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San Diego

The Semantics of Raising Constructions

A dissertation submitted in partial satisfaction of the  
requirements for the degree Doctor of Philosophy  
in Linguistics

by

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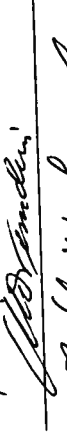

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1981

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FIELDS OF STUDY

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ABSTRACT OF THE DISSERTATION

The Semantics of Raising Constructions

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Transformational grammars of English derive infinitival constructions by means of an Equi-NP Deletion rule or a Raising rule. A number of constructions pose problems for the Equi/Raising dichotomy, suggesting instead a gradual transition from Equi-like to Raising-like constructions. This dissertation addresses itself to these transitional constructions and proposes an account which does justice to the full range of the semantic variation found in infinitival constructions. The rules of Psych Movement and to be Deletion, which are invoked in the derivation of some Raising constructions, are also re-evaluated and an account of the data is offered which does not rely on transformational rules. The notions of 'base' and 'profile' are utilized in describing the semantic facts. 'Base' refers to a conceptual complex which groups together objects and relations which interact in ways which are significant to the society and culture. 'Profile' refers to the particular portions of the

base that the symbol designates.

Chapter II paves the way for a discussion of Raising by exploring constructions involving stative predicate adjuncts. Intransitive constructions, such as The prisoner broke loose, and transitive constructions, such as They shot the prisoner dead, both evidence a variation in the semantic role of the nominal associated with the predicate adjunct. This variation is described in terms of variable profiling within a base.

Predicate adjunct constructions with perception predicates are considered separately, in Chapter III. The alternative constructions which perception predicates figure in (I can taste meat and The meat tastes funny to me) are viewed as instances of profile-shift, the profile shifting from the identification of a sensation to its description.

Chapter IV addresses predicate adjunct constructions containing processual adjuncts. Intransitive constructions are examined and it is shown that they exhibit a gradual semantic transition from prototypical Subject-controlled Equi to prototypical Subject-to-Subject Raising. Constructions involving modals, semi-modals, and other verbs constitute the intermediate cases. Similarly, an examination of transitive constructions with believe, plan, imagine, etc. establishes a transition between Object-controlled Equi and Subject-to-Object Raising. An analysis is proposed in which

the Raising structures are construed as the limiting case of Equi-like structures. The semantic unity of these constructions correlates directly with the formal indistinguishability of the surface structures associated with Equi and Raising.

In Chapter V, it is proposed that some process adjuncts occur in predicate adjunct constructions by virtue of an extension from the class of stative adjuncts. Examination of taste, look, and seem constructions reveals a correlation between a stative → process progression in the adjunct and a concrete → abstract progression in the main predicate. The rule of to be Deletion is shown to be an ad hoc mechanism which fails to explain the range of data examined.

Chapter VI is a diachronic study of some selected Raising constructions. One type of evolution, illustrated by be certain, promise, and can, parallels the gradation from Equi to Raising established by synchronic considerations in Chapter IV. Another path of development, illustrated by German scheinen, is shown to be a clear diachronic analogue to the proposal made in Chapter V.

The Raising construction is viewed as a kind of conventionalized metaphor in which a comment about a proposition is made by way of making a comment about, or profiling, a salient part of the proposition, namely the subject NP.

The Raising construction is thereby seen to be another manifestation of the part-for-whole metaphor well-known from lexical semantics.

CHAPTER I  
Introduction

tence).  
How, then, should we deal with a sentence like (1) in a grammar of English?

1.1 The Raising Tradition

1.1.1 Pre-transformational Approaches

The verb happen in English, along with some others to be discussed in due course, figures in a sentence type with an intriguing property: the surface structure of the sentence is apparently at variance with the semantic structure. Consider (1):

(1) Harry happens to be unpleasant.

In (1), Harry is distinguished as the subject of the sentence, requiring a third person singular ending on the verb happen. In terms of the meaning, however, there seems little, if any, difference between (1) and (2):

(2) It happens that Harry is unpleasant.

In both (1) and (2) a comment is being made about a proposition. In (2), the proposition is maintained in its syntactic integrity as that Harry is unpleasant. In (1), on the other hand, the proposition is not realized with this integrity. (1) appears to involve a discrepancy between the structure associated with the meaning (a comment about the proposition that Harry is unpleasant) and the formal structure (Harry, not Harry be unpleasant, is the surface subject of the sen-

Jespersen is the first to clearly state the form-meaning discrepancy. In Jespersen(1924:119-120), Jespersen(1937:55-57) and Jespersen(1940:319), the observation is made that, at the 'notional' level, it is Harry to be unpleasant which acts as the subject of the sentence. In the latter two works, this construction is referred to as a 'split subject' construction, represented by the formula in (3):

(3) 1/2S V 1/2S (IO)

In (3), the two occurrences of '1/2S' indicate that the notional subject is made up by the combination of the grammatical subject and the infinitive object (IO) after the main verb (V).

Since Jespersen, there have been various attempts to resolve the apparent discrepancy associated with (1). There has arisen what might be called the Raising tradition, which I will now proceed to characterize. In what follows, I will use happen to illustrate this approach, though the tradition applies to verbs other than happen.

What is common to all versions of the Raising approach is that sentence (1) is said to derive from a structure in which Harry occurs only as part of a proposition (with be unpleasant) and not as the subject of the verb happen. In this way, the semantic integrity of the proposition that Harry is unpleasant is reflected in the syntactic deep structure. The earliest statements exemplifying this approach are to be found in Poutsma (1928:160-161). Poutsma speaks of (4a) as being 'condensed' into (4b):

- (4a) It happened that I knew the man.  
 (4b) I happened to know the man.

With respect to the process which gives rise to (4b), Poutsma says (1928:160):

Another remarkable and frequent shifting of the subject is due to the condensing of a complex sentence, mostly one with a subjective subordinate statement, into a simple sentence. The subject of the statement then becomes the subject of the simple sentence, while the predicate of the former is represented by an infinitive in the latter, where it appears as a constituent of a kind of complex predicate.

It is suggested in Kajita (1968:136) that the idea of 'shifting of the subject' as proposed by Poutsma also underlies Jespersen's notion of 'split subject'. There is no direct support for the interpretation in Jespersen's own writings on the topic. In fact, despite the fact that Jespersen treats the construction in the three places referred to above, the discussion is extremely limited. The brief discussion, together with the metaphor of a 'split

subject', tempts one to interpret much more into the discussion than is in fact found. The only claim which is actually articulated in Jespersen's works is that a particular grammatical structure (Subject - Verb - Infinitival Object) can be associated with a meaning in which a comment is made about the proposition represented by the Subject and the Infinitival Object. Sentence (2), on the other hand, is assigned to a distinct sentence type (see Jespersen 1937:73). Thus, Jespersen allows that the meaning behind (1) and (2) is associated with distinct formal structures in the Grammar without postulating any implicit connection between the two structures. The quotation from Poutsma, on the other hand, clearly shows that the formal structure associated with (1) derives by way of a deformation of (2). While both Jespersen and Poutsma would agree that (1) is a comment about a proposition, they differ in the way in which this meaning comes to be associated with the formal structure evidenced in (1).

### 1.1.2 Transformational Approaches

Transformational approaches represent a refinement of Poutsma's notion of subject-shifting, though there are numerous differences in details between the many proposals which have been made in this framework. The proposals all share the basic notion that Harry in (1) originates in a clausal structure in which it acts as the subject of be unpleasant and that a transformation moves Harry into the



position of subject of happen. The transformation which accomplishes this change has been called Pronoun Replacement (Rosenbaum1967). It Substitution (Lakoff1968). Subject Shift (Kajita1968) and Raising (Kiparsky and Kiparsky1971 and others). I will use the term Raising to refer to all of these proposals.

While specifics about these proposals vary, there exists a basic division within these approaches, depending on whether significance is attached to the presence or absence of that, to and tense marking in sentences (1) and (2). In one approach, exemplified by Lakoff(1968), Kajita(1968), Kiparsky and Kiparsky(1971) and Postal(1974), these aspects of the sentence structure are of only superficial significance - being either deleted or inserted by transformations, or ignored altogether. Consider, for example, Lakoff's account of a sentence like (1), in which a that clause is converted transformationally into a for-to clause:

(5) [ [it] [Harry be unpleasant] ] happens  
 ↑↑  
 Complementizer  
 Placement  
 [ [it] [that Harry be unpleasant] ] happens  
 ↑↑  
 Complementizer  
 Change  
 [ [it] [for Harry to be unpleasant] ] happens  
 ↑↑  
 It-  
 Substitution  
 [Harry] happens [for to be unpleasant]  
 ↑↑  
 For-  
 Deletion  
 [Harry] happens [to be unpleasant]

Similarly, in the other works cited above, (1) and (2) derive from a common underlying structure - in Kajita, for-to is introduced as an alternative to that, while in Kiparsky and Kiparsky and in Postal, the infinitival form is induced in the course of the derivation. In all these works, (1) comes about from a structure underlying (2), though details may differ. A difficulty in all these approaches (as well as in Poutsma's discussion) is that they overlook problems incurred in the conversion of a tensed clause into an infinitival structure. Thus it is not clear how the following set of facts are to be handled (all of the above-mentioned linguists extend the Raising analysis to be certain and seem):

- (6a) It is certain that John will be sick soon.  
 (6b) John is certain to be sick soon.  
 (7a) It seems that John will be sick soon.  
 (7b) \*John seems to be sick soon.

That is, when Raising applies with be certain, will be in the complement clause is somehow reduced to simply be, whereas in the case of the Raising trigger seem, will be cannot be reduced to be. Problems like these are noted in Postal(1974:6.25) but no account is offered. Lakoff(1968:69-70) goes so far as to say:

This description of the operation of (the change from that to for-to) bypasses a problem that is, at present, interesting but unresolvable...It is not clear just how these complementizers impose non-finiteness on the verb.

At the time of writing, Lakoff was working with a set of assumptions about tense (tense being viewed as features on verbs) which can no longer be taken for granted and her comments need to be qualified - though it remains true that there is a problem in this approach which the linguists concerned have preferred to ignore.

There is an additional problem in the case of Lakoff and Kajita. In their view, that clauses are transformationally related to corresponding for-to clauses. This view ignores the different semantic properties which can be associated with that clauses on the one hand, and for-to clauses on the other hand, as investigated in Bresnan(1972). This criticism cannot be leveled against Kiparsky and Kiparsky or Postal since their analysis does not involve a transformational relationship between a that clause and a for-to infinitival clause.<sup>1</sup> Their analysis involves a

<sup>1</sup>. cf. Kiparsky and Kiparsky(1971:357-358):

transformational relationship only between a that clause and a to infinitival clause, and Bresnan's study makes no claim about semantic differences between these types of structures.

In the other general approach, one attaches more significance to the choice of complementizer and tense, in which case one is led to posit similar but nevertheless distinct underlying representations for sentences (1) and (2). This approach is found in Bresnan(1972), Chomsky(1973), Chomsky and Lasnik(1977) and Chomsky(1980). In Bresnan's analysis, (1) derives from a structure in which there is no complementizer such as that or for-to (there is not even a COMP node), while (2) derives from a structure containing that, as follows:

(8a) Underlying representation of (1):

[Δ] happens [Harry to be unpleasant]

(8b) Underlying representation of (2):

[Δ] happens [ [that] [Harry is unpleasant] ]

Note that although a major part of Bresnan's study is

We reject, also, the assumption of recent transformational work (cf. Rosenbaum1967) that all infinitives are for-to constructions, and that they arise from a complementizer placement rule which inserts for and to before clauses on the basis of an arbitrary marking on their verbs. Instead we claim that what infinitives share is only the single, relatively low-level syntactic property of having no surface subject.

devoted to demonstrating the different semantic correlates of different types of complements, the choice of distinct underlying representations for (1) and (2) is MOT motivated by these considerations. As mentioned above, Bresnan draws no conclusions about the semantic difference between that clauses and to infinitives. The distinction is motivated on syntactic grounds: The underlying representation of (1), but not (2), permits Harry to be moved out of the embedded sentence without violating a constraint on movement rules (the Fixed Subject Constraint). In Chomsky and Lasnik's analysis, COMP introduces the infinitival clause underlying (1), expanded as Q (distinct from null). In Chomsky (1980), COMP also introduces the infinitival clause underlying (1), but is not expanded, i.e. is null and is written e. In all these works, the decisions to represent the sources of (1) and (2) in distinct ways are motivated by various syntactic constraints involving COMP and Tense, and no claim is being made here that (1) and (2) require distinct semantic representations.

I have characterized two basic approaches to (1) and (2) - one in which neither complementizer-choice nor tense is a crucial component of the sentence structure, and another in which both complementizer-choice and tense are taken to be highly significant components of the structure. It is possible to take various intermediate positions, and Rosenbaum would appear to be such a case.<sup>2</sup> Rosenbaum handles 2. Bresnan's overall position is more complex than that described above in connection with happen, in that she

that and for-to complementizers by transformational insertions into structures which initially lack these elements, as is done in the first approach characterized above. However, Rosenbaum also represents some clauses (those yielding that clauses) as tensed in the underlying structure and others as tenseless (those yielding infinitival structures), as found in the second approach characterized above. Thus, (9a) is given the underlying representation (9b), whereas (10a) is given the underlying representation (10b):

- (9a) It happened that John came early.  
 (9b) [ [it] [John came early] ] happened  
 (10a) John happened to find gold.  
 (10b) [ [it] [John find gold] ] happened  
 (from Rosenbaum 1967:71,78)

Note the difference between Lakoff's account in (5) and Rosenbaum's. It looks as though tense is absent from the underlying embedded sentence in both accounts of the Raising construction. Lakoff, however, explicitly states that tense IS specified for verbs in the underlying structure, although it happens that AUX elements are excluded from the discussion in the body of her book. Rosenbaum makes no such comment about tense specification, and judging by the underlying representation (10b), we may conclude that such structures have no tense specification in the embedded sentence.

Thus we see that in both Poutsma's approach and the follows the Kiparsky and Kiparsky approach in her account of some constructions (see Bresnan 1970:312).

transformational approaches, there is widespread agreement that the derivation of (1) involves a rule which moves Harry out of an embedded sentential structure, though details differ considerably. Also, all of the above-mentioned linguists would subscribe to the Raising analysis for some sentences involving main verbs other than happen, though here, too, many differences emerge. All would agree that be certain, be sure and be (un)likely behave in an identical way to happen in allowing Raising to occur. Advocates of Raising have also appealed to a rule of Raising in the case of seem and appear, but there are differences depending on whether the subject is moved directly into subject position or into an object position.<sup>3</sup>

Poutsma limits Raising to just the verbs mentioned so far and this constitutes the most restrictive approach. The other extreme, in allowing Raising to occur with the largest class of predicates, would be Postal(1974), whose list of Raising-triggers numbers over 100. The intermediate approaches fall between these two extremes in various ways. One intermediate position would be that of Chomsky(1973),

3. Although I have not characterized Jespersen's position in terms of a Raising rule, he too extends his analysis of (1) to sentences with verbs other than happen, such as be likely, be sure, etc. Jespersen changes his opinion of seem in Jespersen(1924:120) and Jespersen(1937:57). He treats seem in an identical way to happen, i.e. as figuring in a 'split subject' construction. In Jespersen(1940:268-269), however, the infinitive occurring with seem is treated as an 'infinitive of specification', and the split subject analysis is explicitly rejected.

where it is claimed that Raising does not extend to embedded object clauses as in (11):

(11) I consider Harry to be unpleasant.

In Chomsky's approach, Harry in (11) is a constituent within the sentential constituent Harry to be unpleasant. The question of whether or not we are dealing with a rule of Raising in such cases has been the focus of much interest (see Chomsky1973 and Postal1974) and is closely tied to various assumptions about conditions on transformations. Chomsky(1973:254) in fact raises the question of whether a transformational rule of Subject-to-Object Raising, as has been proposed for (11), should be prohibited altogether. Chomsky suggests that operations which do not change the terminal string but only the associated structure (and Subject-to-Object Raising would be one such operation) should be handled by readjustment rules as proposed in Chomsky and Halle(1968) rather than by transformations.

Even when there is agreement that Raising applies, there can be differences in the statement of the rule. For example, both Kajita and Postal agree that the sentences in (12) involve Raising into subject position:

- (12a) Harry turned out to be unpleasant.  
 (12b) Harry happens to be unpleasant.  
 (12c) Harry tends to be unpleasant.

Whereas for Postal these sentences are derived in exactly

parallel ways by the one rule of Raising. Kajita posits different underlying structures - shown in (13):

- (13a) [it] turned out [Harry be unpleasant]  
 (13b) [ [it] [Harry be unpleasant] ] happens  
 (13c) [Δ] tends [Harry be unpleasant]

Accordingly, three different sub-rules of Raising are required to convert these structures into the surface structures in (12).<sup>4</sup>

Clearly, there are many divergent views about the form and extent of Raising in English. Nevertheless, there is widespread agreement in the transformational literature on one point, namely that the constructions called Raising constructions in Postal(1974) should be given an underlying representation in which there is an embedded sentential complement. Thus, though Chomsky(1973) and Postal(1974) differ radically in their view about Raising into object position, both agree that the purported/real cases of Subject-to-Object Raising involve an underlying representation which contains an embedded sentential structure, as in (14):

- (14) I consider [...Harry (to) be unpleasant]

In the course of this dissertation, I will have

4. Case (a) of Kajita's Raising rule is needed for (13a), case (c) for (13b), case (d) for (13c). Kajita mistakenly claims that the (13b) structure, in which it is contiguous with the embedded sentential complement, is handled by case (a), the structural description of which requires it to be separated from the embedded sentence by AUX and V. (cf. Kajita1968:137)

cause to question the validity of this approach.

### 1.1.3 The Current Status of Raising

This thesis is presented against the background of research which has been carried out in the theory of transformational grammar, as formulated in Chomsky(1965) and ensuing studies such as those discussed in the preceding section. Due to the intensive research which has been undertaken, the shape of this theory has undergone significant change. Transformational rules in particular have been examined closely, and as a consequence of this they have undergone a variety of changes. The previous section illustrated this aspect of transformational work by detailing the various formulations of the rule of Raising.

In the history of transformational syntax, we witness not simply a succession of revisions, but in addition an increasing uneasiness with the approach. The discussion has not just revolved around the nature of refinements to transformational rules, but has turned upon the question of whether such rules even exist. The discussion concerning passive sentences, for example, has produced a number of revisions to the transformational rule which forms passive sentences, e.g. the by phrase in passive sentences is introduced as part of the Passive rule in Chomsky(1957) whereas it is present in the deep structure in Chomsky(1965). More importantly, however, the rule itself has been called into

question in Freidin(1975), Langacker and Munro(1975) and elsewhere.

With respect to the rule of Raising, the discussion has centered upon the problem of the correct formulation, as documented in the previous section. The basic idea underlying the Raising analysis has not been the subject of any controversy. Postal(1974:38) makes the following observation:

The statement by Stockwell, Schachter, and Par-tee(1968:56) thus seems to be as true today as when written: 'It is quite analogous to the MAIS-SUBJ principle...which has been accepted in some form by virtually everyone who has examined sentences of this type.'

The fact that a Raising analysis is undeniably well entrenched in current linguistic theory is of course in no way a validation of this analysis. In fact, the more entrenched the analysis, the more necessary it is to re-examine the relevant data and to consider alternative analyses. This thesis continues the critical discussion which transformational grammar has engendered by re-examining the data which has led to the Raising analysis. This study will not assume the validity of the transformational rule of Raising. References to 'Raising constructions' will nevertheless be made as a convenient way of referring to sentences like (1) above, though in using this term I do not mean to imply that a rule of Raising exists. Due to the familiarity of the rule of Raising, such a term immediately

calls to mind a set of constructions. For this reason, and no other, I will use the term 'Raising construction' throughout.

## 1.2 The Framework

Linguistics has experienced a proliferation of theories since the standard account of Chomsky(1965), without any one theory commanding the allegiance of a majority of linguists. The proliferation of theoretical fragments has not resulted in a variety of significantly different analyses of Raising constructions. In order to seriously re-evaluate the analysis, then, it will be necessary to 'step outside' of these theories. Theoretical sparseness in this case is not some unhappy consequence of current confusion in syntax, but rather a pre-requisite to a meaningful reappraisal of the data.

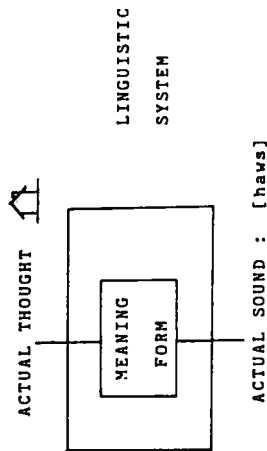
While the theoretical assumptions underlying linguistic research can no longer readily be agreed upon, there must be some guiding principles behind any investigation. In the hope of reaching as wide an audience as possible, this thesis will have a critical reliance on as few principles as possible. In the following three sections I will present the critical principles which will determine the outcome of this research. It will be manifestly clear that the following remarks do not by any means constitute a

linguistic theory, in the sense of, say, the standard theory. However, it is also clear that NO current theory can compare with the achievements of the many years of research carried out within the theory defined by Chomsky(1965).

#### 1.2.1 On Semantic Representation

I am proceeding from the position that a linguistic system includes at least units which associate a meaning and a form. The meaning and form which together constitute a unit in the linguistic system are to be distinguished from the thought and utterance which accompany the use of these linguistic units. For example, I can think about where I live and by means of a unit in English which associates a certain meaning with a certain form, I can express my thought by the utterance [haws]. The linguistic system mediates between thoughts in our heads and utterances produced or perceived, allowing in this way a principled connection to be made between thought and utterance. (15) illustrates this conception of a linguistic system, which can be traced back to the views made explicit by de Saussure in his Cours, published posthumously in 1916 (de Saussure1964).

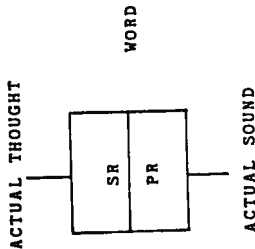
(15)



There may be controversy about the way to represent thought, or the way to represent the interconnections between the many units in the linguistic system, but I believe there would be general agreement about the correctness of the overall schema.

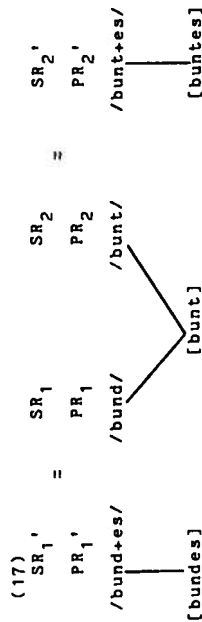
In order to make the following discussion more immediately understandable, I will make use of the terms 'semantic representation' (SR) and 'phonological representation' (PR) in place of 'meaning' and 'form' respectively. Beginning at the word level, a word-unit is viewed in the following way:

(16)



It is a problem of linguistics to determine the appropriate SR and PR of words. Consider first the problem of PR. One approach might be to say that the PR of a word should be in an exact correspondence to the representation of the uttered sound associated with the word (i.e. the phonetic representation). Another approach would be to allow the PR to differ from the phonetic representation, thus allowing the possibility that words expressed by exactly the same sound might be represented by means of different PRs in the linguistic system. Work in generative phonology has established at least the plausibility of the latter approach. Thus, the most commonly offered analysis of the German words bunt 'colorful' and Bund 'federation' is one which gives distinct PRs for these words, despite the fact that the phonetic realization of these words is in both cases [bunt]. The considerations which lead to this result are essentially the following: by positing distinct PRs for these two words, DESPITE the phonetic identity, one can show

the difference between these forms in the ways they behave with respect to other parts of the system. By assigning a PR /bund/ to Bund, one is better able to account for the phonetic form [bundes] when an -es suffix is added. Bunt, on the other hand is represented as /bunt/, since the word is realized as [buntes] when an -es suffix is added. This situation can be diagrammed as in (17).



Parallel remarks may be made concerning the SRs of words. In this I follow the position argued for in Langacker(1976), where the distinction between 'conceptual structures' (the structures manipulated in cognition) and 'semantic representations' (the structures determined by linguistic principles) is made. Conceptual structure, in this view, encompasses a variety of non-linguistic phenomena - such as thinking of a melody to which there are no words - in which case the distinction between conceptual structure and a linguistically relevant semantic representation is clearest. In the case of cognition which relates to language, the distinction still needs to be upheld. So, for





phonetic or phonological notation.

### 1.2.2 Base and Profile

In this dissertation I will explore one particular way in which distinct semantic representations may be associated with one and the same conceptual structure. The approach will make use of the notions 'base' and 'profile', as these terms are used in Langacker(1979a).

'Base' refers to a conceptual complex which groups together objects and relations which interact in ways which are significant to the society and culture. 'Profile' refers to the particular portions of the base that the symbol designates. To characterize the meaning of child, for example, one must recognize a conceptual complex of some significance in our society, namely the existence of male and female sexes and that the union of a male and female can produce offspring. This conceptual complex is the base within which the particular entity child is profiled. Similarly, the characterization of the meaning of knife requires reference to a scenario in which an object of a canonical shape is utilized in a particular way to make a cut. This scenario is the base; the lexical item knife profiles a particular object within this complex. To attempt to characterize the meaning of knife by simply listing features such as SHARP, INSTRUMENT, etc. would be hopelessly inadequate in

terms of capturing the particular ways in which a knife interacts with the material being cut. Such an approach would fail to express the fact that the sharpness is to be found in a particular part of the instrument, that it is the sharp part which figures in the actual cutting etc.

It is not only the category of noun which motivates a base/profile distinction. Just as knife profiles an object within a particular scenario, so cut profiles a type of motion which necessarily makes reference to a particular type of object (one with a sharp edge) interacting with some other object (one with a penetrable surface) in a certain way. An adjective like blue profiles a range of color within a base (here, the color spectrum). I believe the meaning of any lexical item, regardless of grammatical category, will necessitate reference to a larger assembly of functionally related entities. Although I have illustrated the notions of base and profile with only a handful of examples, I believe these concepts will be crucial in the characterization of the meaning of any lexical item.

The notions of base and profile are relevant in characterizing not only the meaning of a lexical item, but also the meaning of the more complex conceptual configurations found at the level of constructions. Consider the set of sentences in (19), taken from Langacker(1979a):

- (19a) Bill shaved.  
 (19b) Bill shaved Harry.

- (19c) Bill shaved his moustache.  
 (19d) Bill shaved his legs.  
 (19e) This razor can barely shave my  
 tough beard.  
 (19f) Bill shaved the hair off his legs.  
 (19g) Bill shaved the hair off his chest  
 with a knife.  
 (19h) This sword can shave the fuzz off  
 a peach.

All these sentences are understood against the background of a conceptual complex in which a sharp instrument guided by some agent moves along a surface and in so doing detaches some adhesion to that surface. Each sentence focuses not only on some motion but, in addition, on various sub-parts of this conceptual complex: in (a) the agent guiding the instrument, in (b) the agent guiding the instrument and the person whose hair is being shaved, in (c) the agent guiding the instrument and the adhesion being removed, etc. The constructions in (19) may be said to select different profiles from one conceptual complex. The use of the term 'profile' here is comparable to Fillmore's 'figure' or 'perspective', as in the following quotes:

Whenever we pick up a word or phrase, we automatically drag along with it the larger context or framework in terms of which the word or phrase we have chosen has an interpretation. It is as if descriptions of the meanings of elements must identify simultaneously 'figure' and 'ground'.  
 (Fillmore1977:74)

We recognize scenes or situations and the functions of various participants in these scenes and situations. We foreground or bring into perspective some possibly quite small portions of such a scene.  
 (Fillmore1977:80)

The pair of sentences in (20), as they are normally understood, illustrate alternative profiling of elements within exactly the same base:

- (20a) Bill shaved his legs.  
 (20b) Bill shaved the hair off his legs.

These sentences may be said to mean the same thing at one level of analysis (the sentences describe the same base), but are different at another level of analysis (the sentences profile different entities). The distinction between base and profile leads automatically to a refinement in our notions about meaning equivalence. Thus, one may ask whether meaning equivalence should include identical profiling or need it only refer to identical bases. By the former criterion, the sentences in (20) would not be equivalent, by the latter criterion they would be. Distinguishing meanings on the basis of different profiles would be an instance of what Tuggy(1980) calls the 'Magic Criterion', as opposed to the 'Functional Criterion' and the 'Truth-value Criterion', neither of which makes crucial reference to profiling.

The preceding remarks suggest a way of establishing a situation like that shown above in (18), since we can view the different profiling of a conceptual structure as constituting distinct semantic structures. The pair of sentences in (20) may be said to describe the same conceptual situation, but they represent distinct profiling possibilities and hence would be represented by distinct semantic

representations. In exploring the semantics of Raising constructions, I will make important use of this type of profiling.

It should be noted that even within the profile, there can be alternative perspectives on the interrelationships between the elements. Consider the pair of sentences in (21), taken from Langacker(1979a):

- (21a) The statue is on the pedestal.  
 (21b) The pedestal is under the statue.

These sentences profile identical elements of a scene, but they do so in different ways: in (21a), the statue is located with respect to the pedestal; in (21b), it is the converse. One might say that the statue is presented as a figure in a figure-ground relation in (21a) and the converse for (21b). We thus see that the figure-ground distinction manifests itself at different levels of analysis. In this dissertation, we will be chiefly concerned with the level of analysis at which profiled elements are distinguished from non-profiled elements within a base, rather than with the level at which one speaks of the foregrounded element within the profile.

### 1.2.3 On Linguistic Gradation

One crucial type of relationship which can hold between the elements in a linguistic system is that of a

continuum in which a gradation in characteristics can be established. I make no initial assumption that all contrasts must be describable in terms of binary oppositions and no attempt will be made to impose binary oppositions on data.

While Sapir(1944) was one of the first attempts to address problems of gradation in linguistic analysis, recent work in linguistics has also seen a number of proposals involving the notion of a continuum. Ladefoged(1971:91), while endorsing the view that the 'binary principle is a major factor in human communication', rejects the analysis of vowel height in terms of the binary features [ $\pm$ high] and [ $\pm$ low], as proposed in Chomsky and Halle(1968). Instead, Ladefoged proposes a feature [Height] to describe the height of any vowel, with a low vowel construed as having this feature to the lowest degree. The choice of feature systems is important in so far as they make different claims about the behavior of vowels (discussed in Ladefoged1971:103). The mere fact that there is a clear contrast between a high vowel and a low vowel does not itself argue for a binary feature. If further examination reveals, for example, a number of vowels intermediate between the high and low vowels, then the high and low vowels are better analyzed as the end-points on a scale of height. Ladefoged(1971:12ff) also proposes to view voiced and voiceless states of the vocal chords as points on a continuum of glottal stricture with 'breathy voice', 'murmur', and 'lax voice' falling

between the values of voiceless and voiced.

In syntax, categories and construction types have also been analyzed in terms of a continuum. Most notably, Ross(1972) has argued that the categories verb, adjective, and noun represent points along a kind of continuum, called a 'squish'. A number of syntactic processes are shown to apply most to verbs, less to adjectives, and least of all to nouns. The rule of Raising is in fact one such process: it is triggered mostly by verbs, less by adjectives, and least by nouns. Ross(1973) argues for a 'nouniness' squish in characterizing the behavior of types of complements.

In re-evaluating the Raising analysis, gradual transitions will be respected. This means that an apparently stark contrast between X and Y may turn out, upon closer inspection, to be a contrast between end-points of a continuum, in which case X and Y need to be characterized in a unified way.

### 1.3 Outline of Thesis

In this thesis, a Raising construction will be viewed as containing an infinitival, or processual, predicate adjunct. We will approach such constructions by way of a discussion of a relatively simpler type of predicate adjunct constructions, namely those containing stative predicate adjuncts. Chapter II considers a range of

constructions with stative predicate adjuncts, both intransitive and transitive, and analyses are proposed to accommodate the semantic observations.

One type of predicate adjunct construction merits special attention. Constructions involving perception predicates and seem and appear have been taken to involve an application of a Psych Movement transformation. Chapter III continues the spirit of reappraisal underlying this thesis by re-examining the relevant data. An alternative analysis which does not rely on Psych Movement is offered.

Chapter IV is a discussion of a range of Raising constructions. Semantic and syntactic evidence is presented which argues for a unitary treatment of Raising and Equi constructions, comparable to the position taken in Chapter II. In this chapter, too, both intransitive and transitive Raising constructions are considered.

Chapter V proposes an alternative way of viewing the facts handled by the transformation of to be Deletion. It is argued that the data lends itself more naturally to an analysis in terms of a processual extension in the predicate adjunct.

Historical evidence is brought to bear in Chapter VI, which gives further support to the analysis of Raising constructions offered in earlier chapters. In particular, direct diachronic analogues of the synchronic connections

established in Chapters IV and V are documented.

In the conclusion, Chapter VII, the results obtained in the course of this study are discussed in terms of their significance for a theory of language.

## CHAPTER II

### Stative Predicate Adjuncts

#### 2.1 Copulatives in Linguistics

Traditional grammar posits a special type of construction, commonly called a copulative construction, in which 'some word or words in the predicate describe or define the subject' (Kittredge and Farley1913:93). The sentences in (1) - (4) illustrate this construction - in each case the adjective in the predicate describes the subject.

- (1a) Mary appeared despondent.
- (1b) Mary seemed happy.
- (2a) Mary felt sick.
- (2b) The situation sounds bad.
- (2c) The apple tastes bad.
- (2d) Mary looked ill.
- (3a) The prisoner broke loose.
- (3b) The button worked loose.
- (3c) Mary fell sick.
- (3d) Mary took sick.
- (3e) Mary got sick.
- (3f) Our friendship turned sour.
- (3g) Mary grew tired.
- (3h) The fruit went bad.
- (3i) The story came true.
- (3j) Mary became despondent.
- (3k) The door flew open.
- (3l) The president's credibility wore thin.
- (3m) Mary turned out nasty.
- (3n) Mary proved helpless.
- (3o) Mary turned nasty.
- (3p) The pie burst open.
- (3q) The frog jumped free.
- (3r) The prisoner swam free.
- (3s) The boxer stepped clear.
- (4a) Mary kept still.

- (4b) Mary remained happy.
- (4c) Mary stayed friendly.
- (4d) That rings true.
- (4e) We're running late.
- (4f) Religion loomed large in my childhood.
- (4g) The theorem holds true in all cases.
- (4h) Harry lay still.
- (4i) Harry sat still.

One can add to this list a number of either less common or archaic sounding constructions, all of which nevertheless are met with in the modern period. The following examples are quoted from the O.E.D. :

- (5a) He...is to commence fallible. (1800)
- (5b) ...the man was waxing angry. (1873)
- (5c) Woe worth the day... (1810)
- (5d) The weather held silent. (1890)
- (5e) My father continued obstinate. (1849)
- (5f) Points of practice and etiquette...bulk large in the annual report. (1926)
- (5g) The wood showed sound as a bell. (1893)
- (5h) She hung aloof from new-comers. (1891)
- (5i) (The rooms) struck damp and chilly... (1894)
- (5j) The better sort of people fight shy of him. (1867)
- (5k) ...the cakes at tea eat short and crisp. (1766)
- (5l) The burgundy drinks as flat as Port. (1758)
- (5m) The meat cuts tough. (1892)

For the most part, discussion of copulatives in traditional grammar was restricted to a listing of the forms which were able to, or had to, function as a copulative and perhaps some attempt at subclassification. Poutsma(1928:1-30), for example, subclassifies copulatives on the basis of synchronic semantic criteria similar to the groupings found in (1) - (4). Thus, in (1) the copulatives have to do with the speaker's impressions, in (2) the copulatives relate to sensations, in (3) the copulatives are inchoative in aspect

and in (4) continuative. Curme(1931:27ff) subclassifies according to the way in which the copulative arose from a transitive verb, an intransitive verb etc.

By classifying the constructions found in (1) - (5) as belonging to a special class called copulative, the traditional approach failed to do justice to the relationships which hold between copulative and non-copulative constructions. Kittredge and Farley, for example, note that seem is a copulative in a sentence like (6b), but no similar comment, or indeed any comment, is made in connection with a sentence like (6a) despite the similarity in meaning and form:

- (6a) John seems to be sad.
- (6b) John seems sad.

It is a failing in a grammar of English if the grammar does not relate (6a) and (6b), and in this respect the traditional approach in Chomsky(1965) is clearly superior.

Chomsky makes no use of the notion of copulative in his account of (6b), though in early transformational literature a class of copulatives, distinct from transitive and intransitive verbs, was postulated (see, for example, Lees1963:6). It is claimed instead in Chomsky(1965:28) that the deep structure of (6a) and (6b) contains the string John is sad which becomes John seems to be sad by the transformation now called Raising: John seems to be sad becomes John

seems sad by the transformation now called to be Deletion. As support for this analysis, Chomsky notes that the analysis provides a basis for excluding become from passivization - compare (7) and (8):

- (7a) John hit an old man.  
 (7b) An old man was hit by John.  
 (8a) John became an old man.  
 (8b) \*An old man was become by John.

Presumably, at the stage at which passivization applies, to be is present and the conditions for passivization are not met. Notice, however, that categorizing become as a copulative rather than a verb would also have the effect of blocking passivization, if passivization applies only to strings containing a verb. Thus, facts about passivization of become sentences could be accounted for in either the transformational or the copulative-category approach and should not be seen as supporting one approach over the other. Furthermore, the rule of to be Deletion which is invoked in this account is not without its problems. Complications arise in connection with the sentence pairs in (9) - (13):

- (9a) John seems to be sad.  
 (9b) John seems sad.  
 (10a) He seems to be progressing well.  
 (10b) \*He seems progressing well.

- (11a) He seems to be sa nice fellow.  
 (11b) He seems sa nice fellow.  
 (12a) He ended up being destitute.  
 (12b) He ended up destitute.  
 (13a) There ended up being a revolution.  
 (13b) \*There ended up a revolution.

The sentences in (9) show that to be Deletion cannot occur if the be is followed by a present progressive -ing form (although it can occur when be is followed by adjectival -ing forms such as charming, interesting etc.). Hence, the transformation must make reference to the category of the following word. While this is possible, the transformation is tinged with an ad hoc character. The pair of sentences in (11) show that the transformation is constrained by semantic facts, apparently having to do with the observability of the predicate. A speaker can determine whether someone is a nice fellow by observing him and his behavior, but a speaker has much more difficulty in determining that a person follows a trade or a profession from simple observation - consequently there is a variation in the acceptability of the sentences in (11b). This semantic difference is in fact just the tip of an iceberg of problematical semantic differences between sentences with and without to be which are discussed in Borkin(1973). (12) and (13) show that being is also deletable, although the presence of a there subject can block its deletion (this also applies with to be). Given these difficulties, it is not surprising that no one



has presented an exact formulation of the conditions under which the deletion of to be/being may occur. Clearly, to be Deletion remains a very weak link in a derivation where it applies. We will return to some of these problems with to be Deletion in section 5.4 where some explanation for these facts will be offered.

Postal, too, would prefer to dispense with any distinct category of copulative constructions in order to deal with sentences (1) - (5). In connection with sentences such as The soup tasted funny to me, Postal(1971:40) explicitly denies that taste is a copulative:

...the adjectives here are, I think, actually irregular forms of ly adverbials, a point suggested by their correspondence with how questions, typically associated with such adverbials:

(1) How does that meat taste (to you)?

In other words, it is wrong to set up these forms as a subset of 'copulative verbs' analogous to be...

There is no basis for Postal's conclusion merely on the basis of this observation. Certainly, responses to how questions may be associated with ly adverbials:

(14) How did Mary sing? Tenderly, sweetly,...

When the questions contain a form of the main verb be, however, the response cannot contain ly adverbials, or indeed any manner adverbials:

(15) How was the party? Good, pleasant, strange,...

(\*well, \*pleasantly, \*strangely).

That is, with a verb such as sing, a how question calls for an adverbial response: with be, a how question calls for an adjectival response. What can we conclude, then, about (16):

(16) How does the meat taste? Good, strange, funny (\*well, \*strangely).

Comparing (14), (15) and (16), one is surely led to the conclusion that taste in (16) is behaving in a similar way to be in (15) in requiring adjectives rather than adverbs in the responses. Postal's conclusion, on the other hand, requires us to construe good, strange and funny in (16) as disguised adverbials. While funny may be able to act as an adverbial in English (She danced funny) in place of an expected funnily, it is clearly not acting in this capacity in (16). If funny were to be analyzed as an adverbial in (16), we would also expect adverbial forms (\*well, \*strangely) which would be ungrammatical. Thus, the argumentation presented by Postal (and Chomsky) against a class of copulatives is without basis.

We will proceed to examine copulative constructions in section 2.2 without committing ourselves to any transformational analysis. Section 2.3 extends the discussion to transitive constructions, for which parallel remarks can be made.

### 2.2.1 Inchoatives

In this section I survey the various types of semantics associated with sentences like those in (3), the inchoative copulative constructions. To begin with, let us look more closely at the meanings of the sentences below:

- (17a) The prisoner broke loose.
- (17b) The button worked loose.
- (17c) The button became loose.

In (17a), the state of freedom which the prisoner finally achieves comes about precisely as a result of action undertaken by the prisoner. While a variety of scenarios is consistent with the use of this sentence, it requires in any case that the prisoner realized the possibility of an escape and voluntarily executed the escape by overcoming various obstacles. The sentence would be entirely inappropriate if the prisoner were to leave the prison and gain freedom by simply leaving on the expiration of the term of the sentence. There has to be some action, albeit a loosely defined one, which the prisoner carries out in order for (17a) to be appropriate.

In (17b), the situation has come about in which the button is no longer attached or is no longer tightly attached to some object, e.g. a piece of cloth. Of course, we could not say here, as in (17a), that the button somehow planned to loosen itself. At the same time, the sentence does not admit of just any kind of scenario leading up to

the final state of affairs. For example, (17b) is inappropriate if someone actually pulled the button off. Rather, the sentence seems most appropriate when there is an inadequacy in some aspects of the button or thread connecting the button (the button may have been badly made, the thread may be of poor quality etc.). Thus, (17b) requires that there have been some process at work, usually a rather prolonged one, in which the button plays a crucial role, though this role is less obvious than in (17a).

(17c) describes the emergence of a loose state of the button without any suggestion that the button itself is primarily responsible. While (17c) could be used to describe the gradual loosening of the button due to some defective state of the button as in (17b), (17c) would also be a possible description of the button if it was suddenly pulled by someone. (17b) would be less appropriate in such circumstances. (17c) admits numerous and starkly different conceptualizations, but the sentence itself does not commit the user to conceive of anything beyond the emergence of a loose state of the button.

The degree to which the subject person or thing bears some responsibility for bringing about the state of affairs in the inchoatives in (17) is thus seen to vary from being in full control, voluntarily bringing about a new state as (17a), through an intermediate situation in which the subject referent is in some way crucial but to a reduced

degree as in (17b), to the situation in which the subject referent may bear no responsibility at all as in (17c). Thus, to call all the verbals in (17) 'copulatives' is a misnomer in so far as the term suggests that the role of the verbal is no more than to indicate the joining together of a state and a person/thing. Although the term 'copulative' suggests merely a joining function, note that the definition offered by Kittredge and Farley above does not force this interpretation, but would in fact allow for the additional aspects of meaning which we have observed to be present. I will henceforth call the adjectives in (17) (eventually also the other adjectives in (1) - (5)) 'predicate adjuncts' (abbreviated p.a.).<sup>1</sup>

The variation in the semantics of the sentences in (17) turns out to be typical of the larger class of inchoatives in (3). The sentences in (18) are structured semantically like the (a) case in (17), in that the subject referent does something over which he has control and the new state arises as a result of this action:

- (18a) The frog jumped free.
- (18b) The prisoner swam free.
- (18c) The boxer stepped clear.

The pattern in (18) is quite productive with a large number of motion verbs being able to figure in the construction

<sup>1</sup> The term 'secondary predicate', suggested by Nichols (1978), would be equally appropriate.

(crawl, wriggle, run, hop, skip etc.). In each case, there is a very clearly defined, controllable action involved, though there can be varying degrees to which the action and resulting state are in fact planned prior to the execution.

We also find examples where the subject referent plays some crucial role in bringing about the new state of affairs, but where the role is somewhat hazier than in the previous cases. The sentences in (19) illustrate this type:

- (19a) Mary turned nasty.
- (19b) Mary proved helpless.
- (19c) The pie burst open.

In (19a), there is a suggestion that Mary brought on the nasty state herself, rather than the nasty state imposing itself on Mary, with Mary as the innocent victim of an encroaching behavioral problem. In (19b), Mary has performed in an inadequate way as a result of which the speaker judges that Mary is helpless. It is important to note here that the speaker's judgment of Mary rests on consideration of what Mary DOES. In (19c), there is some aspect of the pie which shares at least some of the responsibility for its bursting open. In these sentences, then, the subject referent plays a significant part in the events leading up to the final state, in that the subject referent bears some degree of responsibility for the change of state.

Now consider the sentences in (20):

- (20a) Mary fell sick.  
 (20b) Mary took sick.  
 (20c) Mary got sick.  
 (20d) Mary became sick.

In using these sentences, the speaker need not be conceiving of anything more than the emergence of a new state associated with the subject. Thus, these are like the (c) case in (17). Even so, there are differences in the latitude allowed the user in conceptualizing the evolution of the new state. So, for example, Mary's sickness could have come about by a purposeful act in (20c), but this is less possible in the other sentences. One can say Mary got sick to gain sympathy but hardly \*Mary fell sick to gain sympathy or even \*Mary became sick to gain sympathy. Thus, even when there is no explicit 'additional' role associated with the subject referent, one must still recognize different degrees to which there is a potential for such additional information to be relevant.

#### 2.2.2 Continuatives

Parallel observations can be made about the semantics of sentences involving a state persisting more or less unchanged through time. Once again we must recognize a spectrum of semantic structures.

Consider (21):

- (21a) Harry kept still.  
 (21b) Harry stayed still.  
 (21c) Harry remained still.

In (21a), the state of stillness is maintained by Harry ensuring that it is so. It is not that Harry carries out some physical act - any such act would imply that Harry did not remain still; rather, Harry maintains the state of affairs by consciously NOT acting. The necessity of a volitional component in sentences with keep can be brought out by substituting inanimate subjects where no volition is ordinarily possible:

- (22a) Harry kept warm by exercising.  
 (22b) ?The coffee kept warm.  
 (23a) Harry kept calm.  
 (23b) ?The situation kept calm.  
 (24a) Harry kept quiet.  
 (24b) ?The volcano kept quiet.

To the extent that it is possible to attribute some volition to the subject referent (metaphorically), the construction with keep seems more acceptable. Thus, one could think of natural forces such as a volcano as almost having a will of their own, in which case (24b) does not seem so bad, though this is much harder to do in the case of coffee or situation in (22) and (23) respectively.

(21b) allows a much wider range of possible conceptualizations, including but extending well beyond those associated with (21a). Notice in particular that the sub-

ject entity does not have to be a volitional entity:

- (25a) Harry stayed warm by exercising.
- (25b) The coffee stayed warm.
- (26a) Harry stayed calm.
- (26b) The situation stayed calm.
- (27a) Harry stayed quiet.
- (27b) The volcano stayed quiet.

Despite the fact that a volitional component is not essential with stay, a subject like Harry nevertheless invites a volitional interpretation which makes sentences like Harry stayed calm and Harry kept calm virtually synonymous.

(21c) asserts nothing more than the continuation of Harry's state of stillness and appears less biased to a volitional interpretation than the p.a. construction with stay. Consider the contrast in (28):

- (28a) ?Harry stayed ill for three days.
- (28b) Harry remained ill for three days.

Being ill is not something a person normally brings about volitionally. With stay, a human subject like Harry tends to receive a volitional interpretation. Giving rise to a volitional/non-volitional conflict and the somewhat strange sentence of (28a). With remain, on the other hand, there is no such volitional bias and the sentence is perfectly acceptable (and understood non-volitionally). Thus we can say that (21c) claims merely that a particular state of affairs has persisted through time.

Other continuative constructions fall somewhere within the semantic range evidenced by (21a) - (21c). Like (21a) would be:

- (29a) Harry lay still.
- (29b) Harry sat still.
- (29c) He stood mute with rage and wonder.
- (29d) She hung aloof from newcomers. =(5h)

In all these, the subject entity participates in some process which accompanies the ongoing state of affairs. Only in (29d) is there a suggestion that this process includes physical actions, though even here it is more a matter of purposeful lack of action. In fact I have not found any convincing examples of continuatives where the continuation of a state is dependent on actions undertaken by the subject referent. Presumably, actions normally lead to altered states, whereas inaction normally maintains existing states. This may help to explain the productive use of action verbs in inchoative constructions and the rarity of such verbs in continuative constructions.

We're running late is similar to the cases in (29) in that the subject referent participates in some process, but unlike, say, she hung aloof there is not a clear intention on the part of the subject which is responsible for the state being as it is. There is a sub-component of action in the meaning but the subject entity bears a lesser degree of responsibility than is subsumed in (29d).

The sentences in (30) appear more like the (c) case in (21) where there is no additional role associated with the subject referent, apart from the fact that the referent exists in a certain state:

- (30a) The theorem holds true in all cases.
- (30b) Religion loomed large in my childhood.
- (30c) Points of etiquette...bulk large... = (5f)

Even so, there are distinctions to be made within this set in the potential they have to include a volitional component. Hold, for example, does have uses in which the subject entity is taken to be acting as a volitional agent, as in Hold still, horse! (quoted in O.E.D., 1865), though the sense here is more inchoative than continuative.

### 2.2.3 Analysis of Intransitive P.A. Constructions

The semantic facts which have been established in connection with inchoatives and continuatives force us to recognize a gradation within such constructions involving a number of parameters. In each case, a state (expressed by a P.a.) is predicated of the subject entity. A closer examination has shown us, however, that the subject entity may figure in some additional way in the computation of the meaning.

In the case of inchoatives, we found in particular a variation in the degree to which the subject entity engages

in some ACTION in bringing about the new or changed state of affairs. There may be a clearly defined physical action involved, some less well-defined process, or no such process at all. With both inchoatives and continuatives, we found also a variation in the extent to which the VOLITION of the subject entity is a relevant component of meaning. The evolution/continuation of the state could vary from being fully under the control of the subject entity to being in no way under such control. A further notion which can be distinguished is that of RESPONSIBILITY. Although this notion is closely related to the notions of action and volition, it is still worthwhile to recognize a degree of responsibility in addition to the presence of these other factors. Thus, we're running late would appear to be distinguished from she hung aloof in part by the greater degree of responsibility which the subject entity in the latter sentence bears.

Each of the factors which we have singled out is in turn quite complex. Thus, there is no simple criterion for determining unequivocally and in every case whether there is action or not, volition or no volition, responsibility or no responsibility. Now, then, can we represent the semantics of these sentences so that we do justice to the gradient nature of the semantics?

Any analysis which seeks to impose a dichotomy of these sentences into cases where an additional role of the subject entity is present and cases where there is no such

additional role will not provide a natural framework to handle the gradient nature of the semantics involved. That is not to say that such an approach could not be made to work in some fashion - with sufficient qualifications, footnotes, caveats, and general under-the-carpet-sweeping, one could undoubtedly give some account in terms of such a dichotomy. This would not be an honest way of dealing with the facts and one should seek an alternative analysis which is not rooted in a binary opposition.

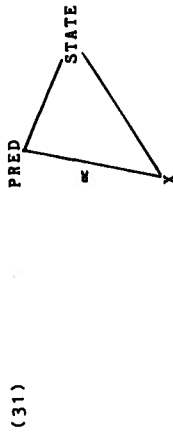
I believe the concepts which are needed to handle the transitional aspects naturally are those introduced already in Chapter I, namely those of base and profile. These concepts can be applied to the constructions in the preceding two sections as follows: Each of the inchoative/continuative sentences pertains to a semantic base which associates a state with an entity X. Both inchoatives and continuatives require a time dimension to be incorporated into the base since the state either evolves through time (in the case of inchoatives) or persists through time (in the case of continuatives). The semantic variation which one finds within these two classes of constructions is a matter of a change in the viewpoint or profile. At one end of the continuum, the profiled portion of the base involves X and X's willful role in creating or maintaining the association of a state with X. The association of a state with X is thereby taken as a consequence of

X's intent. The decreasing salience of X's role which we have documented in the preceding sections can be understood as a narrowing down of the profile. What 'shrinks' in the profile is the role associated with X, not X itself. The profile ranges from X in some active role, through X in some diminished role, to X without any particular role profiled. When only X is profiled, the association of a state with X is not understood as the result of anything X does.

The notions of base and profile thus permit a unified treatment of the intransitive p.a. constructions while at the same time providing a natural account of the variation which is found within these constructions. What is common to all the inchoative constructions is a base in which X becomes associated with a state and a profile which includes X. The variation resides in the degree to which X's actions, volition, and responsibility are profiled. Similarly, continuative constructions all refer to a base in which the association of a state with X persists through time. The profiling includes X and variable degrees of volition and responsibility associated with X.

A more formal account of this variable profiling would be far too ambitious at the present stage. Some ideas concerning the representation of base and profile are presented in Langacker(1979a), but there is some diversity in the notations suggested there and the suggestions are not obviously applicable to the kind of variable profiling we

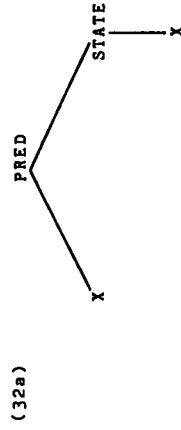
are dealing with here. A highly schematic representation of intransitive p.a.constructions making use of a tree structure might be as shown in (31):



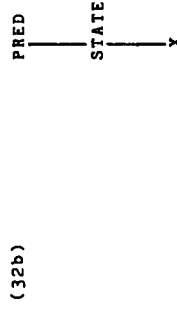
where  $1 > \alpha > 0$

PRED stands for a complex chunk of structure. For the inchoatives, it will include semantic elements indicating that the state is emerging and for the continuatives, elements indicating the continuation of a state. Additional and highly diverse elements can also be present which indicate various additional nuances attaching to the different constructions. I will leave PRED as an abbreviation for these elements, fully aware that I have given merely the skeletal structure. Normally, a left-branch in such tree structures is taken as indicating the subject. In the case of (31), I use the left-branch to distinguish X as a salient part of a relation. One might still call X the semantic subject, but the relationship between X and the emergence or continuation of the state will be rather different from the conventional notion of semantic subject.  $\alpha$  represents the degree to which the role of X in creating or maintaining the state is present.  $\alpha$  varies in value from 1, where X plays an active,

volitional, and responsible role, to 0, where no such role can be ascertained. In the limiting case where  $\alpha = 1$ , the schema in (31) is tantamount to, or can be 'mapped' onto, the more conventional representation of (32a) with X appearing in two positions. In the other limiting case where  $\alpha = 0$ , (31) reduces to the more conventional representation of (32b) - after some 'straightening out' of the structure:



Alternative Statement of (31)  
in which  $\alpha = 1$



Alternative Statement of (31)  
in which  $\alpha = 0$

The proposed representation in (31) is superior to the more conventional representations in (32) in so far as it encompasses not only the limiting cases but also the intermediate cases. While (31) fails to show exactly how



the profiling varies, it does give direct expression to the gradual nature of the semantics involved in these constructions. Ultimately, I believe some of the notational devices suggested by Langacker will prove more useful than such tree structures, but as a first approximation, a tree structure like that in (31) will suffice.

### 2.3.1 Resultatives

Some examples of p.a. constructions with transitive verbs are given in (33) - (34):

- (33a) Harry washed the clothes clean.
- (33b) Harry scrubbed the floor clean.
- (33c) Harry rubbed the stone smooth.
- (33d) Harry licked the plate clean.
- (33e) Harry shot him dead.
- (33f) Harry stripped the tree bare.
- (34a) I dub thee Sir Gerald.
- (34b) The doctor pronounced Harry dead.
- (34c) The jury found Harry guilty.
- (34d) The parents baptized their baby Harry.
- (34e) The parents named their baby Harry.
- (34f) The committee elected Harry president.
- (34g) The inspector deemed the building unsafe.
- (34h) The minister pronounced the couple man and wife.

In (33), each of the sentences describes an action, as a result of which a new state is associated with the person or thing affected by the action. I will call the construction exemplified in (33) (and (34), to be discussed later) the resultative construction. It is comparable to the inchoative construction discussed in section 2.2.1, except

that here the new state is clearly the result of an action.

It is not simply any combination of process and resulting state which can figure in resultative constructions. One might claim, for example, that the sentences in (33) are no more than truncated versions of more complex sentences containing a string like with the result that... (33a), after all, has a meaning like 'Harry washed the clothes with the result that they were clean'. Similarly for the remaining sentences in (33). It would be wrong, however, to think that any simple reduction process gives rise to such sentences. Thus, while the (a) sentences in (35) - (38) are acceptable, though somewhat stilted, the corresponding truncated (b) sentences are either unacceptable or at best only marginally acceptable:

- (35a) They burnt him with the result that he died.
- (35b) \*They burnt him dead.
- (36a) I cooked the meat with the result that it was hot.
- (36b) \*I cooked the meat hot.
- (37a) I speared the lion with the result that it was injured.
- (37b) \*I speared the lion injured.
- (38a) I washed the clothes with the result that they were spotless.
- (38b) \*?I washed the clothes spotless.

The sentences in (33) therefore represent conventionalized combinations of process and resulting state and are not automatic reductions of a process and a semantically compatible result clause. Such constructions can thus be said to

have 'unit status' in the sense in which this term is used in Langacker(1979a:90), where it is used to refer to structural complexes which 'have been mastered to the point that the speaker manipulates them as fixed, established entities without having to focus attention on their internal make-up in 'a constructive effort'.

### 2.3.2 The Semantics of Resultatives

To illustrate the range of semantics covered by the resultatives, consider the set of sentences in (39):

- (39a) The committee judged Harry the winner.  
 (39b) Harry found the chair uncomfortable.  
 (39c) The authorities deemed the building unsafe.

(39a) describes the result of a process involving as participants the committee and Harry. The committee judged Harry and the result of their deliberations was that they declared that Harry was the winner. In other words, there are two predications of Harry - on the one hand, he is a participant in a competition which includes being judged and, on the other hand, at the end of the competition he is in the state of being the winner.

In (39b), the finding that the chair is uncomfortable is linked to some experience of the chair. Bor-kin(1973:46) alludes to the experiential basis of a sentence like (39b):

To use (10c), however, I must have experienced the chair as uncomfortable. I would use (10a)...but certainly not (10c) if I have just searched through my files to find out about consumer reaction tests:

- (10a) I find that this chair is uncomfortable.  
 (10c) I find this chair uncomfortable.

Like (39a), then, the subject and object entities participate in some process which leads to a resulting state, though the process seems more obviously part of the structure in (39a) than in (39b). The experiential basis of the finding is only implicit in (39b), whereas the process giving rise to the final state in (39a) (The committee judged Harry) is an explicit sub-part of the whole structure.

(39c) requires no particular type of interaction between the authorities and the building. It permits an interpretation that the authorities might have inspected the building but it does not force such an interpretation. Typically, it would be the case that the authorities have some knowledge of the building but it does not have to be based on actual physical contact as in the case of (39b). The knowledge could be based on a visual impression of the building or simply a rumor about the building.

The resultatives in (33) and (34) show the same kind of spread in their semantics, i.e. the entity designated by the grammatical object participates to varying degrees in an interaction with the subject entity. The sentences in (33) all clearly have as a sub-part of their

semantic structure a process involving the subject and object entities. A two-participant process is less overtly present in the following sentences taken from (34):

- (40a) I dub thee Sir Gerald.
- (40b) The doctor pronounced Harry dead.

The prototypical act of dubbing appears to require that the dubber places a sword on the shoulder of the dubbees. To pronounce someone dead, a doctor would be expected to have actually examined the person. Conceivably, there could be some deviation from the normal routines associated with these acts, but the standard use of such sentences would require some kind of interaction between the subject and object entities.

In the remaining sentences in (34), there is no necessary physical interaction between the subject and object entities, though in each case they represent crucial pieces in various social games (such as a court trial, marriage ceremony etc.).

### 2.3.3 Simultatives

Let us turn now to p.a. constructions in which the adjective or noun associated with a grammatical object elaborates on the existing state of the object:

- (41a) I ate the meat raw.
- (41b) I drank the beer cold.

- (41c) I bought the car new.
- (41d) The natives cooked the missionary alive.
- (41e) The natives skinned the missionary alive.
- (42a) I like Harry a little tipsy.
- (42b) I prefer my music soft.
- (42c) I want you happy.
- (42d) I consider Harry a coward.
- (42e) I believe Harry incapable of loving.
- (42f) Harry reported the survivors safe and sound.

Consider first of all the sentences in (41). In each of these sentences an adjective elaborates on the state which the object of the verb finds itself in at the beginning of the action designated by the verb. The length of time for which the state is maintained once the action is under way varies somewhat. In (41d) and (41e), for example, the state of being alive will not be true of the missionary at the end of the process of cooking in (41d) and skinning in (41e). On the other hand, the state of being new will be true before, during and immediately after the process of buying in (41c). In the case of (41a) and (41b), it is unclear whether states such as being raw or cold apply to food or beverage after they have been consumed. One might refer to the construction illustrated in (41) as the 'simultative' construction, where the simultaneity of the process and state holds at least at the commencement of the process.

Thus one can see a certain parallel between the sub-types of the intransitive and transitive p.a. constructions, resultatives being the transitive counterparts to inchoatives and simultatives the counterpart to continua-

tives.

As with the resultative construction, one must recognize the unit status of the combination of process and associated state. There is an integration of the process and state in the simultative construction which distinguishes this construction from a similar relative clause construction, exemplified in (43):

- (43a) I ate the meat which was raw.
- (43b) I drank the beer which was cold.
- (43c) I bought the car which was new.
- (43d) The natives cooked the missionary who was alive.
- (43e) The natives skinned the missionary who was alive.

While the sentences in (43) can be understood in an identical way to the corresponding sentences in (42), they also allow readings in which the process and state are not integrated as they are in the simultative construction. In (43), it could be that the time-span associated with the relative clause is in fact prior to the time-span associated with the main clause.

Semantically, the sentences in (41) are more closely related to the corresponding sentences in (44), containing a time clause:

- (44a) I ate the meat while it was raw.
- (44b) I drank the beer while it was cold.
- (44c) I bought the car when it was new.
- (44d) The natives cooked the missionary while he was alive.
- (44e) The natives skinned the missionary while he

was alive.

In any case, one can not automatically convert sentences containing either a relative clause as in (43) or a time clause as in (44) into simultative constructions. Compare the (a) and (b) sentences in (45) - (48):

- (45a) I hit the dog {when it} was helpless.
- (45b) \*I hit the dog {which} helpless.
- (46a) I washed the clothes {when they} were dirty.
- (46b) \*I washed the clothes {which} dirty.
- (47a) We eat apples {when they} are plentiful.
- (47b) \*We eat apples {which} plentiful.
- (48a) The natives skinned Harry {while he} was happy.
- (48b) \*The natives skinned Harry {who} happy.

As the (a) sentences show, there is nothing wrong conceptually with linking the processes and states selected in each sentence. We must, however, recognize that of the conceptually possible combinations of processes and (object-elaborating) states, only some combinations can be realized in a simultative construction. As to why particular combinations of processes and states enjoy this status while others do not, one must look beyond dictionary meanings of the individual elements to the cultural and social significance of the interaction of the process and state. Consider, for example, the process of skinning a person. The person about to be skinned might find himself in any

number of states - cold, hot, flat etc. Our attitude towards the process and the participants involved is not going to be influenced by the knowledge that the person being skinned was cold rather than hot. On the other hand, our attitude towards the event and the perpetrators will be influenced by the knowledge that the person was skinned while he was still alive, since this causes feelings of horror. It is not surprising, then, that to skin alive is an established combination while to skin hot is not.

As another example of how extralinguistic facts may determine the unit status of some simultative/resultative constructions, consider eat. Eat occurs in a simultative construction (The Japanese eat fish raw) but not in a resultative construction (\*I ate the fish mushy/lumpy/congealed). The absence of the resultative here is no doubt related to the difficulty one has in even imagining the state food is in after it has been ingested.

It is not always so that the occurrence of main predicates and adjectives in a resultative/simultative construction can be easily explained away. Take wash, for example. When washing clothes, it seems relevant BOTH that the clothes are typically (though not necessarily) dirty to begin with and that they are typically (though not necessarily) clean on completion of the process. Hence, one might expect to find both a simultative and a resultative construction with wash. In point of fact, there is an

established resultative construction (to wash the clothes clean), but no simultative (\*to wash the clothes dirty). Ultimately, then, one must recognize the conventionalized character of p.a. constructions, even in the face of the possibility of providing a motivation for some of them.<sup>1</sup>

#### 2.3.4 The Semantics of Simultatives

Consider the sentences in (49):

- (49a) I discovered Harry drunk.
- (49b) I like Harry tipsy.
- (49c) I want Harry drunk.

There are clearly two sub-parts in the meaning of (49a) - the speaker came upon Harry and at the time the speaker found Harry. Harry was in a drunken state. Harry does not have to be engaged in any particular action for this sentence to be appropriate - finding Harry lying curled up and semi-unconscious on the street with an empty bottle under his arm would suffice. But the speaker must have some kind of direct interaction with Harry, however passive Harry's role might be.

(49b) is more complex. The sentence appears to relate the speaker as much to a state of affairs as to Harry himself. The speaker expresses not only a liking for the

<sup>1</sup> See Green (1970) for more discussion of the properties of simultative and resultative constructions.

situation in which Harry is tipsy, but as well the speaker is claiming to some degree to like Harry when this situation arises. The interaction involved here is of an emotional type - the speaker has a good feeling about Harry when Harry is in a tipsy state.

In (49c), there is no particular interaction between the speaker and Harry himself. The speaker is projecting a state of affairs involving Harry but he does not necessarily enter into any additional relationship with Harry. While the interpretation does not specifically exclude such an interaction, it is certainly not a required sub-part of the semantic structure.

The semantic range illustrated in (49) is representative of resultative constructions. The sentences in (50), like (49a), have a clearly defined interaction between the subject and object entities as a sub-part of their overall meaning:

- (50a) I ate the meat raw.
- (50b) I drank the beer cold.
- (50c) I bought the car new.
- (50d) I baked the fish whole.
- (50e) We found the survivors alive.

With less well defined interactions as part of the meanings, we find sentences such as:

- (51a) I prefer my music soft.
- (51b) I consider Harry useless.
- (51c) We reported the survivors safe and sound.

In these cases, the subject referent appears to enter primarily into a relationship with a state of affairs or a proposition and only in a more indirect way with the object referent itself. Finally, in cases such as (52), there appears to be no separate interaction between the subject referent and the object referent required as part of the interpretation:

- (52a) I believe Harry insane.
- (52b) I hold Harry responsible.

### 2.3.5 Analysis of Transitive P.A. Constructions

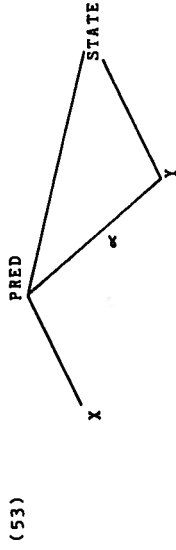
Our examination of resultative and resultative constructions has shown ways in which the object referent plays some role in the computation of the meaning, apart from merely being associated with a particular state. This additional role was established on the basis of an INTERACTION between the subject and object referents. With the resultatives, the nature of the interaction was seen to vary from an explicit two-way interaction, including physical interaction, through an implicit, backgrounded interaction to the absence of any such interaction. An examination of simultatives revealed a similar semantic spectrum.

As with intransitive p.a. constructions, then, we see that the presence or absence of an additional role of the subject/object referent is a matter of degree. In the

case of the transitive p.a. constructions, the additional role is a relatively passive, patient-like one and features such as action, volition, and responsibility, which were prominent in the discussion of subject referents, seem hardly relevant. Instead, the notion of interaction was invoked to bring out the variability in these transitive constructions.

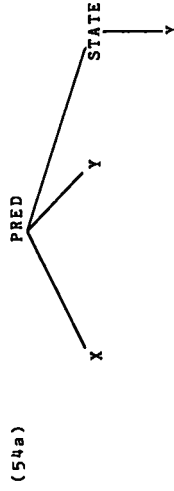
By appealing to the notions of base and profile, one is able to give a unified and natural account of the full range of semantics associated with these constructions. The base for all of these constructions will contain a relationship involving the association of a state with an object entity Y. The association of a state with Y involves Y in varying ways which can be seen in terms of a shrinking profile. The changing profile involves a variation in the explicitness of the interaction between the subject entity X and Y. The limiting case of this variation is the point where X interacts with Y only in the sense that Y is a salient part of the state of affairs or proposition with which X is involved.

A schematic representation of the semantics of transitive p.a. constructions, along the lines suggested for intransitive p.a. constructions, is shown in (53):

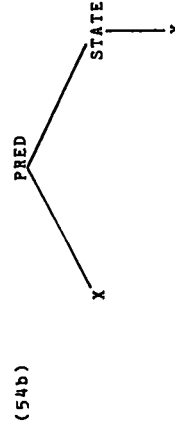


where  $1 > \alpha > 0$

(53) represents a relation between a subject entity X and an object entity Y and a state of Y. The variation in Y's role is captured by the  $\alpha$  variable ranging from 1 to 0. As with the intransitive p.a. schema of (31), the limiting cases of the transitive schema of (53) can be equated with the more conventional representations in (54a) and (54b):



Alternative Statement of (53)  
in which  $\alpha = 1$



Alternative Statement of (53)  
in which  $\alpha = 0$

## CHAPTER III

## Perception Predicates

## 3.1 Psych Movement

In Chapter II, sentences containing perception predicates or seem/appear were referred to in the discussion of copulatives. Although superficially like other copulatives, these predicates deserve special consideration, and this chapter will be an exploration of their semantic structures.

A transformational account which makes use of Psych Movement captures the relation between the two uses of a perception predicate like taste, illustrated in (1) and (2), since the structure underlying (1) forms part of the structure underlying (2).<sup>1</sup>

- (1) I tasted the apple.  
 (2) The apple tasted bad to me.

Lakoff(1968:38-43) and Postal(1974:290) propose that seem, like taste, also triggers Psych Movement (obligatorily). In this view, (3a) is converted into (3b) by application of Subject-to-Object Raising (and to be Deletion) and Psych Movement converts (3b) into (3c):

<sup>1</sup> The transformation is called Subject-Object Inversion in Rosenbaum(1967:98-99) and Flip in Lakoff(1968:38-43).

- (3a)  $\Delta$  seem {this apple be bad}.  
 (3b)  $\Delta$  seem {this apple} [bad].  
 (3c) This apple seems bad.

By analyzing seem as a trigger of Subject-to-Object Raising rather than Subject-to-Subject Raising, one is able to treat perception predicates and seem in a unified way. I believe it is correct to seek a unified account of these predicates, but I claim that the behavior of perception predicates and seem can be adequately accounted for without recourse to the transformation called Psych Movement. Instead, I will offer an account which appeals to a notion of far-reaching significance in language, namely the notion of profile-shift. In this chapter, I will propose an alternative way of relating sentences such as (1) and (2) and an alternative way of construing seem sentences without relying on a transformation such as Psych Movement.

## 3.2 Profile-shift

In introducing the notion of profile in Chapter I, we referred to child. This word highlighted a portion of a

<sup>2</sup> Postal proposes to treat appear, strike and impress in a similar way to seem. All of these triggering Subject-to-Object Raising. Postal's proposal would appear to still allow for some predicates to trigger Subject-to-Subject Raising, e.g. happen, which reference certain etc. Perlmutter(1978:303) in which reference is made to work by Postal and Perlmutter carried out after Postal(1974), suggests eliminating Subject-to-Subject Raising altogether by positing Unaccusative Strata and Unaccusative Advancement within a relational grammar framework. In this view, all instances of Raising would be handled by Subject-to-Object Raising.



network of relationships. Parent highlights a different portion of the same network. In these cases, then, we find distinct lexical items designating the different profile choices. It can happen, however, that the one lexical item may have more than one profiling possibility. An illustration of this would be finger. In one use, this word refers to any one of the ten digits on our hands, as in Most people are born with ten fingers and ten toes. There is another use, however, whereby the word refers to the digits on the hands excluding the thumbs. In the first sense, finger includes thumb, in the second sense it is contrasted with thumb. Here one can speak of finger as illustrating a profile-shift, the base consisting of the same body parts in both cases. Some other terms for body-parts show a similar profile-shift at various times in the history of English. Brow, now taken to mean 'forehead', was used to refer to either the forehead or an eye-brow up until the present century, according to the O.E.D. This same source notes that bone in the fifteenth and sixteenth centuries could refer not only to any part of the skeletal structure, but was used also to refer to a finger, as in the asservation Martin swears by his ten bones (1589). Test formerly applied either to the whole breast or to the nipple. In each of these cases, the alternative meanings can be seen as an instance of profile-shift.

The possibility of a profile-shift in the designa-

tion of one lexical item represents a common type of historical change, called 'permutation' in Stern(1931:168). A good example of a diachronic profile-shift is provided by bead, the semantic history of which is outlined by Stern(1931:168) as follows:

In the phrase he is counting his beads, the last word (M.E. bedes) originally meant 'prayers'. In the Middle Ages, prayers were mostly Pater Noster and Ave Maria, which were said repeatedly, being counted by means of the little balls on a rosary...A person saying he is counting his beads, which meant 'he is counting his prayers', would in reality see the man referred to counting the balls of his rosary. There was thus set up a close association between the word beads, with its primary meaning 'prayers', and the notion of 'balls'...The result is that, finally, the word beads is employed to designate the balls.

In the terms introduced here, there has been a shift in what bead profiles in the base (the base, here, consisting of the conceptual complex entailed by the saying of prayer in the Middle Ages). According to the O.E.D., the profile of brow has shifted from 'eye-lid' (in Old English) to 'eye-brow' and finally to 'forehead' in modern English. Kinship terms may experience similar profile-shifting in the course of history. The O.E.D. documents all the following as meanings of cousin at one point or another since the fourteenth century: a collateral relative, more distant than a brother or sister; nephew or niece; the next of kin, including direct ancestors and descendants more remote than parents and children; the son or daughter of one's uncle or aunt (the modern sense). The notion of a profile-shift is

thus seen to have importance in both synchronic and diachronic linguistics.

In the examples discussed so far, the entity profiled has been a person or object in the base. The idea can easily be extended to relations. An example of a profile-shift from one relation to another would be the case of want. In the nineteenth century, want could mean either 'lack' or 'desire'.<sup>3</sup> Now the combination of a person lacking something and simultaneously desiring that thing is a familiar occurrence and can be taken as a base in which either the 'lacking' part or the 'desiring' part can be profiled. Both senses of want are thus defined with respect to a common base. These two uses of want can be diagrammed as in (4a) and (4b):

(4a)



X wants Y. (= 'X lacks Y')

(4b)



X wants Y. (= 'X desires Y')

In these representations, the broken lines signify the backgrounded, non-profiled base. As in Chapter II, the horizontal line indicates an integration of the two predicates. In Chapter II, it was used variously as an abbreviation for a relation of either simultaneity or causation. In the above cases, the integration is understood as being more or less that of simultaneity, though a resultative aspect may also be present.

Another example of a profile-shift from one relation to another is German jucken. Jucken means 'to itch' and, in the colloquial language, 'to scratch':

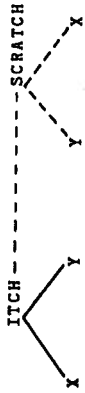
(5a) Meine Hand juckt (mich).  
My hand itches.

(5b) Juck mich mal am Rücken!  
Scratch my back!

An itch is typically accompanied by scratching, and so itching and scratching constitute a base in which jucken profiles either the 'itching' part or the accompanying 'scratching'. These alternative uses of jucken are diagrammed in (6a) and (6b):

3. The use of want in these senses is not restricted just to the nineteenth century, but it is in this century that both senses are well documented in the O.E.D.

(6a)



X juckt (Y). (= 'X feels itchy to Y')

(6b)



Y juckt X. (= 'Y scratches X')

The horizontal line of integration serves to indicate the close connection between the two predicates, here partly simultaneous and partly resultative. The left-to-right ordering of the branches has been reversed in the characterization of ITCH and SCRATCH, since it would seem that the body part is understood as responsible for the itch whereas the person is responsible for the scratching.

### 3.3 Profile-shift in P.A. Constructions

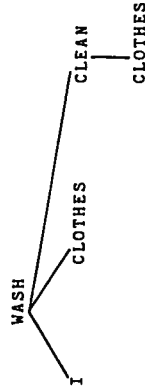
Consider now the sentences in (7):

- (7a) I washed the clothes clean.
- (7b) I washed the clothes.
- (7c) The clothes washed clean.

All three sentences may appropriately describe one and the same event, but they do so by profiling different parts of the scenario. While (7a) profiles both the action of washing

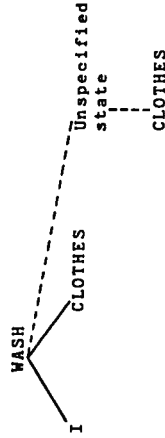
and the resulting state, (7b) profiles only the washing (though the resulting clean state will typically be present) and (7c) profiles the emergence of the state and backgrounds the role of the washer. Sentences such as (7c) in which the actor is backgrounded have been called 'deactivates' by Chafe(1970:131), a term which aptly expresses the nature of the profile-shift involved. We will proceed to represent the meanings of (7a) - (7c) by the diagrams in (8a) - (8c) respectively, in which it is clearly shown that the meanings share a common base but differ in profile. The resultatives here are represented in the form of (54a) of Chapter II, rather than according to the generalized schema of (53) utilizing the variable.

(8a)



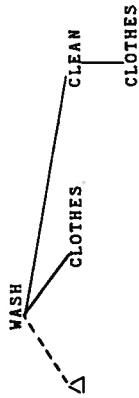
I washed the clothes clean.

(8b)



I washed the clothes.

(8c)



The clothes washed clean.

One must recognize that there are constraints on when such profile-shifting is possible. The sentences in (9) - (22) reflect my own judgments on a number of resultative constructions.

- (9a) I scrubbed the floor clean.
- (9b) The floor scrubbed clean.
- (10a) I wiped the floor clean.
- (10b) The floor wiped clean.
- (11a) I rubbed the stone smooth.
- (11b) ?The stone rubbed smooth.
- (12a) I hammered the metal flat.
- (12b) ?The metal hammered flat.
- (13a) I rolled the dough flat.
- (13b) ?The dough rolled flat.
- (14a) I pulled the door shut.
- (14b) ?The door pulled shut.
- (15a) I squeezed the lemon dry.
- (15b) \*The lemon squeezed dry.
- (16a) I scratched my skin raw.
- (16b) \*My skin scratched raw.
- (17a) I licked my plate clean.
- (17b) \*My plate licked clean.
- (18a) I patted the baby dry.
- (18b) \*The baby patted dry.

- (19a) I shot her dead.
- (19b) \*She shot dead.
- (20a) The baby sucked the breast dry.
- (20b) \*The breast sucked dry.
- (21a) I stripped the tree bare.
- (21b) \*The tree stripped bare.
- (22a) I kicked the cripple senseless.
- (22b) \*The cripple kicked senseless.

It has been suggested by Oosten(1977) that the notion of responsibility is a crucial factor in determining the acceptability of the (b) sentences above. While I do not deny that such a notion may be relevant in helping to establish particular profiling, the notion need not always be present for the required profile shift to take place and in fact counter-examples to the claim are presented by Oosten(1977:470). In The floor scrubbed clean, for example, it is by no means necessary that I am imparting responsibility for the success of the scrubbing to the floor. It could simply be a report about what I did to the floor but with my involvement backgrounded.

Ultimately, we must recognize that some types of profiling have become conventionalized (for whatever reason). Nevertheless, through subtle modifications, one can enhance the role of certain participants in a conceptual complex so that a profile-shift is possible. Thus, I find that some, but not all, of the questionable or unacceptable (b) sentences above are improved if a verbal predicate such as (just) wouldn't or (simply) refused is added:

- (11b) ?The stone rubbed smooth.  
 (11e) The stone just wouldn't rub smooth.  
 (12b) ?The metal hammered flat.  
 (12c) The metal just wouldn't hammer flat.  
 (13b) ?The dough rolled flat.  
 (13c) The dough just wouldn't roll flat.  
 (14b) ?The door pulled shut.  
 (14e) The door just wouldn't pull shut.  
 (15b) ?The lemon squeezed dry.  
 (15c) ?The lemon just wouldn't squeeze dry.  
 (16b) ?My skin scratched raw.  
 (16c) ?My skin just wouldn't scratch raw.  
 (17b) ?My plate licked clean.  
 (17c) ?My plate just wouldn't lick clean.  
 (18b) ?The baby patted dry.  
 (18c) ?The baby just wouldn't pat dry.  
 (19b) ?She shot dead.  
 (19c) ?She wouldn't shoot dead.  
 (20b) ?The breast sucked dry.  
 (20c) ?The breast just wouldn't suck dry.  
 (21b) ?The tree stripped bare.  
 (21c) ?The tree just wouldn't strip bare.  
 (22b) ?The cripple kicked senseless.  
 (22c) ?The cripple just wouldn't kick senseless.

The effect of just wouldn't in these sentences is to suggest more control over the process on the part of the affected person or object and in some cases this allows a profile-shift which would otherwise be prohibited.

Apparently, the kind of profile-shift found with resultative p.a. constructions is not as frequent with simulative p.a. constructions:

- (23a) Britons drink stout warm.  
 (23b) ?Stout drinks warm.  
 (24a) I eat meat raw.  
 (24b) ?Meat eats raw.  
 (25a) I buy cars new.  
 (25b) ?Cars buy new.  
 (26a) The natives cook missionaries alive.  
 (26b) ?Missionaries cook alive.  
 (27a) The natives skin missionaries alive.  
 (27b) ?Missionaries skin alive.

I have had to rely on earlier periods of English to find secure examples:

- (28a) If the cakes at tea eat short and crisp.  
 (1766, from O.E.D.)  
 (28b) It drinks brisk and cool. (1697, from O.E.D.)

Part of the meaning of (28a) is 'cakes should be in a crisp state when they are eaten' and part of the meaning of (28b) is 'the liquid should be in a cool state when it is drunk'. Here, too, the notion of responsibility, suggested by Oosten is not at all a relevant factor.

#### 3.4 Profile-shift with Perception Predicates

I will now proceed to discuss perception predicates and seem/appear in terms of the profile-shift established in the preceding section.

Consider the following uses of perception predicates:

- (29a) I (can) taste garlic.  
 (29b) I (can) smell fumes.  
 (29c) I (can) hear voices.  
 (29d) I (can) see trees.  
 (29e) I (can) feel a lump.  
 (30a) The garlic tastes strange.  
 (30b) The fumes smell bad.  
 (30c) The voices sound distant.  
 (30d) The trees look healthy.  
 (30e) The lump feels big.

Consider the relationship between the sentences in (29) and their counterparts in (30). The sentences in (29) serve to register sensations. In (29a), for example, the speaker is reporting that he is experiencing a sensation in his mouth (and to some extent in his nose) and this sensation is associated with garlic. Similarly, in the remaining sentences of (29), sensations are registered along with an identification of the sensation. The sentences in (30), on the other hand, elaborate on the sensation by describing some qualities of the object of sensation. This description is accomplished with an adjectival phrase in (30), which locates the object associated with the sensation on some scale. The description may also take the form of a comparison, as in (31):

- (31) The garlic tastes  $\left\{ \begin{array}{l} \text{like it was home-grown.} \\ \text{as though it were home-grown.} \\ \text{as if it were home-grown.} \end{array} \right.$

The sentences in both (29) and (30) describe sensations, but they do so in different ways: those in (29) IDENTIFY particular sensations, whereas those in (30) QUALIFY particular sensations.

(29) and (30) both refer to sensations involving particular sense-organs. I propose to view the alternation in (29) and (30) as representing a shift in profile within the same semantic base. Take (29a) and (30a) as an example. In the former case, the identification of garlic is profiled and although there will be an accompanying impression of the garlic, this aspect of the sensation remains unprofiled. In the latter case, it is the impression which the garlic makes which is profiled - ascertaining the presence of the garlic, while an inseparable part of the whole experience, is not profiled.

One might proceed to diagram the alternative profiling of (29) and (30) along the lines done for the resultative constructions in the previous section. Specifically, one might try to represent the semantics of (33) with the same kind of diagrams as were used for (32):

- (32a) I washed the clothes.  
 (32b) The clothes washed clean.  
 (33a) I (can) taste garlic.  
 (33b) The garlic tastes strange (to me).

While I believe the notion of profile-shift underlies the (a)/(b) distinction in both cases, there are some additional complexities with (33).

For one thing, (33b) is not a result of (33a), in the way that (32b) is a result of (32a). In (32a), a process is described which requires a limited span of time for

its completion. (32b) profiles the state the clothes are in upon completion of the act of washing. But consider the relationship between (33a) and (33b). The process described in (33a), as an identification of a sensation, holds over an unbounded period of time without any clear point at which the process can be said to be complete. (33b) does not profile a resulting new state, but rather it elaborates on some quality/qualities associated with the sensation. In the terms defined later (in Chapter V), (32b) describes a perfective process, whereas (33b) describes an imperfective process. Thus (33a) and (33b) are related as simultaneous (imperfective) processes, with the former a necessary accompaniment to the latter.

It has been claimed, however, that a causative relation does indeed underlie a sentence like (33b). Rogers (1972) analyzes a sentence like (33b) as a causative in which a 'cognitive' state, as represented by (33a), is the cause of the corresponding 'thinking' state in which a judgment is expressed. The analysis extends to the other perception predicates in (29) and (30). I see no basis for such an analysis of (29) and (30) which, as explained above, differ in that the former identifies or registers a sensation, while the latter qualifies the sensation. As such, the sentences in (29) are related to their counterparts in (30) in the same way that (34a) is related to (34b):

(34a) This is a house.  
(34b) This house is small.

(34a) identifies an object as a house; (34b) describes the house. In uttering (34b), a speaker must also accept the truth of (34a), but one would not say that (34a) in any way 'causes' (34b). Similarly, in uttering (33b), a speaker must accept the truth of (33a), but the former does not 'cause' the latter.

There is a further use of taste which can be distinguished. I refer here to the use of taste to describe a volitional physical act, as in (35):

(35a) Taste the fish!  
(35b) Would you like to taste this cake?  
(35c) I want to taste Mary's soup.  
(35d) The Judges are now tasting the wine.

In such sentences, taste indicates a (perfective) process which can have a point of completion. Here, then, one might look for a resulting change of state at the end of the process. In particular, the sentences in (33) might be taken as effects of a volitional act of tasting garlic. But even in this case, the connection between the volitional act and the following sensation is not as strong as the connection between the wash sentences in (32). While (32b) has to come about as a result of someone washing clothes, (33b) does not have to arise as a result of someone volitionally tasting garlic.

Apart from the differences in the relationship between the (a) and (b) sentences in (32) and (33), (33) also differs from (32) with respect to the semantic domain. In (32), the washing of the clothes and the resulting clean state pertain to a interaction and a state which are easily observable. The sentences in (33), on the other hand, describe processes internal to a person and are not observable by anyone except the experimenter himself.

In the light of the differences between (32) and (33), it would be simplistic to carry over the representations of (32) to (33). While additional notation could be invented to more adequately capture the meaning of the sentences in (33), introducing such notation would not serve any larger purpose in the present study and I will not explore the representational problem further.

Remarks similar to those made concerning taste can be made about the other perception verbs in (29) and (30). It should be noted that in some cases distinct lexical items may be utilized to express the (volitional) perfective and (non-volitional) imperfective processes, e.g. I listened to the music vs. the music sounded pleasant. This reflects the different conventionalizations of profiling with different lexical items, as noted with resultative constructions in the previous section.

The preceding discussion of perception predicates

suggests a way of viewing seem/appear sentences. Take seem, for example. This predicate can be construed as a kind of perception predicate, where the basis for the impression is not restricted to any one mode of perception. Even with the perception predicates proper, one finds secondary uses to describe an impression based on more than one of the senses. Consider (36):

(36a) The fighting in the Middle East sounds serious.

(36b) The present government looks precarious.

In (36a), the impression of the fighting may be based entirely on what one has read in the newspapers, or what one has heard on the radio, or perhaps a combination of both. In any case, there is no implication that the speaker must have actually heard the fighting in the Middle East. In (36b), the impression may be gained from comments made by the government and may have nothing to do with what has actually been seen with one's eyes. The secondary use of perception predicates illustrated in (36) is comparable to the primary use of seem. Consider (37):

(37a) The fighting in the Middle East seems serious.

(37b) The present government seems precarious.

(37a) describes an impression, the basis of which is even vaguer than was the case with (36a). One could, for example, say (37a) after watching a film of the fighting which lacked commentary altogether, whereas (36a) would not be appropri-



ate in such a case. Similarly, the impression in (37b) is not tied to any particular mode of perception. Thus, see behaves like a generalized perception predicate. Appear is amenable to a similar analysis.<sup>4</sup>

One difference between see/appear and some perception predicates can be seen in the following comparison:

- (33a) I (can) taste garlic.
- (33b) The garlic tastes strange (to me).
- (39a) \*I (can) see the situation.
- (39b) The situation seems serious (to me).

See, unlike taste, does not have a use parallel to taste in (33a). With perception predicates, as with the resultative constructions examined in the preceding section, one must recognize the conventionalized nature of the profiling associated with a particular predicate. With resultatives, it was found that some combinations of main predicate and predicate adjunct allowed a 'patient subject' construction while other quite similar combinations did not. With perception predicates, we also find gaps in profiling patterns. Compare, for example, (40) and (41):

- (40a) I (can) hear music.
- (40b) \*The music hears strange.
- (41a) \*I (can) sound music.
- (41b) The music sounds strange.

4. Admittedly, there are differences between see and appear. But the differences are not relevant at this level of analysis. Some of these differences are discussed in section 5.2 and in Austin(1962:33-43).

(40a) and (41b) profile different aspects of a semantic base by means of different lexical items. See behaves like sound in profiling only the description which elaborates on the impression.

### 3.5 Concluding Remarks

The foregoing discussion has done little more than to suggest a non-transformational way of viewing the relationship between (1) and (2). The discussion began with some observations about profile-shift in nouns and was then extended to verbs. Resultative constructions in particular were shown to participate in a profile-shift which gives rise to 'patient subject' constructions. The relationship between (1) and (2) was seen to involve a profile-shift of a more complex sort than was found with resultatives, despite a superficial similarity with the profile-shift in resultatives.

Both the Psych Movement analysis and the analysis proposed here recognize that a simple classification of the intransitive perception predicates as copulatives is far from satisfactory. Both analyses offer more depth by relating the intransitive use of perception predicates to their transitive uses. The Psych Movement approach accomplishes this by a transformational rule which converts one sentential structure into another. The analysis proposed here

accounts for the alternative uses in terms of a profile-shift in the semantic base associated with these predicates. My analysis thereby rests on a principle which has a justification outside of syntax and apparently permeates language in an extensive way.

It is surely indefensible to cordon off sentence structure from such a principle when it is so pervasive in the remainder of language. An alternative to my analysis, such as an approach involving Psych Movement, is only defensible to the extent that sentence structure must be protected from otherwise quite general linguistic principles.

In the discussion of Psych Movement phenomena, I did not propose any formal representation of profile-shift. While a more formal expression of these ideas would be a superior achievement, an attempt at a formalism at this stage would be quite premature. Presumably, the appropriate formalism would lend itself to a natural expression of profile-shifts of all possible types. This means one has to first of all identify and informally characterize the multifarious profile-shifts manifested in language. Only AFTER such groundwork has been laid does it make sense to propose a formalism. One can observe the same chronology in phonological research. To determine the appropriate set of distinctive features and formal conventions with which to represent phonological phenomena, one must first have some idea of natural groupings of sounds. A formalism may then be

proposed which captures our basic intuitions and which can be subsequently refined. When it comes to the phenomenon of profile-shift, the state of our knowledge is still too limited to venture a formalism. It is true that profile-shift within individual lexical items, chiefly nouns, has been examined as part of the study of metaphor, as in Stern(1931). Results from the study of metaphor at the word level need to be incorporated into any comprehensive discussion of profile-shift. But only when profile-shift at the level of a construction has been more fully researched will it be feasible to make a formal proposal.

Chapter IV  
Processual Predicate Adjuncts

4.1 The Class of Predicate Adjuncts

The p.a.s which figured in the intransitive constructions discussed in Chapter II were all stative adjectives. In so far as nouns refer to configurations which are typically static over some period of time, nouns too can comfortably be used in place of adjectives in some, but not all, of these p.a. constructions. Already, some examples of nominal adjuncts have been given in the discussion of transitive constructions. (1) - (4) illustrate the use of nouns as adjuncts in inchoative, continuative, resultative, and simulative constructions respectively.

- (1a) Mary became a beautiful woman.
- (1b) Mary turned out a beautiful woman.
- (1c) Mary proved a useful person.
- (2a) Mary remained a friend.
- (2b) Mary stayed a friend.
- (3a) They elected Harry president.
- (3b) They named Harry president.
- (4) I consider Harry a criminal.

I will not pursue here any attempt to account for the distribution of adjectives and nouns in p.a. constructions, except to note that the distribution is not explicable in semantic terms in any simple or obvious way. Despite the similarity between keep and remain in continuative

constructions, for example, they show different co-occurrence relations:

- (5a) Mary remained still.
  - (5b) Mary kept still.
- { a friend.  
                  { a friend. (ungrammatical in  
                  intended p.a. sense)

Another grammatical category which can instantiate the predicate adjunct slot is the participle in the so-called 'verb participle' construction, illustrated in (6) - (9):

- (6a) Mary and Harry broke up.
- (6b) Cholera broke out.
- (6c) The car broke down.
- (6d) Time is running out.
- (7a) The enemy is holding out.
- (7b) Mary is sleeping in.
- (7c) The music kept up.
- (7d) The sign stayed up.
- (8a) We poured the coffee out.
- (8b) The enemy shot the plane down.
- (8c) Harry sent the letters out.
- (8d) Harry put his hand up.
- (9a) Keep your chin up!
- (9b) The teacher kept the children in.
- (9c) We held the prisoner down.
- (9d) This fence keeps dogs out.

Just as the p.a. constructions dealt with in Chapter II could be classified as inchoative or continuative, resultative or simulative, so the verb participle construction is amenable to the same classification. Thus, the sentences in (6) are inchoative, in (7) continuative, in (8) resultative and in (9) simulative. The participle which functions as the stative predicate has less specific semantic content than is

typically found with adjectives and nouns, but it indicates a state nevertheless. As with adjectival and nominal adjuncts, these constructions show varying degrees of idiomatlicity in the possible combinations of main predicate and accompanying adjunct.

Thus we see that the class of possible adjuncts in the P.a. constructions includes adjectival, nominal, and verb-particle states. Since the class of adjuncts thus appears quite extensive, one is naturally led to inquire whether process predicates might also instantiate the adjunct in P.a. constructions. While there is no a priori reason why there would have to be process predicates acting as adjuncts, the existence of such could be seen as a generalization of the class of possible adjuncts. In this Chapter, I take Equi and Raising constructions to represent P.a. constructions with process predicates acting as adjuncts. In doing so, I will ignore the role of to found with the infinitive in such constructions. Admittedly, this is a simplification, but it is a simplification which is current in most contemporary studies of English. In bypassing this problem, I am not assuming that the presence or absence of to is a trivial or uninteresting matter. I merely wish to avoid exploring the role of to in order to focus on more central issues involved in Raising constructions.

#### 4.2.1 Process Adjuncts Relating to Subjects

One type of process adjunct is shown in (10):

- (10a) Harry wants to leave.
- (10b) Harry loves to dance.
- (10c) Harry hopes to leave.
- (10d) Harry intends to leave.
- (10e) Harry prefers to dance.

In a standard transformational analysis, the sentences in (10) would be analyzed as Equi constructions. That is to say, the underlying representation of each of these sentences involves two occurrences of Harry, one as the subject of the inflected verb and the second occurrence as the subject of the verb contained in the infinitival phrase. A rule of Equi NP-Deletion deletes the second occurrence of Harry.<sup>1</sup> Semantically, it can be seen that the subject referent participates in two predications in each of these sentences - the speaker places Harry into a relationship with a state of affairs and this state of affairs itself involves a process predicated of Harry.

Another type of sentence may be construed as containing a process predicate as adjunct, illustrated in (11):

- (11a) Harry happens to like girls.
- (11b) Harry is certain to like girls.
- (11c) Harry is bound to like girls.
- (11d) Harry is sure to like girls.

<sup>1</sup> I want sentences such as (10a) have also been analyzed as involving reflexive deletion - see Postal (1974:258) and Chomsky and Lasnik (1977). For the present purposes, it is immaterial which proposal one accepts.

(11e) Harry tends to like girls.

The sentences in (11) have been accounted for in terms of Raising, as discussed in Chapter I. Details differ considerably in the derivation of such sentences, but there is agreement that these sentences do not involve two predicatorions of the subject referent, as in (10). In (11), a comment is being made about a proposition involving Harry, but no particular relation is claimed to exist between Harry and the main clause predicate.

The semantic contrast between (10) and (11) is clear and the Equi and Raising proposals appear to capture this distinction in a straightforward way. Just as with stative p.a.s. however, examination of a larger set of p.a. constructions with process adjuncts reveals more complexity in the semantic structures associated with such sentences. In particular, the semantics associated with modals, semi-modals, and some specific verbs like seem and appear can not easily be reconciled with the strict dichotomy of Equi vs. Raising, as initially suggested by the contrast between (10) and (11). Many of the relevant facts have been pointed out in different places in the literature, though the implications of these facts for linguistic theory have not been fully appreciated. We proceed to describe the relevant data and then propose an analysis which accommodates the facts.

Modal verbs in English can appear in sentences like

those in (10), associated with an Equi analysis, as well as appearing in sentences like (11), associated with a Raising analysis. The modals are said to have a 'root' sense when they trigger Equi and an 'epistemic' sense when they trigger Raising. The (a) sentences in (12) - (15) illustrate the root sense, the (b) sentences the epistemic sense:

- (12a) Harry can speak Dutch.
- (12b) Deep water can be dangerous.
- (13a) You may leave the table.
- (13b) Foo much work may harm your health.
- (14a) I will write tomorrow.
- (14b) The storm will be here this afternoon.
- (15a) I must return home.
- (15b) The storm must have passed.

In the root sense, the subject referent has a special role in the computation of the meaning, apart from being associated with the p.a., whereas there is no such role which attaches to the subject referent in the epistemic senses. In (12a), Harry has an ability, or he has permission, to engage in speaking Dutch; (12b) merely says it sometimes happens that deep water is dangerous and does not attribute ability or permission to the subject referent. In (13a), the speaker grants permission to the addressee to leave the table, but the subject referent in (13b) does not receive any permission. (14a) expresses a promise or strong intention on the part of the subject referent, whereas (14b) is a prediction about the future. (15a) expresses an obligation on the part of the subject referent; in (15b) there is

no sense in which the subject referent is under an obligation - the speaker makes an inference about a proposition involving the subject referent.

In the approach argued for in Ross(1969), the (a) sentences with root meanings are derived by application of Equi, parallel to the derivation of the sentences in (10). The sentences with epistemic meanings are derived by application of Raising, as happens in the derivation of the sentences in (11). This approach does not adequately account for the semantic complexity associated with these verbs.

The root/epistemic bifurcation overlooks the fact that there are distinctions within the root senses of any one modal which make some root senses either more similar or less similar to the epistemic senses. That is, one can establish gradations within the root senses. One can distinguish, for example, between the notions of 'willingness' and 'intention' in the root senses of will. Typically, the sentences in (16) would be understood as expressing a willingness, whereas the sentences in (17) would be taken as expressing intention:

- (16a) Who will help me?  
 (16b) If you have any problems, the consultants will help you.  
 (16c) My girlfriend will do anything for me.  
 (17a) I will visit you tomorrow.  
 (17b) We'll be there on time.  
 (17c) I'll catch a bus today.

The change from willingness to intention is facilitated by particular event/action to be carried out. Compare the vagueness of the actions referred to by the infinitival phrases in (16) with the definiteness of the actions referred to in (17). Accompanying the change in meaning from willingness to intention is an increase in the predictability of the state of affairs being referred to. The element of predictability which forms part of the intention sense makes this sense appear intermediate between the root sense of mere willingness and the epistemic sense of futurity, illustrated in in (14b). The storm will be here this afternoon. Leech(1971:79) speaks of this intermediate sense of will variously as involving a 'superimposition of predictive and volitional meanings' and as indicating a 'volitionally-coloured future'. That is, a simple bifurcation of the meanings of will into volition vs. future ignores the gradual nature of the transition from one meaning to the other. Comparable remarks can be made about shall.

A similar situation exists with respect to can, which is claimed to have root senses of ability or permission and an epistemic sense of possibility, as illustrated above in (12). The distinction between ability and possibility can be troublesome because of the fact that to have an ability to do X implies that X is possible. The epistemic sense is invariably present even if only by way of implica-

tion. Similarly, the notions of permission and possibility are intertwined. Aguirre and Goossens(1977:4-8) bring out the bridges between the ability, possibility, and permission senses of can with the set of sentences in (18):

- (18a) Human beings can think.
- (18b) Birds can fly.
- (18c) Bert can swim the length of the swimming-pool.
- (18d) The channel can be crossed by hovercraft.
- (18e) We can play football in the park.
- (18f) You can have three cookies, Johnny.  
(Suzy reporting mother)
- (18g) You can have three cookies, Johnny.  
(mother to Johnny)
- (18h) You can stop that fuss now, I've had enough of it.

(a) and (b) illustrate ability or capacity meanings. (d) illustrates the possibility meaning. (c) is a semantic bridge between these two senses in that the subject referent is claimed to possess a certain ability (the ability to swim) and due to Bert's ability and the swimming-pool being the way it is, Bert's swimming the length of the pool is a possibility. (e) acts as a bridge between the possibility sense of (d) and the permission sense of (f). (e) says there is nothing to stop us from playing football in the park - a state of affairs which could have been preceded by the granting of permission, but not necessarily so. In (h), we see a further extension of the permission sense to that of obligation. It can be seen, then, that there are uses of can which blend both root and epistemic senses.

With other modals and semi-modals, one finds further

evidence of the intermingling of root and epistemic senses. With respect to may, for example, Leech(1971:68-69) comments:

The 'permission' and 'possibility' meanings are close enough to one another for the distinction to be blurred on occasions. It is particularly easy to confuse them in scientific and mathematical writing....

Writers of academic literature are fond of impersonal phrases such as It may be noted... We may consider... It is particularly difficult to say whether 'permission' or 'possibility' is intended here.

Have (got) to is described in similar terms in Leech(1971:73).

It is not only the modals which show a blending of Equi and Raising senses. Seem and appear, usually analyzed as Raising triggers, can take on Equi-like qualities under stress (this is noted in Huddleston1971:151):

- (19a) In the U.S.A., politicians must not only BE honest, they must SEEM to be honest.
- (19b) Couldn't you just APPEAR to be happy?

In (19), the subject referent bears some responsibility for the impression given off. That is, there is some additional role associated with the subject referent, in contrast to the prototypical cases used to support a Raising analysis with these verbs. Not all purported Raising triggers, however, show this kind of stress-related behavior - be likely and be certain, for instance, do not induce the Equi-like

meanings under stress.

4.2.2 Analysis

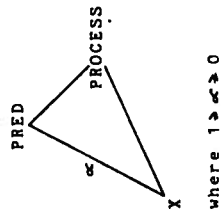
The discussion in the preceding section has shown that the semantic complexity in the modal system does not lend itself to description in terms of Equi vs. Raising. While there are infinitival constructions which can be adequately accounted for by either one or the other of the rules of Equi and Raising, sentences with modal verbs display more intricate semantics. It was found that one could distinguish multiple Equi-like senses attaching to a modal, with some of these senses more closely related to the Raising sense than others. With some non-modals, too, one found a potential for Equi-like senses under sentence-stress with predicates which are normally associated with a Raising analysis.

In the light of these observations, it would seem wrong to insist on a polar opposition of Equi structures and Raising structures. Despite the initial plausibility of such a distinction, supported by (10) and (11), consideration of a larger class of constructions reveals a gradual transition between the Equi and Raising structures. This suggests that we should think of Equi and Raising sentences as instantiating one type of semantic structure in which the subject referent can occur in a range of additional roles.

In order to bring out the unified nature of Equi and Raising constructions, we construe Raising as the end-point of a semantic continuum which stretches between Equi and Raising.

Equi and Raising sentences are both to be seen as instantiations of the schema in (20):

(20)



The intransitive p.a. constructions dealt with in Chapter II and the constructions dealt with here differ only in whether it is a state or process which instantiates the p.a. In both cases, an examination of the semantics has led to the recognition of a semantic gradation. The transitional cases which fall between prototypical Equi and prototypical Raising involve variable profiling of X's role. In the limiting case, it is only X which is salient and any role which X plays with respect to PRED is backgrounded.

4.3.1 Process Adjuncts Relating to Objects.

The Equi vs. Raising contrast is also found with



transitive main verbs. (21) illustrates sentences which can be analyzed as involving Object-controlled Equi and (22) illustrates the Subject-to-Object Raising construction:

- (21a) I persuaded Harry to leave.
- (21b) I convinced Harry to leave.
- (21c) I tempted Harry to come.
- (21d) I coaxed Harry to come.
- (21e) I bribed Harry to vote for me.
- (21f) I motivated Harry to work hard.
- (22a) I expect Harry to leave.
- (22b) I want Harry to leave.
- (22c) The law requires Harry to pay the fine.
- (22d) I declared Harry to be useless.
- (22e) I considered Harry to be useless.
- (22f) I intended Harry to be the winner.

In (21), the infinitival phrase elaborates on the effect of the interaction between the speaker and Harry on Harry. In (22), each sentence expresses a relationship between the subject referent and either a state of affairs or a proposition. A comparison of (21) and (22) thus appears to support positing distinct types of semantic representations - in the former the semantic entity corresponding to Harry enters into a relationship with the subject entity whereas in the latter this is not the case. Upon examination of more cases however, it turns out that there are structures which fall semantically between (21) and (22) and which resist pigeonholing into either the Equi or Raising category.

Consider the meanings of the following sentences:

- (23a) I allowed Harry to leave.
- (23b) I permitted Harry to leave.

These sentences describe granting of permission, without the speaker being committed to any one of the numerous ways in which permission can be granted. It could be that the speaker interacted directly with Harry, say face to face, and the speaker thereby granted permission directly to Harry. The sentences in (23) would be equally appropriate to describe the situation in which the speaker gives his assent to an event, Harry's early leaving, without having interacted directly with Harry. These alternative uses of the sentences in (23) have been accounted for in transformational syntax by means of alternative derivations (see, for example, Huddleston 1971:158). The 'direct' granting of permission corresponds to an underlying structure in which Harry is an object of allow/permit as well as subject of leave. Equi-NP Deletion applies in the course of the derivation deleting the occurrence of Harry in the complement clause. The 'indirect' granting of permission, on the other hand, corresponds to an underlying structure in which Harry appears only as the subject of leave. Subject-to-Object Raising applies, moving Harry into the object position.

The transformational account is successful in terms of capturing a direct vs. indirect contrast. The problem, however, is that the meanings of the sentences in (23) do not polarize simply into direct and indirect senses. For one thing, the direct granting of permission to Harry also

implies that the speaker agrees to an event involving Harry taking place. That is, the indirect sense is present implicitly in the direct sense. Furthermore, the 'directness' of the permission is itself a matter of degree. The permission could have been granted by an utterance or a gesture, explicitly or implicitly, face to face or through an intermediary. It seems most natural to construe the sentences in (23) as being vague with respect to these multifarious interpretations, rather than ambiguous between merely direct and indirect types of permission. The account in terms of ambiguity has found favor because it is most compatible with the Raising vs. Equi dichotomy which is part of the standard transformational account. Once the Raising vs. Equi dichotomy is questioned, the artificiality of the direct vs. indirect division becomes obvious. If there is some murkiness in the interpretation of the sentences in (23), it is because of the numerous competing scenarios which are imaginable, rather than because of an ambiguity involving two clearly distinguishable senses.

The sentences in (23) cast doubt on a Raising vs. Equi dichotomy, since there can be a range of interpretations associated with these sentences. Another type of sentence which casts doubt on the dichotomy is illustrated in (24):

- (24a) Everyone saw Melvin enter the building.  
 (24b) Everyone heard Melvin enter the building.

It is suggested by Postal(1974:316) that these sentences involve Subject-to-Object Raising. That is, Melvin occurs in the underlying structure only as the subject of enter in the clause Melvin enter the building. Raising then moves Melvin into the object position of see/hear. Semantically, however, Melvin would appear to be as much the object of perception as the action involving Melvin. Similarly, the sense of (24b) can be conveyed simply by Everyone heard Melvin in the right context. In such cases, it would be mistaken to adopt either a Raising analysis, in which only an event is the object of perception, or an Equi analysis, in which only Melvin is construed as the object of perception. This situation is comparable to that found with modals and seem/appear, where both Raising and Equi characteristics could be present simultaneously.

There is a further class of verbs about which similar remarks can be made. Postal(1974:317) proposes a Raising analysis of the construction illustrated in (25) (the judgments are Postal's):

- (25a) He accepted her as (being) his equal.  
 (25b) She acknowledged me as (being) her equal.  
 (25c) The movie depicted him as (being) an idiot.  
 (25d) The bookies established him as (being) a two-to-one favorite.  
 (25e) The film depicted him as (being) merciless.  
 (25f) I recognized him as (being) shorter.  
 (25g) I remembered him as being shorter.  
 (25h) They specified that as (being) the boundary.

In all these cases, Postal suggests Subject-to-Object Rais-

ing moves the subject from an object clause, creating an as and gerundive form instead of an infinitival structure. Take (25a) for example. In a Raising analysis, the object of acceptance is taken to be a state of affairs. But one could just as easily construe the sentence as being about the acceptance of a person, with the as phrase elaborating on the way in which the person is accepted. Similarly, for the remaining sentences in (25), the as phrase could be taken as a kind of elaboration of the basic structure.

Some additional instances of such double predication are shown in (26):

- (26a) Mercedes Benz design their cars to last.
- (26b) The government envisaged the future to be quite grim.
- (26c) I imagine my cousin to be attractive.

Consider now the following sentences taken from Bolinger(1967), including Bolinger's judgments:

- (27a) I believe the report to be true.
- (27b) I believe the man to be honest.
- (27c) I believe their intentions to be honorable.
- (28a) ?I believe the rain to be falling.
- (28b) ??I believe the word to have already come.
- (28c) \*I believe you to think I am lying.

The pattern Bolinger(1967:48) sees in this data is the following:

...if the string believe + NP when taken as a constituent in its own right has a meaning compatible

with that of the sentence as a whole and more or less suggesting it, this becomes a factor in improving the degree of acceptability.

So, for example, to believe a report suggests that the report is true and hence (27a). I believe the report to be true, is acceptable. On the other hand, believe the rain does not have any meaning on its own and hence (28a), I believe the rain to be falling, is less acceptable. Some additional contrasts which Bolinger presents in support of the constraint are:

- (29a) I believe John to be telling the truth.
- (29b) ?I believe John to be telling a lie.
- (30a) We believe that man to be sane.
- (30b) ?We believe that man to be demented.
- (31a) We believe these facts to be true and relevant.
- (31b) ?We believe these facts to be true but irrelevant.
- (32a) We believe these views to be important.
- (32b) ?We believe these views to be unimportant.

The judgments with these sentences are Bolinger's, who notes that there are degrees of acceptability, although these degrees are not brought out in the markings which attach to these sentences. While I agree with some of the ?s, I find some of the sentences marked with ? quite acceptable, for example (30b) and (31b). I believe the judgments are made more difficult by an element of formality which seems to attach to the use of believe + infinitival phrase. What might appear marginal or 'bookish' in a casual context may

be judged quite acceptable in a more formal setting. Still, there are some sentences which even in the most formal setting would cause some eyebrows to be raised, such as (28a) and (28b).

Bolinger's observations could conceivably be captured formally by a transderivational constraint which marks the derivation of a sentence like x believes y to be z as unacceptable if there is not also a derivation of an acceptable sentence x believes y and where the meanings associated with the two derivations are 'compatible'. Quite apart from the sheer arbitrariness of such a rule, it can not possibly do justice to the subtlety and variability in the degrees of acceptability involved. As with see/hear in (24), so here with believe, it is not sufficient to simply characterize the semantic object of the verb as a proposition. With see/hear, the purportedly raised NP entered into a separate relation with the main verb and that relation formed part of the meaning of the sentence. With believe, the relation between the main verb and the purportedly raised NP, while it may not form part of the total meaning of the sentence, may nevertheless influence the acceptability of the sentence.

Bolinger sees the same constraint at work with a number of other semantically related verbs, such as know, suspect, think, and understand. Borkin(1974a:5) notes some additional cases where Bolinger's constraint seems to be

operating. (33) and (34) are Borkin's, along with her judgments:

(33a) Tom confirmed the rumor to be essentially true.

(33b) ?Tom confirmed the rumor to be essentially false.

(34a) We've verified the document to be accurate in every detail.

(34b) ?We've verified the document to be inaccurate.

Borkin(1974b) contains an extensive discussion of such merges, with particular attention paid to as constructions.

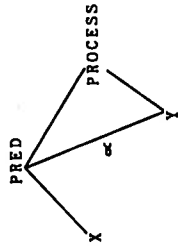
#### 4.3.2 Analysis

The preceding section has focussed attention on a number of sentences, the semantics of which defy simple categorization into either Equi or Raising constructions. I have drawn upon observations by Bolinger and Borkin to illustrate the cases which are intermediate between Equi and Raising.

As with the constructions dealt with in section 4.2, so here one is led to view the Equi vs. Raising distinction as a false dichotomy. The examples which might lead one initially to posit such a black and white contrast turn out, upon closer inspection, to be part of a gradual transition. Any attempt to separate the purported Raising constructions such as those in (22) from the remainder of the infinitival

constructions examined in this chapter will result in an artificial division within this class of constructions. Consequently, I propose one schematic representation for the meaning involved in each of these infinitival constructions, namely that shown in (35):

(35)



where  $1 \geq \alpha \geq 0$

Y, the semantic entity corresponding to the grammatical object in the transitive p.a. constructions, is shown as participating in two predications. The Raising construction illustrates a limiting case in which Y's interaction with X exists merely by virtue of the fact that Y is a salient part of the process. The transition between Equi-like structures and Raising-like structures is a matter of a change in the profiling of Y's role.

#### 4.4 Constituent Structure

I have proposed a semantic analysis of Equi and Raising sentences in which the Raising construction is construed as the limiting case of Equi-like constructions. The

unitary treatment of Equi and Raising structures is supported further by the formal indistinguishability of the surface structures associated with these constructions.

Obviously, the outputs of Equi and Raising rules (in the standard account) involve identical linear ordering of elements. The output from Subject-to-Subject Raising and Subject-controlled Equi is in both cases the linear sequence in (36a); the output from Subject-to-Object Raising and Object-controlled Equi is in both cases the sequence in (36b):

- (36a) NP V (to) VP.
- (36b) NP V NP (to) VP.

The identity in the linear ordering of the sentential elements is a very blatant one. It facilitated establishing a gradual transition from Equi to Raising constructions.

The similarity in the outputs of Equi and Raising rules goes deeper, however, than just the identity in linear ordering of elements and extends to the hierarchical grouping of the constituents. The surface structures represented in (36) are more precisely represented in (37):

- (37a) NP VP[ V (to) VP ].
- (37b) NP VP[ V NP (to) VP ].

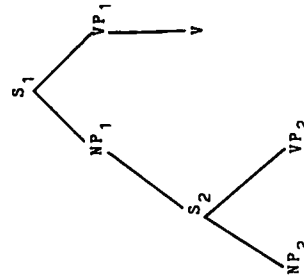
While the labels chosen for the different constituent types may vary, the bracketings shown in (37) have generally been accepted as correct for both the outputs of Equi and

Raising.

In my discussion of Equi and Raising constructions, I made no appeal to the absolute identity of the constituent structures. My analysis rested on semantic facts and the resemblance in the sequence of constituents in Equi and Raising constructions. The fact that the constituent structures are identical is entirely compatible with, and indeed follows from, the unitary treatment of Equi and Raising offered in this chapter.

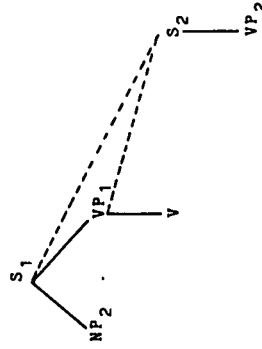
In many accounts where Equi and Raising rules are totally independent of each other, the identity in the hierarchical structure in the outputs of these two rules is achieved by means of quite ad hoc mechanics. A common way of formulating Subject-to-Subject Raising, as it applies to (38), requires moving NP<sub>2</sub> into the subject position of S<sub>1</sub> and moving VP<sub>2</sub> or S<sub>2</sub> (minus NP<sub>2</sub>) to the right of V.

(38)



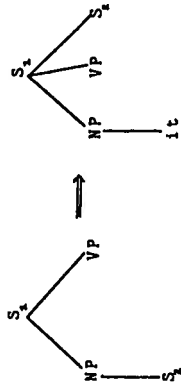
There are two possible ways in which the latter instruction can be carried out, depending on whether the moved constituent ends up daughter-adjoined to VP<sub>1</sub> or S<sub>1</sub>. These two possibilities are shown in (39). In (39) it is assumed that the moved constituent is S<sub>2</sub>, but it is irrelevant to the argument whether it is S<sub>2</sub> or VP<sub>2</sub>.

(39)



The moved constituent must end up daughter-adjoined to VP<sub>1</sub>, resulting in exactly the same structure evidenced by Equi structures. The correct adjunction is simply incorporated into the operation without further comment - see, for example, the presentation of this rule in Akmajian and Heny(1975:344) and Soames and Perlmutter(1979:96ff). The alternative, having S<sub>2</sub> daughter-adjoined to S<sub>1</sub> would be comparable to what happens in the case of Extraposition, a transformation which moves a sentential constituent and daughter-adjoins it to the root S, as in It seems that Harry is drunk. The effect of Extraposition is shown in (40):

(40)



See Soames and Perlmutter(1979:65-70) for justification of the output constituent structure.

Rosenbaum(1967:77-79) in fact accomplishes the movement of the sentential constituent in the derivation of the Raising construction by the rule of Extrapolation. The actual rule of Raising only moves the subject NP of the extraposed sentential constituent. As a result, the Raising construction is assigned the wrong constituent structure - one in which the infinitival phrase does not form a constituent with the main verb. This failing in Rosenbaum's analysis is noted in Postal(1974:21).

In an account of Raising which proceeds from a structure like that shown in (38), the rule of Raising must incorporate an ad hoc statement to achieve the desired constituent structure. Rather than being an accidental circumstance, the formal identity between the Equi and Raising constructions can be seen as a further indication of the unitary nature of Equi and Raising constructions.

#### 4.5 Idioms

The analysis of Raising constructions presented in this chapter claims that the purportedly 'raised' NP functions like a semantic subject or object of the main verb. An objection which might be raised to this analysis concerns the so-called 'empty' NPs which figure in idioms and related expressions such as the 'weather' it and there.

The objection might proceed as follows: Consider (41), taken from Postal(1974:34) where this kind of objection is raised:

- (41a) The cat seems to have his tongue.  
 (41b) The shit seems to be about to hit the fan.

Besides their literal interpretations, these sentences have idiomatic readings in which there is no isolatable meaning associated with the 'empty' NPs the cat in (41a) and the shit in (41b). There is no semantic entity corresponding to these phrases in the semantic representation of these sentences when used in their idiomatic sense. In the analysis proposed in this chapter, such phrases would have to correspond to some semantic entity (the X or the Y in the schemas of (24)). Thus the analysis can not accommodate the occurrence of 'empty' NPs as subjects and must be rejected.

This objection rests upon a particular view about the derivation of sentences containing idiom chunks. It is a view which underlies the formalism proposed in Fraser(1970).

This view maintains that the parts which make up an idiom are associated with complex symbols containing syntactic information (e.g. grammatical category, number etc.) but the parts themselves are not associated with any semantic information. So, for example, an idiomatic phrase such as hit the sack is inserted into a structure as a sequence of complex symbols, as shown in (42), and the whole of this phrase is associated with the meaning 'go to bed'.

$$(42) \left[ \begin{array}{c} \text{hit} \\ +V \end{array} \right] + \left[ \begin{array}{c} \text{the} \\ +\text{Det} \end{array} \right] + \left[ \begin{array}{c} \text{sack} \\ +N \end{array} \right]$$

Katz(1973) makes a somewhat different formal proposal by distinguishing idiomatic and non-idiomatic constituents within an idiomatic phrase. An idiomatic phrase such as rub (someone) the wrong way is entered in the lexicon as (43). In which rub and the wrong way are marked as [+Idiom] but the object of rub is not so marked:

$$(43) \text{rub} [+V, +\text{Idiom}], \text{---} [+NP, -\text{Idiom}], \\ \text{the+wrong+way} [+Adv, +\text{Idiom}]$$

The [+/-Idiom] distinction is motivated on syntactic grounds - [+Idiom] constituents are not affected by transformations whereas [-Idiom] constituents may be. Regardless of whether a constituent is marked [+Idiom] or [-Idiom], the parts of the idiom entered in the lexicon, e.g. rub and the wrong way, are not associated with any individual meanings.

The analysis of Raising constructions offered here is indeed incompatible with this view of idioms. However,

while the view of idioms outlined above is indeed a common one, it is not the only view which has been proposed and formalized in the transformational framework. Weinreich(1969) and Newmeyer(1972) have made proposals in which the derivation of an idiomatic construction proceeds by first of all deriving the literal counterpart to the idiom and then later associating the idiomatic meaning with the idiom chunk. The operation which effects this association is called an 'Idiom Comparison Rule' by Weinreich. Newmeyer(1972:296-297) proposes to associate idiomatic meanings with literal meanings in the following way:

The grammar of every language contains a list of ordered pairs of semantic representations ( $M_1, M_2$ ). Each pair on the list is an idiom source. The list is an idiom inventory... The initial P-marker in an idiomatic derivation is the semantic representation of its literal equivalent ( $M_2$ ). However, according to the transderivational constraint, the meaning of the idiom is a different semantic P-marker ( $M_1$ ).

In other words, the so-called 'emptiness' of NPs such as the cat in the cat has his tongue comes about in the course of the derivation.

Thus, to counter the objection raised at the beginning of this section, I could appeal to an approach like Newmeyer's and argue that the idiomatic readings of sentences are to be handled by transderivational operations. With idiomatic meanings accounted for in this way, my analysis need only concern itself with the literal meanings containing 'non-empty' NPs. However, I believe all of the



above-named approaches are flawed in a serious way in that they all assume a rigid division between what is literal and what is idiomatic. This flaw casts doubt on the validity of all the formalisms proposed above and suggests that the present accounts of idioms may be quite misguided. Evidence for recognizing some idiom chunks as partially analyzable, with some words only 'half-empty' as it were, can be found in the literature, including the works cited above. I will quote some examples from the literature to demonstrate the need to recognize the partial analyzability of some idiom chunks.

Weinreich(1969:46) considers the following uses of

hit:

- (44a) hit the sack = 'go to sleep'
- (44b) hit the road = 'get going'
- (44c) hit the bottle = 'take to drink'
- (44d) hit the silk = '(of parachutists)  
'jump out of the plane'

These phrases would be taken as idioms, since the literal meanings of the parts do not account for the meaning of the whole. And yet, there is an undeniable constancy in the semantics of the hit phrases. In each case, the subject entity initiates some process. While hit is not contributing its full literal meaning, it does seem to be the locus of the inceptive aspect present in each of these phrases. It is a very weak correspondence since it is based on only a handful of examples (there may be others such as hit the hay

'go to sleep'). That is, besides the full literal meaning of hit, we must recognize the fact that it can contribute a less specific bit of meaning in the phrases in (44).

Newmeyer(1972:298-299) gives some examples where a constituent sub-part of an idiom can be replaced by another constituent, the meaning of which is clearly a sub-part of the meaning of the whole idiom:

- (45a) spill the beans / spill the facts
- (45b) drop a line / drop a note
- (45c) bury the hatchet / bury our differences
- (45d) don't count your chickens before they hatch / don't count your chickens before you know that you're going to succeed.

Clearly, not all idioms tolerate such replacements:

- (46) kick the bucket / \*kick {life  
the world of the  
living.

Comparing (45) and (46), we see that in some idioms but not all, a constituent sub-part of the idiom can be correlated with a sub-part of the semantic structure. Beans, in (45a), can to some extent be put into correspondence with 'facts' and so on.

As a final example, consider the pairs of verbs in (47)-(49):

- (47a) come down - bring down
- (47b) come off - bring off
- (47c) come to - bring to
- (47d) come up - bring up

- (47e) come out - bring out  
(taken from Binnick1971)
- (48a) keep one's head - lose one's head  
(48b) keep one's cool - lose one's cool  
(taken from Nagy1974:125)
- (49) He turned the tables on me -  
The tables have turned  
(taken from Nagy1974:129)

These expressions would be classified as idioms since the meaning of the whole is not a function of the literal meanings of the parts. In each case, the semantic difference between the members of each pair is exactly the same as the semantic difference between the verbs as used in their literal senses. Thus, the sentences on the left in (47) differ from their causative counterparts on the right in the same way that literal come differs from literal bring. Similarly, the difference between keep and lose, causative turn and non-causative turn is also present in the idiomatic constructions in (48) and (49). In other words, the verb in such idiomatic phrases has some semantic element associated with it and is not void of all content.

It and there are further examples where one might argue for some 'weakened' meaning, even though standard accounts take them to be functioning as meaningless elements in many constructions. In two essays, entitled 'It' and 'There', Bolinger(1977) argues persuasively that all the uses of these words indicate the presence of some meaning. It is described as a 'definite' nominal, limited only in the

sense that it is 'neuter'. Concerning the meaning of it, Bolinger says:

Our mistake has been to confuse generality of meaning with lack of meaning. Saying that it is meaningful is not to deny that there are syntactic problems connected with its use, but only to say that syntax should not be the exclusive focus. There is a gradient at one extreme of which it is a relatively independent lexical item, and at the other approaches a rather tightly controlled element of syntax.

There is described as a 'locative', though this function can be realized in very abstract ways. In its most abstract use, it merely locates something in our awareness. Bolinger's careful discussion of these words illustrates ways in which one can argue for some kind of meaning with superficially 'empty' constituents.

The formalisms which have been introduced to handle idioms in the works of Weinreich, Fraser, Newmeyer, and Katz are not able to capture the aspects of idiom structure illustrated above. Where this inadequacy is recognized, as in footnote 6 in Fraser(1970:27), it is lightly dismissed:

Note that I am making the claim that there is no semantic information associated with the individual parts of the idiom... To show that this claim is false, I think it will be necessary to show... that certain more permissible substitutions for a part of the idiom are predictable. With respect to this last point, I find that the notion of the idiom to hit the sack is preserved much better in the corruption to hit the bed than in to punch the sack. I frankly have no idea how to account for such facts but a knowledge of the literal counterpart could presumably be relevant.

One formal proposal which does do some justice to the facts presented in this section is to be found in Nagy(1974:133-34). In Nagy's account, parts of the idiomatic meaning can be associated with constituent sub-parts. In spill the beans, for example, the sub-parts of the idiomatic meaning, 'disclose' and 'information', are associated with spill and the beans respectively. This association is accomplished by a modification to the formal device proposed by Newmeyer. However, Nagy merely suggests this modification and illustrates it with one example.

Whatever the correct theory of idioms turns out to be, it must be able to account for the fact that some parts of idioms may be associated, in some minimal way, with semantic information. Linguistic theory, as it stands at the moment, is simply not equipped to provide even a descriptively adequate account of the complexities of idiom structure, let alone an explanatorily adequate account. In a more adequate linguistic theory, the treatment of so-called 'empty' NPs must be considerably more sophisticated than at present. Until this gap in our knowledge is filled, it is premature to use 'empty' NPs in argumentation for or against particular hypotheses. The objection raised at the beginning of this section rests on a view of idiom structure which is demonstrably inadequate and so can not be maintained. The objection serves to remind us of a flaw in present linguistic theory (and probably a fundamental one), rather than

proving anything about my analysis per se.

#### 4.6 Postal's approach

In a chapter devoted to the study of Raising and meaning, Postal(1974) examines a number of cases which semantically fall between Equi and Raising constructions. Postal proposes to account for the intermediate cases, at the same time preserving the Equi vs. Raising dichotomy. In this section I will review Postal's approach.

The central problem which Postal has to deal with is the fact that there is often an appreciable change of meaning associated with the application of Raising. As an example of this, Postal discusses the sentences in (50):

- (50a) Julius Caesar struck me as honest.  
 (50b) It struck me that Julius Caesar was honest.

Postal describes the difference between these two sentences by saying that in (50a) I have had perceptual experience of Julius Caesar and that the judgment expressed is a function of this experience, whereas (50b) makes no such assumptions (see Postal 1974:357). I agree with this characterization of the difference.

In an attempt to capture this difference formally, Postal treats the additional component of meaning referred to above as an assumption, P, which is correlated somehow

with the application of Raising. Postal makes reference to transderivational rules as a way of handling this correlation within a transformational grammar, but there is no discussion of this proposal other than the suggestion that it should be investigated.

Postal claims that an additional assumption, making reference to the raised NP, is involved when the rule of Raising applies in a number of cases. I will give some examples, taken from Postal, to illustrate the nature and extent of these assumptions.

While some predicates, like strike in (50), require assumptions to be obligatorily correlated with Raising, other predicates require that the assumptions be optionally linked to an application of Raising. This is the position Postal takes with allow. Allow sentences, as already pointed out in section 4.3.1, can be understood in two ways, with permission being granted directly or indirectly. Operating within a standard transformational framework, the former interpretation would suggest an Equi analysis, while the latter would suggest a Raising analysis. Postal, however, suggests that both interpretations be associated with Raising. In this approach, a sentence like (51a) with either of the two possible interpretations derives from the structure in (51b):

- (51a) I allowed Harry to leave.  
 (51b) I allowed [ Harry leave ].

The Equi-like reading of (51a), in which I give permission explicitly to Harry, comes about by an optional correlation of an assumption to this effect with the application of Raising.

Another possibility is presented with predicates such as make and find, as in (52) and (53):

- (52a) Harry made Sue carry the bucket.  
 (52b) Harry made it rain.  
 (53a) Harry found Sue to be helpful.  
 (53b) Harry found tabs to have been kept on Melvin.

In all these cases, Postal claims that Raising applies. Furthermore, in the (a) cases, there is an assumption obligatorily linked to the application of Raising which presumably gives the raised NP Sue some special status in the computation of the meaning. Because of the (b) sentences, however, in which the purportedly raised NP does not refer to any person or thing, Postal makes the assumption 'conditional'. A conditional linkage means that if the raised NP has a correspondent in logical structure, then it must have the properties described in the assumption.

A similar analysis is offered for cases such as depend on, bet on, bank on, and rely on. (54) is said to derive by application of Raising and the (presumably) condi-

tional linkage of an assumption to the application of Raising:  
ing:

(54) You can depend on him to do something decent.

Postal describes the assumption accompanying this sentence as follows:

...there seems to be an assumption linked with Raising application for depend on. Roughly this is that the dependable state of affairs is so because of the will(s) of the entities designated by the raised NPs. (footnote 7, p.363)

Postal appeals to the notion of assumption linkage to explain semantic differences in the case of nominalizations which, he would claim, involve the rule of Raising at an earlier stage of the derivation. So, for example, (56a) and (56b) are claimed to be nominalized versions of (55a) and (55b) respectively:

(55a) The servant tends to praise the queen.

(55b) The queen tends to be praised by the servant.

(56a) The servant's tendency to praise the queen  
(56b) ?The queen's tendency to be praised by the servant.

Postal notes that (56b) is 'possibly a bit weird on semantic grounds' (Postal1974:326). It is pointed out in a footnote (p. 342) that there is an assumption linked to the application of Raising in cases like (56) to the effect that there is a 'localization of the basis of the tendency' to the entity designated by the raised NP. Postal could then argue

that (56b) is strange because of the clash between this assumption and the content of the embedded clause in which the servant and not the queen is responsible for the praise. The problem, however, is that while an assumption linkage appears to occur in the nominalized versions in (56), there does not appear to be any such assumption linkage in the sentential sources in (55). Postal would have to impose a global condition that an additional assumption is linked to the application of Raising with tend (or its abstract source) if and only if the structure is later converted into a nominalization. Arimoto(1977) notes that the contrast between the sentences in (55) and the nominalized forms in (56) lends weight to the Lexicalist Hypothesis in which (56) are not transformationally derived from (55).

These examples suffice to show Postal's strategy. Where a construction evidences both Equi-like properties and Raising-like properties, Postal's solution is to construe the construction as involving Raising. Equi-like aspects of the meaning come about by the addition of an assumption along with the application of Raising. Details of the assumptions are only sketched, and the technical details concerning the notion of assumption linkage are not elaborated upon. Postal's discussion of the intermediate cases between prototypical Equi and prototypical Raising therefore does not amount to a formal solution within a transformational account.

Postal's strategy has a direct consequence that there is no principled basis for distinguishing Equi and Raising constructions. Once the possibility of linking components of meaning to the application of Raising is allowed, all the Equi constructions can be reanalyzed as Raising constructions in which additional aspects of meaning have been added in the course of the derivation. Postal's proposal thus leads directly to the position that there is no strict dichotomy between Equi and Raising constructions - rather they differ only in the nature of the assumptions which are added.<sup>2</sup>

Apparently, Postal relies on the occurrence of 'empty' NPs to decide between Equi and Raising. If the construction allows an 'empty' NP, then it is analyzed as a Raising construction. But, as was argued in the preceding section, there is no simple division of NPs into 'empty' and 'non-empty' - rather there is a gradation between the two. Thus, Postal's account still rests on making a rigid division where none exists. Even if the technical details of Postal's approach were to be worked out (though no advance has been made in this direction), the approach remains a highly unnatural way of dealing with the kind of gradation

2. It is only in the chapter on Raising and Meaning that Postal addresses the problems raised by the constructions which are intermediate between Raising and Equi. Elsewhere in Postal's book, Raising constructions are constantly contrasted with Equi constructions, as though there were a strict dichotomy.

which needs to be recognized.<sup>3</sup>

3. My account is concerned with semantic representation. A syntactic approach which would be consistent with the observation made in this chapter and one which would be more satisfying than Postal's approach is suggested by Bach (1977:624). In this approach, VP is expanded in the base of the grammar by rule (i):

(i) VP → V NP to Pred

Rule (i) directly gives rise to Equi and Raising constructions - the interpretation as one or the other depending on the particular verb selected.

I will examine this alternation further.

### 5.2.1 Statives, Imperfectives, and Perfectives

In order to understand the nature of the alternation in (1) and (2), some preliminary remarks about stative and process predicates need to be made.

By process predicate, I mean such predicates as have, be, resemble, know, like, hit, jump, run etc., as opposed to stative predicates such as adjectives and nouns. The process predicates are supported by a do auxiliary in English, whereas statives are supported by be. Process predicates may be divided into a perfective class (jump, run, hit etc.) and an imperfective class (exist, know, resemble etc.). The former class can occur as a bare-stem complement embedded to a perception verb such as see:

- (3a) I saw Harry jump.
- (3b) I saw Harry run.
- (3c) \*I saw it exist.
- (3d) \*I saw Harry resemble Mary.

Also, perfectives, but not imperfectives, take the suffix -ing:

- (4a) Harry is jumping.
- (4b) Harry is running.
- (4c) \*It is existing.
- (4d) \*Harry is resembling Mary.

As pointed out by Langacker(1978:863), from whom these cri-

## Chapter V

### Processual Extension of Predicate Adjuncts

#### 5.1 Introduction

We have distinguished between stative p.a.s (formally adjectives, nominals, and verb-particles) and processual p.a.s (formally infinitival phrases) and we have noted that some verbs occur with the former while others occur with the latter. In this chapter, I will concentrate on those verbs which can co-occur with both a stative p.a. and a processual p.a. (1) and (2) exemplify such cases:

- (1a) Mary appeared (to be) despondent.
- (1b) Mary seemed (to be) despondent.
- (1c) Mary looked (to be) ill.
- (1d) Mary turned out (to be) nasty.
- (1e) Mary proved (to be) helpless.
- (1f) Mary got (to be) nasty.
- (1g) Mary grew (to be) beautiful.
- (2a) Mary found the chair (to be) satisfactory.
- (2b) The inspectors deemed the building (to be) unsafe.
- (2c) I consider Harry (to be) a coward.
- (2d) I believe Harry (to be) incapable of loving.
- (2e) Harry reported the survivors (to be) safe and sound.
- (2f) I like Harry (to be) a little tipsy.
- (2g) I prefer music (to be) soft.
- (2h) I want you (to be) happy.

The alternation shown in (1) and (2) would be handled by a rule of be Deletion in a standard transformational account. This rule and some of the problems associated with it are discussed in section 2.1. In this chapter,

teria have been taken, this division is not a rigid lexical partitioning - various factors can permit a predicate to function in more than one of these ways.

Characterized in this syntactic/morphological way, these distinctions might appear of limited interest, being idiosyncratic to English. When characterized in a semantic way, however, the distinctions are seen to have more general significance. Stative predicates describe a configuration which exists at some point in time. While stative predicates can enter into constructions which describe emerging or continuing states, the stative predicates themselves do not have to be construed with reference to the time dimension. Imperfective processes describe ongoing affairs in which some configuration is maintained through time. There is no clear point in time at which such processes have a beginning or an end. Perfective processes involve change through time with the beginning- and end-points more clearly discernible. The distinction is succinctly drawn by Langacker(1979b:8): 'A perfective predicate describes the change of a configuration through time; an imperfective predicate describes the constancy of a configuration through time; and a stative predicate simply describes a configuration.'

Further discussion of the distinctions being made here and their relevance in linguistic theory can be found in Comrie(1976), Langacker(1978) and Langacker(1979b).

### 5.2.2 From State to Process

There is evidence to suggest that in some cases the possibility of a process adjunct is due to an extension of the class of adjuncts from stative to processual. Given the characterization of stative, imperfective, and perfective predicates above, it is clear that a stative-to-process extension would occur most felicitously with imperfectives. Hence, if it is true that process adjuncts appear in the construction by way of an extension from stative adjuncts, then imperfective adjuncts should occur in these constructions at least as easily as perfective adjuncts, possibly more easily.

Note first of all that there are no cases where a perfective predicate is possible as an adjunct, but not an imperfective. That is, there are no verbs like blink where Harry blinked big and Harry blinked to jump are grammatical, but Harry blinked to be big is ungrammatical. On the other hand, there are cases where an imperfective adjunct is possible, but not a perfective adjunct. Look is such a case. This verb occurs in a p.a. construction only with the most stative-like imperfective predicates, as shown in (5):

- (5a) Mary looks to be ill.
- (5b) Mary looks to be about fifty years old.
- (5c) Mary looks to have been through a lot.
- (5d) \*?Mary looks/looked to like eating candy.
- (5e) \*Mary looks/looked to eat a lot.
- (5f) \*Mary looks/looked to win the race.



Although like in (5d) is inherently imperfective and eat in (5e) could be construed imperfectively ('in the habit of eating a lot'), I find (5d) at best marginal and (5e) and (5f) totally unacceptable. Note that it is not for any semantic reason that the combination of look with these predicates is bad. (6) illustrates acceptable ways to express the same ideas using look with an adverbial clause:

- (6a) Mary looks as if she likes eating candy.
- (6b) Mary looks as if she eats a lot.
- (6c) Mary looked as if she won the race.

Thus, not only are perfectives excluded as adjuncts, but the processual extension has hardly encroached beyond the most stative-like imperfectives be and have been. Look, therefore, provides direct evidence for the transition from stative to process predicates.

With seem, on the other hand, the full range of imperfective processual adjuncts is possible:

- (7a) Harry seems happy.
- (7b) Harry seems to be happy.
- (7c) Harry seems to like girls.
- (7d) Harry seems to eat calves' brains.

In (7c), the adjunct like is an inherently imperfective process, while in (7d) the adjunct is inherently perfective but is interpreted imperfectively with the sense of 'to be in the habit of eating...'. While (7d) can not, in fact, be interpreted as containing a perfective adjunct (with the meaning that Harry right now is in the process of eating

calves' brains), there is no absolute restriction to imperfective predicates in the adjunct position of seem sentences. By putting seem into a past or future tense, it is possible to have adjuncts interpreted as perfective predicates, as in (8):

- (8a) Harry seemed to eat the livers we gave him.
- (8b) Harry seemed to jump the fence.
- (8c) Harry will appear to jump the fence.

(8a) could be construed as either 'Harry seemed to eat up the livers we (once) gave him' or 'Harry seemed to be in the habit of eating the livers which we (regularly) supplied him with'.

Thus, seem can co-occur with the full range of process predicates, though tense selection does influence the adjunct possibilities, unlike look where only the most stative-like imperfective predicates can function as adjuncts.

### 5.2.3 Selectional Restrictions

In the preceding sections of this chapter I did not attempt to account for the restrictions on what types of adjuncts can occur with any one main predicate. A full account of such selectional restrictions is beyond the scope of this work, but I will make some suggestions by way of discussing the predicates taste, look and seem.

These three verbs show the following patterns of co-occurrence:

(9)

Adjunct Main Predicate	Adj	to be/ have been Infinitival Phrase	other Infinitival Phrase
<u>taste</u>	OK	*	*
<u>look</u>	OK	OK	*
<u>seem</u>	OK	OK	OK

Consider the semantic content of these verbs. Taste is normally used only when there has been direct contact between the speaker, more precisely the speaker's taste-buds, and a concrete object. Abstract subjects of taste are possible, but are clearly felt to be metaphorical, such as victory tastes sweet. Neither look nor seem requires direct physical contact between the speaker and the subject-referent, but whereas look is primarily tied to visual perception, seem is not so restricted. In the case of seem, the impression the speaker has is based on evidence from any one of the senses or some combination thereof. The basis for associating the secondary predicate with the subject thus varies from direct physical contact with a concrete object (taste), through a mode of perception without physical contact (look), to a generalized notion of perception (seem).

A description of these predicates in similar terms is presented in an illuminating chapter on look, seem, and appear in Austin(1962:33-43). The semantically more complex nature of seem and appear is brought out in the following discussion by Austin(1962:36-37):

Consider, then: (1) He looks guilty.  
(2) He appears guilty.  
(3) He seems guilty.

We would say the first of these things simply by way of commenting on his looks - he has the look of a guilty person. The second, I suggest, would typically be used with reference to certain special circumstances...And the third, fairly clearly, makes an implicit reference to certain evidence - evidence bearing, of course, on the question whether he is guilty, though not such as to settle that question conclusively - 'On the evidence we've heard so far, he certainly seems guilty.'

Sometimes look and seem are interchangeable. This happens, for example, when the visual impression is the only evidence we have for concluding that something seems to be the case. But clearly the uses of these predicates can be differentiated. To quote an example from Austin(1962:38), the sky is blue would normally be interchangeable with the sky looks blue, but one would still want to distinguish the semantics of the copula and the semantics of look. As further evidence of the stronger judgmental bias in seem, as opposed to look, Austin(1962:43) makes the following interesting observation:

It is significant that we can preface a judgment or expression of opinion by the phrases 'To judge from its looks...' or 'Going by appearances...'; but we can't say 'To judge by the seemings...'- no such substantive exists. Why not? Is it not that, whereas looks and appearances provide us with facts on which

a judgment may be based, to speak of how things seem is already to express a judgment. This is, in fact, highly indicative of the special, peculiar function of 'seems'.

Turning to the adjuncts, we have already noted above the increasing semantic complexity as one proceeds from stative through imperfective to perfective predicates. Also, it has been noted by Borkin(1973) that the presence of a (to) be before an adjective or nominal (i.e. the possibility of a process adjunct) can help bring about a more abstract interpretation, though this abstractness is manifested in various ways depending on the particular predicates. The category of infinitival phrases with an infinitive other than to be is a generalization of the class of infinitival phrases. As noted above, if an adjunct can be realized at all by an infinitive, then it will allow a to be/to have been infinitive. Thus, the adjuncts are distinguished in terms of less abstract (adjectival) and more abstract (to be/to have been) and a generalization of the latter type to the full range of process predicates. Characterized in these terms, the three main predicates in (9) correlate in entirely natural ways with the three classes of adjuncts.

### 5.3 Other Cases of Processual Extension

In section 5.2. I have argued that the behavior of perception verbs points to an extension from stative to pro-

cessual adjuncts. This view was arrived at by considering the semantics of the predicates and the constraints which they are subject to. This is not to suggest, however, that ALL the processual adjuncts in Equi and Raising constructions have to be construed in an identical way. It is only with verbs like those in (1) and (2) which occur with both stative and processual adjuncts that the notion of a processual extension is at all feasible. This means that the vast majority of Equi and Raising constructions will not be amenable to such an analysis. Even with the constructions in (1) and (2), where one finds both stative and processual adjuncts, there is no reason to think, a priori, that processual extension has taken place. One has to consider constraints found with particular verbs to support such a view. More specifically, one must look for stative-like constraints on processual adjuncts, as was found with look in section 5.2.

Of the verbs in (1), we have already discussed appear, seem, and look. Turn out and prove, as used in (1d) and (1e), appear to provide evidence for a processual extension because of the highly restricted kinds of adjuncts which can occur with them. While adjectival and be infinitival phrases can comfortably function as adjuncts with these verbs, infinitives other than be occur with varying degrees of difficulty:

- (10a) Mary turned out (to be) nasty.  
 (10b) Mary turned out (to be) very useful.  
 (10c) ?/OK The new employee turned out to know quite a lot about mechanics.  
 (10d) ?Mary turned out to like her marriage.  
 (10e) ?Mary turned out to resemble her father.  
 (11a) Mary proved (to be) helpless.  
 (11b) Mary proved (to be) very useful.  
 (11c) ?/OK The new employee proved to know quite a lot about mechanics.  
 (11d) \*Mary proved to resemble her father.  
 (11e) \*Mary proved to like marriage.

I find a contrast in the acceptability of the (a) and (b) sentences in the following pairs, indicating a preference for the be paraphrase:

- (12a) Mary turned out to be a folk-singer.  
 (12b) ?Mary turned out to sing folk-songs.  
 (13a) Mary proved to be quite knowledgeable about mechanics.  
 (13b) ?Mary proved to know quite a lot about mechanics.

The contrast in (12) and (13) points out the preferred occurrence of be as the processual adjunct, even when there is little or no meaning difference between the be construction and a construction with a process predicate other than be. In these cases, then, there is some support for construing the processual adjunct as a limited extension from a stative adjunct, though it must be granted that the judgments involved are rather slippery.

Adjuncts with get and grow, as in (1f) and (1g), are a little less severely restricted. (14) and (15) illustrate some of the co-occurrence possibilities:

- (14a) Mary is getting (to be) very bossy.  
 (14b) Mary is getting to like her job.  
 (14c) ?Mary is getting to resemble her father.  
 (14d) ?Mary is getting to know the ropes.  
 (15a) Mary is growing (to be) very tall.  
 (15b) Mary is growing to like her job.  
 (15c) ?Mary is growing to resemble her father.  
 (15d) \*Mary is growing to know the ropes.

Here, too, I find a preference for the be infinitive. Compare, for example, the alternatives in (16) and (17):

- (16a) Mary is getting to be like her father.  
 (16b) ?Mary is getting to resemble her father.  
 (17a) Mary is growing to be like her father.  
 (17b) ?Mary is growing to resemble her father.

The preference for be as a processual adjunct with these verbs supports the view that these constructions involve processual extensions of stative adjuncts. The preference for be, the most stative-like of the process predicates, indicates the limited degree to which this process has had effect.

Turning to the verbs in (2), I believe we see a similar situation with some of the constructions, though here too the judgments are slippery. With find, deem, and report, the constraints on process adjuncts seem most severe:

- (18a) Mary found the car (to be) lacking in power.  
 (18b) Mary found the car to have virtually no power.  
 (18c) ?Mary found the car to lack power.  
 (cf. Mary found the car lacks power.)  
 (18d) I find Mary (to be) offensive.

- (18e) ?I find Mary to offend people.  
(cf. I find Mary offends people.)
- (18f) I find the job (to be) demanding.
- (18g) ?I find the job to require a lot of energy.  
(cf. I find the job requires a lot of energy.)
- (19a) The inspectors deemed the building (to be) safe.
- (19b) ?The inspectors deemed the building to comply with safety standards.
- (19c) The examiner deemed Mary (to be) competent in auto-repair.
- (19d) ?OK The examiner deemed Mary to have the required competence in auto-repair.
- (19e) ?The examiner deemed Mary to lack competence in auto-repair.
- (20a) The search-party reported the survivors (to be) in good spirits.
- (20b) ?The search-party reported the survivors to live happily.
- (20c) The search-party reported the survivors to be without water.
- (20d) ?The search-party reported the survivors to lack water.

With believe, the acceptability judgments can be influenced by the kinds of constraints discussed in section 4.3. That is, the semantic interpretation of believe + NP + infinitive can be influenced by the semantic interpretation (or lack thereof) of believe + NP. Even so, there appears to be some preference for a be infinitive:

- (21a) I believe George to be truthful.
- (21b) ?I believe George to tell the truth.  
(I believe George tells the truth.)
- (21c) I believe this report to be accurate.
- (21d) ?I believe this report to accurately describe the facts.  
(cf. I believe this report accurately describes the facts.)

Consider seems less severely restricted in that it allows a variety of imperfective adjuncts besides be and

have:

- (22a) I consider this report to accurately describe the facts.
- (22b) I consider Harry to act cowardly.
- (22c) I consider Harry to lack competence in auto-repair.
- (22d) The authorities consider his actions to warrant immediate arrest.

In the above sentences, the adjunct is interpreted imperfectively, but perfective adjuncts are almost possible with the appropriate tense and mood selections, as in (23):

- (23) ?I would consider Harry to act cowardly if he were to desert his wife.

The remaining verbs in (2) show no particular bias towards be or have as their processual adjuncts:

- (24a) I'd like Harry to visit us.
- (24b) I'd like Harry to fall.
- (24c) I'd like Harry to win.
- (25a) I'd prefer Harry to visit us.
- (25b) I'd prefer Harry to leave.
- (25c) I'd prefer Harry to win.
- (26a) I want Harry to visit us.
- (26b) I want Harry to leave.
- (26c) I want Harry to win.

The data reviewed in this section needs to be approached with caution. Many of the 'contrasts' presented here may be said to involve a stylistic preference. Certainly I am aware of some variability in judgments among speakers with the sentences marked with a question-mark. Consequently, I believe the preceding discussion has done no

more than to suggest the correctness of a processual extension in some cases and does not constitute compelling evidence for such a view.

A further cautionary note in evaluating some of the data is in order. There are Raising constructions like those in (2) which show a bias towards imperfective complements but do NOT allow the simple stative adjuncts such as adjectives and nouns. In such cases, one can not explain away the constraint by appealing to a processual extension of statives. Such constructions involve verbs such as acknowledge, suspect, and assume:

- (27a) \*I acknowledge Harry the best.  
 (27b) I acknowledge Harry to be the best.  
 (27c) I acknowledge Harry to have the best mind.  
 (27d) ?I acknowledge Harry to think fast.  
 (27e) ?I acknowledge Harry to surpass Mary in intelligence.  
 (28a) \*I suspect Harry the thief.  
 (28b) I suspect Harry to be the thief.  
 (28c) I suspect Harry to have stolen the goods.  
 (28d) ?I suspect Harry to know the answer.  
 (28e) ?I suspect Harry to like Mary.  
 (29a) \*Let's assume this theory correct.  
 (29b) Let's assume this theory to be correct.  
 (29c) Let's assume this theory to have some validity.  
 (29d) \*/?Let's assume this theory to surpass all others.  
 (29e) \*/?Let's assume this theory to last.

Be and have seem to be privileged infinitivals in such constructions, similar to what was found with other constructions in this section. Interestingly, however, the (a) sentences in (27)-(29) are unacceptable. Thus, while one

must recognize that there is a stative-like constraint on the complement in some Raising constructions, this constraint is independent of the occurrence of statives such as adjectives and nouns in P.A. constructions with these verbs.

#### 5.4 The Transformational Approach

Clearly, a transformational rule of to be Deletion provides an account for only some of the data considered in the previous section. The rule enables one to derive the pairs of sentences in (1) and (2), one with to be and one without to be - this, despite their semantic non-equivalence. It is equally clear, however, that the rule provides no account of the additional data concerning infinitives other than to be in such constructions. As we have seen, the occurrence of infinitives other than to be in constructions like (1) and (2) is constrained in various ways.

One way to remedy a transformational account would be to add conditions to the rule of Raising and to add features to particular predicates so that the rule of Raising is constrained in the desired ways. So, for example, Stockwell et al (1973:570) propose a condition on Subject-to-Object Raising which requires the verb of the complement clause to be marked [+ STAI] if the Raising trigger is a verb like believes, find, deem etc. This 'stative' feature is attached to non-action predicates and predicates in the pro-

gressive or perfect.

Such an approach is far from adequate. The use of a binary feature to distinguish acceptable from unacceptable cases of Raising can not possibly do justice to the subtlety in judgments with some of these constructions. In some cases, the required constraint seems stronger than 'non-action' and in other cases it seems weaker. With look, for instance, even non-action imperatives such as to like are questionable. With look and possibly some other verbs, the preferred infinitive seemed to be the semantically simple to be and to have. On the other hand, consider could occur with a perfective infinitive describing an act under the appropriate tense and mood conditions.

A more serious objection to an approach which utilizes a rule of to be Deletion and stative conditions on Raising is that such an approach fails to capture the relatedness between these two mechanisms in constructions involving the perception verbs. Thus, it is taken to be completely accidental that these two devices are needed with a verb like look. It could just as well be the case that there is a perfective condition on Raising with look, as opposed to a stative condition. A hypothetical set of data like that in (30)-(32) could then be accounted for in quite similar terms:

(30a) #Harry sounded the best.  
 (30b) #Harry sounded to be the best.  
 (30c) #Harry sounded to fall.

(31a) Harry looked the best.  
 (31b) #Harry looked to be the best.  
 (31c) Harry looked to fall.

(32a) Harry seemed the best.  
 (32b) Harry seemed to be the best.  
 (32c) Harry seemed to fall.

Here, look triggers Raising with complement perfective verbs but not complement imperfective verbs. A set of data like that in (30)-(32) would be incompatible with the analysis I have offered in which look constructions function as a bridge between constructions with, say, taste and seem. The class of adjuncts which occurs with look is similarly intermediate between the classes of adjuncts which occurs with taste and seem. Discovering data like that in (30)-(32) would then argue against adopting the analysis proposed here. I know of no such sets of data with perception verbs.

In order to adequately account for the data presented in this chapter, it is necessary to differentiate between stative, imperfective, and perfective predicates in the way described in section 5.1. Once these distinctions have been made, one is better able to give some account of the constraints involved. The crucial role of be and have with look and possibly some other verbs gives some insight into the dynamics of the processual extension.

The approach taken in this chapter throws light on

some further constraints on to be Deletion. In section 2.1, the following contrast was noted:

- (33a) He seems to be a nice fellow.
- (33b) He seems to be a theoretical physicist.
- (34a) He seems a nice fellow.
- (34b) ?He seems a theoretical physicist.

A judgment that someone is a theoretical physicist is relatively more complex than the judgment that he is a nice fellow, in so far as it requires more sophisticated evidence. A brief and casual encounter with a person may be enough to establish that he is nice, but most likely it would not be enough to establish his academic interest. We have seen that a stative adjunct represents a simpler type of predicate than an imperfective adjunct, such as to be... Hence, if there is a restriction on the class of stative adjuncts, one would expect the stative adjunct to favor the semantically simpler a nice fellow, rather than a theoretical physicist. While my account of seem sentences does not predict absolutely the contrast in acceptability, the account is at least consistent with the observed data. On the other hand, my account would not be consistent with a hypothetical set of data in which the imperfective type of adjunct shows a bias in favor of the simpler predicate, as in (35) - (36):

- (35a) ?He seems to be a nice fellow.
- (35b) He seems to be a theoretical physicist.
- (36a) He seems a nice fellow.
- (36b) He seems a theoretical physicist.

There is no reason to expect that the imperfective type of adjunct should be biased in favor of the relatively simpler predicate, since imperfectives were characterized as the more complex in structure. I have not found any data like that shown in (35) - (36). A transformational account, making use of to be Deletion, would handle the data in (33) - (34) equally as well, or equally as poorly, as the hypothetical data in (35) - (36). The transformational account thus provides no explanation whatsoever for the constraint associated with the stative adjuncts.



## CHAPTER VI

## The History of Some Raising Constructions

## 6.1 Introduction

In this chapter, I will examine some historical facts which lend further support to the characterization of Raising constructions presented in earlier chapters. I am not attempting here to give an exhaustive account of all the diachronic changes which can give rise to Raising constructions and so I allow the possibility that some Raising constructions may evolve in ways other than those examined here.

I have demonstrated two ways in which Raising constructions in English can be linked to non-Raising constructions. One way was discussed in Chapter IV. In that chapter it was shown that there was a semantic transition from Equi to Raising constructions. Another way was discussed in Chapter V and involved a connection between Raising constructions and p.a. constructions with stative adjuncts. It was claimed that some Raising constructions could be viewed as containing processual extensions of stative adjuncts in p.a. constructions.

In this chapter I present documentation to show that these two types of connections, arrived at by synchronic

considerations, have diachronic relevance. In section 6.2, it will be shown that the history of various Raising constructions involves emergent stages which reflect the gradual transition between Equi and Raising constructions. In section 6.3, the history of German scheinen 'seem' is presented, which, it will be seen, demonstrates the transition from a stative to processual adjunct in a p.a. construction (along the lines discussed in Chapter V.) In section 6.4, I will assemble various facts to illustrate historical changes leading to Raising constructions for which there are no synchronic analogues in modern English.

## 6.2 From Equi to Raising

In this section I will illustrate one type of historical change which gave rise to some present-day Raising constructions in English. The changes involve the evolution of Raising constructions out of Equi constructions, based on evidence presented in the O.E.D. Since this evidence is easily accessible, it is not surprising that it has been discussed elsewhere (see, for example, Ardi1977:56ff). Here, however, I am presenting the historical facts against the background of proposals made in Chapter IV and the facts thereby assume a new significance.

According to the O.E.D., the Raising constructions with be certain and be sure have a parallel history. With

respect to the use of be sure sentences by an infinitive.

O.E.D. says:

Properly a constructional use of be sure is an infinitive.  
 daughter will be delighted. This sense was originally subjective, but subsequently came to express, and now always expresses, objective certainty, and therefore (the transferred sense became applicable to things, 'he is sure to return', now 'it is certain that he will return', be sure formerly meant 'he is certain that he will return', now expressed by of with the Gerund.

O.E.D. illustrates the earlier Equi use of these predicates by (1) and (2):

(1) However I with thee have fite by lot, Certain  
 to undergoe like Doom, if Death Consort with  
 thee (1667)

(2) The Apostles, Patriarkes and Prophetes were  
 sure to be followed.  
 (1530)

(1), according to O.E.D., illustrates the earlier sense of be certain 'self-determined, resolved; steadfast'. While O.E.D. is no doubt reliable in its characterization of the basic meanings of this predicate, one can not rule out the presence of an implied epistemic sense in the above sentences. Thus, in (1), not only am I resolved to 'undergoe like Doom', but presumably it follows from the strength of my resolution that it is indeed certain that I will 'undergoe like Doom'. Similarly, in (2), the epistemic sense ('the apostles etc. were certainly being followed') may well attach to some extent to the more central root sense ('the apostles etc. were convinced that they were being

followed'). While one can not always exclude the 'objective' sense (i.e., the Raising sense) from the earlier uses, it remains true that is only in this 'objective' sense that the construction with the infinitival complement is used in modern English.

The history of these predicates demonstrates clearly the transition from an essentially Equi-like construction to a Raising construction and so represents the diachronic counterpart to the gradation established in Chapter IV. Thus we see that a model arrived at on purely synchronic grounds has proved applicable to diachronic developments.

The pattern of development found with be certain and be sure is by no means restricted to these predicates. In his study of the history of 'syntactical units with two verbs', Visser (1969:1309) notes:

Instances of direct consecution (of verb and infinitive) occur with great frequency in all the periods of the English language. A classification of them might be based on the relative syntactical weight of the two constituents, leading to a distinction between head verbs and accessory verbs... A classification on this basis is, however, only practicable in a synchronic description. In a diachronic study its impossibility lies not only in the fact that in Old (and for that matter in early Middle) English the relative syntactical weight of the two constituents is too often inascertainable, but also in the fact that in the course of time THE HIERARCHICAL RELATION BETWEEN THE TWO COMPONENTS HAS BEEN REPEATEDLY LIABLE TO CHANGE, and that the dwindling down of a head verb to an accessory verb was not rare. Thus it is well known that what are now traditionally called 'auxiliaries' originally had the status of full verbs. (my emphasis)

Unlike Visser, I claim that even in a synchronic description the classification into full verbs and auxiliaries (i.e., Equi vs. Raising) is inadequate and needs to be replaced with the kind of analysis proposed in Chapter IV. Visser's own account is not pinned to the labels full verb vs. auxiliary, but is presented in terms of (a) no subordination of the first verb to the second (b) slight subordination of the first verb to the second and (c) subordination of the first verb to the second. This classification is similar to the classification arrived at in Chapter IV. Thus I am able to achieve a harmony between the synchronic and diachronic accounts, which Visser would seem to deny exists.

Not all the developments of Raising constructions out of Equi constructions follow exactly this pattern. It is useful to distinguish some other patterns, illustrated by Promise and the modal can.

Promise has both a clear Equi use and a clear Raising use in modern English, illustrated by (3) and (4) respectively:

- (3) I promise to help you.  
 (4) It promises to rain.

It seems that when the subject of promise designates an entity which is in a position to make a promise then it must mean 'to make a promise' (as in (3)) and can not just indicate a prediction. (3) is not taken to mean simply 'It looks

very much as if I will help you (but I make no promise)'. There is, then, a kind of complementary distribution in the Equi and Raising uses: when the subject refers to a human who has control over the designated state of affairs and is therefore in a position to make a promise, promise must mean 'to make a promise'; otherwise, promise has the predictive sense. Although the two uses of promise are well documented in the history of English, the use of promise as an Equi trigger, meaning 'to make a promise' is historically prior. According to O.E.D., this sense attaches to promise in infinitival constructions from its first appearance in English in the fifteenth century, illustrated by (5):

- (5) (The parker) hathe promised me to make it as  
 wel as he kane fore me. (1467)

The Raising sense, called the 'figurative' sense in O.E.D., is not documented until over 250 years later:

- (6) He promised ... to be stout when grown up.  
 (1722)

Thus, promise with an infinitival complement was originally an Equi construction with controlling human subjects, but later this construction was used with non-human subjects in a Raising sense. The extension of the domain of the subject referent to non-humans is different from what happened in the case of be certain and be sure. With the latter predicates, even with human subjects one finds the extended sense and in modern English only this sense. If there was a kind

of complementary distribution of these senses, it is no longer evident in the modern language.

Yet another type of change can be illustrated by can. There is general agreement (see the quote from Visser above and Traugott1972:197-199) that the Raising ('epistemic') senses of the modals evolved out of the Equi ('root') senses. In particular, the 'possibility' sense of can arose out of the 'ability' sense. The new meaning, however, evolved alongside of the old meaning and did not usurp the old meaning. Thus, (7) is ambiguous between the meaning 'Harry is not capable of being serious' (the original Equi sense) and 'It is impossible that Harry is being serious' (the derivative Raising sense):

(7) Harry can't be serious.

These three different cases, illustrated by be certain (and be sure), promise and can, are shown in summary form in (8):

(8)

	Subject is controlling human	Subject is not controlling human
<u>be certain</u> { Early Stage Later Stage                 }	Equi	-
	Raising	Raising
<u>promise</u> { Early Stage Later Stage                 }	Equi	-
	Equi	Raising
<u>can</u> { Early Stage Later Stage                 }	Equi	-
	Equi/Raising	Raising

In all three cases, a Raising use has come about by a gradual semantic change affecting Equi constructions. The synchronic account of Raising offered in Chapter IV is a recapitulation of this kind of transition. The variation in profiling which underlies my synchronic account proves equally relevant in tracing the history of Raising constructions.

### 6.3.1 The History of scheinen

I will present the relevant facts about the history of scheinen in German, tracing its use from Old High German(OHG), through Middle High German(MHG), Early New High German(ENHG) to New High German(NHG). Throughout all these periods, the verb could be used with a dass sentential complement, as in NHG:

- (9) Es scheint, dass Hans krank ist.  
It seems that Hans is sick.

In what follows I will not be concerned with this use of scheinen. Rather I will concentrate on the use of this verb with a predicative adjunct, as in NHG:

- (10) Hans scheint der rechte Mann dafür.  
Hans seems the right man for that.  
(11) Hans scheint der rechte Mann dafür zu sein.  
Hans seems to be the right man for that.

I have found no instances of an adjective or noun as a predicative adjunct with OHG scfnan, comparable to MHG (10) above. Grimm's Deutsches Wörterbuch records no such use before MHG and my own search through the major OHG works (Notker, Otfrid, Tatian) revealed no such uses.

There is, however, an interesting use of scfnan with an infinitival complement which deserves mention. I refer here to the use of scfnan by Notker, illustrated in (12) and (13):

- (12) Idh sô skinet undfure daz  
ever so appear3SgPres unworthy thatNom/Acc  
sin unde êcherôde  
beInf and insignificant

Just so that appears to be unworthy  
and insignificant...  
(Sehrt and Starck1966:96,lines1-2)

- (13) Idannân skinet ôffeno dîn dîng  
whence appear3SgPres clearly one thingNom/Acc  
uûdsen gûot unde sâlighêit  
beInf goodnessNom/Acc and beatitudeNom/Acc

Whence it appears clearly that goodness and beatitude  
are one and the same thing...  
(Sehrt and Starck1966:211,lines 9-10)

These sentences are susceptible to two different analyses, due to the ambiguity of the Nom/Acc case marking. One analysis would be to resolve the ambiguity of the case marking in favor of the nominative case. (12) then illustrates an infinitival adjunct consisting of a conjunction of adjectives (undfure unde êcherôde) with the infinitive sfn 'to be'. In (13) this requires taking the conjoined phrase gûot unde sâlighêit as a singular subject rather than plural. Since, semantically, these two states are being equated, there is no particular problem in explaining the singular marking on scfnan. ein dîng uuesen can then be taken as an infinitival adjunct.

There is another analysis, however, in which the ambiguity of the case marking is resolved in favor of the accusative case. (12) and (13) then illustrate the accusativus cum infinitivo construction found in Latin. A full

discussion of the a.c.i. construction in Latin is beyond the scope of this dissertation (see Kühner1912:687-700 for discussion), but its relevant characteristics are: with verbs such as veri simile est 'is likely', apparet 'is apparent', and patet 'is obvious' and others, the subject of the sentential complement occurs in the accusative case and the verb of the sentential complement occurs in the infinitival form. (14) illustrates this construction in Latin:

- (14) Veri simile est Iuliam divitem esse.  
 be likely3SgPres JuliaAcc richAcc beinf  
 It is likely that Julia is rich.

See Lakoff(1968:79) for a formalization of this type of complementizer change which is clearly distinguished from the Subject-Raising transformation.<sup>1</sup>

The second alternative is not at all improbable, when one considers the context in which sentences such as (12) and (13) appear. (12) and (13), like almost all the German sentences Notker wrote, occur as translations of

<sup>1</sup> Occasionally, Latin apparere 'to appear' can figure in a Raising construction, as in (i):

- (i) membra nobis ita data sunt, ut ad quandam rationem vivendi data esse apparet.  
 Our parts are given to us in such a way that they appear to be given for a specific manner of living.  
 (Cicero's de Finibus.3.7.23)

However, it is noted by Hutchinson(1909:112) with respect to (i) that this is a 'rare personal use (of apparere) where apparet would be regular'. See Kühner(1912:706) and Nettleship(1889:245) for more Raising-like examples with this verb.

Latin originals. Even within the 'German' translation, in fact, one finds Latin words and phrases commonly occurring. Since it is only in Notker that such constructions occur and since Notker was obviously very much occupied with Latin, it is quite probable that (12) and (13) are imitations of the Latin a.c.i. construction. Further support for this analysis comes from another sentence in Notker,(15), which contains scfnan used with an unambiguous a.c.i. construction:

- (15)  
 Nō skinet uodja uone dien udregesdgetān  
 now appear3SgPres well from the afore-said  
 tēn nāmin unde dīa dīffinitionem secundarum  
 the nameAcc and the definitionAcc secondaryGen  
 substantiarum dfe de subiecto heizint  
 substancesGen which re subject name  
 pe nōte gesprōchen uerdin uone primis  
 by necessity spoken become from primary  
 substantiis tfe fro subiecta sint.  
 substances which their subjects are.

Now it can clearly be seen from the aforesaid that the name and the definition of secondary substances, which refer to a subject, are by necessity used in speaking of primary substances, which are their subjects.  
 (Piper1882:380, lines 6-10)

The crucial part of (15) which illustrates the a.c.i. construction is shown in (16):

- (16) Nō skinet...[ten namin unde dīa  
 dīffinitionem...gesprochen verdin...].

In (15)/(16), the articles ten and dīa can not be nomina-

tive, nor can the nouns namin in OHG and diffinitioem in (here, later) Latin.

To sum up the situation in OHG, one can say that schfan does not occur in a p.a. construction. Although a construction involving an infinitive and superlatively like a p.a. construction could appear in Motker's translations from Latin texts.

In MHG, schfnen could appear with non-infinitival adjuncts (adjectives, nouns, past-participles, prepositional-phrases), but no infinitival adjunct is attested in Grimm's Deutsches Wörterbuch or Benecke et al(1963). The following sentences illustrate the uses of schfnen with predicate adjuncts (all these quotes are taken from Benecke et al1963:142):

(17) sô schfne ich geil  
so appear1SGPres I in high spirits

So I appear/pretend to be in high spirits.  
(from Waither von der Vogelweide)

(18) ez schfnet swære, daz unser hërre  
it appear3SGPres burden what our Lord

geboden hat  
commanded has

It appears burdensome what our Lord has  
commanded us.  
(from Deutsche Mystiker)

(19) sfn kinnebein schein gewahsen  
his chin appear3SGPast grown

zuo den brusten  
to the breasts

His chin appeared to have grown to his  
chest.  
(from Iwein)

(20) ...und schfnen wir niuwen  
and appear3PlPres we only

under der burdi  
under the burden

...and we only seem to be under the  
burden.  
(from Deutsche Mystiker)

The patterns found in MHG are continued through later periods, but in ENHG an infinitival adjunct becomes possible. Examples (21) - (23) are taken from Ebert(1976:42):

(21) Es scheint klein sein aber...  
It seems to be small however...  
(from Johann von Kaisersberg)

(22)...es scheint ein fein gut ding sein denen die  
nit hin ein sehen...  
...it seems to be a beautiful and good thing to  
those who do not look into it .../.it seems to  
be an extremely good thing to those who do not  
look into it ...  
(from Johann von Kaisersberg)

(23)...wiewol es dem menschen etwenn am anfang  
schinet gut sin.  
...although it sometimes seems to be good to man  
at the beginning.  
(from Johann Pauli)

It is a striking fact about such infinitival adjuncts that the infinitive was restricted to the infinitive with the

meaning of 'to be'. This restriction in ENHG has been noted by Ebert(1976:41-42) in a very thorough investigation into the language of Johann von Kaisersberg and Johann Pauli. Ebert says:

In my Early New High German data the only infinitive appearing with bedunken, dunken, erscheinen and scheinen is sein.

The same restriction is noted in Grimm's Deutsches Wörterbuch, Vol.8 (1893:2441-2450) and Paul(1920:117-118). More will be said about the other verbs in a moment.

In NHG, scheinen occurs not only with noun/adjective adjuncts and zu sein infinitival adjuncts, but also with infinitival adjuncts other than zu sein:2

- (24) Hans scheint Fortschritte zu machen.  
Hans seems to be making progress.

zu appeared optionally at first in ENHG and has become obligatory in modern German. The regularization of its use may be connected to a use of zu which is found with some other infinitival constructions in modern German. After verbs such as helfen 'help', lehren 'teach' and lernen 'learn', zu is used before the infinitive when there is an object or some other constituent as part of the complement, but not when there is only an infinitive in the complement:

- (i) Ich habe schwimmen gelernt.  
I have learnt to swim.  
(ii) Ich habe schneller zu schwimmen gelernt.  
I have learnt more quickly to swim.

Now, the scheinen sentences which attracted sein always contain an adjective or predicate nominal after scheinen. Thus, the use of zu with scheinen became regularized so that it was consistent with other uses of zu.

- (25) Es scheint zu regnen.  
It seems to be raining.

While the OHG period is interesting in its own right, it is the period MHG-ENHG-NHG which is most relevant here. It can be seen that the steps by which the infinitival adjunct with scheinen emerged reflect the synchronic transition from stative to processual adjunct in p.a. constructions examined in Chapter V. There, too, it was found that 'be'-imperfectives, as the most stative-like processes, were pivotal in the transition to processual adjuncts. Thus, the facts about the history of German scheinen lend strong support to the view that some Raising constructions are processual extensions from simpler stative p.a. constructions.

Consider how the sequence of developments from MHG to NHG would be handled in a transformational grammar which does not recognize scheinen constructions as p.a. constructions. Each of the stages can be successfully described in such a grammar by attaching appropriate conditions onto the transformations. In a transformational grammar, the three stages (MHG-ENHG-NHG) could be characterized as in (26):



## (26) Stage I

NP1 scheint NP2.  
 \*NP1 scheint NP2 (zu) sein.  
 \*NP1 scheint VP.

- (i) Raising is triggered by scheinen, but only if the embedded sentence contains sein.  
 (ii) (zu) sein Deletion is obligatory after scheinen NP.

## Stage II

NP1 scheint NP2.  
 NP1 scheint NP2 sein.  
 \*NP1 scheint VP.

- (i) Raising is triggered by scheinen, but only if the embedded sentence contains sein.  
 (ii) (zu) sein Deletion is optional after scheinen NP.

## Stage III

NP1 scheint NP2.  
 NP1 scheint NP2 zu sein.  
 NP1 scheint VP.

- (i) Raising is triggered by scheinen without any restriction on the verb in the embedded sentence.  
 (ii) (zu) sein Deletion is optional after scheinen.

The transition from one stage to the next translates in this approach into a change to a single transformation. The transition from Stage I to Stage II is a change in the manner in which (zu) sein Deletion applies; the transition from Stage II to Stage III is a change in the conditions under which Raising applies. Such an account is clearly descriptively adequate and may even be said to be elegant in that the diachronic changes correspond to simple elementary modifications to existing transformations. However, such an account offers no explanation as to why the changes occurred in that particular order. Thus, some other sequence of developments, also involving no more than a single transformational modification at a time, is just as easily and just as elegantly characterized in this framework. Consider the scenario in (19) from this point of view:

## (27) Stage I

NP1 scheint NP2.  
 #NP1 scheint NP2 (zu) sein.  
 #NP1 scheint VP.

Description as in Stage I of (26).

## Stage II

NP1 scheint NP2.  
 #NP1 scheint NP2 (zu) sein.  
 NP1 scheint VP.

(i) Raising is triggered by scheinen with no restriction on the verb of the embedded sentence.

(ii) (zu) sein Deletion is obligatory after scheinen NP.

## Stage III

NP1 scheint NP2.  
 NP1 scheint NP2 zu sein.  
 NP1 scheint VP.

Description as in Stage III of (26).

In (27), the difference between Stage I and Stage II is a difference in the conditions under which Raising applies: the difference between Stage II and Stage III is a difference in the manner in which (zu) sein Deletion applies. Hence, the transitions involved in (27) are of exactly the same sort as the transitions in (26) - it is only the order in which they occur that distinguishes them. The order of developments in (27), however, is not attested

for any verb in German, whereas the order shown in (27) is. The intermediate stage in (27) seems very strange, in fact, since this combination of possibilities is never found in English despite the relatively large number of predicates which participate in the Raising construction. In other words, the transformational approach fails to distinguish the possible developments from what are apparently impossible developments.

Given the account in Chapter V, (27) would be an impossible intermediate stage, as it would violate the stative-imperfective-perfective gradation. This gradation, as such, does not predict the directionality of historical change, that is stative to imperfective to perfective rather than perfective to imperfective to stative. Although I have not found evidence to support the three stages of a reverse development, there is evidence in support of a change from Stage II to Stage I of (26). Thus, German erscheinen, also 'seem', underwent a change from Stage I to Stage II, parallel to what happened with scheinen, but in NHG erscheinen reverted to the state of affairs described by Stage I in (26), rather than proceeding to Stage III. The neutrality of my account with respect to the direction of change is therefore a positive aspect, as the historical facts indicate a change in either direction is possible.

Also, my account in no way predicts that a particular predicate MUST undergo a change. While scheinen and some

related verbs underwent a change, sehen 'see; appear' which occurred in the eighteenth and nineteenth centuries in F.a. constructions did not undergo any such change. Thus, we find a sentence like (28) in the writings of Goethe, but there is no record of a sentence like (29) at any subsequent stage of

German:

(28) Du siehst blaß.  
You look pale.  
(quoted in Fischer:1929:560, along with many other similar examples)

(29) \*Er sah krank (zu) sein.  
He looked sick.

The path of development traced by scheinen from MHG to ENHG can also be observed to some extent in the case of erscheinen 'appear', dunken, and bedanken. The latter two mean 'think, consider' and are typically used in an impersonal construction with the experiencer in an accusative or dative case (see Ebert:1976:42-43 for ENHG details of these verbs). The OHG use of these verbs is complex, at least in the writings of Notker, due to interference from Latin, but this use does not bear on the development from MHG to ENHG which is the time period most relevant to the present discussion.<sup>3</sup> As noted by Ebert, the infinitive sein began to

3. Just as Notker's use of scfnan seems to be an imitation of the Latin construction with verbs of the sp-  
parere class, so too Notker's use of OHG dunken (ENHG bedanken) reflects the Latin use of verbs like videtur. As pointed out by Lakoff (1968:86-87), such verbs are found in a Raising construction (the so-called nominativus cum infinitivo) as well as in the a.c.i. construction, illustrated in (i) and (ii) respectively:

appear with these verbs in ENHG. Unlike scheinen, however, these verbs did not proceed to Stage III in (26). With erscheinen, in fact, modern German usage has reverted to Stage I where even the (zu) sein infinitive is disallowed.

### 6.3.2 Processual Extension in Latin

The path of evolution which is evidenced by German scheinen is claimed to also be the path followed by some Latin constructions in Hahn (1950). Hahn's discussion

(i) illi socius esse diceris.  
You are said to be an ally of his.

(ii) Dicitur eo tempore matrem Pausanias vixisse.  
It is said that at this time the mother of Pausanias was alive.

Pattern (i) is the preferred model for textbook Latin, but pattern (ii) occurs in Cicero's dialect and in post-Ciceronian Latin (see Miller:1974:236-237 for discussion).

In Notker, but as far as I can determine nowhere else in OHG, we find dunken used in a parallel way:

(iii) Mir dunchent chad ih tfu zuêi ringen unde  
uifder êin-ânderen sin  
I said the two appear to me to be fighting and to be against each other.  
(Sehr: and Starck:1966:343, lines 24-25)

(iv) Nedunchet tfr mih hâben gerecchet mir sêlbemo  
gnug mâhige ufentskefte?  
Don't you think that I have revenged myself of sufficiently many fights?/Don't you think that many fights have sufficiently revenged me?  
(Sehr: and Starck:1966:30, line 26 - 31, line 2)

In (iii), tiu zuêi is a subject of dunken (which shows a third person plural ending); in (iv), mih is not the subject of dunken but appears in an accusative case. That is, (iii) is a Raising construction in which Passive has applied; (iv) is an a.c.i. construction. There is a difficulty in interpreting (iv), since it is semantically possible for either mih or ufentskefte to be the subject of the complement clause Mir tfr either case, the complement is expressed in an a.c.i. construction.

concerns the Latin a.c.i. constructions which appear to be cases of Subject-to-Object Raising like, for example, dico hunc abire 'I say he is leaving'. This construction is analyzed as involving Subject-to-Object Raising in Pello(1977), though such an analysis is explicitly rejected in Pillingner(1980). Lakoff(1988:85-8) equivocates between treating the construction as involving Raising and treating it as an instance of 'Accusative-Infinite Complementizer-Change'. Hahn claims that a p.a. construction with verbs of perception and a stative adjunct served as the starting point for the emergence of the Raising-like construction. She sees the following sentences as illustrating the stages involved in this progression:

(30) Stage I: *Te videam emortuam.*  
I would see you dead.  
(from Plautus' Trinummus, l. 42)

Stage II: *Videt ad paupertatum protractum esse se.*  
He sees himself being dragged down to poverty.  
(from Plautus' Trinummus, l. 109)

Stage III: *Vident nos stare.*  
They see us stand still.  
(from Plautus' Bacchides, l. 292)

In stage I, the adjunct is a stative predicate, in stage II a be process predicate, in stage III a process predicate other than be. This sequence of developments is of

course identical to the pattern found with scheinen and would appear to be a further illustration of the historical validity of the approach to esse Raising constructions proposed in Chapter 7.

In point of fact, Hahn's proposal is purely speculative without any evidence in support of an actual chronology of Stage I → Stage II → Stage III as depicted in (30). The order I → II → III in (30) is an hypothesis on the part of the author as to how the construction in III MIGHT have come about. It is important to note with respect to this proposal that the sentences cited in illustration of the three stages are not chosen from three distinct time periods. The sentences quoted in (30) all come from the one author, Plautus. Some Hittite sentences are quoted which are supposed to confirm her hypothesis. Thus, a Hittite clause is quoted which has the form of a p.a. construction as in Stage I. This is taken as an indication of the archaic nature of the p.a. construction in Indo-European, and indirectly Latin. Even if it could be established that the p.a. construction in I did represent the initial stage (though the argumentation offered by no means proves that), the crucial intermediate stage with esse as the infinitive would still require further substantiation.

I have argued that the extension of a predicate adjunct from stative to the whole class of predicates is indeed a real enough phenomenon - supported by both

synchronic evidence (in Chapter V) and diachronic evidence (in the preceding section of this chapter). However, I have found no evidence of this phenomenon with the types of p.a. constructions examined by Hahn, i.e. transitive p.a. constructions with perception verbs as the main predicates. I have found evidence of a processual extension with perception verbs used in INtransitive p.a. constructions, such as The meat tastes funny. While the simulative p.a. construction is possible (e.g. Judges like to taste wine luke-warm), it is nowhere near as established as in the case of some other predicates. One does not find the simulative construction in simple declarative sentences such as \*I heard Harry sad and \*I saw Harry sick. Nor is a (to) be infinitival phrase normally possible - \*I heard Harry (to) be sad, \*I saw Harry (to) be tired. A be infinitival phrase is possible when it is construed perfectly, as in I saw Harry be sick meaning 'I saw Harry vomit' rather than 'I saw that Harry was sick'. A perfective infinitival phrase is in fact a very common construction with the perception predicates - I saw Harry leave, I heard Harry arrive. In other words, a stative or imperfective adjunct in these cases is either unacceptable or somewhat peripheral, whereas a following perfective infinitive is fully acceptable. This situation is quite different from the properties we found with the transitive p.a. constructions in Chapter V. There, we proceeded from cases in which the adjunct was well established with stative predicates and less established with

imperfectives and perfectives. Thus, the synchronic facts about English investigated in earlier chapters provide no basis for thinking that a construction such as I saw Harry run in any way involves a processual extension of a stative adjunct.

Nor have I found diachronic evidence to support the stative → process extension with transitive perception predicates. Throughout the history of German, for example, transitive sehen 'see' could always appear with an infinitival phrase, as in (31):

(31a) gisah er queman gotes geist  
He saw God's spirit come.  
(OHG. from Otfrid I, 25, l. 23)

(31b) saehe ich die megde an der stráze  
den bal werfen!  
If only I were to see the maidens  
throwing the ball on the street!  
(MHG. from Walther von der Vogelweide, quoted  
in Benecke et al 1963:273)

(31c) all ding jr zu euch fallen secht  
everything you see falling towards yourselves...  
(ENHG. from Schwartzenberg, quoted in Grimm's  
Deutsches Wörterbuch, Vol. 10, Part 1, section 1.137)

It is noted in Paul (1920:99-106) and Ebert (1974:124-139) that the sein infinitive was possible with transitive perception predicates. (32a) and (32b), taken from Paul (1920:103, 106) illustrate this construction:

(32a) swenn ich den armen sach dā vor mit  
 kumberlichen noeten sfn...  
 When/as soon as I saw that poor fellow  
 with his sorrowful miseries.  
 (MHG, from Rudolf von Ems)

(32b) ...so must ich andre sehn gläckseliger sein  
 als mich.  
 ...so I had to see others being happier than me.  
 (ENHG, from Fleming)

Clearly, (32a) and (32b) can not be used as evidence of an intermediate stage between stative and processual adjuncts, when a processual adjunct was possible both prior to and simultaneous with (32a) and (32b), as illustrated in (31).

Thus, neither the Latin nor German perception predicates provide any clear evidence for the processual extension of transitive p.a. constructions. Nevertheless, I believe there is some evidence for such an extension in the case of some other transitive predicates in German, such as beweisen 'to prove' and glauben 'to believe'. Much more historical groundwork needs to be done before the stages of evolution can be established, but the information about these verbs in Paul(1920:99-106) suggests that a stative → process extension may have occurred with these verbs at about the same time as with scheinen. If so, then this would be a diachronic parallel to the synchronic account in Chapter V, where the processual extension was suggested not by the transitive perception predicates, but rather by judgmental verbs such as find, deem, believe etc.

#### 6.4 Miscellanea

The changes outlined in sections 6.2 and 6.3 represent clear diachronic parallels to the synchronic analyses in earlier chapters. I have not claimed, however, that all Raising constructions will necessarily evolve in either of the two ways described in sections 6.2 and 6.3 and in no other way. The quirks of history are so unpredictable that I am in no position to predict in an absolute way just how any Raising construction must evolve. In this section I will give some idea of the kind of complications which can be involved in studying the history of some constructions.

One type of change which has occurred in English involves a change in the surface case-marking, resulting in a sentence like (34) from an earlier (33) (see O.E.D., Ard1977:60-61 and Gaaf1904:122-123):

(33) Him (it) happened to come.  
 (34) He happened to come.

Since (33) and (34) were used with the same meaning, one can ascribe the difference solely to a change in case-marking (the it in (33) being optional). Many other, originally impersonal, verbs underwent the same change. These verbs and the changes they underwent are fully documented in Gaaf(1904). Since impersonal sentences with an oblique experiencer in an object case do not figure in modern Raising or Equi constructions in English, I did not discuss any

sentences like these in the earlier chapters.

While it is clear what the initial and final stages were in the change from (33) to (34), much more detailed study of the intermediate stages is still needed. For example, does them happens... become they happen... in one step, or does it change first to they happens... (a change of case-marking) and then to they happen... (a change of agreement)? These intermediate stages need to be investigated much more carefully (comparable to the care taken with scheinen in section 6.2.1) before the change can be fully understood.<sup>4</sup>

The history of English seem constructions is still more complicated. The facts suggest a comparison with happen on the one hand (however poorly understood this verb itself may be) and German scheinen on the other hand. Seem could originally appear in both of the frames indicated in (35) and (36):

- (35) Dative NP ... Infinitival Phrase  
(36) Nominative NP ... Adjective

The modern Raising construction with infinitival phrase might have evolved out of (35) by a change of case-marking or it may have arisen out of (36) by the extension of the history of happen and related constructions. Ard (1977) is content with the O.E.D. statement about such constructions. This is disturbing, considering that the first half of this work is meant to be a study of the history of Raising constructions in English.

adjunct to infinitives. It is important to note here that seem sentences of the form (35) could carry the same meaning as the modern Raising construction, namely something like 'It appears that NP...'. O.E.D. notes:

The prefixed dative sometimes was used (?by confusion) with reference to the subject of the appearance, so that the impersonal him, her seems = he, she seems.

The first instance of seems used in the (35) frame with this sense is (37):

- (37) ...Mir semed na wight to be wilde. (1300)

In other words, a sentence like (38a), meaning 'She seemed to be wild', could have undergone a change to the case-marking to give (38b) with exactly the same meaning, parallel to the happen case:<sup>5</sup>

- (38a) Her seemed to be wild.  
(38b) She seemed to be wild.

On the other hand, the modern Raising construction may have evolved out of (36) by the addition of an infini-

5. It should be noted that me seems... sentences could have other meanings which in fact were the more common meanings, namely (i) 'It is suitable to me/it befits me that', and (ii) 'It appears to me/I think that...'. Gass (1904:38) claims that a case-change occurred with meaning (ii) in the Somersetshire dialect. In this dialect, seem is used in the sense 'to think, to reckon, to consider, to hold the opinion'. Hence, in this dialect, (iii) becomes (iv) by a case-change - the meaning remains 'She thought all was well':

- (iii) Her seemed that all was well.  
(iv) She seemed that all was well.

tive, as happened with German scheinen. It appears, then, that either a case-change to (35) or the addition of an infinitive to (36) could have given rise to the modern Raising construction. One could imagine a way to choose between the two accounts. Suppose all kinds of infinitives occurred in the (35) frame. A case-change in (35) should not have any effect on the selection of the infinitive and so we would expect the full range of infinitives after the case-change. If an infinitive is to be added to (36), however, we expect be to have a privileged occurrence, because of what we know about German scheinen. That is, if be is the most common occurring infinitive in the earlier stages, then we conclude (36) was the immediate source for the Raising construction: if not, we conclude that (35) was the immediate source. Unfortunately, we have insufficient data to choose between these two hypotheses. It is true that the O.E.D. singles out be and deems it necessary to make a special list of see to be occurrences, though there does not appear to be the chronological order of first be and then other infinitives. Both alternatives thus seem equally plausible.<sup>6</sup>

<sup>6</sup> A similar double connection exists in the case of Latin apparere 'appear, seem'. As illustrated in Footnote 1, this verb can occur in a Raising construction in Latin. It was also mentioned in section 6.2.1 that this verb also occurred in an a.c.i. construction. In addition, the verb could appear without any infinitive but simply with an adjective as a predicate adjunct, as in (i):

(i) apparebat atrox cum plebe certamen  
A conflict with the people appeared atrocious.  
(from Livy 2.28)

See Kühner (1912:16) for more examples of this use. Thus, apparere occurred in both the frames (ii) and

There is, in fact, a third alternative, due to the occurrence of seem in a structure like (39):

(39) Dative NP ... Adjective/NP

This use of seem is illustrated in (40), which has the meaning 'It appeared that they were men...':

(40) *Thame semyt men forsuth, I hicht. That had fayndit thair fayis in ficht. (1375)*

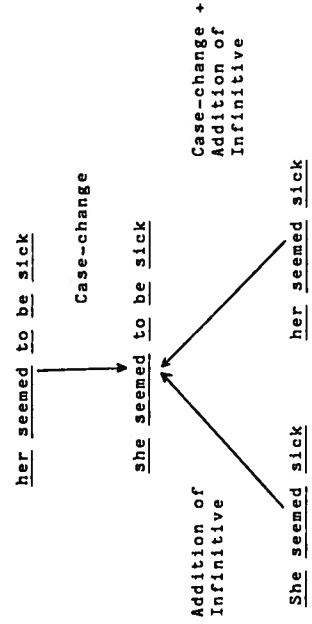
(40) may then give rise to the modern Raising construction through the combination of a case-change in the initial NP AND the addition of an infinitive. Thus, there are at least three feasible accounts of the development of the modern Raising construction with seem. The three competing accounts are summed up in (41).

(iii) besides the apparently innovative Raising use:  
(iii) ... Accusative NP Infinitival Phrase  
(iv) Nominative NP ... Adjective

The Raising construction could have come about either by a case-change in (iii) or by the addition of an infinitive in (iv) (note the infinitive esse in the Raising example in Footnote 1.)



(41)



It may be wrong to look for one source only in the evolution of the seem construction. In any case, given the lack of more detailed information about the intermediate stages, we must accept the possibility that any combination of the hypotheses illustrated in (41) was responsible.<sup>7</sup> To make matters worse, one can not exclude the possibility that Old French sembler, which appeared in Middle English texts, may also have influenced the evolution of seem.

In the case of scheinen, we saw how the infinitive 'be' was gradually added, followed by other infinitives. There are cases where an infinitive other than 'be' has been

<sup>7</sup> I have not distinguished between the relative frequencies of occurrence of the three possible sources for 'she seemed to be sick'. According to O.E.D., her seemed sick and her seemed to be sick are found only occasionally with the relevant meaning. In fact, O.E.D. gives only one example of the latter, which in turn seems sick as the most likely source, which in turn means the path of evolution was quite comparable to the scheinen developments. But one needs more statistical information before reliable conclusions can be drawn.

pivotal in the emergence of infinitival complements with Equi and it is interesting to compare these case with the scheinen case.

Disterhaft(1979) has reported on the evolution of verbal noun complementation in Irish with Equi-like verbs. In Old Irish the sentential complement of some Equi verbs could be realized in the form of dative verbal nouns. Disterhaft gives the following example:

(42) ni cumcat aithirgi do denum  
 NEG they-are-able repentanceAcc do denu  
 They are not able to do repentance.

The verbs which could trigger this kind of complementation in Old Irish were conn-icc 'be able', ad-cobra 'desire' and caraid 'love' (these verbs could also occur with accusative verbal noun complementation. In Old Irish, the only verb which could appear in the complement in the dative verbal noun structures was do denum 'to do'. In Middle Irish, this construction developed in two ways: (i) the class of Equi triggers which could occur with dative verbal nouns increased to include baigid 'threaten', ar-berta 'intend', fris-accal 'expect', do-airngair 'promise' and ad-daim 'admit'; (ii) there were no longer constraints on the type of verb which could appear as the dative verbal noun. Thus, we have a parallel to the history of scheinen: the 'to be' infinitive was pivotal in the evolution of Raising constructions in German; the 'do' infinitive was pivotal in the

evolution of some Equi constructions in Irish.

'Be' and 'do' are both unmarked - the former is the emptiest imperfective process, the latter is the emptiest verb of action. In the introduction of a process predicate into an otherwise stative construction, it is to be expected that it will happen in a relatively inconspicuous way. Hence, the first predicates to appear will have little content to add, such as 'be' and 'do'. Since the Raising construction with scheinen emerged out of stative-like constructions, the most inconspicuous development would be to introduce the relatively empty imperfective 'be' process. Since the Equi verbs typically refer to future actions, a complement with do is the most inconspicuous way of having such a process predicate in the complement. The emergence of process predicates in these structures is thus seen to be a process of 'ingratiation' - the process predicates least disruptive to the status quo present themselves first. Once they establish themselves, they can be followed by less accommodating process predicates.

This process of ingratiation may introduce predicates other than just 'be' and 'do'. One can imagine a case where some other infinitive starts appearing in such a way that it adds little or nothing semantically. This idea is illustrated synchronically by the pair of sentences in (43):

- (43a) I expect Harry tomorrow.  
 (43b) I expect Harry to come tomorrow.

The addition of the infinitive to come adds little to the interpretation of sentence (43a). Only a few examples of Raising constructions with expect are documented in O.E.D. and so we have insufficient evidence at the moment to support this kind of ingratiation with expect as a diachronically real process. The notion of ingratiation remains an interesting area for future research.

type, traditionally called copulative constructions, can be classified into inchoatives, in which a new state comes about, and continuatives, in which a state is maintained. Transitive constructions of this type can be divided up in a parallel way into resultatives and simultatives. A number of examples of each of these four constructions were examined and it was found that all four types evidence a similar kind of semantic variation. The variation concerns the semantic role of the nominal with which the predicate adjunct is associated. In the case of the intransitive constructions, this role was characterized by varying degrees of action, volition, and responsibility. In the case of the transitive predicate adjunct constructions, there was a variation in the degree to which there was interaction between the subject and object entities. In each case, a semantic schema was proposed which distinguished the subject referent (in the intransitive construction) and the object referent (in the transitive construction). The variation in the nature of this role made it possible to construe the apparent absence of such a role as constituting a limiting case of the variation.

Perception predicates also enter into predicate adjunct constructions but are considered separately, in Chapter II, because of the especially interesting semantics associated with them. An analysis of perception sentences is proposed which does not rely on Psych Movement. Working

## CHAPTER VII

### Conclusion

#### 7.1 Summary of Results

In exploring the semantics of Raising constructions, we have been led inescapably to consider a set of related constructions. The area of study was expanded to include not only the rule of Raising, but also the rules of Equi-NP Deletion, Psych Movement, and to be Deletion. Rather than assuming the validity of these transformational rules as a means of expressing relationships between sentences, this study explored alternative ways of construing such relationships. The direction of this study was influenced by the acceptance of certain linguistic principles. The concepts of base and profile were taken to be of fundamental importance in characterizing not only lexical units but also grammatical constructions. Another notion which plays an important role in this study is that of gradation. Elements of a linguistic system may be related by virtue of their belonging to a continuum. Throughout this study, an attempt was made to give a natural expression to continuum-like properties.

Chapter II paved the way for a discussion of Raising constructions by exploring constructions involving stative predicate adjuncts. Intransitive constructions of this

rather with the notion of 'base' and 'profile'. I proceeded to examine a variety of cases involving alternative profiling. The alternative constructions which perception predicates figure in (I taste meat and The meat tastes funny to me) were viewed as instances of profile-shift. Seem/appear sentences were given a similar treatment. A transformational rule of Psych Movement is thus seen to have relatively limited validity in that it fails to capture the generality of the phenomenon within the whole linguistic system.

Chapter IV is a discussion of predicate adjunct constructions containing processual adjuncts and proceeds along the same lines as Chapter II. Intransitive constructions, in which the adjunct relates to the subject, and transitive constructions, in which the adjunct relates to the object, were examined. The intransitive constructions, classified into Equi and Raising structures in a standard account, were examined and it was shown that they exhibited a gradual semantic transition from prototypical Subject-controlled Equi to prototypical Subject-to-Subject Raising. Constructions involving modals, semi-modals, and other verbs constituted the intermediate cases. Similarly, an examination of the transitive constructions with verbs such as believe, plan, imagine etc. established a gradual semantic transition between Object-controlled Equi and Subject-to-Object Raising. An analysis was proposed in which the Raising structures were construed as the limiting cases of Equi-like

semantic structures. The semantic unity of these constructions correlated directly with the formal indistinguishability of the surface structures associated with Equi and Raising. A possible objection to the analysis, based on 'empty' NPs, was found to be inconclusive but did serve to highlight a serious weakness in transformational theory. Postal's account of the Equi-Raising transition, in which an appeal to some kind of transderivational constraint is made, was claimed to be a less natural way of dealing with the phenomena.

In Chapter V it was proposed that some process adjuncts occur in predicate adjunct constructions by virtue of an extension from stative adjuncts. This view is based on various constraints on possible types of process adjuncts in predicate adjunct constructions. With look, it was found that there was a clear preference for be and have been in the adjunct position. To account for this phenomenon, it was proposed that the class of adjuncts with look has been increased from statives to stative-like processes. Comparing the behavior of taste, look, and seem showed a correlation between the stative → process progression in the adjunct and a concrete → abstract progression in the main predicate. Other possible cases of processual extension were considered, in both transitive and intransitive predicate adjunct constructions. The rule of to be Deletion was shown to be an ad hoc mechanism which did nothing to explain the

range of data examined in this chapter.

Chapter VI is a diachronic study of some selected Raising constructions. One type of evolution was illustrated by the histories of be certain, promise, and can. In these cases, the Raising construction arose out of an earlier Equi construction by gradual semantic change. This type of evolution paralleled the gradation from Equi to Raising constructions established by synchronic considerations in Chapter IV. Another path of development was evidenced by German scheinen constructions. It was shown that the class of predicate adjuncts with scheinen was extended from stative to processes - a clear diachronic analogue to the proposal made in Chapter V. The diachronic parallel holds even to the extent that one can observe the pivotal role of 'be' imperfectives. An account of some Latin constructions by Hahn along similar lines was found to be suspect. Some additional historical material was presented which suggested more complex lines of development. Consideration of the history of seem, for example, revealed complications due to a change in case-marking. Data from Old Irish indicated that a 'do' infinitive can also play a pivotal role in the emergence of some infinitival constructions.

## 7.2 The Semantic Representation of Raising Constructions

We return now to consider the problem posed in Chapter I, namely, the semantic representations of (1) and (2):

- (1) Harry happens to be unpleasant.
- (2) It happens that Harry is unpleasant.

We have argued that a Raising sentence like (1) should be analyzed in essentially the same way as an Equi sentence. Support for this position was found in the fact that a sentence like (1) forms part of a semantic continuum with Equi constructions. Formally, also, it was seen that Raising and Equi constructions require a unitary treatment. Finally, diachronic evidence was brought to bear which lent further support to the view that Raising constructions represent limiting cases of Equi constructions.

While we have not undertaken a full examination of 'unraised' sentences like (2) in this study, it suffices to note that such sentences do NOT fuse with Equi-like sentences in the way that sentences like (1) have been shown to. The semantic, syntactic, and diachronic considerations which supported the unitary treatment of Equi and Raising constructions do not lend support to a similar treatment of unraised constructions like (2). While sentences like (1) connect in natural ways with Equi constructions, there is no basis for treating sentences like (2) in these ways. There

is no 'additional' role associated with Harry in any of the sentences in (3) and (4), i.e. there is no particular role which Harry must play in order for the comment about Harry to be made:

- (3a) It (so) happens (that) Harry is unpleasant.
- (3b) It seems (that) Harry is unpleasant.
- (3c) It appears (that) Harry is unpleasant.
- (3d) It is certain (that) Harry is unpleasant.
- (3e) It is likely that Harry is unpleasant.
- (4a) I find (that) Harry is unpleasant.
- (4b) I believe (that) Harry is unpleasant.
- (4c) I expect (that) Harry is unpleasant.
- (4d) I consider (that) Harry is unpleasant.
- (4e) I imagine (that) Harry is unpleasant.

There is no gradation in the degree to which additional assumptions about Harry are present in these sentences, and hence no basis for giving them the kind of semantic representation proposed for the corresponding infinitival constructions.

Nor is there any formal basis for grouping a sentence like (2) with Equi constructions. In (2), there is a major constituent break between happens and the remainder of the sentence (cf. the discussion of such structures in Soames and Perlmutter 1979:66-70). In (1), happens and the remainder of the sentence are taken to form one constituent (cf. the discussion in section 4.4). In a transformational account which moves the phrase to be unpleasant to the end of the sentence in (1), one must ensure that the moved constituent ends up daughter-adjoined to the VP node. In (2),

on the other hand, a transformational account which moves the phrase that Harry is unpleasant by Extraposition to the end of the sentence has the moved constituent daughter-adjoined to the root S node.

Diachronically, I have found no indication that a structure like (2) evolves out of Equi-like or Raising-like constructions. There is no evidence I know of which shows a sentence like (2) to have come about from a sentence like (1) by, say, the gradual replacement of the subject Harry by I and the gradual replacement of the infinitival structure by a that clause.

The situation can be described as follows: a Raising structure like (1) and a non-Raising structure like (2) appear alternative ways in which the English linguistic system allows one to express a cognitive structure consisting of a comment about a proposition. In (1), the cognitive structure is realized in an Equi-like structure, i.e. the comment about the proposition is presented semantically and syntactically as a comment about the subject of the proposition. In (2), on the other hand, the same cognitive structure is presented as a comment about the whole proposition.

The situation just described is familiar from discussions of metaphor, where a reference to what is literally a part of some object/situation is understood as a reference to the whole object/situation. Traditionally, the process is

classified under the rubric 'synecdoche', which covers both the case of a part being used for the whole ('pars pro toto') and the whole being used for a part ('totum pro parte'). Extensive illustration of this metaphorical process in English and other languages can be found in Paul(1920:97-98), McKnight(1928:232ff), Stern(1931:363-65) and Ullmann(1957:231ff). Often, the examples adduced have a literary or archaic flavor to them (such as blade when used to mean 'sword'), due to the fact that the discussion of metaphor is typically oriented towards literature. To show that the same metaphorical process continues to be alive and prospering, some examples drawn from contemporary usage are given in (5)-(8):

(5) The term for a salient object in a game is used as the term for the game:

football, baseball, basketball, racquetball, softball, volleyball, marbles, dominoes, billiards, bowls, quoits, darts, checkers.

(6) The term describing a body-part is also used as a term for the person:  
black, white, blond, curly, broad.

(7) The term referring to a body-part is used to refer to a person:  
redhead, redskin, Goldilocks, Ol' Blue Eyes.

(8) The term for some dish of food or drink is also the term for a major component of the food/drink:  
hamburger, hot-dog, chili, lasagne, tea, coffee, cocoa, chocolate.

In the preceding examples, the use of a term in the way indicated has been established by linguistic convention and would be entered in a dictionary. One can identify the same phenomenon as a productive process at the sentence level where a sentence is ostensibly about X but in fact pertains to the larger situation with which X is associated. (9) and (10) illustrate this phenomenon.

(9) I can hear Harry.  
(= 'I can hear the noise emitted by the vehicle Harry is driving')

(10) I can see Harry.  
(= 'I can see the car Harry is driving')

Believe shows the same phenomenon at work though in a slightly more abstract way. Consider the pair of sentences in (11):

(11a) I believe Harry.  
(11b) I believe what Harry says.

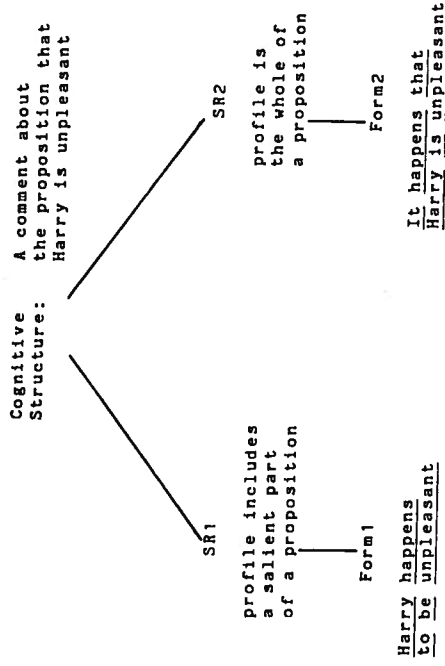
In both sentences, the speaker believes in the truth of a proposition which is associated with Harry. (11a), however, presents the relationship between the speaker and the proposition as a relationship between the speaker and Harry. Here, the person stands for the proposition associated with the person. This is a more abstract version of what happens with perception predicates, as used in (9) and (10). There, a reference to a person was taken as a reference to the larger state of affairs associated with that person.

It is noted by Paul and others that it is not just any arbitrary part which can be taken as the basis for this kind of metaphor. Paul speaks of a 'characteristic feature' which a part must have in order to be used to refer to the whole. In the above examples, it is always a salient part of the whole which makes the metaphoric process possible.

The Raising construction can thus be viewed as a kind of conventionalized metaphor in which a comment about a proposition is made by way of making a comment about a salient part of the proposition, namely the subject NP.

(12) diagrams this view of the relationship between (1) and (2):

(12)



It was pointed out in the discussion of base and profile in section 1.2.2 that at the relational level, there may be a number of entities selected as part of the profile. In SR1 in (12), the relational predicate happen has in its profile more than one entity - it includes both a person and a predication of that person. That is, the referent of Harry is one of the entities profiled in Form 1. In SR2, on the other hand, it is the whole proposition that Harry is unpleasant which is part of the profile and not the referent of Harry. We are talking here about the profiling at the level of the sentence, not the profiling within the parts of the sentence. Within the that-clause, of course, the referent of Harry is part of the profile.



The immediate significance of the results arrived at in this dissertation is that the rule of Raising so entrenched in grammars of English turns out, in fact, to be highly questionable. A rule of Raising not only makes an artificial division within the set of infinitival constructions, it fails to capture the generality of the metaphoric process within the whole of the linguistic system.

In place of a Raising analysis, I have proposed an alternative account in which there is no syntactic rule relating (1) and (2). Rather, the linguistic system allows alternative ways of expressing a given cognitive structure by providing alternative structures at the SEMANTIC level. This view of grammar is developed here only with respect to the purported rule of Raising, but the approach may prove feasible in the case of other proposed transformational rules which attempt to capture a paraphrase relation. Langacker(1976), Langacker(1979a), and Tuggy(1980) provide further examples of this approach. It remains for future research to establish the extent to which this view of grammar can be upheld.

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