the neutral aspect or the null aspect.

I will suppose that the Hypothetical Aspect System defines the scope of reference of the grammatical category aspect completely: in other words there are only five aspects, the five described here. I do not claim to have made any innovation to the study of aspect in describing such a system except by claiming that the Hypothetical Aspect System presents a norm for the discussion of aspect in natural languages.

I have described aspects in terms of ASPECTS of the development of events and for this reason I have not included among the Hypothetical Aspects any which refers to multiple occurrences of an event, although 'iterativeness' has frequently been included among the list of aspects by many scholars[4]. It could be that my thinking on this matter is too strongly influenced by the fact that iterativeness in English is realised typically by adverbs and perhaps by the word keep, and it is therefore not part of the aspectual system of English. It may be that iterativeness is an entirely autonomous phenomenon, or it may be that my criteria for determining which linguistic phenomena should be regarded as aspects are too constrained; nevertheless, on the grounds that iterativeness has nothing to do with ASPECTS of the development of the event, I exclude this notion from the scope of reference of the grammatical category aspect.

Each of the five Hypothetical Aspects represents a universal set of values such that the value of any aspect *i* in natural language *L* is a proper subset of the values of the appropriate Hypothetical Aspect; for example, the value of the imperfective in Russian will be properly included in the value of H_2. In addition, given that X is the value of *i*, and Y is the value of aspect *j* in language M, and that both X and Y exemplify the same Hypothetical Aspect H; then the intersection of X and Y (loosely speaking the intertranslateability of X and Y) will be:
(i) less than either X or Y, which is the most common state of affairs; (ii) equivalent to both X and Y, possible between two closely related languages; (iii) less than X, or conversely, less than Y, unlikely but not inconceivable; (iv) null, most unlikely. Thus if we include both Russian imperfective and English progressive aspect (q.v.) under H_2,

this is no condition that all instances of these aspects will always be mutually translateable, as indeed they are not.

The Hypothetical Aspects correspond directly to those ASPECTS of the development of events which may legitimately be referred to by aspects in natural languages. Linguistic elements in a natural language which refer to ASPECTS of the development of events in accordance with the Hypothetical Aspect System must satisfy the condition that they be realised wholly or in part as non-lexical formatives which combine (under certain constraints) with members of the functional class of predicators, if they are to be subsumed to the grammatical category aspect in that language. Lexical items, or concatenations of lexical items, that refer to ASPECTS of the development of events within or without the domain of the Hypothetical Aspect System manifest aktionsart. In English for example there is no aspect corresponding to H_1 but a configuration of semantic features underlying the lexical items such as <u>begin</u>, <u>commence</u>, etc.; and similarly, there is no aspect corresponding to H_3 but only the aktionsart manifest in lexical items like <u>finish</u>, or in phrases like <u>bring to a close</u>. There are, however, aspects corresponding to H_2, H_4, and H_∞ in English, as we shall see.

FOOTNOTES

1) The word event is not strictly neutral between action and state in normal usage, it tends to have an active connotation. Thus to describe "know" in I know John as referring to an event is somewhat odd under the normal interpretation of the term. However, since I know of no preferable term to event, I shall use it in this dissertation as a hyponym of both actions and states.

2) A lexical entry is a configuration of semantic features; a lexical item is a phonological form with certain morphological properties. Cf. Green (1969 p.79).

3) H_3 refers to the event at the time of its termination, H_4 refers to the event after it has terminated; this difference can be illustrated by that between (a) John is finishing eating his dinner and (b) John has eaten his dinner.

4) E.g. Vendryès (1950 p.117):

> [Aspect in Indo-European indicated whether one envisages the event] dans sa continuité ou à un point seulement de son développement, si c'était le point initial ou le point final, si l'action n'avait lieu qu'une fois ou se répétait, si elle avait une terme ou un résultat.

These remarks have a wider application than just to Indo-European.

On the constitution of 'AN event'

In the previous chapter I have said that the term 'event' will be used to refer to the phenomena denoted by the functional class of predicators; in other words a predicator refers to an event of some kind. Although the constraints on matching linguistic expressions with the correlative denotata probably cannot be formalised, I think it is worthwhile clarifying so far as is possible what I mean by this.

Consider these two sentences

1) He was walking to school when he found 6d and decided to go by bus instead.
2) He was walking to school during the bus strike.

In (1) the event of walking is interpreted as taking place on a singular occasion; the presuppositions leading to this interpretation derive from the fact that finding money while out walking is a singular occurrence. In (2) the event of walking is interpreted as happening on a number of occasions; the presuppositions leading to this iterative interpretation derive from the knowledge that going to school is a daily process and that bus strikes usually last longer than a day. In this light consider

3) He was walking from Land's End to John o' Groats during the bus strike.

Whether an iterative or a singulary interpretation is given to the

event of walking in this sentence depends on a comparison of the estimated duration of a bus strike with one's estimation of the time taken to walk between Land's End and John o' Groats, and the liklihood of such a marathon being repeated. Compare the presuppositions evoked in the interpretation of (3) with those evoked by (4):

4) He was driving from Land's End to John o' Groats during the bus strike.

The event of driving referred to in (4) is more likely to be given an iterative interpretation than the event of walking in (3) for the same kind of reasons that (2) is typically given an iterative interpretation whereas (1) is not. The question arises whether "was walking" in (2) should be regarded as consisting of $\underline{n}$ events ($\underline{n} \geq 2$) of walking, or whether it consists of just one event of walking that is constituted differently from the event referred to by "was walking" in (1), and in this case, what relevance such constituents of an event have for the present study of aspect in English.

Let me begin to answer this question by introducing an apparently irrelevant discussion. Consider what we mean by 'the event that correlates with the linguistic expression <u>getting off the train</u>:

> Quand commence-t-on à descendre? Au moment où les portes s'ouvrent? Evidemment c'est un point de vue. Mais on peut "dilater". On commence à descendre quand le train a quitté la station avant celle où l'on a l'intention de "descendre" au sens strict. On replie son journal, on se lève, si l'on était assis (l'action de se lever fait aussi partie de celle de descendre) et l'on cherche à gagner la

sortie. L'action de descendre n'est pas finie, mais elle se déroule. Il est peut-être singulier que le fait de se trouver devant la porte de métro, le regard rêveur et la pensée ailleurs, soit justement une des phases de "descendre", mais on descend effectivement à ces moments-là, du moins la langue le veut ainsi.

(Sten (1952 p.27), quoted in Klum (1961 p.108))

I disagree with Sten that He is getting off the train is literally true only when the subject is half on and half off the train (even in French); in fact one can say of a man raising himself from his seat in the train He is getting off the train and the constraints on the truth value of this statement are of the same kind as those which constrain the truth value of a similar statement made of a man half on and half off the train. Thus, the linguistic expression getting off the train refers to a complex of perceptually distinguishable denotata, many if not all of which could be linguistically differentiated, but which are subsumed to the matrix event, which is whatever one understands by getting off the train.

It is probable that all predicators refer to a complex set of denotata and there is no correlation between the linguistic expression and just one uninterrupted visual, auditory, olfactory, gustatory or tactile perception of a denotatum. Take one more example. The event refrred to by the verb write typically involves holding a pen, moving the stylus across paper, forming conventional symbols in accordance with certain rules, etc.: all these constitute the (matrix) event of writing, and each one constitutes an event in itself; but they are not necessarily relevant to a consideration of

the event referred to by the linguistic expression write. For the present study of aspect in English, such constituents as these of the event referred to in

5) Eliza is writing a novel.

are irrelevant. Analogously, the iterated constituents of the event of walking referred to in (2) are of no concern in such a study; for our purpose He was walking to school refers to just one event in either (1) or (2). This answers the question posed earlier.

In conclusion, we have established (i) that a predicator appearing in surface structure refers to just one event, and (ii) that the constitution of an event is not relevant to the purpose of this dissertation.

Aspect in English

There can nowadays be little controversy that there is within the English verbal system a grammatical category which we may legitimately call aspect. Discussions of the English verbal system prior to the nineteen fifties failed to isolate the category of aspect from that of tense, and many writers subsumed to a discussion of tense, formatives that are aspectual; cf.

> Tenses may indicate whether an action, activity, or state, is past, present, or future. Tenses may also indicate whether an action, activity, or state is, or was, or will be complete, or whether it is, or was, or will be in progress over a period of time.
>
> (Hornby (1954 p.83))

And also see Berkoff (1963), Brusendorff (1930), Dennis (1940), Jespersen (1933, et passim), Onions (1904), Poutsma (1926), Zandvoort (1957, 1962). In these works, and many and various pedagogical grammars, oppositions are set up between 'simple' tenses and 'expanded', 'continuous', 'definite', 'imperfect', or 'progressive' tenses, and both these may be overlapped by 'perfect' tenses.

Clearly the terms 'simple', 'progressive', etc. do not refer to temporal distinctions, nor are 'simple' and 'progressive' tenses ordered with respect to each other like past, present and future. They are therefore not true tenses. True tenses are not in opposition within infinitive forms, but 'simple' and 'progressive' are, cf. <u>to eat</u>, <u>to</u>

be eaten; to be eating, to be being eaten. My hypothesis will be that 'simple' forms do not constitute a tense, but the aorist aspect in English; and that 'progressive' forms also do not constitute a tense in English, but the progressive aspect. Evidence in support of my hypothesis will be offered in the chapters which follow.

It is not absolutely clear that the 'perfect' forms do not represent true tenses since they apparently express a temporal and serial order relation. However, the 'perfect' does seem to invite classification with the other two aspects in English firstly because in the above discussion of traditional terminology 'perfect' modifies "tenses" in a comparable way to 'simple' or 'progressive'; secondly, like the other two English aspects but unlike the other tenses the 'perfect' can modify the infinitive of a predicator, cf. to have eaten, to have been eaten; to have been eating, to have been being eaten. Thirdly, the grammatical formative which expresses the 'perfect' consists of an auxiliary and a suffix to be attached to that part of the predicator which inflects, and in this the 'perfect' offers comparison with the 'progressive'. Finally, the term 'perfect' is reminiscent of the term referring to an aspect in Slavic languages. I shall therefore hypothesise on prima facie evidence that the 'perfect' forms constitute the perfective aspect in English.

Progressive aspect

V.i. Activity

A typical description of the function of the progressive forms in traditional grammars of English would be

> The Continuous Tenses indicate an activity in progress at a specific time or period.
>
> (Berkoff (1963 p.80))

Predicators in the progressive form usually denote activity of some kind, and this is negatively manifest in the rejection by stative verbs of progressive forms. There do exist certain verbs which occur in the progressive while remaining notionally stative, for example consider

1) He is sitting comfortably and I don't want to disturb him.

2) She is sleeping like a log.

But we shall for the time being overlook these unusual cases and suppose that the progressive form denotes activity. In order to clarify this characteristic of the progressive we shall consider the nature of 'activity', i.e. what 'activity' is.

The best way to go about this is to examine a movie film of some activity. Such a film will consist of a number of frames ordered with respect to each other; each one will represent some phase of the original activity, and each one will be slightly different

from the others. On its own, each frame captures a state; and only the combination of frames in sequence will represent activity. Thus, activity involves change from one frame to another, or a succession of such changes. On its own, each frame lacks a time span and can only be temporally measured by some external criterion; but if the film is running, then each frame occupies an interval between its first appearance and the change to the next frame: thus, time, like activity, requires change before it can be seen to exist; a fact that has been noted for more than two millenia, cf.:

> All the philosophers, including Kant, who have sought the origin of our idea of time, have agreed it comes from change. Aristotle noted "that time ... does not exist without change" (Physics Book IV).
>
> (Fraisse (1964 p.3))
>
> Where there is change, there is a succession of phases of a single process or of various concomitant processes. In its turn succession implies the existence of intervals between successive steps.
>
> (ibid. p.10)
>
> duration ... is first and foremost the interval separating one change from the next.
>
> (ibid. p.199)

The relationship between activity, change, and time which is so readily seen in a movie film representation of an activity obtains with respect to the activity itself. Any activity has intrinsically measurable duration extending between one phase of the

activity and some other phase of it; frequently these phases will coincide with the real or imputed point of initiation and either the point of perception of the ongoing activity or its point of termination.

V.ii. Durativeness

Whereas stative events are only of extrinsically measurable duration, activity has intrinsically as well as extrinsically measurable duration. Thus durativeness is concomitant with activity. It is for this reason that durativeness is often taken to be the predominant characteristic of the progressive form in English -- which, it will be remembered, typically denotes activity; cf. Curme (1913 p.172, 1931 p.373), Poutsma (1921 p.47, 1926 p.290), Palmer (1965 p.61), Strang (1962 p.141), Scheurwegs (1959 p.319), Trager & Smith (1951 p.78). Here is a description of the progressive form as 'durative':

> The durative, as a positive term in a contrast, draws attention where necessary, to the fact that an 'action' is thought of as having (or having had or to have) duration or continuingness (hence, there is relatively little use for the durative of verbs whose meaning requires duration, such as feel, think.)
>
> (Strang (1962 p.141))

We have not yet discussed the markedness of the progressive (cp. "a positive term in a contrast") and we shall do so in due course. It is not clear how Strang's statement that "an action is thought of as having ... duration" applies to "be coming" and "be crouching" in

in the following sentences,

3) She's coming to supper tonight.

4) He was crouching for a second, but only to check the terrain before running off to the right.

Nor is it clear, to me at least, why I'm not feeling well tonight is more durative than I don't feel well tonight, nor why there is a simple rather than progressive form in I typed for three hours despite the durativeness associated with the event of typing -- unless it be redundancy -- if we accept Strang et al.s' analysis of the progressive form. The use of the word "contimuingness" in the quotation above is mystifying, and I can attribute no meaning to it in this context; 'continuingness' is surely expressed by catenative verbs (see Palmer (1965 p.150 ff.)) like keep or continue.

Although durativeness enters into a consideration of the progressive forms because of the intrinsically measurable duration of the activity they typically denote, it is not the primary characteristic of such forms and it is counterfactual to claim that the attachment to the predicator of the progressive form makes the predicator automatically express duration. However, the co-occurrence of the progressive with phrases of temporal extent may be thought to bring out the intrinsic durativeness of the form as a predominant characteristic; this hypothesis can be more usefully discussed once we have established what the predominant characteristic of the progressive form normally is, and so we shall return to it later.

V.iii. The progressive as a frame

Earlier than any of the writers instanced above who suppose durativeness to be the predominant characteristic of the progressive forms, Sweet wrote

> the expression of duration is not their primary function in Modern any more than in Old English
>
> (Sweet (1900 p.97))

And Jespersen also pointed to the fallacy of the durative analysis:

> 5)
> It is often said that the expanded tenses indicate duration of the action or state denoted by the verb. But in this form the assertion is not correct. We have simple forms in sentences like: the world has stood for millions of years | the Roman Empire lasted many hundred years | Methuselah lived to be more than nine hundred and sixty years old, etc. On the other hand we have the expanded forms implying very short duration as in: he was raising his hand to strike her, when ... | the next moment he was opening the door | he spent the whole of that year with his uncle. One evening he was quietly smoking ... .
> It is true that the notion of shorter or longer duration enters into the theory of the expanded forms, but not in this crude manner.
>
> (Jespersen (1931 p.178))

Both Sweet and Jespersen go on to describe the progressive forms as "framing tenses". This notion has been taken up by a number of later

grammarians, who have been identified and their arguments discussed and criticised in extenso by Allen (1966 Chapter II) and to a lesser extent by Hatcher (1951). Jespersen himself was not unaware of the many exceptions to his hypothesis nor of the fact that it could "'in a curious way', be reversed" (Hatcher (1951 p.262)). Although these counter-arguments to the hypothesis that the progressive is a frame will lead us to reject it, I shall quote Jespersen's argument in full to educe from it a number of interesting points which we shall subsequently discuss.

He writes

6)

In my view we shall obtain a definition [of the progressive] which holds good in the majority of cases if we start from the on -ing construction: he is (was) on (= in, as so often in former times) hunting means 'he is (was) in the course of hunting, engaged in hunting, busy (with) hunting'; he is (was) as it were in the middle of something, some protracted action or state, denoted by the substantive hunting[1]. The hunting is felt to be a kind of frame round something else, which may or may not be expressly indicated, but which is always in the mind of the speaker. In this way the hunting is thought of as being of relatively longer duration in comparison with some other fact (some happening or state, or simply period or point of time). If we say he was (on) hunting, we mean that the hunting (which may be completed now) had begun, but was not completed at the time mentioned or implied in the sentence, and this element of incompletion (at that time) is very important if we want to understand the expanded tenses, even if it is not equally manifest in all cases. But it should be noted that it is not exactly the period of time

that is incomplete, but the action or state indicated by the verb itself.

(Jespersen (1931 §12.5(2)))

I shall later on discuss the historical structure on / in / a(t) + Ving, and the paraphrase relations which obtain between (7a) and (7b)

7) a. be + Ving

b. be + in the {process / course / middle / act / etc.} of + Ving

Immediately, however, we shall consider the following four points made by Jespersen in this paragraph. He says that the event referred to by Ving, in his particular example "hunting", is

8) a. felt to be a frame round something else: this "something else" can readily be identified as the point of orientation or some event concurrent with it (cf. Figure 1) which I shall designate p.

b. thought to be of relatively long duration compared with p.

c. incomplete at p.

d. incomplete as an event, not as a period of time.

It transpires a couple of paragraphs later that despite (8d) the frame Jespersen has in mind is a temporal frame:

> The essential thing is that the action or state denoted by the expanded tense is thought of as a temporal frame encompassing something else which as often as not is to be understood from the whole situation. The expanded tenses therefore call attention more especially to time than the simple tenses, which speak of nothing but the action or state itself.
>
> (Jespersen (1931 §12.5(4)))

We can now reduce to two the four elements Jespersen finds most characteristic of the progressive forms,

9) a. The event is thought of as a temporal frame round p to which it is of relatively long duration.

b. The event is incomplete as an event at p.

Jespersen makes it clear in (6) that (9a) is the primary and (9b) the secondary component of the meaning that the progressive form imposes upon the predicator it is attached to. For some it may appear that (9a) indicates "the essential meaning of the progressiv is duration and it never means anything els [sic]" (Curme (1913 p.172)) and so presents a contradiction to Jespersen's earlier criticism of such views as Curme's; but this is not the case since Jespersen is claiming that the "relatively long duration" is contingent on the framing function of the progressive form.

Jespersen's account of the progressive form is subject to a number of criticisms. As has already been noted, he realised that it describes only some instances of the progressive, most clearly

as in

10) a. He is writing.

b. He was writing when I entered.

In (10a) the point of orientation, in this case the moment of utterance, occurs within the frame of his writing, in (10b) the point of orientation concurrent with the speaker's entry occurs within the frame of his writing. Jespersen represents his frame theory by the diagram reproduced in Figure 1.

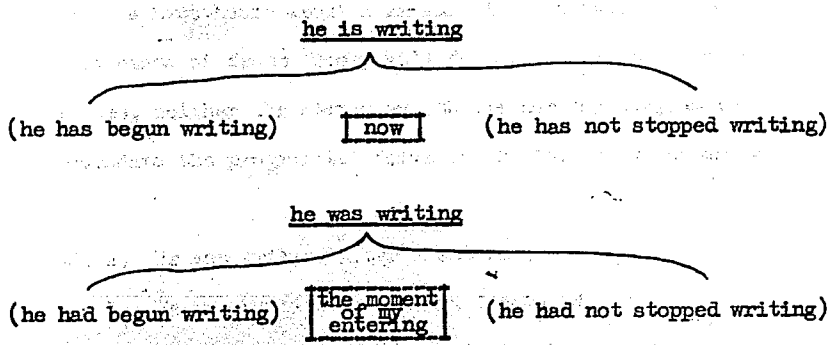


Figure 1 (Cf. Jespersen (1931 p.180))

As it stands the representation in Figure 1 is perhaps misleading. If we take the boxed element as the point of orientation, then the parenthetical sentences either side of it purportedly expressing implications of the progressive "be writing" ought to be understood as simultaneous with the point of orientation and not ordered serially with respect to this point as a comparison of Figure 1 with Jespersen's seven point tense system suggests (cf. Jespersen (1924 p.257, 1933 p.231,

1931 p.2)). Any such comparison could be avoided if the contents of Figure 1 were presented as for example in (11), which, incidentally, is simply an informal illustration

11) He is writing (now) <---->
He has begun writing (by now) & he has not stopped (yet)

But the frame presented by "is writing" is no longer manifest in (11) and it suddenly becomes illusory in Figure 1.

Perhaps it is rather trivial to criticise a diagram illustrative of a hypothesis about a linguistic formative; but more trenchant criticisms of frame theory will follow. For instance, so far as I can see, neither the stated hypothesis nor the diagram in Figure 1 accomodate the progressive forms in the following sentences.

12) a. He was writing after I entered.
b. He was writing as soon as I entered.
c. He was writing and stopped when I entered.
d. He is going home in a minute.
e. I am eating in London. [Uttered when the speaker is not eating and not in London]

In (12a, b, c) the progressive clause does not present a temporal frame for the rightmost clause in the sentence as one might expect from Jespersen's explication of frame theory. In (12d) the progressive does not present a temporal frame for either the moment of utterance or the locative phrase. And in (12e) the progressive again fails to frame the moment of utterance (there is further discussion of this sentence pp.V - 17, 20 below).

Then one might consider the difference between

14) a. Harold feeds the ducks while he has lunch.

b. Harold feeds the ducks while he is having lunch.

in view of Jespersen's hypothesis. Is "is having lunch" in (14b) "felt to be a kind of frame round" (cf. (6)) "feeds the ducks" any more or less than "has lunch" in (14a) ? I don't think so. Again, is "is having lunch" "thought of as being of relatively longer duration in comparison with" (cf. (6)) "feeds the ducks" in (14b) ? Perhaps it is, but then that is exactly the case with "has lunch" in (14a). Jespersen's hypothesis presents us with no satisfactory account of the difference between (14a) and (14b).

It is relevant here to take note of one of Jespersen's own examples from (1931 p.188)

15) He was considering; but while he considered, his companion stepped ashore.

If Jespersen's hypothesis is correct then the second clause ought, surely, to be progressive and present a frame for the third clause. His explanation of this sentence is that the first clause presents the frame and the second clause is in the simple form as an "instance of the economy of speech", i.e. in not repeating the progressive. I will pass no comment on it further than to point out that this explanation places a significant new role upon the simple forms within the context of traditional grammar that Jespersen does not discuss in detail elsewhere.

Jespersen's explanation for sentences like

16) Chaim was singing while he was bathing.

is that "either action may be considered the 'frame' of the other" (1931 p.189); but such an explanation fails to account for the difference in meaning between (16) and

17) Chaim sang while he bathed.

In (17) just as in (16) each event may be considered the frame of the other. Thus Jespersen's hypothesis fails once again to capture the essential characteristics of the progresive form that distinguish it from the simple form.

Finally, Jespersen's frame theory crumbles in his account of the perfect progressive forms (or, in his terminology "expanded perfect" forms). I cannot do better than quote Bodelsen's criticism:

> As regards this type, Jespersen therefore abandons his frame theory and resorts to another explanation: the expanded perfect does not denote a frame but the recent past. Now, this obviously weakens the case for the frame theory. The expanded forms appear to constitute one single problem. Why should it then be necessary to adduce two quite separate theories to account for their meaning? Why should the expanded perfect have developed as its central idea a connotation which is quite different from what it might be expected to have according to its historical origin, and which apparently has nothing to do with its usual meaning?
>
> (Bodelsen (1936-7 p.232))

We shall in due course consider the perfect progressive and see that the progressive in this construction is essentially similar to the progressive elsewhere, and no special hypothesis need be advanced to account for it.

Even in sentences like He was writing when I entered one does not "think" or "feel" (to use Jespersen's words) that the first clause presents a temporal frame for the second. Rather, one relates the referents of "was writing" and "entered" to one another as events, and temporal duration is not directly relevant, as it would be for instance in He was writing for hours while I just sat and waited for him to finish. The essential characteristic of the progressive form is not to indicate a temporal frame in which something (concurrent with the point of orientation) is located. We have seen that many instances of the progressive form cannot be accounted for in this way (in particular cf. (12)), and the differentiating characteristic between the progressive and the simple form is often lost if we accept Jespersen's hypothesis as the correct one (in particular cf. (14), (16) and (17)). Finally, we have noted that Jespersen abandons frame theory to explain the perfect progressive form, although the progressive in such constructions has the same characteristics as progressives elsewhere (this claim will be substantiated in Chapter VII). In addition, though this is perhaps a trivial point, the simple form can present a temporal frame (cf. (17), and ? (15)). I therefore conclude that the essential characteristic of the progressive form is something other than the presentation of a temporal frame.

V.iv. Incompleteness

In the paragraph quoted in (6), Jespersen says inter alia that the progressive forms indicate incompleteness, and he rather clumsily brings this notion into the diagram reproduced above as Figure 1. He talks about this incompleteness as a fact, but he describes the temporal frames required by his frame theory as subjective impressions thought or felt. Whereas that part of the grammar dealing with modality (see Boyd & Thorne (1969), Ross (forthcoming)), and that part dealing with what Bach (1968 p.106) calls 'focus quantifiers' may perhaps need to take into account some subjective elements, the domain of the grammatical categories tense and aspect should be defined and specified by the grammar with no recourse to such subjective thoughts and feelings. For this reason, of the two elements identified in (9) that Jespersen finds most characteristic of the progressive formative, (9a) would be less preferable than (9b).

A claim that the progressive formative refers to the incompleteness of an event suggests that there may be some complementary formative that refers to completed events, thus creating a binary opposition in English comparable with that which exists between imperfective and perfective aspectual formatives in Slavic languages. But it has often been pointed out, and in considerable detail by Spalatin (1959) and Zandvoort (1962) that there is a complete mismatch of meaning and function between such aspectual formatives in Slavic languages and the English progressive, simple and perfect formatives. Since there are three terms in the English system and only two in the Slavic system, a mismatch is not unexpected. The primary opposition

in English is between the progressive and simple formatives, and the latter would not normally be described as indicating a complete event; such a function is frequently ascribed in fact to the perfect formative. But there is no obvious opposition of perfect to progressive since both co-occur in the same verbal group have been Ving. The opposition of the progressive and simple can be captured by the notation

18) [± progressive]

if there is a convention that [- progressive] represents the simple. The relationship of the perfect to the progressive and simple is captured in the following notation (wherein the brackets indicate simultaneous choice; cf. Halliday (1964 p.19), Anderson (1968))

19) $\begin{bmatrix} \pm \text{ perfect} \\ \pm \text{ progressive} \end{bmatrix}$

REALISATION:

a. $\begin{bmatrix} + \text{ perfect} \\ + \text{ progressive} \end{bmatrix} \rightarrow$ have been Ving

b. $\begin{bmatrix} + \text{ perfect} \\ - \text{ progressive} \end{bmatrix} \rightarrow$ have Vn

c. $\begin{bmatrix} - \text{ perfect} \\ + \text{ progressive} \end{bmatrix} \rightarrow$ be Ving

d. $\begin{bmatrix} - \text{ perfect} \\ - \text{ progressive} \end{bmatrix} \rightarrow$ V

In Slavic languages the aspectual formatives would bear a relationship

20) [± perfective]

where [- perfective] represents the formative referring to incomplete

events, and [+ perfective] represents the formative referring to complete events. Even the Greek three term aspectual system contains an opposition like that in (20) and nothing like the English system manifest in (19)[2]. Hence it should be remembered when describing the progressive formative as referring to incomplete events, that it is not one pole of an opposition complete v. incomplete, since no such opposition between formatives which combine with the predicator as the progressive does exist in English, directly comparable with aspectual formatives in certain other Indo-European languages.

Robert L. Allen claims that he was led to write his book The Verb System of Present Day American English (1966) as a result of coming to realise that the progressive form indicates principally the incompleteness of the event referred to by the predicator it is combined with. In Chapter II of the book Allen reviews the work of many authors who have observed this characteristic of the progressive. Since I have nothing worthwhile to add to Allen's very full discussion that will not be or has not been included in the text of this dissertation, and since I see no virtue in plagiarising his work, I draw the reader's attention to it, and recommend it to those interested.

The event which is incomplete at the point of orientation is obviously not completed at that point. It is logical to suppose, however, as Jespersen does in (6), that the event has begun at the point of orientation. But as Jespersen pointed out elsewhere (1924 p.81) linguistic expressions are not bound by logic. The progressive be + Ving indicates the incompleteness of an event; thus, the verbal group in

21) She is beginning her embroidery.

refers to the incompleteness of the event of beginning her embroidery. Sentence (22) means something different from this, and sentence (23) seems gobbledegook to me

22) She has begun her embroidery.

23) * She has begun beginning her embroidery.

It is counterintuitive and counterfactual that <u>have begun</u> is a paraphrase of <u>be + Ving</u>,

24) Lula is skating on Sunday ≠ Lula has begun skating on Sunday.

The sentence <u>We shall be dining at 10</u> will often mean that dinner starts at 10, not that it will have begun before 10. The event referred to in

25) I am eating in London.

uttered when the speaker is not eating and not in London, has not begun at the point of orientation, if we take this to be the moment of utterance, but it <u>is</u> incomplete[3]. We may conclude, therefore, that although the initiation of an event is logically implied by that event when incomplete, this implication is not necessarily relevant to a consideration of the meaning of the progressive formative.

I have cited Allen (1966) and Jespersen (6) as authorities for the view that the progressive refers to incomplete events, but I have yet to explain what I mean by this. By the phrase 'incomplete event' I understand an event viewed from that ASPECT (in the non-technical sense of the word, cf. p.II - 3) of its development which intervenes between the initiation and the termination of that event; in other words, the modifier 'incomplete' refers to the ongoingness of the event (cf. p.II -11). In Chapter II it was proposed that such an ASPECT of an event corresponds to Hypothetical Aspect H_2. I am therefore proposing that the English progressive formative is aspectual, provided that it satisfies the condition of being non-lexical and combines, subject to certain constraints, with any predicator. The progressive does satisfy such a condition on the identification of the constraint that the predicator be active. We need to be more precise about this constraint. It is clear from Chapter III that linguistic expressions do not necessarily correspond with clearly defined perceptual phenomena; traditionally the relation of the linguistic expression to the denotatum was supposed to be mediated by the mind of the language user. The relevance of this observation is that whereas the application of the progressive formative to a predicator has been regarded as a test of its non-stativeness, there are some verbs like sit and sleep (cf. (1) and (2)) which function as members of the set of active predicators in combining with the progressive formative even though they are perceptually non-active. In such cases where the linguistic expression has features which are not obvious in its denotatum we must specify them as syntactic features[3a]. The constraint on the occurrence of the progressive aspect formative is that it combines with predicators having the feature [+ active].

When describing the reference of the progressive aspect formative, as we have proposed be + Ving to be, it would not be wrong to use the phrase 'incomplete activity' rather than 'incomplete event'. But it should be remarked that 'activity' here is defined by the appearance within the associated predicator of a feature [+ active], and is therefore not necessarily equivalent to the use of the word in the quotation at the beginning of V.i. or similar uses elsewhere in traditional, particularly pedagogic, grammars.

The progressive aspect formative refers to incomplete activity (in the defined sense) at the point of orientation. It remains to be shown that instances of be + Ving are compatible with such a description of the progressive aspect formative. Consider some of these.

26) Dead-Eye Dick was writing a novel about his experiences with Eskimo Nell.

The point of orientation is unspecified past; at this point the writing of the novel was incomplete: we may therefore have an instance of the progressive aspect formative. Incidentally, (26) does not necessarily mean that Dead-Eye Dick had pen in hand at the point of orientation (cf. Ota (1963 p.101) and Joos(1964 p.493)), just that he was writing the novel (to be tautologous): the reader is referred to Chapter III for a discussion of what constitutes the event referred to by a particular linguistic expression. Now consider sentence (3), She's coming to supper tonight, and sentence (12e) repeated as (25), I am eating in London [Uttered when the speaker

is not eating and not in London]. Contrast the latter sentence, (25), with

27) I eat in London.

uttered under similar circumstances. (27) would typically, though not necessarily, refer to an habitual event; and it refers to the present time or what Jespersen calls 'omnipresent' time. Sentence (25) would typically, though again not necessarily, refer to one occasion in the future. (We shall ignore the untypical cases for the time being.) The future reference in a sentence like (25) stems from the co-occurrence of the progressive aspect with the non-past tense indicating incomplete activity at the moment of utterance. But clearly, given the situational information ascribed to (25) in addition to its semantic reading, there will be a lack of correlative observable data to the utterance; I suggest that such sentences are interpreted something like this

28) Progressive and therefore incomplete; but not past and not present, therefore future.

Sentence (27) would only be given a future interpretation if there was some specification of its futurity; (25) is given future interpretation on an inferential basis.

If we compare sentence (3) with

29) She comes to supper tonight.

we find that the distinction so clear between (25) and (27) has been neutralised by the presence of "tonight". We can see that it is the occurrence of "tonight" in (29) that causes this neutralisation by first omitting the word from (3), in which case the neutralisation holds, and then omitting it from (29) or from both sentences, in which case there is a distinction similar to that holding between (25) and (27). Thus the sentences like (25) are the pattern for sentences like (3). The future reference of these sentences has been explained on the basis of the progressive being an aspectual formative; under other descriptions of the formative, this fact was inexplicable.

There are no other sentences which prove problematic to the description of the progressive formative as progressive aspect with the meaning ascribed to it above. Sentences (4), (12), (13), etc. may all be accounted for in terms of this description. For example, take (12a), He was writing after I entered: this sentence is ambiguous between the following (loose) interpretations, (i) the event of his writing continued after the event of my entering, (ii) the event of his writing started after the event of my entering; the ambiguity has no unfortunate consequences for the present description of the progressive, since in both cases there is reference to incomplete activity (writing) at some unspecified point of orientation after my entering.
I shall suppose, without further argument, that the formative be + Ving expresses progressive aspect in English.

V.v. The progressive and shortly expected termination

Consider the following quotation.

> The most important point to remember about the Present Progressive Tense is that its use indicates an activity or state that is still incomplete but whose termination may be expected, as in: It is raining. This is a point that should be borne in mind for all the progressive tenses. They indicate a continued activity or state, but not a permanent activity or state. There is always a limitation, an expectation that there was or will be an end to the activity or state. This is why these tenses are, in grammatical terminology, sometimes called Imperfect Tenses.
>
> (Hornby (1954 p.89))

And cf. Kruisinga & Erades (1953 §223), Scheurweg (1959 §544), Twaddell (1965). It is true in many instances that the events referred to by predicators in the progressive aspect may be expected to terminate in the near future, for instance

30) John is running for the bus.

But such an expectation is not a necessary consequence of the progressive formatives. For instance in

31) The Polar ice caps are slowly melting.

there is no real expectation that the melting will terminate in the near future; if one ware to predict from (31) that the ice-caps would eventually all have melted and the melting will in consequence be

terminated and claim that this proves Hornby's point, then his argument would also apply to

32) The Polar ice-caps slowly melt away.

In (33), which is a perfectly good sentence,

33) The Earth is revolving at the same rate as in Ptolemy's day.

the revolution of the Earth is certainly not expected to terminate. It should be remarked that the use of progressive formatives in phrases indicating clearly unlimited duration is not restricted to geophysical events, cf.

34) a. People will be arguing about political ideology forever.

b. Some of the world's population will always be living at subsistence level while others remain excessively rich.

I would not wish to deny that any incomplete event logically presupposes a future completion, just as it logically presupposes an earlier initiation; but we have already seen that the latter is not referred to by the progressive aspect, and now it can be seen that the former is not referred to either.

V.vi. The history of predicative Ving

The historical origins of grammatical items are increasingly seen to have relevance to their grammatical derivation in a synchronic grammar: one might instance Perlmutter's (1968) account of the indefinite article and its relationship with _one_, which was matched by the isomorphism of the forms in Old English; and it is being seen that the origins of _the_ in the demonstrative paradigm nowadays represented by _this_, _that_, etc. are relevant to its place in the grammar of present day English. The superficial cases associated with verbs like _know_ and _please_ in Old English have been cited in support of arguments for comparable deep case categories associated with these verbs in transformational case grammars, cf. Anderson (forthcoming) and Fillmore (1968 p.30 f.). The history of predicative Ving reveals it to be a nominal form and suggests, though it does not conclusively prove, that predicative Ving is a constituent of a locative phrase.

There is quite a lot of evidence that the Old English gerund inflexion was often pronounced /in/ as well as /ing/[4], just as happens with the _-ing_ inflexion today (see Fischer (1958)). It seems likely that the Old English participial suffixes _-inde_ and _-ende_ also came to be pronounced /in/ and even /ing/ in the south of England during the late Old English period, and perhaps earlier; cf. Langenhove (1925) and Visser F. (1966 §1022). Thus for some speakers of the language, the gerund and the participle were homophonous; cf. Langenhove (1925 p.83). The infinitive suffix also was sometimes pronounced /in/ (ibid. p.113 f.) and this gave rise to a confounding of forms and the production of phrases

like to smeagende, to fyligende, to trymynge, to putting, etc. during the late Old English and early Middle English periods (ibid. p.126). An impetus for such a coincidence in the pronunciation of gerund, present participle, and infinitive forms of the verb could have come from a long-standing Celtic influence.

Arguments favouring the influence of Celtic on English grammar have been put forward by Braaten (1967), Dal (1952), Keller (1925), Preusler (1938, 1942), and Visser G. (1955). The hypothesis is that away from the towns many of the inhabitants of the country spoke a Celtic language similar to Welsh at the time the Angles, Saxons, and Jutes settled in Britain. Given the situation, it is not surprising that there were few Celtic loan-words in Old or Middle English, since this is typical of the relationship between a subordinate and an hegemonous language (cf. Jespersen (1905 §37). There would however have been extensive loan translation or calquing from Celtic to English, and one might suppose that terminal strings in the grammar sometimes derived from a mixed Celtic and English underlying structure; cp. Weinreich (1958 p.378). Socio-political pressures would likely cause substandard dialect forms of this type to be excluded from literature of the kind that has survived, and the reason for the delayed appearance of Celtic inspired forms in the literature could have been the resurgence of literary activity in the Middle English period noted by Gaaf (1929 p.205); alternatively, their appearance may have been due to the gradual acceptance of such forms as Standard English.

Braaten, Dal and Preusler all propose, in refutation of

Mossé (1938 §100), that it was influence from Celtic which provoked the substitution of the -ing spelling for the older spelling of the present participle. In Celtic languages there is one unmarked verb form, usually called the verbal noun, which occurs in contexts where English requires one or other of the gerund, infinitive, present or past participles according to the contextual constraints. Interference from the Celtic verbal noun may perhaps have had some bearing on the following: (i) according to Curme (1912) there was an encroachment on the gerund of the function and sense of the infinitive in Old English; (ii) in the early Middle English period Ving was in complementary distribution with the infinitive; cf. Visser.F. (1966 p.952); (iii) Langenhove (1925 p.126) notes some confounding of the past with the present participle[5]. Although there is little positive evidence available at the present time, one might speculate that the motivation for the confounding of these verb forms in early English could originate in a linguistic competence which contained a unique base form modelled on the Celtic verbal noun. Such speculation does, of course, beg the question of how the Celtic linguistic influence bastioned itself against five or six centuries of Anglo-Saxon and Danish hegemony, but it seems to me not unlikely that parallels might be found elsewhere through diligent socio-linguistic investigation.

There is some quite positive evidence suggesting a Celtic influence on the development of predicative Ving. The appearance in literature from the time of Aelfred (much earlier than Mossé claims) of a structure which was in its time variously

35) be + $\begin{Bmatrix} \text{on} \\ \text{in} \\ \text{a(t)} \end{Bmatrix}$ + Ving

has not been explained from internal evidence within the English language. It seems likely that this construction was motivated by an exactly similar structure in Celtic languages, cf.

36) a. Mae John yn bwyta cinio.
[Welsh: 'John is in eating his dinner']

b. T'ad g' accan.
[Manx: 'They are at complaining']

It would be extremely improbable that the one to one correspondance between the Celtic periphrastic form and the phrases like those of (35) was happenstance. It is much more likely that within the popular language the Celtic base form had superimposed on it the English morphology.

The periphrastic form, as be + Ving is sometimes called, occurs more frequently in oral English than in literature, which is, up to a point, predictable since roughly speaking its application is to immediate and actual situations rather than more general phenomena. Trnka in On the Syntax of the English Verb from Caxton to Dryden (1930 fn. p.38) noted that the periphrastic form was most common in texts close to the popular language. The form becomes more and more common in literature over the centuries, particularly in prose fiction and prose drama (cf. Dennis (1940) and Jespersen (1931 p.177); there are two possible reasons, one that there is a closer approximation in more recent literature to the speech of common people, and the other that the periphrastic form has become established in the language. Dennis notes that at the time she was

writing the periphrastic form was much more widely used in speech than in literature. Thus it would appear that in the last 900 years, literature only gives us glimpses of what seems to be a popular spoken form rather than a literary one. It is notable that in spoken Welsh (at least in North Wales) the periphrastic construction bod + yn + verbal noun is used exclusively, and the simple form is only used in literature.

My argument is that in some dialects of southern England the -ing suffix developed from a phonological coalescence of the suffixes of the Old English gerund and participle — and perhaps the infinitive as well — that was motivated by the grammar of the Celtic verbal noun. This development was initially restricted to popular speech and only gradually spread into literature. The influence of Celtic on English provides the only explanation for the appearance in the English language of the constructions listed in (35).

However, it would be wrong to assume that the formative be + Ving in present day English is directly derived (diachronically) from Celtic. I have placed emphasis on the historical influence of Celtic on the development of the periphrastic form in English for three reasons: (i) because the Celtic influence has been underestimated by such influential figures as Mossé; (ii) because the association of Ving with the verbal noun in Celtic points to this form being nominal in predicative constructions; (iii) because the periphrastic construction in Celtic languages entails a locative phrase of which the verbal noun is a constituent, and by associating predicative Ving with the Celtic verbal noun we give substance to the view that it also

is a constituent of a locative phrase. But the progressive aspect formative in present day English is formally similar to its Old English forebears and not to any Celtic forms; and, indeed, it derives as much from Old English as it does from any Celtic influence. There are, however, a number of clarifications to be made of the influence upon it of the Old English participles in -inde, -ende, etc. Mossé and others who believe simply that there was a coincidence in the pronunciation of the present participle and gerund suffixes have advanced no convincing motivation for such a coincidence, and as a result they have no explanation for the fact that the -ande suffix also came to be pronounced /in/ or /ing/. They point out that the periphrastic form in Old English was originally used to translate "Latin deponent verbs, passives, adjectival present participles, and the types erat docens and venturus est" (Bodelsen (1938 p.206)). That is, the periphrastic form was introduced into Old English under the influence of Latin. Let me quote some more from Bodelsen's review of Mossé (1938):

> M. concludes that the origin of the construction was a habit acquired by, or even systematically taught to, the early monkish translators, and modelled on Latin syntax. It is significant that the [periphrastic forms] are rare in OE literature which is relatively independent of the clerical tradition: there is only one case of them in the Othere and Wulfstan interpolations in the Alfredian Orosius, only 3 in Beowulf, only one in the Charms, and none in the Riddles.
>
> (Bodelsen (1938 p.206))

How then did the periphrastic form come to be primarily a popular

form rather than one appearing in literary and, later, scientific texts, which one might expect to be more strongly influenced by Latin? The only explanation can be that there was motivation from a Celtic linguistic substratum which, on the model of Celtic languages, took from English a periphrastic form consisting of the copula and the verbal noun, instead of the copula and the present participle, and eventually it became the standard form.

If we could go on from here and confidently claim that the English progressive aspect formative originated in a Celtic construction having a comparable meaning, we would have a strong case indeed for the historical view of the periphrastic form in English put forward in this Section of the dissertation, and, additionally, a tacit explanation for the fact that the periphrastic form in English, but not that in Vulgar Latin, Italian, French or Spanish, expresses progressive aspect[6]; but the Celtic construction copula + ag / ec / yn + verbal noun is no more aspectual than the corresponding periphrastic forms in these Romance languages. We may only conclude, therefore, that there is some evidence linking predicative Ving with the verbal noun in the Celtic periphrastic construction where this verbal noun is a constituent of a locative phrase. On these grounds we may hypothesise that predicative Ving is nominal and a constituent of a locative phrase in present day English.

V.vii. The derivation for progressive aspect

An account of progressive aspect such as that given by Jacobs & Rosenbaum (1968 p.108 ff.) or Roberts (1964 p.84 ff., cf. p.II - 1 above) in no way explains the meaning carried by the progressive aspect formative, but only serves to distinguish it from other grammatical formatives. In this Section I shall establish a derivation for progressive aspect which goes some way towards explaining the meaning we attribute to it. In order to accomplish this aim it will be necessary to show that the structure underlying be + Ving somehow characterises the notion, or set of notions, expressed by the phrase 'incomplete activity'. The starting point for our discussion will be the hypothesis arising from the diachronic review of be + Ving, viz. that Ving is nominal and is dominated by a Locative Case node. Notice that if Ving is shown to be dominated by a Locative Case node then it must be nominal (since it is obviously not a preposition); alternatively, if Ving is shown to be nominal then it will be dominated by a Locative Case node unless it is to prove an exception to the principle that when the surface structure of a predicator is be + nominal the nominal is in the Locative Case (cf. Chapter I.ii.). Therefore, to establish that Ving is both nominal and Locative it will only be necessary to show either that Ving is nominal or that Ving is Locative.

We have already noted in (35) the construction be + on / in / a(t) + Ving which appeared in the late Old English period and has recurred intermittently since that time — so that

occasionally even in present day English texts, particularly those of a folksy nature, we come across instances of be a-Ving. Of this construction, which he indicated as a direct ancestor of be + Ving, Jespersen wrote

> he is (was) on ... hunting means 'he is (was) in the course of hunting, engaged in hunting, busy (with) hunting'; he is (was) as it were in the middle of something
>
> (Jespersen (1931 p.179))

Anna Hatcher associated similar meanings directly with the progressive aspect[7]

> ... the very simple, literal meaning of this aspect: 'the activity is presented as (or as if) in progress'. The next moment she was tapping on his door means 'The next moment she was in the midst of tapping'; She's been crying means 'She has been in the midst of crying (in the midst of tears)'; He is always getting drunk means 'He is always in the midst of getting drunk (= on the binge)'.
>
> (Hatcher (1951 p.260))

In an unpublished paper, John Anderson drew attention to the same set of facts. We might compare the following pairs of sentences that bear out these observations:

37) a. I was telling my story when I was stopped.
b. I was in the course of telling my story when I was stopped.

38) a. They were eating their dinner when a stranger called.

b. They were in the middle of eating their dinner when a stranger called.

39) a. Eros was seducing Penelope when her husband returned.

b. Eros was in the process of seducing Penelope when her husband returned.

40) a. The chairman was being shouted down by the shareholders.

b. The chairman was in the position of being shouted down by the shareholders.

41) a. Pluto was being outrageously naughty.

b. Pluto was in the act of being outrageously naughty.

We might also notice a parallel construction involving stative predicators:

42) a. Moll was poor.

b. Moll was in a state of poverty.

43) a. Bruce was dejected.

b. Bruce was in a state of dejection.

44) a. Douglas was crippled for the rest of his life.

b. Douglas was in the position of being crippled for the rest of his life.

c. Douglas was in the position of being a cripple for the rest of his life.

d. Douglas was in the position of a cripple for the rest of his life.

It is revealing to consider sentences (37) through (41) in the light of certain phenomena manifest in sentences (42) through (44). In (42) and (43) the predicative adjective of the (a) sentence is

replaced by a cognate nominal form in the Locative phrase introduced by "in" within the (b) sentence. In (44) a similar phenomenon is manifest between the (a) and (c) sentences. As a consequence, it is reasonable to assume that being crippled in (44b) and being a cripple in (44c) also rank as nominal forms in the Locative phrase introduced by "in"; certainly these phrases have nominal function in identical phonological form in such sentences as

45) a. Being a cripple is a grave disadvantage.

b. Being crippled is a grave disadvantage.

In sentences (44b, c) and (45) it is the Ving form of the verb be which indicates the nominal form of the phrases "being crippled" and "being a cripple". In view of there being no counter-evidence we may consider that Ving in the (b) sentences of (37) through (41) also indicates a nominal form. Some support for this view comes from the parallelism of the structure of the following sentences, which also make it clear that Ving is a constituent of the Locative phrase introduced by "in".

46) a. Lopez is in the middle of eating his dinner.

b. Lopez is in the middle of his dinner.

c. Lopez is in the middle of the room.

Obviously the Locative in (46a, b) is abstract whereas that in (46c) is not, but these facts do not affect the argument that "eating" in (46a) is nominal just as "dinner" in (46b) and "room" in (46c) are nominal. The evidence strongly suggest that in the (b) sentences

of (37) through (41) Ving is a nominal dominated by a Locative Case node.

The question arises whether Ving in the (a) sentences of (37) through (41) may be analysed in the same way as Ving in the synonymous (b) sentences. If it may not be so analysed then the only alternative is that the phonological form Ving is an homophonous realisation of two distinct syntactic forms, one of which is nominal, the other having special aspectual function. If we can show that the aspectual function of Ving is quite compatible with its being nominal, then the argument that Ving represents two homophonous but syntactically distinct forms collapses.

Grady (1967) has already published a paper in which he claims that the Ving element of the progressive aspect formative is nominal, and part of his argument refers to the historical evidence which was explicated in detail in Section V.vi.. We have already noted that the progressive aspect formative is synonymous with a particular kind of Locative Case phrase containing Ving as a constituent. In addition, synonymy exists between certain predicators in the progressive aspect and other, related, predicators consisting of Locative Case phrases of a more ordinary kind; cf.

47) a. Will is hunting for deer.
b. Will is on a hunt for deer.

48) a. Percival is holidaying in France.
b. Percival is on holiday in France.

49) a. The spare parts are coming / going.
b. The spare parts are on their way.

50) a. He's telephoning me now.

b. He's on the telephone to me now.

51) a. The river is flooding.

b. The river is in flood.

52) a. A new scheme is operating.

b. A new scheme is in operation.

53) a. The students are revolting against authority.

b. The students are in revolt against authority.

54) a. Susan is crying.

b. Susan is in tears.

55) a. Henry was dining.

b. Henry was at dinner.

56) a. Esmerelda was soundly sleeping.

b. Esmerelda was soundly asleep.

57) a. What is he doing?

b. What is he at?[8]

It is significant that the only prepositions recurring in the (b) sentences of (47) through (57) are in, on, or a(t), exactly those which occurred in the historical periphrastic form containing a Locative phrase and noted in (35). Within a theory of generative semantics it would presumably be held that both predicators within each pair of sentences (47) through (57) contain identical sets of semantic features, but that the structure intervening between these and the Locative Case node would be different for each predicator within the pair. It is the specification of the structure

underlying progressive aspect (as in the (a) sentences of (47) through (57)) that we are interested in here.

It was seen above that the progressive aspect formative as in (58a) is synonymous with strings like (58b):

58) a. be + Ving

b. be + in the process / etc. of + Ving.

Looking at (58) one might suppose[9] that (58a) derives from (58b) via one or more deletion transformations. This supposition is faulty for three reasons: (i) as we can readily see from sentences (37) through (41) -- and we may also compare in parallel sentences (42) through (44) -- the (a) sentences containing the progressive like (58a) seem more natural than the (b) sentences containing strings like (58b); but on the analysis suggested here the former would 'cost' more in terms of transformational operations effected on the underlying phrase marker than the latter, and the analysis is thereby counter-intuitive; (ii) there are occasions when the progressive may occur but no cognate construction involving the string (58b) is acceptable or even conceivable; (iii), the obverse of (ii), strings like (58b) may occur but there is no corresponding progressive aspect. Exemplifying (ii) are the sentences

59) a. Elspeth is coming to dinner next Monday.

b. * Elspeth is in the process / etc. of coming to dinner next Monday.

60) a. He was writing as soon as I entered the room.

b. * He was in the process / etc. of writing as soon as I entered the room.

61) a. Cuthbert was sleeping in his cot.

b. * Cuthbert was in the process / position / state / etc. of sleeping in his cot.

We should also notice that there is a similar disparity among stative predicators, cf.

62) a. Jerry was oily.

b. * Jerry was in a state of oiliness.

63) a. Herod was dangerous.

b. ≠ Herod was in a state of danger.

Exemplifying (iii) are such sentences as

64) a. Eric was taller than Isambard.

b. Eric was in the position of being taller than Isambard.

Instead of proposing that the progressive (58a) derives from the string (58b), a more hopeful proposal is the converse, viz. that (58b) derives from (58a) via (principally) the Segment Copying Transformation described in Chapter I.ii.; this transformation copies one or more semantic features under a node[10] into a segment under the same node. In the case under discussion, certain features will be copied from the progressive aspect as in (58a) to develop the string (58b); we may therefore look for subsets of the features of

progressive aspect in the lexical items that may occur in such strings as (58b).

The lexical items that may occur in (58b) are an obligatory in together with act, process, course, position, or middle; the semantic features associated with these are as follows:

65) in the act [+ inessive, + activity]
in the process [+ inessive, + activity]
in the course [+ inessive, + activity]
in the position [+ inessive, + locative, - temporal]
in the middle [+ inessive, + locative, - temporal, + inessive]

The nouns are not always readily interchangeable one with another in a given environment. Thus, although I attribute the same configuration of features to both process and course the latter probably tends to occur in an environment have some intrinsic durativeness; middle, on the other hand, tends to occur in an environment which presupposes a potential middle, compare Albert was in the middle of seducing John's wife when he walked in with * The chairman was in the middle of being shouted down by the shareholders. The constraints on the occurrence of the nouns in (65) are ill-defined, and since their definition will added nothing substantial to the general theme of this dissertation, I shall ignore them. We might notice that position may occur in both active and stative environments, cf.

66) a. Lea is in the position of being a virgin and therefore unacquainted with the delights of orgasm.

b. His opponent was in the position of beating McManus, which was quite a change.

The reason for this neutrality towards the opposition of active and stative is that position derives by Segment Copying Transformation from the Locative Case node which dominates predicative Ving and other predicative nominals.[11]

A typical description of the progressive aspect is that it indicates 'activity in progress' (cf. the quotation from Berkoff p.V - 1) and the semantic features underlying this descriptive phrase would be exactly those for the phrase in the process [12] given in (65). But we have seen from the unacceptability of (*59b) that such semantic features could not be assigned to those progressives such as in (59a), Elspeth is coming to dinner next Monday, which refer to future time and not to anevent in progress at the point of orientation. This same fact was alluded to in Section V.iv. where it was shown that the most adequate description of progressive aspect in English is that it indicates 'incomplete activity'. Underlying this phrase are the semantic features [+ activity, - complete] of which the latter feature, [- complete], is complex and offers the binary choice [± inessive]; thus are permitted the alternative interpretations [+ inessive] 'in progress', or [- inessive] 'not in progress'.

It has been evident for some time that the so-called 'progressive aspect formative' is no formative at all but a construction

consisting of the copula be and a Locative Case phrase. The copula potentially carries the inflexion for aspect (perfective, q.v.) or tense or person, and therefore the progressive aspect has the structural characteristics of a predicator, cf. Chapter I.ii. Hence I propose that the progressive aspect functions as a predicator having for its argument the propositional predicator: this proposal is essentially similar to an analysis first suggested by Ross (1967) as part of a more general argument, which has had wide currency, that all auxiliaries are, in the terms Ross uses, "main verbs". This analysis of the progressive can be represented by the following tree diagram.

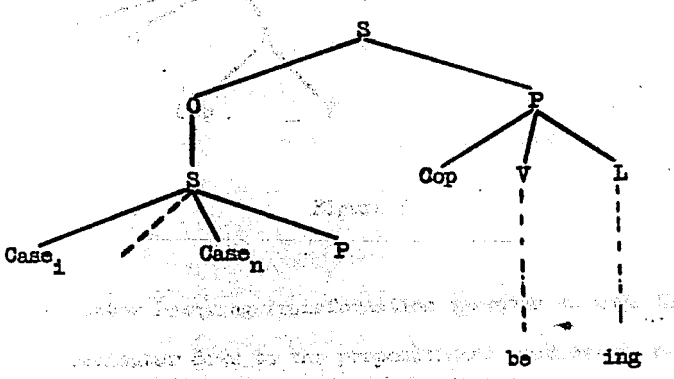


Figure 2

The phrase marker represented in Figure 2 offers two alternative ways for arriving at correct terminal strings that will operate as input to phonological rules: one involves a Predicator Lowering Transformation, the other involves a Predicator Raising Transformation. We shall consider which of these transformations is to be preferred.

In what follows we shall be concerned only with the derivation of progressive aspect so that the derivation of things like tense will be considered irrelevant. For the sake of argument, we shall suppose that the proposition consists of an Agentive Case phrase, an Objective Case phrase, and a predicator dominating V. Figure 3 represents the base phrase marker showing progressive aspect as the predicator on such a proposition:

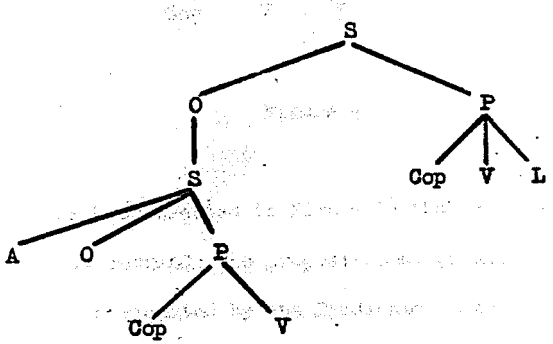


Figure 3

The Predicator Lowering Transformation operates to move the progressive aspect predicator down to the propositional predicator, creating the structure represented in Figure 4. The highest S will be pruned (cf. Ross (1966)) and the highest O will then become irrelevant unless it forms part of another proposition (as in the sentence I say John is beating Bill). There are, however, certain objections to the Predicator Lowering Transformation as described here. One of them is that in the phrase marker represented in Figure 4 the progressive aspect predicator is dominated by the propositional predicator; this relationship is counterintuitive since in the base

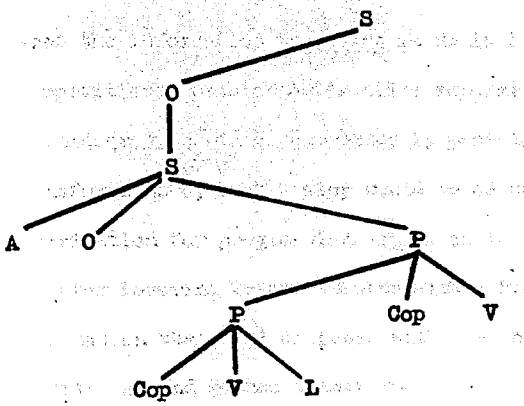


Figure 4

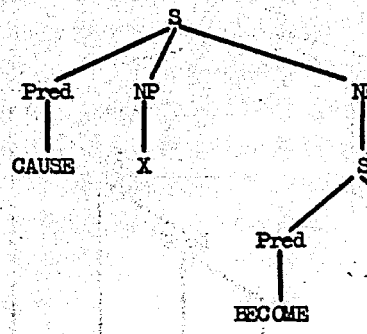
phrase marker (represented in Figure 3) the progressive predicator asymmetrically commands the propositional predicator, and this relationship is violated by the Predicator Lowering Transformation; in consequence, the objection to this transformation appears very strong. But the progressive predicator precedes the propositional predicator in surface structure and thus bears a 'primacy relation' to it (in the sense of Langacker (1969)) and so the apparent objection is invalid. The Predicator Lowering Transformation is clearly comparable with the transformation proposed by Lakoff (1965 F, 1969, forthcoming) which lowers predicates[13] into sentence constituents asymmetrically commanded by them and in which the surface structure relation precedes may reflect the underlying notion command (cf. Lakoff (1969 p.123)). Thus the proposed Predicator Lowering Transformation appears to be methodologically sound. Is it, however, the transformation which in fact derives progressive aspect? If we look at the phrase marker represented in Figure 4 we see that it

does not present the information that Ving is nominal and Locative because the propositional predicator is quite separate from L. Although this inadequacy could be corrected by postulating certain additional transformations, such a ploy would be ad hoc and undesirable. A preferable derivation for progressive aspect is to replace the proposed Predicator Lowering Transformation with a Predicator Raising Transformation that will dispense with the need for such undesirable additional and ad hoc transformations.

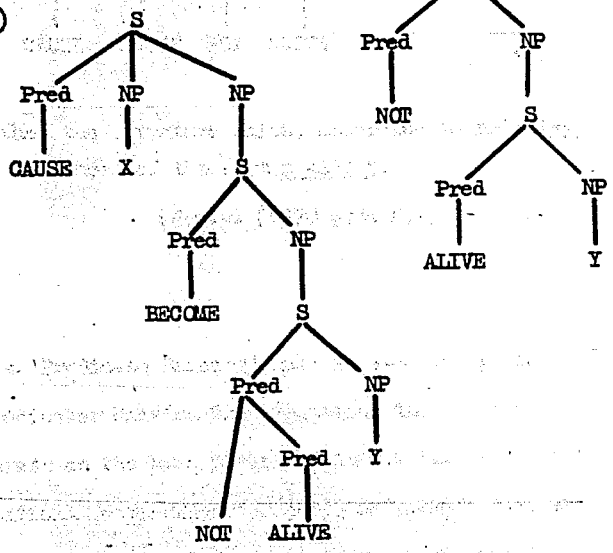
According to Postal (1970 p.83 ff.) James D. McCawley was the first to propose (in McCawley (1968c, 1968d, 1969)) that there exists in English a rule he calls 'Predicate Raising' which operates to raise under predicate$_i$ of some sentence S_i the predicate$_j$ of sentence S_j which is the sentential argument of predicate$_i$ (e.g. is its 'subject' or 'complement'). This rule precedes the operation of lexicalisation rules. To demonstrate 'Predicate Raising' I quote Postal:

> Hence, an example of the operation of PREDICATE RAISING would be, according to McCawley, the successive conversion of (191) into (192), (193), (194) by applying the rule cyclically from bottom to top of (191).

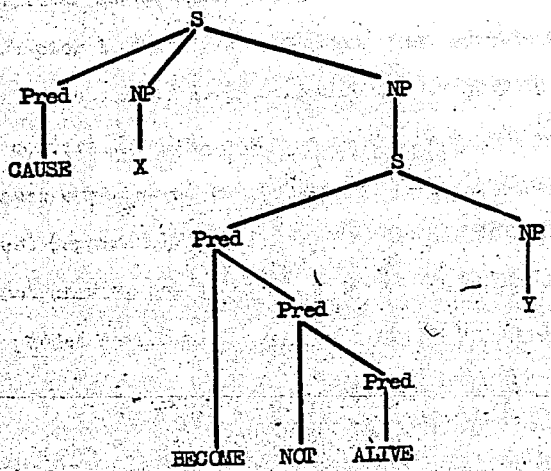
(191)


S
Pred
NP
NP
CAUSE
X
S
Pred
NP
BECOME
S

(192)


S
Pred
NP
NP
CAUSE
X
S
Pred
NP
NOT
S
Pred
NP
ALIVE
Y
Pred
NP
BECOME
S
Pred
NP
Pred
Y
NOT
ALIVE

(193)


S
Pred
NP
NP
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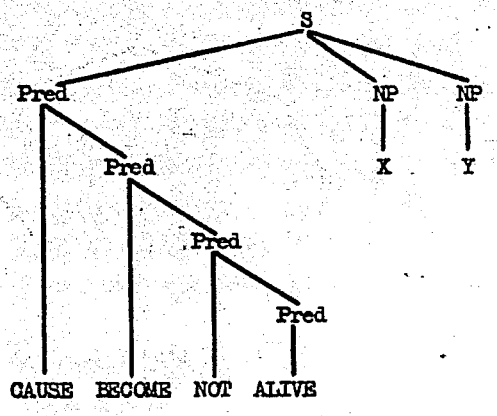
BECOME
NOT
ALIVE

(194)



(194) is then the structure which, according to McCawley, underlies sentences of the form x kill y.

(Postal (1970 p.84 f.))

McCawley's 'Predicate Raising' rule is exactly similar in principle to the Predicator Raising Transformation that I have proposed should operate on the base phrase marker in Figure 3; but there are some 'notational differences' between McCawley's rule and the one I propose. These result from the difference between the theoretical and grammatical assumptions within which he works, and those (expounded in Chapter I of this dissertation) that provide the framework for our own discussion of English grammar. We know that McCawley's rule will convert the phrase marker in Figure 3 into that in Figure 5, but because our view of the structure of the predicator node is quite different (apparently) from the structure of McCawley's 'predicates', we do not know ab initio whether the phrase marker in Figure 5 should be expanded as in Figure 6, Figure 7, or Figure 8.

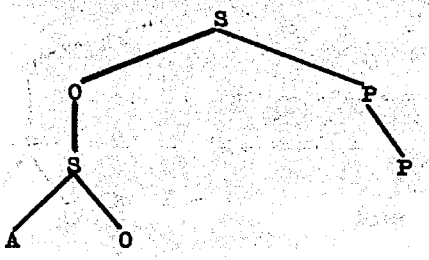


Figure 5

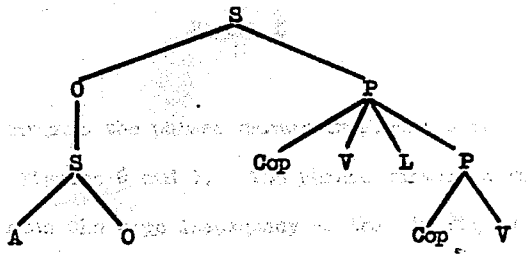


Figure 6

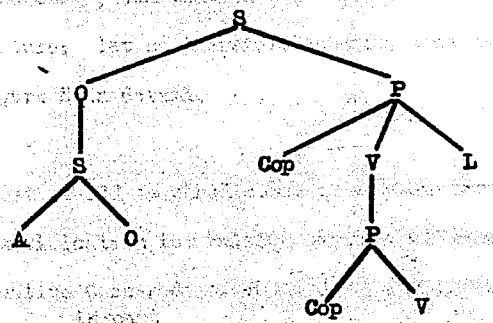


Figure 7

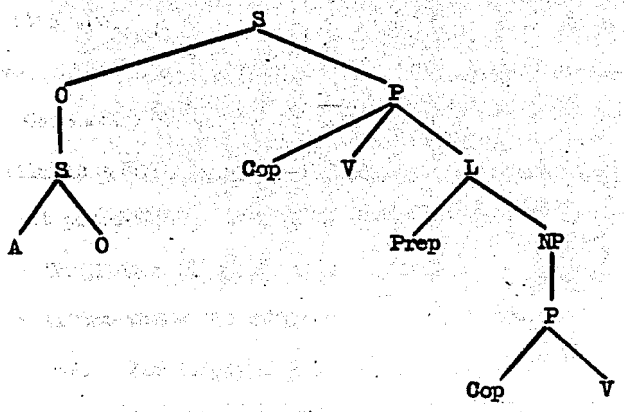


Figure 8

On empirical grounds the phrase marker in Figure 8 is to be preferred over those in Figures 6 and 7. The phrase marker in Figure 6 suffers from much the same inadequacy as that in Figure 4. The phrase marker in Figure 7 blocks the development of the be constituent of the progressive aspect construction. The phrase marker in Figure 8, on the other hand, represents Ving as both nominal and Locative, and that is the structural description we wished to capture: let us therefore consider this derived phrase marker in Figure 8 in detail.

First of all we shall consider whether there is any non-ad hoc justification for raising the propositional predicator under the Locative Case node of the progressive predicator. A predicator consists in part of a Cop constituent which potentially carries inflexions for aspect or tense or person but which is semantically void; the semantic value of a predicator is contained in the

sister constituent(s) of Cop, i.e. under the verb, the Case node, or the adjective. Thus in raising the propositional predicator under the Locative Case node of the progressive predicator, we raise it under the only available node that is potentially a semantically full element of that predicator. I shall now show that in the illustration of McCawley's 'Predicate Raising' rule quoted above, the lower predicator is lifted under the semantically full constituent of the higher predicator. For simplicity of exposition I shall modify McCawley's example and replace the semantic representations [BECOME NOT ALIVE] by [DIE]. We can now rewrite the phrase marker (193) p.V - 45 above in our own notation, as follows:

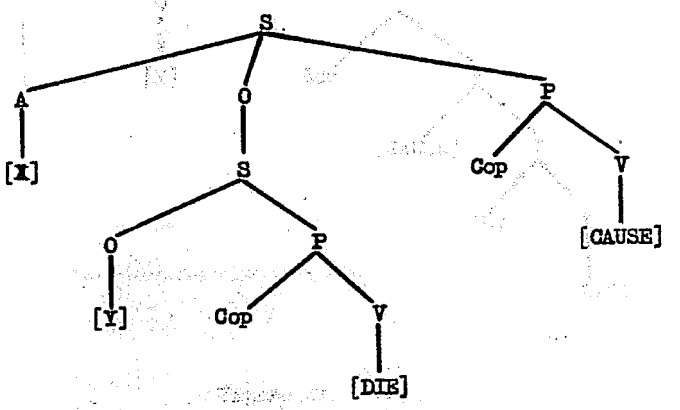


Figure 9

The Predicator Raising Transformation operates on this phrase marker and, let us say for the sake of argument, produces one of the following derived phrase markers; the interesting question is Which one?

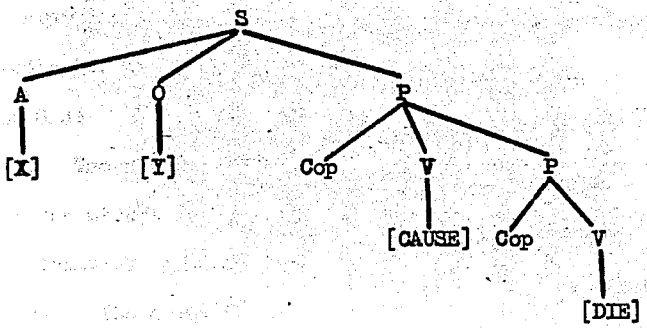


Figure 10

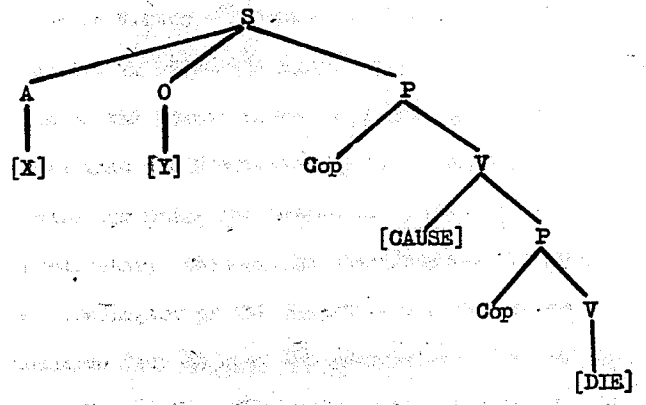


Figure 11

(I have 'pruned' these trees for convenience, a discussion of tree pruning will be undertaken shortly.) In Figure 10 the topmost P directly dominates another P, this is undesirable because the only node which has heretofore been shown to dominate directly an identical node is NP. Another objection to the phrase marker in Figure 10 is that it calls into question the status of P; the

higher P is a predicator on its sister Case nodes, but the lower P is not a predicator on its sister nodes — Cop, and verb, adjective or Case. There is a third objection to the phrase marker in Figure 10. The phrase marker derived from Figure 9 should characterise the structure underlying the sentence X kill Y, and the semantic features associated with kill should appear under the highest P node. The semantic value of any P resides in the Case, verb or adjective which it dominates directly, but the phrase marker in Figure 10 does not represent this fact. The phrase marker represented in Figure 11 is open to none of the objections raised against the one in Figure 10, and is therefore to be preferred as the correct derivation from the operation of the Predicator Raising Transformation on the phrase marker in Figure 9. Notice that Figure 11 shows that the Predicator Raising Transformation lifts the lower predicator under the semantically full constituent of the higher predicator: this is the justification for raising the propositional predicator of the phrase marker represented in Figure 3 under the Locative Case node of the progressive predicator as demonstrated in Figure 8. Obviously, since Ving is nominal, the propositional predicator is raised to be directly dominated by the NP constituent of L.

We have mentioned above (cp. p.V - 40) that the 'meaning' of progressive aspect is characterised by the semantic features [+ activity, - complete], or with further expansion as [+ activity, [- complete, ∝ inessive]]. It is required that these semantic features be somehow distributed under the Locative Case node which has the constituents Preposition and NP. The

feature [+ activity] captures the activising nature of the progressive aspect that enables it to be used in tests for the intrinsic stativeness of predicators, and which shows up by affecting those stative predicators which very occasionally do turn up with the progressive aspect with a strongly active connotation (cf. Footnote 3a). On these grounds I propose that the feature [+ activity] be a feature of every predicator in the progressive aspect, and this can be accomplished by inserting this feature under the NP node of the progressive Locative. The features [- complete, ∝ inessive] identify the nature of the Locative that dominates them as the progressive aspect Locative, in so doing they function like prepositions: for instance the feature [+ inessive] identifies the Inessive Locative, the feature [+ allative] identifies the Allative Locative, etc. I therefore suggest that these features [- complete, ∝ inessive] be listed under Prep, and do not normally have any lexical form; though as we shall see later, a feature [+ inessive] may be copied as a segment and then lexicalised.
The semantic features of progressive aspect are therefore distributed under the Locative as follows:

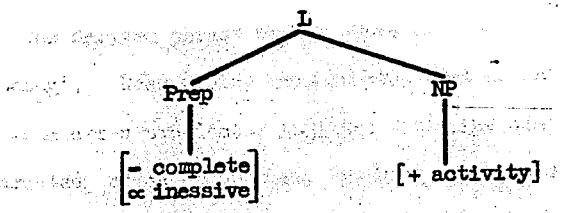


Figure 12

Let us now expand Figure 8 to include this information:

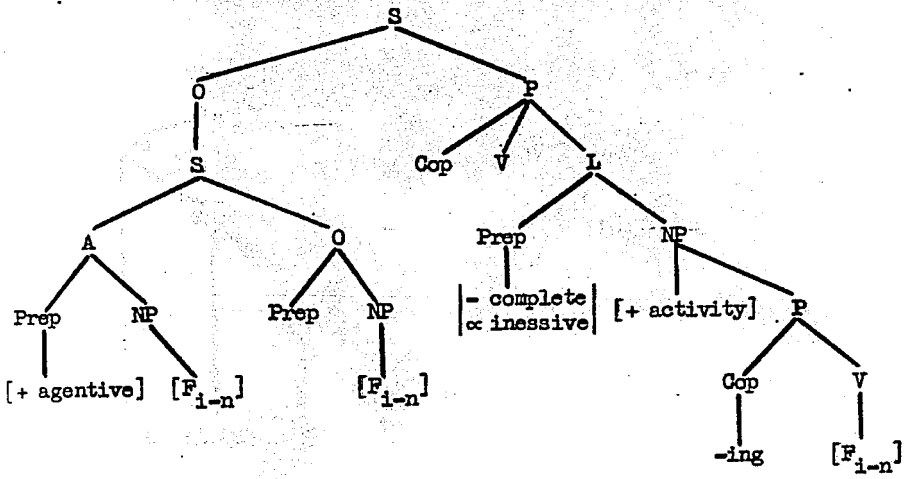


Figure 13

Figure 13 represents the phrase marker that is derived from the base phrase marker in Figure 3 by the operation of the Predicator Raising Transformation.

The derived phrase marker above must now be subject to 'tree pruning'. Ross (1966) demonstrates that an embedded S which does not dominate a predicator together with some other constituent must be deleted, or as he puts it, 'pruned', and its constituents are raised to the node dominating it. The effects of tree pruning can be seen in the successive phrase markers (191) through (194) illustrating McCawley's 'Predicate Raising Transformation' (p.V - 45 f.): the lowest S is pruned after each application of the rule. However, further pruning is also necessary; in McCawley's examples an NP

node above or below the pruned S has also to be pruned, otherwise the final phrase marker in (194) would look like that in Figure 14:

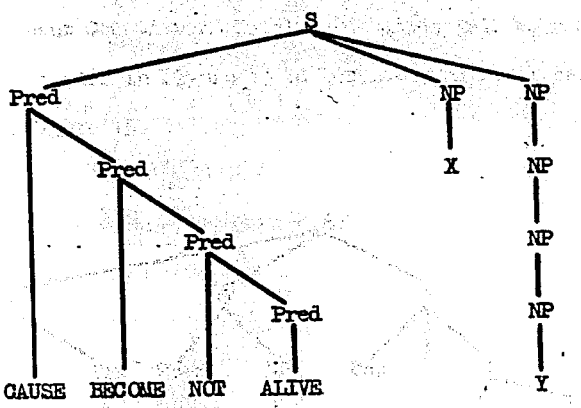


Figure 14

At this point let us reconsider the phrase marker in Figure 13. Using Ross's principle we may prune the embedded propositional S since it no longer dominates any P. But this leaves the propositional Case nodes A and O directly dominated by the Objective Case node in the matrix sentence — which is absurd. However, this dominant O no longer defines the role of the propositional S within the matrix sentence, since the propositional S no longer exists (having been pruned); it therefore has no function and must also be deleted. Since the Objective Case is in any event the unmarked Case (as we can see from the absence of semantic features under its Prep in Figure 13) no semantic problems arise. With these two nodes pruned, the Case constituents of the proposition are raised under the next highest S, which is the matrix S. By analogy, we can now

see that in McCawley's derivation it must be the NP dominating the pruned S which is concomitantly pruned, and the constituents of the pruned S are attached under the next highest S [14]. The Tree Pruning and Subsequent Constituent Raising Operation will be effected on the phrase marker in Figure 13 to generate the final derived phrase marker in Figure 15.

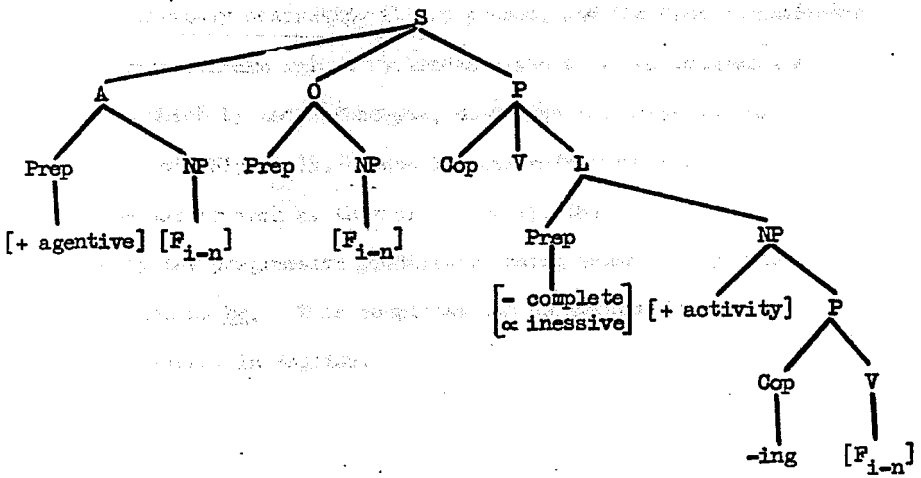


Figure 15

Summary of the derivation for progressive aspect:

Progressive aspect is a predicator on the proposition, cf. Figure 3. Like any other predicator it consists of two constituents, one of which is the Cop node; the other constituent is the Locative Case node which dominates a Prep having the configuration of semantic features [± complete, ∝ inessive] and an NP having the feature [+ activity], cf. Figure 12: these semantic features characterise the meaning of

the progressive aspect. Surface structure is arrived at by means of the Predicator Raising Transformation which raises the propositional predicator directly under the NP node of the progressive Locative; as a result, the Cop directly dominated by the propositional predicator carries the -ing inflexion for nominalisation of the predicator, cf. Figure 13. This inflexion will subsequently be transferred to Cop's sister V. The propositional S node and the O node directly dominating it are pruned, and the Case constituents of the proposition are raised to become sisters of the progressive predicator (which by now, of course, dominates the propositional predicator), cf. Figure 15. When lexicalisation rules operate on a phrase marker such as that in Figure 15, the V directly dominated by the progressive predicator, being semantically void, is lexicalised as be. This completes the derivation for progressive aspect in English.

V.viii. An extremely tentative proposal concerning the development of the construction be in the process / etc. of Ving

It was suggested above (p.V - 38 ff.) that constructions like

67) be in the process / etc. of Ving

derive by transformation from the progressive aspect predicator. The relevant part of the phrase marker on which the mooted transformations would operate is that in Figure 16:

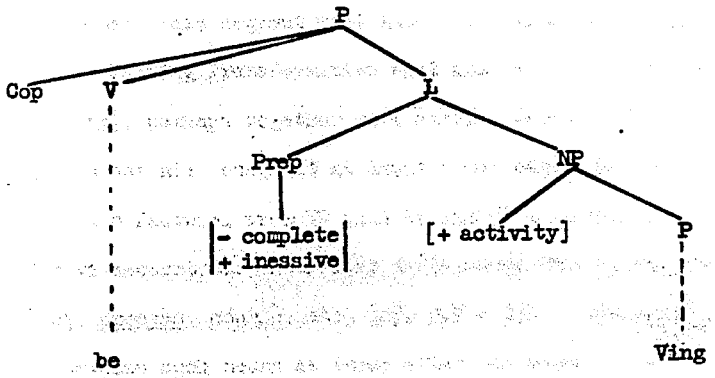


Figure 16

The feature [+ activity] will be included along with other semantic features under NP, i.e. along with those associated with the propositional predicator it dominates, and will not be lexicalised separately; the semantic features under Prep will also not be lexicalised. I have not been able to solve many of the problems arising from the proposed derivation of the string in (67) from

the phrase marker represented in Figure 16; the proposals in this Section are therefore extremely tentative. These proposals have been put forward here because the relationship between the progressive aspect and the construction in (67) has been referred to several times in the course of this Chapter. The proposals constitute an heuristic procedure, each step of which demands further examination and evaluation. With this caveat, I suggest the following derivation for (67).

The Segment Copying Transformation described in Chapter I.ii. operates on the phrase marker in Figure 16 to pick out the feature [+ inessive] from under Prep and copy it as a segment under the same node; this segment will later be lexicalised as <u>in</u>. The Segment Copying Transformation will also copy the feature [+ activity], perhaps together with certain features from V, as a segment under NP: one must at least countenance the possibility that "certain features from V" will be included in this NP segment in order to account for the slight differences that exist between the nouns <u>act</u>, <u>process</u>, <u>course</u>, etc. (cf. p.V - 39). The segment under NP will develop such nouns as these after the operation of lexicalisation rules. The definition of lexicalisation rules and the objects they operate upon has yet to be undertaken; in the meantime I have no explanation why the segments produced by the Segment Copying Transformation should be lexicalised whereas the configuration of semantic features under Prep in Figure 16 is not lexicalised. The explanation may turn out to be quite simply that the features under Prep do not have lexical representation, i.e. this particular configuration does not appear in any lexical entry. After

the operation of the Segment Copying Transformation on the two nodes Prep and NP, and the subsequent operation of lexicalisation rules on the segments thus produced, we have the derived string

68) be in process / etc. Ving

Two lexical items present in (67) are missing from (68): they are the definite article that co-occurs with process / etc., and of which is inseated between this NP and Ving. The explanation for the presence of the definite article in (67) may be as follows. Sweet (1900 p.97) described the progressive as "definite tenses" in opposition to the "indefinite tenses" which we shall see (p.VI - 9 below) is not an inappropriate characterisation of the simple form; substantiating this descriptive contrast between the progressive and simple is the fact that stative predicators in the simple form may occur in constructions parallel to (67) (cf. p.V - 33 ff.) and when they do, the noun which corresponds to process / etc. in (67) concatenates with the indefinite article, cf. He was in a state of dejection / poverty / etc.. We may explain these facts if we associate a feature [+ definite] with the progressive, and one [- definite] with the simple. If this is a plausible suggestion, and I make no judgement on that matter here, then presumably the feature [+ definite] would be included under NP along with the feature [+ activity] in the phrase marker represented in Figure 16.

Now let us consider the origin of the preposition of in (67). (67) has the structure

69) Cop (be) + L [Prep (in) + NP (the process / etc.) + Prep (of) + NP (Ving)] $_L$

The interesting part of this structure is the part underlined; expressed more generally, it is

70) NP_i of NP_j

Consider the following phrases which illustrate (70) and the gloss for each one which is given in brackets beside it.

71) a. the book of Samuel [the book about Samuel]

b. the book of John's [the book by John]

c. a book of Fred's [a book owned by Fred]

d. the book of the month [the best book published this (or that) month]

e. the author of Penrhyndreudradd [the author who came from Penrhyndreudradd]

f. the author of Sir Nigel [the one who wrote Sir Nigel]

g. the original of the Scott Monument [Sir Walter himself]

h. the vicar of the local church [the one who is the vicar at the local church]

i. the smell of frying onions [the smell given off by frying onions]

j. Albert's killing of the cat [the cat was killed by Albert]

The striking thing about these phrases is the wide variety of unconnected and idiosyncratic glosses of them; the only grammatical

connection between them lies in the construction (70). Let us therefore scrutinise this construction more closely. First of all, notice that both NP in (70) are dominated by a unique Case node in surface structure; e.g. from a derived phrase marker

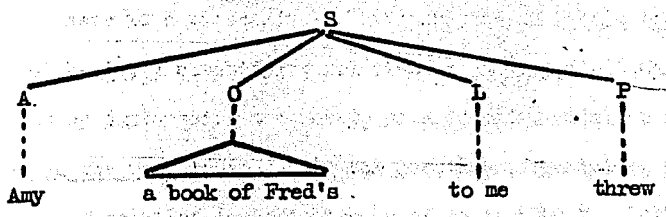


Figure 17

By subjectivalising different Case phrases we generate the alternative sentences: Amy threw me a book of Fred's; A book of Fred's was thrown me by Amy; I was thrown a book of Fred's by Amy. From the derived phrase marker

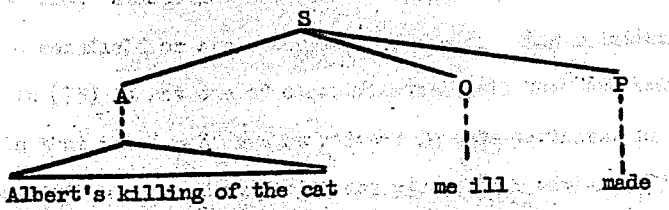


Figure 18

we can generate either Albert's killing of the cat made me ill; or I was made ill be Albert's killing of the cat. And there was never any doubt, as we can see from (69), that the two NP from (67) are

dominated by the one Locative Case node.

When two NP co-occur under one Case node they are related to each other in various quite distinctive ways. For instance there is the relationship of conjunction typically indicated by and; or there is a possessive relationship as in John's toenail indicated by 's, a classifying relation as in rice field which is indicated by juxtaposing two nouns, or a location relation as in the man on the roof indicated by the locative preposition, etc. What kind of relation is indicated by of as in (70) ? Looking through (71) it appears that the only answer one can give to this question is 'some kind of relation' with no further specification. Further investigation leads one back to the same answer: compare

72) a rice field

73) a field of rice

In (72) "rice" classifies the kind of field that "field" is, i.e. it is not a cornfield or any other kind of field. The relation between the NP in (73) is not one of classification, all that one can say of it is that the two NP are correlated in ways pertinent to one's presuppositions concerning fields and rice, hence compare (73) with

74) a. a cup of rice

b. a meal of rice

c. a dowry of rice

d. the feel of rice

etc.

We may generalise to the relation in (70) between $\underline{NP}_i$ and $\underline{NP}_j$ and state that *of* in (70) indicates a semantically unmarked relation that relies for its interpretation on the language user's knowledge of the language and his presuppositions about the referents of the two NP; in other words, the preposition *of* indicates that 'there is a relation holding between the two NP, but does not specify what kind of relation it is. If this is correct, then *of* may be introduced in superficial structures between two NP under one Case node when no specific relationship, e.g. conjunction, possession, classification, etc., is indicated. This would explain its presence in (67).

In this Section I have made some tentative proposals for the derivation of the construction *be in the process / etc. of Ving*. Whether these proposals have any substance remains to be seen. Consideration of them has led us away from the topic of aspect in English, but this diversion was necessary to satisfactorily conclude the discussion of progressive aspect in English.

FOOTNOTES

1) Hatcher (1951 n.11 p.256 f.) claims that in saying this Jespersen is implicitly characterising the progressive as 'durative aspect' although by doing so he contradicts his earlier statement quoted in (5) p.V - 5. I cannot agree with her interpretation of (6), and I see no contradiction between (5) and (6).

2) (18) through (20) are for illustrative purposes only and have no theoretical status.

3) The future reference in sentences like (25) is discussed below p.V - 20 f.

3a) Semantic features represent the perceptible properties of referents and denotata. Syntactic features represent the abstract properties of a linguistic element which affect its combination with other linguistic elements not on the basis of semantic compatibility or incompatibility. For example, the progressive aspect is used as a test for the presence of a feature [∝ active] on predicators in English. Those that have a feature [- active] typically do not combine with progressive aspect. On occasion, however, such predicators do co-occur with the progressive, and when this happens their active connotation is very clear, cf.

i) David is being a lion.

ii) Miriam is not knowing me this week.

Sentence (i) has the paraphrases David is acting like a lion, David is playing a lion; sentence (ii) has the paraphrases Miriam is pretending not to know me this week, Miriam is acting as if she doesn't know me this week. Notice, however, that predicators like sleep, sit and lie which are notionally stative and presumably have a semantic feature [- active] quite normally combine with the progressive aspect without its activising power affecting them in the way demonstrated of (i) and (ii) above. We can take account of this by retaining a semantic feature [- active] and assigning a syntactic feature [+ active] to predicators like sleep, sit and lie. Perhaps, and this suggestion is quite speculative, only idiosyncratic syntactic features need be assigned in this way, and others could be assigned by redundancy rules from semantic features; see McCawley (1968a, b) and Katz (1970).

4) /ng/ represents a velar nasal.

5) But since most past participles terminate in -d or -t such confusion must have been severely limited. See Reed (1950).

6) See Marchand (1955).

7) Though she called it 'durative aspect'.

8) Sentence (57b) is acceptable in only some, possibly substandard dialects of English. There are a number of sentences with locative complements like The house is on fire that refer to ongoing events, but for which there is no corresponding predicator in the progressive aspect.

9) In an unpublished paper on 'Progressive Aspect in English' John Anderson proposed something like this, but he has since revised his views.

10) So far only a Locative node directly dominated by P.

11) If this suggestion correctly predicts the source for "position" in (64b) it provides evidence that predicative adjectives are dominated by a Locative Case node, cf. p.I - 18 f.

12) The SOED gives the following definitions for process and progress which suggest they are alternative forms for the same configuration of semantic features:

> Process (sb). 1. The fact of going on or being carried on; progress, course. 5. Something that goes on or is carried on. 8. fig. Of action, time, etc.: progress, advance; development.

> Progress (sb). 1. The action of stepping or moving forward or onward. 3.a. Onward movement in space; course, way. b. fig. Going on; course or process (of action, events, narrative, time, etc.) 4.a. Forward movement in space; advance. b. fig. Advance, advancement; growth, development.

13) These predicates are not structurally similar to predicators, although they are functionally similar. I think it is wise to distinguish the two terms.

) Case pruning only takes place where the Case directly dominates the pruned S, hence in relative clauses there will be no Case pruning concomitant with the S pruning.

Aorist aspect

VI.i. The meaning, or lack of meaning, of the simple form

Not so much has been written on the simple form in English as about the progressive. Even Jespersen has little to say about the simple forms as such. In The Philosophy of Grammar he makes a cursory aspectual distinction between the simple and progressive,

> The distinction between durative or permanent and punctual or transitory [is aspectual]. We have seen above that this is one of the functions of the English distinction between unexpanded and expanded tenses.
>
> (Jespersen (1924 p.287))

In The Essentials of English Grammar (1933) and in A Modern English Grammar, Part IV (1931) he comments on the simple present but not on the simple past except to contrast the present perfect with it; he does not contrast the simple past with the progressive past. Other writers too tend to single out the simple present for attention, saying little about the simple past, cf. Berkoff (1963), Calver (1946), Palmer (1965). The reason for this state of affairs seems to be a result of the fact that the simple present happens to express 'general truths', 'habitual actions', 'definitions', etc.:

> It [the simple present] is often used to indicate habit or to refer to something that has general application.
>
> (Berkoff (1963 p.78)

It is very common to use the simple form to express a general truth, as in 'Twice two is four'.

(Curme (1931 p.374))

This Non-continuous Tense is used mainly for repeated actions, that is to say, actions that happen every day, every week, every now and then, from time to time, and so on.

The Tense is also used to express facts that are always true, and facts that are true at the moment of speaking; ... to express customs, habits, and ability.

(Millington-Ward (1954 p.7 f.))

But none of the connotations of the simple present referred to in these quotations is restricted to the simple present uniquely and denied the simple past, provided, of course, there is no concomitant conflict of tense. Compare the following pairs of sentences:

1) (Habitual events)

a. Harold buys The Times every morning.

b. Harold bought The Times every morning.[1]

2) (General truths)

a. The Earth is round.

b. The Earth was flat in Chaucer's day.[2]

3) (Existential)

a. There are dodos in the Natural History Museum.

b. There were dodos in Mauritius until 1869.

4) (Definitions)

a. A baker bakes bread, cakes and pies, etc.

b. A pardoner sold pardons on behalf of the Pope.

5) (Instructions, stage directions, recipes, protocol)

a. You release the shutter and the flash works automatically.

b. You lit the magnesium and released the shutter as quickly as possible.

6) (Summaries of plots)

a. Brutus is essentially an honest man.

b. Brutus was essentially an honest-man.

7) (Newspaper headlines)

a. Rod Lever wins the first open Wimbledon.

b. Woman saw boy kill his sister.

I think we may conclude from (1) through (7) that tense is not relevant to a study of the simple form, which has a meaning (or lack of meaning) independent of what tense happens to co-occur with it.

It might be proposed as counter-evidence to this claim that what Austin (1959) calls 'performative' verbs and Joos (1964) 'asseverative' verbs only occur in the first person singular of the simple present tense. However, Boyd & Thorne (1969) and Ross (forthcoming) have independently pointed out that performative verbs constitute a special grammatical phenomenon that cannot be considered relevant to the present discussion.

Palmer makes an interesting comment on the emphasis given to the 'habitual' connotation of the simple present, and his remarks include a significant description of the simple form.

> There are two reasons why the simple present is rarely used in its non-habitual sense. First a non-progressive form merely reports an activity, but it is rarely that we need to report a present activity, for the simple, but non-linguistic reason that if the speaker can observe it (at the present time) so too in most circumstances can the hearer. Past activity on the contrary is often reported by a speaker who observed it (or heard about it) to a hearer who did not. With the past tense therefore, unlike the present, non-habitual activity is commonly referred to as well as habitual activity.
>
> (Palmer (1965 p.82))

It is true that Palmer makes no explicit reference to the fact that stative verbs normally occur only in the simple form, and it is quite difficult to see how he will account for the present progressive in view of the second sentence in the quotation; nevertheless, there is some value in his observation. Notice his description of the simple form as one which "merely reports an activity[3]", and compare it with

> the simple forms describe either (1) statements of fact (events, or the results of actions), or (2) what is habitual or of general validity.
>
> (Bodelsen (1936 - 37 p.221))

Bodelsen's first point only makes sense if we contrast it with his description of progressive aspect as referring to "the actions themselves" (loc. cit. supra): the simple form refers to the fact that something happens, or in Bolinger's (1947 p.436) words "the fact of process". We might continue by considering the following:

> It is very common to use the simple form to express a fact or an act as a whole, either in present or past time.
>
> (Curme (1931 p.374))

Whereas the progressive refers to incomplete events, the simple refers to events as a whole; that is, the simple form does not represent any particular ASPECT (in the non-technical sense of the word, cf. p.II - 3) of the development of an event. Cf.

> THE SIMPLE FORM HAS NO BASIC MEANING. This form is today, as it always has been from the earliest period of our language known to us, indifferent to aspect.
>
> (Hatcher (1951 p.259))

And Twaddell, who deals with the simple present and simple past separately, writes of the former

> This unmodified construction conveys the semantic content of the lexical verb alone, with no grammatical meaning beyond that of 'VERB'.
>
> (Twaddell (1963 p.6))

And of the simple past that it differs from the simple present in that it

> has either a limitation to the chronological past, or a focus upon non-reality, or is automatic in 'sequence-of-tenses'.
>
> (Twaddell (1963 p.7))

Hence we may interpret Twaddell's view of the simple form to be that it conveys the semantic content of the predicator alone without reference to the development of the event.

Twaddell makes some further remarks concerning the simple present which are equally pertinent to the simple past:

> it is putting the cart before the horse to direct a learner "Use the /simple/present/non-past/form of the verb to indicate repeated or habitual action with 'every day' and similar expressions." The meaning of repeated or habitual action is indicated by "every day" etc. or by the inherent semantics of the unmodified lexical verb; the grammar of zero modification [sc. the (present) simple form] is compatible with, not the signal for, that meaning.
>
> (Twaddell (1963 p.6))

The truth of Twaddell's observation is borne out by the fact that the following sentences containing predicators in the progressive aspect refer to "repeated or habitual action" because of the adverbs that appear in them:

8) a. Hamish is always getting drunk.

b. People are being killed on the roads every day.

It would, however, be absurd to pretend that the simple form does not of itself, in the present tense, tend to suggest what can justifiably be described as an habitual interpetation; but I belive that this characteristic is quite easily explained. The explanation is hinted at in the final clause of the last quotation from Twaddell,

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where he says in effect that the simple form is compatible with an habitual interpretation, but not the signal for it. Now consider thi

> The simple form is essentially neutral in its aspectual implications and therefore may have, or may seem to have, different emphases according to the particular type of predication in which it appears.
>
> (Hatcher (1951 p.259))

We have already remarked that the simple form makes no reference to any ASPECT of the development of the event referred to by the predicator it is combined with; it is therefore less constraining than, for instance, the progressive aspect. What I mean by this is demonstrated by a comparison of the following sentences

9) The sun rises in the east.

10) The sun is rising in the east.

The truth value of (10), in which the predicator is in the progressive aspect, is limited to the event being incomplete at the moment of utterance (i.e. at the point of orientation). The truth value of (9) is not limited to any stage in the development of the event of rising, but depends on the event per se being true at the moment of utterance (i.e. at the point of orientation). As a consequence of these facts, (9) is true whenever (10) is true, but the converse does not hold. It is this relationship which underlies the final comment in the second paragraph of the following quotation (about the simple past):

The fundamental, and logical, use of this non-continuous form is for past actions that were obviously not continuous

e.g. He woke up at five minutes past seven.

However, it is also used for a great many other past actions which were in fact continuous -- in the sense that they were not instantaneous -- but nevertheless do not need this fact emphasising.

e.g. He had breakfast rather late today.
She wrote a long letter last night.

(Millington-Ward (1954 p.33))

The simple form is realised negatively, by the absence of phonological form; and in this it is unmarked by comparison with both the progressive and the perfect. It is therefore perhaps predictable that the simple form has no semantic value (see p.VI - 5): a predicator combined with the simple form refers to an event per se, and there is no constraint to any one ASPECT of the development of that event. Recall that the simple form is in opposition to the progressive (see p.V - 14 ff.), which we have seen to have semantic value (cf. V.vii.); thus semantically, as well as phonologically, the simple form is the unmarked member of this opposition (cp. p.V - 3). We have seen in the discussion of the differences between (9) and (10) (cf. p.VI - 7) that a combination of the predicator with the progressive places certain aspectual constraints on the interpretation of the boundaries of the event to which it refers, but the combination of a predicator with the simple form gives an interpretation of the event that is entirely free from such constraints. It is this freedom which is so evidently suitable in the expression of notions such as 'habitual', etc. (see (1) through (7)) that are not restricted to stages in the development of events.

VI.ii. Aorist aspect

The simple form refers[4] to the event per se and not to any particular ASPECT of the development of the event. This identifies it with H_{α} in the Hypothetical Aspect System (cf. p.II - 11), and I shall henceforth refer to what has heretofore been called the 'simple form' as 'aorist aspect'. The use of the term 'aorist' to describe an aspectual subcategory in English deserves some explanation. The word 'aorist' comes from the Greek ἀόριστος which is recorded in Liddell and Scott's Greek-English Lexicon as meaning "without boundaries: indefinite, indeterminate". This definition would serve quite well for aorist aspect in English. At first sight, such a description might seem inappropriate to the event referred to in, say, I know who you are which is neither indefinite nor indeterminate. However, the description "indefinite" or "indeterminate" does not refer to the event, but to the ASPECT of the event: the aorist aspect is indefinite or indeterminate with respect to stages in the development of the event referred to by the predicator with which it is combined. It is revealing that a grammarian so distinguished as Henry Sweet should describe the simple form as "indefinite" even though he gave no satisfactory account of aspect in English.

Meillet (1934 p.198) describes aorist aspect as referring to "un procès pur et simple", and notes the empirical fact that "L'aoriste est souvent une formation radicale sans suffixe". These observations are clearly substantiated by the aorist aspect in English. The second of them lends support to Kiparsky's (1968 circa p.40) hypothesis that the aorist was the source for the 'historical tenses'

in Attic Greek (and more generally in Indo-European languages[5]) which derived historically from the earlier unmarked injunctive forms of the predicator in Sanskrit and Homeric Greek. Traditionally, the aorist has been associated with the past tense: the Shorter Oxford English Dictionary defines it as "One of the past tenses of the Greek verb". But even in Attic Greek the aorist was only restricted to the past tense in the indicative mood, and in modern Greek it is apparently not restricted to the past even there (cf. Efstathiades (1967 p.38)). In French the passé historique is sometimes called the aoriste[6]; but the definition I have put upon the aorist aspect would include the French present tense within its scope of reference, consider

11) a. Je vous donne votre liberté.

b. Louise a un Peugeot.

c. Paul mange une pomme et pour ca je ne t'entends pas.

d. Le soleil se lève dans l'est.

Aorist aspect is generally quite independent of tense systems; certainly it is in English, which is all that matters for our purpose.

In nearly all discussions of the aorist aspect there is reference made to its use in the narration of a string of events. Various explanations of its narrative function have been offered, mostly on the lines that the aorist does not linger over an event but simply notes that it occurs and then passes on to the next event. It is this characteristic which has led to descriptions of the simple form in English like 'punctual' or 'momentaneous', etc.. In such usage "abstraction is made from what is inessential, from the

circumstances under which the action took place and from interruptions that may have occurred" (Jespersen (1924 p.276)); further down the same page Jespersen remarks "This will make us understand that there is often a distinctive emotional colouring in the imperfect which is wanting in the aorist", a point noted by many and to which a whole book has been devoted by Laan (1922). In English, the narrative function of the aorist has typically been relegated to the past tense by grammarians preoccupied with the 'habitual' etc. connotations of the present; Scheurweghs (1959 pp.320, 323) and Curme were unusual in regarding the narrative function of the aorist as independent of tense:

> The simple past and present tenses are the usual tenses of narrative and description.
>
> (Curme (1931 p.375))

The following are more commonly found:

> [The past aorist] is frequently used to trace the steps of an action in a story.
>
> (Berkoff (1963 p.79))

> The preterite is used in three functions:
>
> a. as a narrative past tense.
> b. as a preterite of concord.
> c. as a modal preterite.
>
> (Kruisinga & Erades (1953 §182))

> The uses of the past non-continuous form are ... to show that a series of actions happened, or began to happen, one after another, in the past
>
> (Millington-Ward (1954 p.34))

If the situation or context is clear each one of a succession of activities may be indicated by the use of the Simple Past Tense.

II. He woke at seven, got out of bed, washed, shaved, dressed, went downstairs, had breakfast, put his overcoat on, hurried to the bus stop, and caught a bus to the station.

(Hornby (1954 p.92))

It does not seem to have been noticed that such narration of successive events as exemplified by Hornby is typically what promotes the use of the aorist in sports commentaries where the centre of interest is subject to rapid changes of situation: for example in football, where the location of the ball is the centre of interest and typically changes very rapidly, commentary on a succession of such changes is usually delivered using the aorist rather than the progressive aspect. By the time one event is reported the next is already happening; in order to keep up the commentator refers to each event as a whole rather than reporting incomplete events, though clearly this matter will be at least partly dependent on the tempo of the game. Compare the following, which we will suppose come from a commentary on a football game:

12) Jones kicks the ball to Smith who heads it to McTavish and he loses it to Fournier.

13) Jones kicks the ball to Smith who is heading it to McTavish and he loses it to Fournier.

14) * Jones is kicking the ball to Smith who is heading it to McTavish and he is losing it to Fournier.

In (13) the progressive will be uttered while the activity is actually in progress and the event will be understood to be completed from evidence in the following clause; the progressive here is permissible as a stylistic variant. The asterisk on (14) is to indicate that it is unacceptable in the given context; I suggest that (14) would be unacceptable in a sports commentary synchronous with the events referred to because in using the progressive aspect it does not state transparently that Smith actually got the ball from Jones, that McTavish actually got it from Smith, and so on; this information could only be deduced from (14) after considerable effort on the part of the listener. The contrast between the use of the progressive aspect and the use of aorist aspect in a sports commentary is nicely manifest in the following which we may suppose is on steeplechasing:

15) Firebird jumps Beecher's, Avalon jumps followed by Janus II; now Avalon is coming up to Firebird, Avalon is pulling away ...

The change from reference to events as a whole using the aorist aspect, to reference to incomplete events using progressive aspect is clear to any fluent speaker of English.

The aorist aspect is used in sports commentaries and other kinds of narrative as a direct result of the fact that it refers[7] to no ASPECT of the development of the event but to the event per se, "as a whole" in Curme's words. It is just this neutrality towards ASPECTS of the development of an event which makes the aorist suitable to express such diverse notions as 'habitualness' and 'momentaneousness' depending on the situation and context in which it is employed.

VI.iii. The derivation, or lack of derivation, for aorist aspect

It has already been remarked (p.VI - 8) that the aorist aspect is semantically and phonologically unmarked; indeed, it was stated as early as p.II - 11 that H_{α}, the Hypothetical Aspect with which English aorist correlates, is a null aspect. It follows that the aorist aspect does not appear under any guise in underlying structure, and that it is understood negatively from the absence of the progressive in both underlying and surface structure.

FOOTNOTES

1) Of course it has not been overlooked that the simple past may be used in referring to 'habitualness', cp. Millington-Ward (1954 §49d).

2) One might object that (2b) is not really a 'General Truth' because it is untrue and was a mistaken belief. Such an objection seems to me irrelevant to the grammatical facts although it is of philosophical interest.

3) The term "activity" is, of course, quite inadequate and we should replace it with the term "event" as defined in Chapter II.

4) This is, admittedly, a peculiar locution for two reasons: (i) the simple form is in fact a null form; and (ii) it is the predicator that combines with the simple form that refers to the event. Begging the reader's indulgence for the imprecision of this statement I nevertheless feel sure that it is readily comprehensible.

5) Kiparsky's hypothesis is partially supported by evidence from modern Serbo-Croat where the aorist has the same sense as the historical present, cf. T. Maretić Gramatika hrvatskoga jezika p.599.

6) The reason for the passé historique in French being called aorist is apparently that it contrasts with the imperfect, which is realised by inflexion only in the past; in the present either a

periphrastic form is used or else a form corresponding to the aorist.

7) See Footnote 4.

Perfective aspect

The construction have + Vn (where Vn symbolises 'past' or 'perfect participle') has traditionally been called 'perfect'. It is my purpose in this Chapter to discuss the function and meaning of this construction, and in particular to establish whether or not it represents the perfective aspect in English.

VII.i. The origins of perfect have

It has been suggested by Benveniste (1949, 1952, 1960), Ginneken (1939), Lyons (1968a §8.4., 1968b), and Vendryès (1937), that the auxiliary have, or rather its translation equivalent, originally had the same function as possessive have. The historical process which gave rise to the latter is described by Bally as follows:

> Le changement général a consisté à renverser certains types de phrases comportant un datif de participation, de manière que la personne intéressée devînt sujet de la phrase. Comme dans cet emploi il ne faisait concurrence à aucun type préexistant, les substantifs ont été admis à figurer à cette place; c'est ainsi que le tour latin "Mihi sunt capilli negri" se traduit en français par "J'ai les cheveux noirs"; l'idée de participation, grâce à l'emploi de l'article défini, est restée distincte de la simple appartenance.
>
> (Bally (1926 p.75))

In later Classical Latin there was a choice available between the synonymous sentences such as (1a) and (1b) containing non-auxiliary esse and habere respectively

1) a. Mihi sunt capilli negri.

b. Habeo capillos negros.

(1a) was the older of the pair. An exactly similar situation obtained with respect to the auxiliaries esse and habere, so that for some time there was synonymy between (2a) and (2b), although in late Classical Latin the latter was most frequently used.

2) a. Mihi illud factum est.

b. Habeo illud factum.

Cf. Ginneken (1939 p.87). Originally, therefore, the ancestor of perfect have is like the ancestor of possessive have in that it "présente l'auteur comme le possesseur de l'accomplissement" (Benveniste (1960 p.127)).

In present day English, the combination of the perfect with what Fillmore (1968b p.387) has called "change-of-state" predicators, results in a construction that appears to maintain this original function of perfect have, i.e. that of presenting the person interested in the state of affairs as the theme (cf. Halliday (1967) of the sentence, cf. Lyons (1967 p.392, 1968a §8.4.6., 1968b p.498 f.). There is a superficial similarity between the two sentences

3) John has broken the window.

4) John has the wrong book.

This similarity appears to be reflected in a structural analysis like the following:

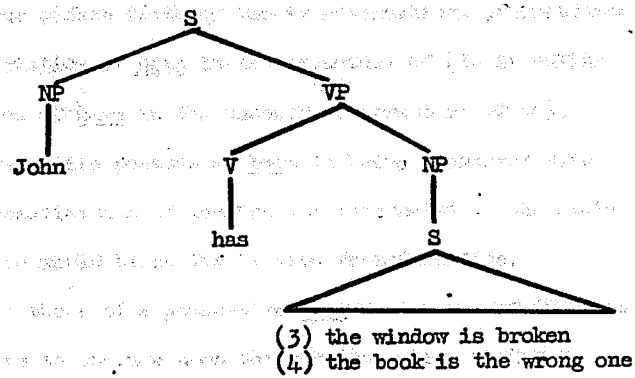


Figure 1

But this analysis cannot be correct: it suggests that "has" is identical in both (3) and (4). In fact, as we can discover by submitting these two sentences to a small set of transformations, the "has" of (3) is of a quite different kind from the "has" of (4). For instance if the Interrogative Transformation operates on these sentences it derives, respectively,

5) Has John broken the window?

6) Does John have the wrong book?

If the Negative Transformation operates on the structure underlying (3) and (4), it derives

7) John hasn't broken the window.

8) John doesn't have the wrong book.

respectively. The effect of these two transformations demonstrates that the characteristics of *have* in the structure of (3) is unlike the characteristics of *have* in the underlying structure of (4). If perfect *have* were like possessive *have* in being connected with the concurrent thematisation of the "person interested in the state of affairs", it too would block the Passive Transformation. Suppose NP_i is the theme of a possessive *have* sentence; if the Passive Transformation were to operate upon this sentence (or, strictly, upon its underlying phrase marker) some other NP, NP_j would be thematised, thus contravening the principle that the thematic NP_i "the person interested in the state of affairs" is closely connected with the co-occurrence of possessive *have*. For this reason possessive *have* blocks the Passive Transformation. But perfect *have* does not, cf.

9) The window has been broken by John.

10) *

(Where (9) and (10) relate to (3) and (4) respectively.) The fact that the Passive Transformation may operate on a sentence containing perfect *have* (as in (3)) demonstrates beyond all doubt that perfect *have* has quite different characteristics from possessive *have*, as in (4), and must be derived differently from it.

VII.ii. Perfect *have* in early English

Whatever the origins of perfect *have* may have been in Indo-European languages, there is evidence that perfect *have* was always distinct from possessive *have* in English. Lussky (1922) shows that in Old Saxon, and apparently in Old English as well, the uninflected participle (Vn) of transitive and durative intransitive verbs combined with *hebbian* in Old Saxon and *habban* in Old English to form what he calls "perfect and pluperfect tenses"; the same uninflected participles combined with *uuerdan* or *uuesan* in Old Saxon and *weorðan* or *wesan* in Old English to form "present and past tenses". Part of Lussky's argument depends on the fact that a distinction was made in Old Saxon and Old English that corresponds exactly to the difference in present day English between

11) Nick has washed the car.

12) Nick has the car washed.

The participle in (11) would have been uninflected, that in (12) would have been inflected. Only in (11) do we have an instance of perfect *have*; in (12) the causative *have* displays similar characteristics to possessive *have*, as is clearly seen if (11) and (12) are both subject to Interrogative, Negative and Passive Transformations.[1] It is extremely curious, and quite inexplicable, that according to Visser F. (1952 p.697) the distinction between structures like (11) and (12) was lost in the Middle English and early Modern English periods.

Lussky (1922 p.50 f.) suggests some ways in which the scope for combination of the perfect may have been expanded to include non-durative intransitive verbs, and it seems reasonable to conjecture that the use of the perfect with passive verbal groups would be initiated contemporaneously; there are no examples of the perfect with a passive verbal group in either Beowulf or The Heliand and the earliest example I know of is from Layamon in 1205 þu hafuest ibeon ouercummen (quoted by Visser F. (1956 p.873)), but there may well be earlier attested examples. It should be remarked that the ancestor of present day Vn, even in the construction be + Vn, was not necessarily stative, cf. Klingebiel (1937); and if we are to believe Zieglschmid (1929) there are instances of both stative and nonstative participles in many Indo-European languages: he mentions Armenian, Old English, Old Friescian, Gothic, Old Icelandic, Popular Latin, Lithuanian and Old Saxon. Hence, there is no prima facie evidence of conflict between the perfect and the passive in early English.

VII.iii. Some descriptions of the perfect in present day English

From the earliest times perfect *have* in English has been different from other kinds of *have*. Traditionally the construction *have* + Vn has been described as a perfect tense, past or present according to the inflexion on *have*. Here is a description of the present perfect from the linguist F. R. Palmer:

> 'Why is the activity placed in the period of time indicated by the present perfect rather than the period indicated by the simple past, since it occurred within them both?' It is here that we must refer to current relevance. A period of time that includes the present is chosen precisely because there are features of the present that directly link it with past activity. The temporal situation being envisaged by the speaker is one that includes the present; the present perfect is therefore used.
>
> (Palmer (1965 p.74))

Palmer makes the typical vague statement about 'the present relevance of past activity' that one so often finds in descriptions of the perfect, and which are so unhelpful to, say, the foreign learner of English. Although Palmer puts the question, he fails to answer it adequately (even in the text following this quotation). A far better description of the present perfect is to be found in Hornby's *A Guide to Patterns and Usage in English*; here is part of it:

> If we wish to refer to completed activities that took place within the period of time that extends to and includes

the present moment, without giving a definite point or period of time for any of these activities, we may use the Present Perfect Tense. The starting point of the period need not be indicated. E.g.

He has often been to Amsterdam.

Here the period is implied. It is the lifetime of the person of whom the statement is made. The period may, of course, be indicated, e.g. by the use of such phrases as since the end of the war, or during the last ten years [which "indicate periods of time that began in the past and extend to the present"].

(Hornby (1954 §45a))

Hornby makes a number of points here which will be picked up during the course of this Chapter. In the order he makes them, they are (i) the perfect refers to complete events; (ii) the event referred to by a predicator in the perfect occurs at some indefinite time before the point of orientation; (iii) temporal locative phrases co-occurring with the present perfect (but not the past or future perfect, cf. Hornby (1954 §46a, 48a)), always consist of elements which link the occasion of the event with the moment of utterance. Two further points about the perfect come up in the following:

> [The present perfect] is present, but a permansive present: it represents the present state as the outcome of past events and may therefore be called a retrospective variety of the present.
>
> (Jespersen (1924 p.269))

In the next Section we shall discuss the suggestion that the perfect indicates a state, in existence at the point of orientation, that is the outcome of earlier events. In the subsequent Section we shall discuss the connection between the perfect and retrospectiveness.

VII.iv. The perfect and stativeness

Jespersen says that the present perfect "represents the present state as the outcome of past events"; this statement is at best misleading and at worst incorrect. Consider the sentences

13) a. Nick has eaten a crabapple.

b. Nick has been eating a crabapple.

These sentences do not refer to Nick's present state, which may well be one of extreme discomfort, they refer to the event of Nick's eating a crabapple. Now compare the two sentences

14) Erasmus has grown a beard.

15) Erasmus is bearded.

It is (15) which does not contain the perfect but which refers to Erasmus's present state; (14) contains the perfect and does not refer to the present state of Erasmus but to something he has done. These facts I have noted with respect to (14) and (15) have been prevalent in the English language since the earliest times, they were recognised in Old English by Lussky (1922) and in early Modern English by Visser

> It appears that [St. Thomas] More uses the group <u>hath been (prepared)</u> instead of <u>is (prepared)</u> when the action in the past itself rather than the resulting state is the primary idea.
>
> (Visser F. (1952 p.666))

Consider the sentence

16) The front door is white.

Quite conceivably the state of the door referred to in (16) is the outcome of some active event that may be expressed as either The front door was painted white, or The front door has been painted white (cp. (14) and (15)). Compare (16) with

17) The front door has been black.

and let us suppose that the two occurrences of "the front door" in (16) and (17) are co-referential. (17) does not refer to the present state of the front door as (16) does, but to a state that no longer exists: this is no new function for the perfect in stative sentences, a similar function was remarked by Fridén (1948 p.116 point 3) in late Middle and early Modern English.

We have considered counter-evidence to the claim that the present perfect "represents the present state as the outcome of past events", and found that this description does not transparently describe the true meaning of the present perfect in English. By analogy, we may extend the argument to counter a more general claim that the perfect indicates a state existing at the point of orientation which results from earlier events. In the course of discussion we have seen that the perfect in fact refers back to past events; we shall therefore go on to consider whether it may rightly be described as 'retrospective'.

VII.v. The perfect and retrospectiveness

Jespersen has described the perfect as 'retrospective' (1924 p.269, 1931 pp.2, 361), and similar descriptions of it have been made by Bull (1960) and Reichenbach (1947 p.290 ff.). The retrospectiveness of the perfect can be represented diagrammatically as follows:

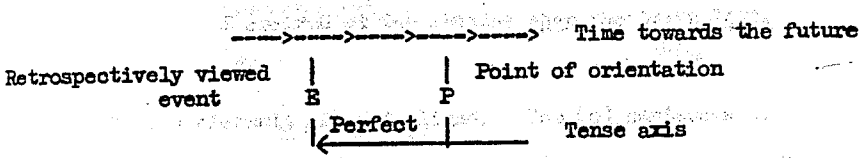


Figure 2

The tense axis, represented by a line oriented to P, is common to both P and E, and the perfect indicates a looking back along the axis (as it were) from P to E. The present perfect indicates retrospection along the present axis, and is therefore compatible with present axis specifiers (in the sense of Crystal (1966)) like now, at present, currently, etc. but it is incompatible with past axis specifiers like last week, the day before yesterday, and so on. It is clear from Figure 2 that the event viewed retrospectively, E, actually occurs before the point of orientation, P, in temporal order; conversely, P occurs after E in temporal order. This temporal order may be spelled out either by the ordering connectives before and after, or by the perfect, or by both, cf.:

18) a. The train had left before I arrived at the station.

b. I arrived at the station after the train had left.

19) a. The train left before I arrived at the station.

b. I arrived at the station after the train left.

20) a. The train had left when I arrived at the station.

b. I arrived at the station when the train had left.

21) a. The train left when I arrived at the station.

b. I arrived at the station when the train left.

The interesting elements are underlined. The (a) sentences of (18) through (21) are synonymous with the (b) sentences, and differ only in thematisation of the clause. All the sentences (18) through (20) are synonymous, and in all these sentences the event referred to by the clause "The train [LEAVE]" is represented to precede (temporally) the event referred to in "I arrived at the station" which occurs concurrently with a (past) point of orientation that serves as point of orientation for the sentence. The ordering is indicated in one of three ways: (i) by one of the ordering connectives before and after, as in (19); (ii) by the perfect, as in (20); (iii) by both together as in (18). In (21) where neither of the ordering devices (i) and (ii) is present, the events referred to are understood to be concurrent[2].

The relationship between the perfect in English and the ordering connectives before and after is reflected by the translation of the English perfect into certain other languages, where it is partially rendered by a term equivalent to one of these connectives,

cf. Bull (1960 p.26). For instance, in Celtic languages the translation of *have + Vn* is by a construction that may be rendered in English *be after + verbal noun*, in which the tense axis of *be* is identical with that of *have* in English; cf.

22) a. V'ad er n'gholl gys Albin.
[Manx: They {were after going / had gone} to Scotland.]

b. Mae John wedi cicio Bill.
[Welsh: John {is after kicking / has kicked} Bill.]

c. Mae Bill wedi cael ei cicio gan John.
[Bill {is after getting his kicking / has been kicked} by John.]

In some other languages, for instance Hebrew, a term equivalent to *already* instead of *after* is used in a similar construction to the Celtic; but reference to the fact that E occurs before P in temporal order (cf. Figure 2) is maintained. This is inevitable since the fact 'E occurs before P in temporal order' presents the denotatum (if that is the right term) to which linguistic expressions in different languages refer in various, and sometimes differing, ways.[3] Remark the fact that *have + Vn* does not necessarily refer to a state existing at P whereas the Celtic expressions do (thus in rendering them in English we use the copula *be*, but we cannot use *be* in the perfect). The English expression *have + Vn* indicates a looking back from P to E, and it is therefore fairly described as retrospective.

VII.vi. Is the perfect a tense?

The perfect indicates retrospectiveness but this is not sufficient to establish it within the tense system of English. To determine whether or not it is a tense, we might begin by comparing it with the non-perfect tenses and go on to consider various analyses of it as some kind of tense. We can establish pretty clearly when the present non-perfect or the past non-perfect[4] are to be used, but it is far from easy to determine when the perfect rather than a past non-perfect is to be preferred if we are guided by the advice given in most pedagogical grammars of English: a typical description of the use of the perfect is "The Perfect refers to an activity or situation [E] that has, or may have a bearing on a later situation [P]" (Berkoff (1963 p.87)), or consider Hornby's advice quoted on p.VII - 7 f. in respect of the present perfect which refers to events "that took place within the period of time that extends to and includes the present moment". As Sørensen writes of such accounts of the use of the present perfect

> Any past event, significant or negligible, is connected, or may at least be plausibly maintained to be connected, with the present, in one way or another, directly or indirectly, through its results or consequences, since whatever <u>is</u> is the result of past events, and since whatever <u>was</u> cannot have vanished into thin air, leaving no trace whatsoever.
>
> (Sørensen (1964 p.79))

Sørensen puts his finger on a problem that most grammars of English

leave quite untouched. Palmer, quoted on p.VII - 7, says that use of the present perfect instead of the past non-perfect depends on the "current relevance" of the event expressed by the predicator in the present perfect; but he does not suggest how 'current relevance' is to be identified, and no clue is given by Hornby or Berkoff quoted above, nor by any grammarian I know of. What intuitions concerning 'current relevance' does the native speaker bring to bear that lead him to distinguish (23) from (24) ?

23) My daughter, who was four, was killed last night.

24) My daughter, who was four, has been killed. It happened last night.

Sørensen perceives that all notions like 'current relevance' obfuscate any account of the usage of the perfect instead of a non-perfect past. He offers another criterion for distinguishing between the use of the present perfect and the past non-perfect:

> if we do not want to say, implicitly or explicitly, <u>when</u> an action took place, the English language simply <u>forces</u> us to use a perfect. For 'I committed a murder' is short for 'I committed a murder at that time (in 1920, two (a few) hours ago, ...), whereas the point of the action, in the case of 'has committed', is unspecified, and unspecifiable since the perfect is incombinable with an indication of past time: we cannot say 'I have committed a murder at that time (in 1920, two (a few) hours ago, ...). The perfect, therefore, is an unspecified preterite, and the preterite a specified or specifiable perfect.
>
> (Sørensen (1964 p.81))

In this paragraph Sørensen expounds in some detail the second point I educed from Hornby's description of the present perfect on p.VII - 8 above. If the perfect really is a tense, then the only way it differs from the non-perfect tenses is in being "unspecified" and "unspecifiable", as Sørensen points out. Unfortunately, however, this distinction only operates on the present tense axis, the past perfect is 'specifiable', cf.

25) a. Liza had arrived on Sunday instead of Monday as I expected.

b. Bubbles had been shot at five o'clock but it was twelve hours before the police found out.

c. I had committed a murder two hours before seeing Max.

d. Rosemary had been in Paris in 1932 but found it quite different in 1947.

The future perfect is also 'specifiable':

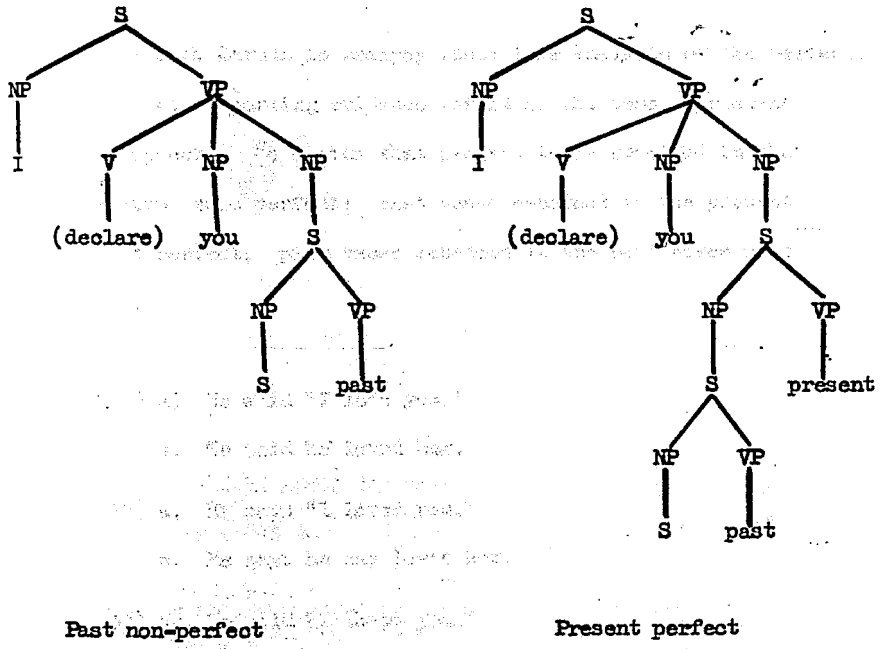
26) a. He will have eaten at noon so will probably be hungry at five.

b. When Beazer has returned at lunchtime we shall all go to the cinema.

It is therefore not the case that the perfect, other than on the present tense axis, is an 'unspecifiable' past.[5]

It has been suggested that the perfect is an embedded past tense, and this analysis will account for the duality of temporal reference (to P and E in Figure 2) that has always been recognised

in the have + Vn construction. Darden (1968) discusses an unpublished statement of this hypothesis by James D. McCawley, based partly on the arguments of Hoimann (1966); he also criticises the inadequacies of Bach's (1967) account of the perfect, though it too has the perfect derive from an embedded past (cf. p.474). Darden attributes to McCawley the following contrasting representations of the underlying phrase markers for the past non-perfect and the present perfect:



Past non-perfect

Present perfect

Figure 3 (Cf. Darden (1968 p.20))

McCawley's argument derives from a consideration of sentences like

27) a. Jake must have died in 1917.

b. William is believed to have left for Hastings yesterday.

c. Jane, having made love last night, feels on top of the world this morning.

In these sentences the perfect co-occurs with past tense axis specifiers, and McCawley takes this as evidence that have + Vn is the realisation of the past in an embedded clause. Unfortunately, I can find no explanation of the restriction on the appearance of the past axis specifiers to the environment of modals, infinitives, and gerunds.

Although Darden is unhappy about this analysis of the perfect, he suggests that supporting evidence for it is the tense agreement in indirect speech. He claims that present tense embedded in the past tense gives zero perfect; past tense embedded in the present gives present perfect; past tense embedded in the past gives past perfect, viz.

28) a. He said "I love you."
b. He said he loved her.

29) a. He says "I loved you."
b. He says he has loved her.

30) a. He said "I loved you."
b. He said he had loved her.

But (28b) could just as well read He said he loves her, (29b) He says he loved her, and (30b) He said he loved her: thus the proposed analysis of the perfect is not supported, even though it is not undermined, by facts concerning indirect speech.

For three reasons one would be quite happy if the perfect could be shown to derive from an embedded past: (i) the event viewed retrospectively (E in Figure 2) has in fact occurred in the past; (ii) Vn, which forms part of the perfect construction, is often isomorphic with the past non-perfect form of the predicator; (iii) I have observed that at least some children under three years old use the past non-perfect forms where an adult would use the perfect, and use Vn for the past non-perfect tense; in substandard dialects of English there is often a similar interchange of form and function between Vn and the past non-perfect. It may therefore turn out that the perfect does derive from an embedded past tense, roughly in the manner suggested in Figure 3; certainly this hypothesis is the only one tenable if the perfect is to be described as a tense. However, the powerfulness of this hypothesis is largely restricted to the fact that it explains the appearance of the perfect instead of the past non-perfect tense in the sentences of (27); therefore, if an explanation of these phenomena can be made by some more generally satisfactory hypothesis about the perfect, the proposal that the perfect derives from an embedded past tense will have to be abandonned. I think we can show that there is a more powerful hypothesis concerning the perfect in English, and we shall do so in the following Sections.

VII.vii. Perfective aspect

It cannot be clearly shown that the perfect is part of the English tense system; let us suppose instead that the construction have + Vn is aspectual. There are a number of reasons for thinking this may be a correct description of the construction. One is the traditional terminological parallel between 'present, past, or future simple', 'present, past, or future progressive' and 'present, past, or future perfect'; we have already seen that the terms 'simple' and 'progressive' refer to aspects, and it is thereby predictable that 'perfect' should do so too. A second reason for supposing the perfect to be aspectual is the superficial structural parallel between the progressive aspect construction be + Ving and the perfect construction have + Vn: in both constructions an 'auxiliary' that may carry inflexions of tense or person is combined with a distinct suffix attached another part of the predicator. A third reason for supposing that the perfect is an aspectual construction arises from the fact that it modifies the infinitive form of the predicator just like the other two English aspects, cf. to eat, to be eaten; to be eating, to be being eaten; to have eaten, to have been eaten. Finally, the term 'perfect' is reminiscent of aspect in Slavic languages, and the English perfect is not altogether incompatible with the notions associated with perfective aspect in Slavic languages, even though it is different in many respects. There is therefore a good prima facie case for a hypothesis that have + Vn is an aspectual construction.

It has often been noted, for instance by Hornby p.VII - 7, VII - 8 above, that the perfect refers to complete events. In the

Hypothetical Aspect System described in Chapter II, aspect H_4 was postulated to refer to a complete event; since <u>have + Vn</u> is a non-lexical construction that may combine with any propositional predicator it could quite well be the realisation in English of H_4 (cf. p.II - 11). Many, perhaps the majority of, instances of the perfect in English indicate complete events, e.g.

31) a. Nick has eaten a crabapple.
b. Have you eaten your breakfast yet?
c. Erasmus has grown a beard.
d. The front door has been black.
e. Andrew has become tetchy.
f. The tomatoes have ripened quickly.

But there are also instances of the perfect which do not immediately suggest such an interpretation, e.g.

32) Our family has lived here for centuries.

We would understand from (32) that the family is still in residence, as it has been for centuries. I suggest that the correct analysis of such sentences is as follows. Hornby, quoted on p.VII - 8 above, pointed out that the temporal phrases that co-occur with the present perfect all refer to periods of time that "began in the past and extend to the present." In the sentence (32) the phrase "for centuries" extends to the moment of utterance which forms a temporal boundary for the period referred to; hence, at the point of orientation for the sentence, the event referred to by the predicator is viewed

as complete, encapsulated within its specified period. Presumably, every complete event is "encapsulated in its period", but this fact usually lacks significance; compare (32) with

33) Our family has lived here.

(32) and (33) differ by the phrase "for centuries" and it must be this phrase which gives rise to the implication in (32) that the family is still in residence, since in (33) there is, ordinarily, no such implication. I have spoken of an "implication", but perhaps the word 'presupposition' would be more appropriate, for this reason. In (32) the phrase "for centuries" takes the period of duration of the event up to the moment of utterance, and the event is viewed as complete at that point. It is here that one's presuppositions about the nature of the event referred to by the predicator come into play, and depending on the situation and context in which (32) is located or is likely to be located, one presupposes either that the family is still in residence, or that it is at last moving out. But either interpretation is based on evidence external to (32). Given the delimitation on the scope of the term 'event' argued for in Chapter III[6] the event in (32) is complete; it follows that in

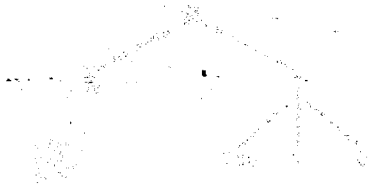
34) Our family has lived here for centuries and still does so.

there are two clauses because reference is made to two events, which are of a precisely similar nature but whose temporal boundaries are different; (34) is unambiguous where (32) is not.

Sentences like (32), some further examples are I have always disliked racialists, Bud has been here since seven o'clock, Erica has often been unfaithful, do not present counter-evidence to the claim that the perfect refers to complete events. We may therefore confirm the suggestion above that the perfect in English realises Hypothetical Aspect H_4, and henceforward the construction have + Vn will be referred to as the perfective aspect construction.

At first sight it seems unlikely that there is a perfective aspect in English because the have + Vn construction co-occurs with the other two English aspects aorist and progressive: how could an event be viewed from two ASPECTS (in the non-technical sense of the word, cf. p.II - 3) at once? The answer to this question is that the event is not viewed from two (conjoined?) aspects at once, but from one aspect which asymmetrically commands another. There are two reasons for thinking that the perfective aspect bears this command relationship to the other two aspects: one is that the aorist and progressive aspects occur independently of perfective aspect, but the perfective aspect cannot occur independently of them; the second reason is circumstantial; the notion 'command' is a subpart of the notion 'bears a primacy relation to' (cf. Langacker (1969)), and another subpart of this latter notion is that of 'precedes' — in surface structure, the perfective precedes the other aspects and cannot succeed them within the same verbal group. Hence I propose that the perfective aspect in English bears an asymmetric command relationship to the aorist and progressive aspects; but, since the aorist is a null aspect in opposition to the marked progressive aspect (cf. p.VI - 8) its co-occurrence with the perfective

is unmarked and results only in the semantics of the perfective aspect affecting the propositional predicator: we shall consider the details of this in the next Section. The co-occurrence of the perfective aspect with the progressive aspect, however, results in the coming together of the semantics of both aspects, and certain problems of analysis arise from this; we shall find these easier to deal with after we have proposed a derivation for perfective aspect, which we shall do in the next Section.



VII.viii. The derivation of perfective aspect

It was pointed out in Sections VII.i. and ii. that have + Vn is, and always has been in English, semantically dissimilar from possessive have constructions. From the outset, therefore, we can discount the possibility that have + Vn somehow develops from a structure like that in Figure 4:

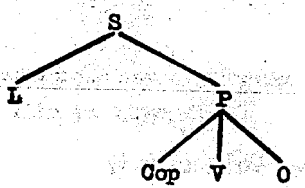


Figure 4

Progressive aspect derives from a predicator on the proposition (cf. V.vii.) and it seems reasonable to suppose, in the absence of any counter-evidence, that perfective aspect is also a predicator on the proposition. Attention has been drawn already (p.VII - 20) to the superficial structural parallel between the progressive aspect construction be + Ving and the perfect construction have + Vn: in both constructions there is an 'auxiliary' element that may carry inflexions of tense or person, and a distinct suffix attached to another part of the predicator. The 'auxiliary' have might be expected to derive from the Cop node dominated by P, just as the 'auxiliary' be does; the question arises what node Vn derives from.

When discussing the synchronic origin of Ving in Chapter V

its diachronic development and historical origins were shown to be revealing, and the function of Ving when it is a 'free agent' outside of the progressive aspect construction, i.e. the fact that Ving functions as a nominal, was also found to bear upon its function within the progressive aspect construction. We might apply the same approach to the synchronic derivation of Vn. In doing so we find that the history of Vn is not controversial like that of Ving; it is generally agreed that

> The perfect participle was originally an adjective and inflected like an adjective
>
> (Lussky (1922 p.38))
>
> In this case we have an adjective with verbal force that has never developed into a real participle, or a participle, the adjective nature of which has entirely overshadowed the verbal nature, so that the word may be regarded as an adjective pure and simple.
>
> (Fridén (1948 p.40))

In present day English Vn readily functions as the adjectivalised form of the verb, cf. a broken cup, a smashed car, a half-eaten rat, a torn picture, etc.. On this basis, and by analogy with the derivation of progressive aspect, I shall propose that Vn derives from a node Adjective sister to Cop under P. We cannot assume from this that passive Vn necessarily derives from an Adjective node in a synchronic grammar of present day English; unfortunately, we do not have the space to discuss the matter further here, but we may note that history

would probably favour such a derivation. But if we intend deriving perfective Vn from under an Adjective node it should perhaps be made clear that history is not unequivocally on our side. Lussky (1922) convincingly argues that when concatenated with have (or rather habban), Vn typically lost its adjective-like inflexion, although it was retained on occasion for the sake of what he calls "Satzmelodik":

> the perfect participle having lost its connection with the object or subject and consequently its adjective force, was felt to belong to the auxiliary; and not to denote state attained but action completed. Thus the perfect and pluperfect tenses [sc. perfective aspect] began to be developed.
>
> (Lussky (1922 p.50))

The dropping of the adjectival inflexion on perfective Vn does not contravene the proposal that it should derive from an Adjective node; if it was occasionally inflected like an adjective, the proposed derivation for perfective Vn could hardly be considered counter-intuitive. The concatenation of Vn with have may have been enough in itself to cause agreement between the appropriate NP and Vn to be dropped as part of a general tendency in Western Indo-European languages cf. French Elles sont arrivées but Elles ont mangé, and similar facts in other Romance languages. There has been no inflexion on adjectives since the late Middle English period, and so we cannot look to inflexion for substantiation or counter-evidence to the proposal that perfective Vn should derive from an Adjective node sister to Cop in the grammar of present day English.

The proposed derivation for perfective aspect in English, as so far discussed, is represented in the following phrase marker:

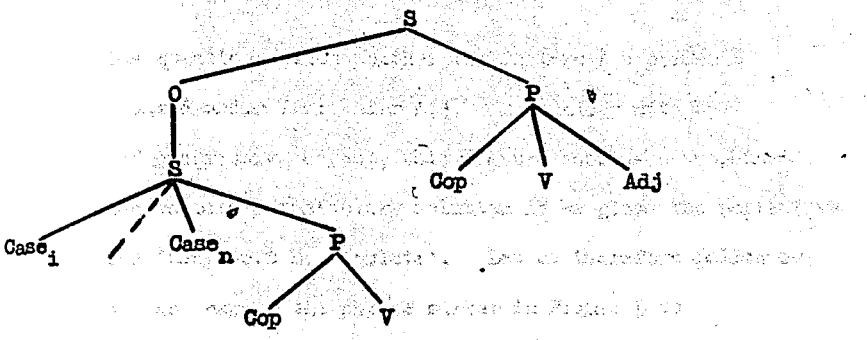


Figure 5

The propositional predicator does not necessarily consist simply of V, this constituency of it is used here for illustrative purposes.) Under one of the nodes dominated by the perfective predicator we must locate the semantic feature(s) borne by perfective aspect. We have described the perfective aspect as referring to a 'complete event', one might therefore be led to postulate the feature [+ complete] to represent this meaning. However, it should be remembered that the oppositive feature [- complete] was postulated to represent the meaning of progressive aspect, which is in opposition not to perfective aspect, but to the aorist aspect; therefore, to suggest that the feature [+ complete] should represent the meaning of the perfective aspect would misrepresent the relationship between it and the progressive aspect. Consequently, I propose that the semantic value of the perfective aspect be represented by the feature [+ perfect]. In defence of this verbal juggling let me remind the reader that

semantic features are named on an ad hoc common-sense basis in this dissertation (cf. Chapter I.i.) and that these names have a mnemonic purpose; this is the justification for the discussion above.

The question arises whether the feature [+ perfect] should be located under V or under Adj. By analogy with the derivation of progressive aspect, this feature should be subjoined to Adj, which seems a satisfactory solution if we gloss the perfective as indicating 'the event be complete'. Let us therefore follow out this proposal and expand the phrase marker in Figure 5 to

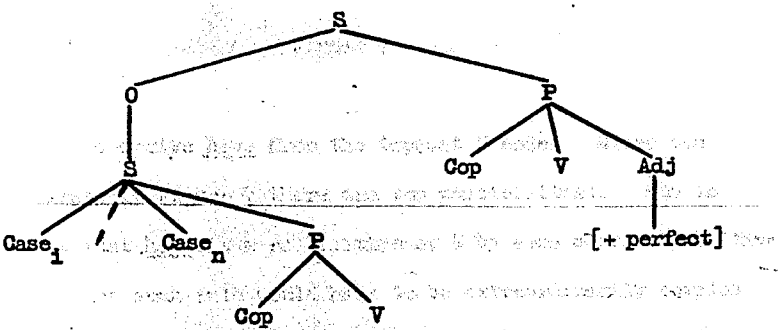


Figure 6

The Predicator Raising Transformation operates on this phrase marker to raise the propositional predicator under the Adj node of the perfective predicator (cp. the derivation of progressive aspect); there is a consequential adjectivalising inflexion on the propositional predicator, registered on its Cop constituent. The Pruning Transformation is effected on the resulting phrase marker deleting the propositional S node and the O that directly dominates it; concomitantly, the propositional Cases are raised under the

topmost S giving the phrase marker in Figure 7:

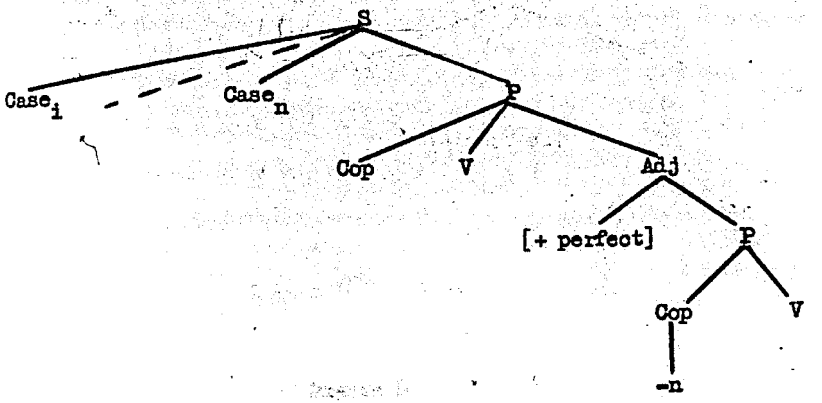


Figure 7

It remains to derive <u>have</u> from the topmost V node. Given the phrase marker in Figure 7 there are two possibilities. One is to suggest that <u>have</u> is a realisation of V by some context sensitive rule; but any such rule would have to be extraordinarily complex, and this proposal will have to be abandonned. The other is to use the Predicator Segment Movement Transformation described in Chapter I.ii. to move the segment [+ perfect] from under Adj and subjoin it to V, whence it will eventually be ascribed the lexical item <u>have</u>. The phrase marker which results from the operation of the Predicator Segment Movement Transformation is represented in Figure 8.

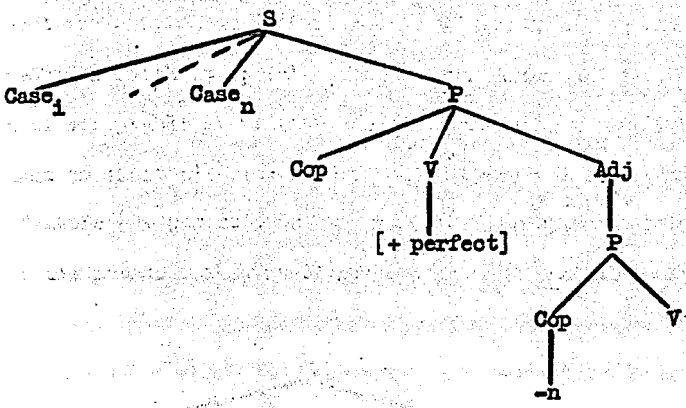


Figure 8

In evidence that perfective <u>have</u> is semantically non-null compare the sentences

35) a. The cup is broken.

b. The cup has broken.

<u>Be</u> in (35a) is a semantically empty verb, thus it follows that the semantic difference between the two sentences of (35) must derive from the semantics of <u>have</u>. There is no doubt therefore that the structure underlying perfective <u>have</u> is that represented in Figure 8. However, this does not mean that the derivation of the phrase marker in Figure 8 is necessarily the one we have proposed, and there is some reason for doubting that it is.

The derivation of perfective <u>have</u> proposed above involves the Predicator Segment Movement Transformation to move the segment [+ perfect] from the Adj node to the sister V node. We know very

little about the Predicator Segment Movement Transformation and the conditions under which it operates, but let us allow that this operation is acceptable in principle. Nevertheless, would it not be more elegant to short circuit the derivation by postulating the semantic feature [+ perfect] be subjoined to V from the start? Instead of the phrase marker in Figure 6 this would entail a phrase marker

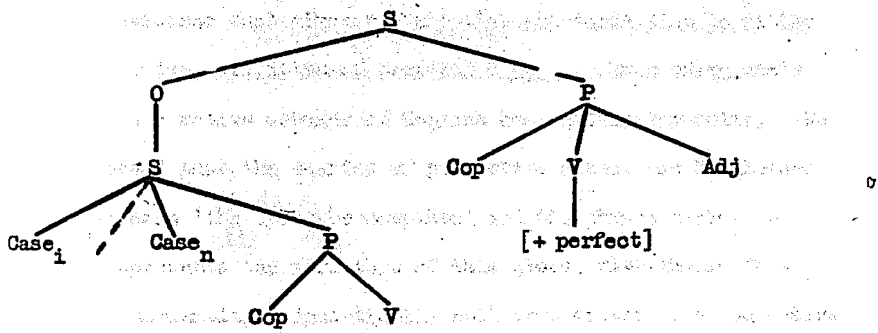


Figure 9

The disadvantage of this proposal is that the Adj node in the base phrase marker (as in Figure 9) would not dominate any set of semantic features. It is true that by convention V does not necessarily dominate a set of semantic features, and in that case will be lexicalised as <u>be</u> unless features are moved into it by transformation; but there is no reason for supposing that there is such a linguistic object as a semantically empty adjective. The problem might be surmounted by postulating a dummy symbol under Adj which will be replaced by the raised propositional predicator; but such a dummy symbol would be a necessary correlate of the feature [+ perfect] appearing under V, i.e. [+ perfect] under V could only

occur together with the dummy symbol under V's sister Adj, and vice versa. Provided this co-occurrence condition can be met without violating any metatheoretical principles, this latter proposal for the derivation of perfective <u>have</u> has the advantage of being more economical than the former proposal involving the Predicator Segment Movement Transformation. But the advantage is merely an artifact of the model for grammatical description, and there is no empirical evidence that gives preferential substantiation to either proposal for the derivation of perfective <u>have</u>. Even using one's intuition as a native speaker of English has equivocal results. We have suggested that the meaning of perfective aspect can be glossed by the sentence 'the event be complete', and the phrase marker in Figure 6 represents the structure of this gloss, with the perfective predicator dominating a semantically null verb sister to an adjective having the semantic feature [+ perfect]. Thus it might appear that the derivation which proceeds from this base phrase marker is intuitively preferable to the second proposed derivation. On the other hand, the first proposal requires that the whole of the construction <u>have + Vn</u>, and not just the element <u>Vn</u>, is dominated by the Adj node in the base, so that the second proposal, in which <u>have</u> is never dominated by Adj (cf. Figure 9), is intuitively preferable

We are certain of the following facts concerning the perfective aspect construction <u>have + Vn</u>. Perfective aspect, like progressive aspect, is a predicator on the proposition. The element <u>Vn</u> is dominated by an Adj node in underlying structure, and we postulate that the perfective predicator therefore consists of Cop, V and Adj as sisters directly dominated by the perfective

predicator. The surface construction have + Vn is derived as follows. The Predicator Raising Transformation raises the propositional predicator under the Adj node of the perfective predicator; concomitantly, adjectivalisation of the propositional predicator is registered on its subjoined Cop node. The propositional S node and the O node which directly dominates it are pruned, and the propositional Cases are raised under the next highest S as sisters to the perfective predicator. These operations derive the phrase marker in Figure 8. Figure 8 also represents perfective have in its prelexicalised form as the feature [+ perfect] under V directly dominated by the perfective predicator P node. The phrase marker in Figure 8 is surely the correct representation of the structure immediately underlying the surface construction have + Vn. However, we are not able to decide whether the feature [+ perfect] should be located under the Adj node of the perfective predicator in the base phrase marker and subsequently subjoined to its sister V by the Predicator Segment Movement Transformation, or whether it should be located under the V directly dominated by perfective P in the base phrase marker -- thus obviating the necessity for the Predicator Segment Movement Transformation to operate. I cannot at the present time determine which derivation for perfective have is to be preferred. One naturally hopes that further investigation into the grammar of English will discover substantive grounds for choosing between these alternatives or else abandonning them in favour of an ameliorated or quite distinct derivation for perfective aspect in English.

VII.ix. Perfective aspect together with progressive aspect

In previous Sections we have discussed perfective aspect when it has no other aspectual predicator in its argument; that is, we have only considered the combination of the perfective aspect with the structurally unmarked aorist aspect. In this Section we shall be concerned with sentences deriving from phrase markers like the following, in which the perfective aspect predicator asymmetrically commands the progressive aspect predicator.

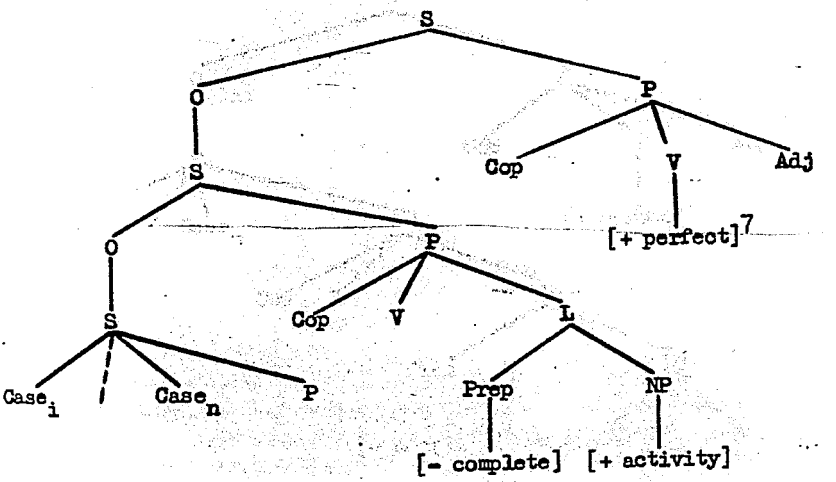


Figure 10

On a phrase marker like that above, the Predicator Raising Transformation operates cyclically in an upward direction (cf. p.V - 44 ff.) and the Pruning Transformation succeeds it automatically on each cycle to delete the lowest S node and the O directly dominating it, leaving the Case nodes that were under the deleted S to be lifted to the next

highest S. After the first cycle we get the phrase marker in Figure 11, and after the second cycle we have the phrase marker in Figure 12. Leaving aside the problem of the derivation for perfective <u>have</u>, lexicalisation rules will operate on the terminal configurations of semantic features to derive, inter alia, the surface construction <u>have been Ving</u>.

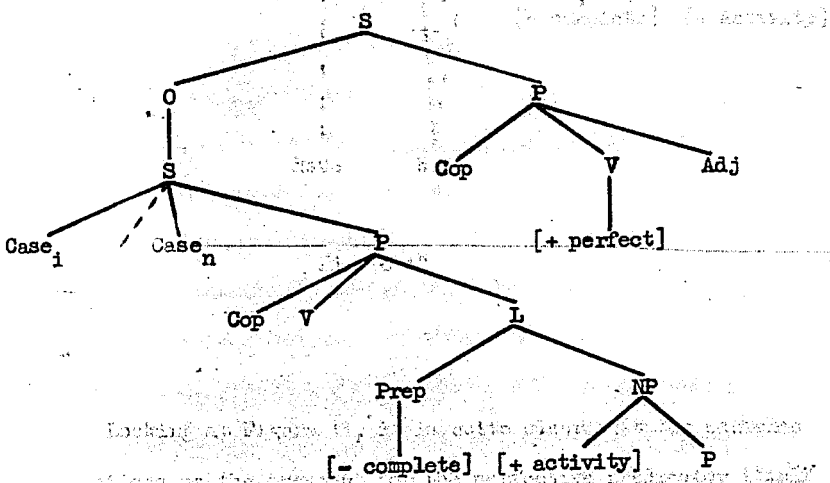


Figure 11

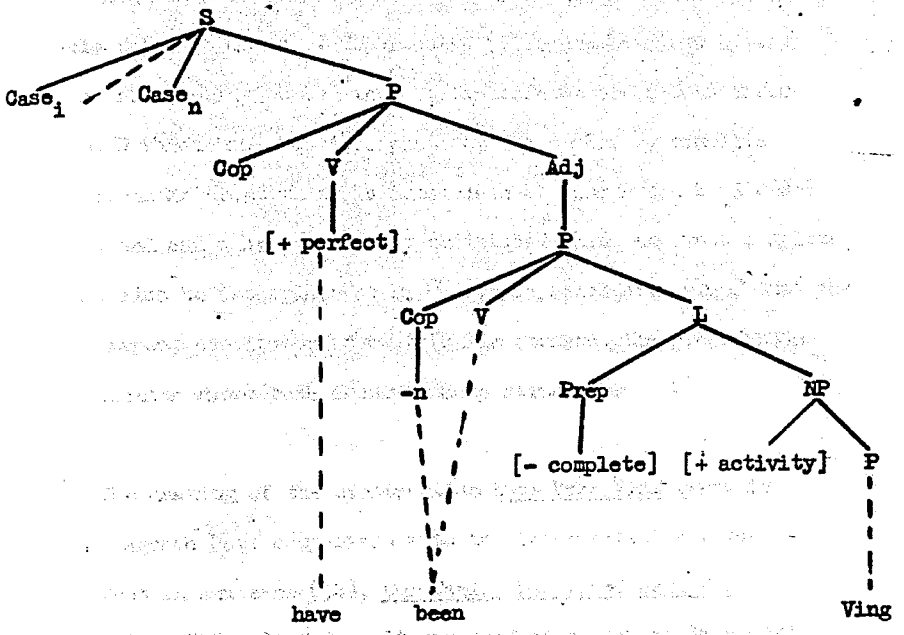


Figure 12

Looking at Figure 11, it is quite clear that the sentence which functions as the argument for the perfective predicator itself contains a predicator in the progressive aspect. Thus the event E referred to in this embedded sentence is incomplete at a given point of orientation P. The matrix sentence, represented by the topmost S node, refers to an event F which is perfected at the point of orientation P; furthermore, the event F is identical with E up to the point in time P, such that F forms a proper part of E.[8] We can now see that a semantic anomaly would result if the progressive aspect were to asymmetrically command the perfective aspect: the

sentential argument of the progressive aspect, in this hypothetical case, would refer to an event G perfected (i.e. complete) at a given point of orientation P; the matrix sentence would then refer to an event H which was both incomplete at P and already complete at P. Whereas an event which is incomplete at time P can be divided into a finished and a hypothetically unfinished part, an event complete at P cannot also be incomplete at P. This is conclusive proof that the perfective aspect predicator asymmetrically commands the progressive aspect predicator where both occur in deep structure.

The meaning of the construction have been Ving given in the last paragraph begs comparison with the interpretation given to the perfect in sentence (32), Our family has lived here for centuries (cf. p.VII - 21 f.). It was said of sentences like (32) that the point of orientation imposes a boundary on the event so that it is viewed as complete at that point. Precisely the same kind of boundary is imposed by the point of orientation in the have been Ving construction. It would appear therefore, that the perfective aspect does not so much reflect reality as impose an interpretation on it.

Finally in this Section we might briefly consider to which S in Figure 11 phrases of temporal extent are attached. Consider the two sentences

36) Oleg has been working since seven o'clock.

37) Mrs. Boodle had been cleaning the flat for half an hour when I arrived.

It is arguable that the extent phrase in (36) is attached to the embedded S in the phrase marker of Figure 11, so that if lexicalised this S would read something like

38) Oleg was working from seven o'clock.

The configuration of semantic features underlying from in (38) would develop since in (36) as a result of sensitivity to the contextual perfective aspect. This analysis, however, proves to be incorrect when we try to apply it to (37). Suppose we attach the extent phrase in (37) to the analogous embedded S; the resulting sentence would read

39) Mrs. Boodle was cleaning the flat for half an hour when I arrived.

It must be interpreted from (39) that the event of cleaning went on for half an hour after I arrived, whereas in (37) the event of cleaning went on for half an hour before I arrived. Therefore, (39) cannot underlie (37). Furthermore, let us allow that "Mrs. Boodle was cleaning the flat" may be symbolised as an event E, which is incomplete at the point of orientation P — "when I arrived"; the extent phrase "for half an hour" in (39) refers to the duration of E. But the extent phrase "for half an hour" in (37) refers to the duration of an event F perfected at P, which is identical with E up to time P, and is a proper part of E: thus, the extent phrase in (39) does not refer to the same event as that in (37), therefore the extent phrase in (37) must be attached to the same S that dominates directly the

perfective predicator.

In this Section we have found no reason to abandon the view that the construction have + Vn represents perfective aspect and refers to complete events. We have looked at the combination of the perfective with the progressive aspect and found that the perfective asymmetrically commands the progressive in the underlying phrase marker. We have assigned the following interpretation to the construction have been Ving: there is an event E which is incomplete at the point of orientation P, and there is an event F which is perfected at P; the event F is identical with the event E up to the point in time P such that F forms a proper part of E. Finally we showed that phrases of temporal extent co-occurring with this construction must command the perfective predicator.

FOOTNOTES

1) The grammatical subject of causative <u>have</u> can very properly be described as in some sense the possessor of an accomplishment. Certainly, causative <u>have</u> and possessive <u>have</u> fall together into a syntactic class dissimilar from perfect <u>have</u>, and not only in Indo-European languages, but for instance in Hopi as well. Compare the following two sets of sentences:

α) a. Guthrin's wheelbarrow is in the garage.

b. Guthrin has a wheelbarrow in the garage.

c. The wheelbarrow in the garage is Guthrin's.

d. Does Guthrin have a wheelbarrow in the garage?

e. Guthrin doesn't have a wheelbarrow in the garage.

β) a. Herzog's servant cleans his boots.

b. Herzog has his servant clean his boots.

c. The servant who cleans his boots is Herzog's.

d. Does Herzog have his servant clean his boots?

e. Herzog doesn't have his servant clean his boots.

2) <u>Before</u> and <u>after</u> are not the only ordering connectives in English, there are many others, e.g. <u>then</u>, <u>subsequently</u>, <u>next</u>, etc.; and there are other ways of ordering events than those illustrated here. My remarks are limited to the kind of connection exemplified in sentences (18) through (21)

3) Discussion of another kind of correlation between denotata and the linguistic expression of them is to be found in Chapter III.

4) I shall ignore the future in this discussion.

5) This alleviates us of the problem of deciding how a past is specified when there is no linguistic evidence of the specification (apart from the use of the past); a comparison of (23) and (24) shows that this would be as difficult as determining 'current relevance'.

6) An event is what is referred to by the predicator (and sentence as a whole, cf. p.II - 3); this does not necessarily match up very precisely with the real world phenomenon that is denoted.

---

7) I have represented the feature [+ perfect] to be located under the V directly dominated by the perfective P in the base phrase marker for notational convenience only; in so doing, I do not intend to decide between the two proposals for the derivation of perfective <u>have</u> put forward in Section VII.viii.

8) The event F corresponds to the completed part of the event E, which is incomplete at P. The correlation of F with E puts me in mind of an amoeba which regenerates by dividing in two, though there is no direct analogy. The discussion in Chapter III is relevant.

In conclusion

Chapter VIII concludes this dissertation on aspect in English by presenting a generalised summary of it in Section VIII.i., and further discussion in subsequent Sections of certain matters pertinent to its theme that have hitherto been left in abeyance.

VIII.i. In summary

The domain of reference for the grammatical category aspect was defined in Chapter II by its denoting certain specified ASPECTS (in the non-technical sense of the word, cf. II - 3) of events referred to in the proposition. The notion of an 'event' is introduced and described in Chapter II (p.II - 3) and further defined in Chapter III. The finite set of ASPECTS of an event that may properly be denoted by grammatical aspect is extensionally defined in the Hypothetical Aspect System (cf. p.II - 11). A distinction was made between 'aktionsart' and aspect, both of which may denote ASPECTS of events within the domain of the Hypothetical Aspect System; but whereas aktionsart is manifest in single lexical items or in concatenations of lexical items, it was said that aspect must be realised, at least in part, by a non-lexical formative. This definition of aspect will shortly be ameliorated.

In Chapter V through Chapter VII we substantiated the claim made in Chapter IV that English has three aspects. The

aorist aspect is the null or unmarked aspect and indicates no particular ASPECT of the development of an event; it corresponds to Hypothetical Aspect H_{α}. The progressive aspect is realised by the construction be + Ving and indicates an incomplete event; it corresponds to Hypothetical Aspect H_2. The progressive aspect construction consists of a semantically void verb be and a superficially non-lexical formative Ving which indicates nominalisation of the propositional predicator; the semantics of the progressive aspect are subsumed to the Locative Case node which dominates Ving in underlying structure. The perfective aspect in English is realised by the construction have + Vn and indicates a complete or perfected event; it corresponds to Hypothetical Aspect H_4. The semantics of the perfective aspect construction are carried by the have; the non-lexical formative Vn indicates adjectivalisation of the propositional predicator. It was proposed that the two marked aspects appear as predicators on the proposition in deep structure; we might generalise to make it a defining characteristic of the grammatical category aspect that instances of it occur as predicators on the proposition in deep structure. This proposal is the amelioration to the definition of aspect promised above.

We observed that the aorist and progressive aspects are in opposition to each other, and that the perfective aspect only occurs in combination with one of the other aspects. Because the aorist aspect is unmarked, the co-occurrence with it of the perfective aspect results in the perfective aspect being the only aspectual predicator on the proposition in deep structure. But where the perfective aspect predicator co-occurs with the progressive aspect predicator, we discovered that in deep structure the perfective

bears an asymmetric command relation to the progressive that is reflected in surface structure by the fact that the perfective construction precedes the progressive construction in linear order.

Surface structures derive from deep structures containing aspectual predicators by means, inter alia, of the Predicator Raising Transformation, and, possibly in the derivation for the perfective aspect the application of the Predicator Segment Movement Transformation also.

VIII.ii. The progressive and durativeness

Consider the usual interpretation of the following sentence:

1) Rastus was waiting five hours for Mary Lou.

The interpretation of this sentence presents an apparent counter-example to two claims made heretofore about progressive aspect, namely:

(i) that the progressive aspect indicates incomplete events

(ii) that the progressive aspect does not primarily indicate durativeness, although a certain degree of durativeness is concomitant with its reference to an activity (cf. Chapter V.ii.).

Sentence (1) apparently counters these claims in indicating the complete period of waiting, and by contrast with (2) in emphasising the durativeness of the event of waiting:

2) Rastus waited five hours for Mary Lou.

In fact, (1) is only an apparent, not a true counter-example to claims (i) and (ii).

Firstly, sentence (1) contrasts with sentence (3) which indicates a complete or perfected event:

3) Rastus has waited five hours for Mary Lou.

Let us therefore assume that (1) like (4) refers to an incomplete event:

4) Rastus was waiting for Mary Lou.

Observe that the durativeness of (1) is lacking in (4): this difference between the two sentences must arise from the presence of the durative phrase "(for) five hours" in (1) and its absence in (4). It would appear that the occurrence of this durative phrase in (1) enhances the intrinsic durativeness of the progressive, giving it some emphasis.

By its indicating a complete period of time, it is the durative phrase also which lies behind the suggestion that sentence (1) counters the claim that the progressive aspect indicates incomplete events. However, reference to a complete period of time is not identical with reference to a complete event; the durative phrase which co-occurs with the progressive refers to the period during which the event is (or was) incomplete. For this reason it is impossible that the durative phrase may co-occur with the progressive aspect alone when reference is made to an event in progress (as different from one which is incomplete) at the point of orientation. Where reference is made to such an event in progress at the point of orientation, a durative phrase would co-occur with both the perfective and progressive aspects in combination, e.g. Juan had been making love to the hussy for half an hour when she leapt up and shouted "Rape!", cf. Chapter VII.ix.

In summary, a durative phrase which co-occurs in the same (surface) clause with the progressive aspect refers directly to the period during which the event is incomplete, and it thereby enhances the durativeness intrinsic in the progressive aspect.

VIII.iii. The habitual progressive

It was claimed above (pp.VI - 8, 13) that by reason of its not referring to any particular stage in the development of an event, the aorist aspect is most suitable for the expression of habitualness. How, then, do we explain the use of the progressive in expressions of habitualness such as the following?

5) a. Louis was drinking a lot in those days.

b. My husband is driving to work these days.

c. Emily is walking to school nowadays.

6) a. Liza is always smoking.

b. Archie is forever coughing.

We notice first of all that a habitual interpretation is the direct result of the specifiers in these sentences: in (5) the specifiers of restricted duration; in (6) the specifiers of habitualness. Such specifiers need not necessarily appear in surface structure, although they will occur in the corresponding deep structures; for instance, in response to a question like How does your husband get to work these days? sentence (7) is acceptable in an habitual interpretation although the underlying specifier of restricted duration, along with certain other elements, has been deleted:

7) He's driving.

In sentences where there can be no such specification, no interpretation

of habitualness is possible, cf.

8) a. The sun is rising in the east.

b. * The sun is rising in the east nowadays.

c. * The sun is forever rising in the east.

The events referred to in both (5) and (6) are incomplete events that consist of reiterated constituents of an exactly similar kind, cf. Chapter III. In (5) the event is specified as of restricted duration, i.e. there was and/or will be a time when the event did not or will not occur. In (6) the event is specified as habitually[1] incomplete. There are, therefore, two explanations for the use of the progressive in the expression of the two types of habitualness manifest respectively in (5) and (6): one is in reference to an incomplete event habitual for a restricted duration[2]; the other is in reference to an habitually incomplete event.

VIII.iv. Progressive aspect and rapidly iterated events

Compare the sentences within each pair of the following:

9) a. He blinked.

b. He was blinking.

10) a. The thief stabbed John.

b. The thief was stabbing John.

11) a. Miller dipped his pen in the ink.

b. Miller was dipping his pen in the ink.

One understands the (a) sentences containing the aorist aspect to refer to a unique action, but the (b) sentences containing the progressive aspect to refer to several such actions[3]. This impression is formed on the basis of presupposition and is accentuated by the juxtaposition of the (a) and (b) sentences; thus sentence (12) is quite clearly ambiguous between one and several actions being referred to:

12) Jack the Knife stabbed his victim to death.

The presuppositions I have referred to arise from the fact that the events denoted by words like blink, stab and dip are all of very short duration, complete almost as soon as begun; this makes it very difficult to capture any such action when it is incomplete, and sentences like the following will therefore be infrequent:

13) George caught Elena's wrist as she was stabbing him and prevented her from completing the action.

14) She dropped it in his eye when he was blinking.

15) As Miller was dipping his pen in the ink his lover shot him.

Typically, sentences including verbs like blink, stab and dip in the progressive aspect will refer to several reiterated actions of an exactly similar kind that constitute the incomplete event referred to in that sentence. It is this fact which effects the impression we have of the difference between the (a) and (b) sentences of (9) through (11).

VIII.v. A conclusion about the terminology for tense

In Chapter I.iii. it was promised I should make certain further remarks in this final Chapter of the dissertation about the terminology for the description of tense in English. There, it was reasoned that to discuss the have + Vn construction as a tense in English, it would be helpful to employ part of Bull's (1960) schema for the tense system of English. In this schema the perfect tense ('minus vector' in Bull's terminology) is located on the axis of orientation defined by the point of orientation for the clause. We are now satisfied, however, that the have + Vn construction realises not the perfect or retrospective tense but the perfective aspect; hence, the necessity for postulating an axis of orientation vanishes. If, in addition, we take the position that there are no prospective tenses ('plus vectors' in Bull's terminology) either, and that futurity will be represented in the performative sentence of the underlying phrase marker as suggested by Boyd & Thorne (1969), then the notion of an axis of orientation ceases to have any value at all. We can now revert to what I earlier called "the simplest view of the English tense system", viz. that there is a binary opposition between a marked 'past' which indicates events that occur before the moment of utterance, and an unmarked 'non-past' which indicates events that do not. The term 'point of orientation' may be redefined to refer neutrally to either the past or the non-past[4]; this does not alter the descriptions made of the three English aspects, quae sunt : at the point of orientation for the clause, the progressive aspect indicates an incomplete event, the perfective aspect indicates a complete or perfected event, the aorist aspect indicates an event per se.

FOOTNOTES

1) It is sometimes necessary in descriptive linguistics to be like Humpty Dumpty and give words quite esoteric meanings; the word "habitually" here is subject to certain limitations, for instance, to the life span of Liza and Archie in (6). Such limitations however are not relevant to the present discussion: they derive from that imponderable, the language user's factual knowledge.

2) This description does nothing to clarify the distinction between

i) Tony drives a Jensen these days.

ii) Tony is driving a Jensen these days.

These sentences mean roughly the same thing, and the reason for using one rather than the other probably has something to do with style and with the aesthetics of the statement: I refer the reader to Laan (1922) for interesting discussion of such matters.

3) A distinction is intended here between 'action' and 'event': an event may consist of several actions.

4) If tense may be represented as + past for 'past' and - past for 'non-past', then the point of orientation is analogous with α in α past.

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