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A STUDY OF ENGLISH PASSIVES

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A STUDY OF ENGLISH PASSIVES

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAII IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN LINGUISTICS

MAY 1980

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Linda E. Kuntzman

December 20, 1979
ABSTRACT

Within the theoretical framework of a semantically-based version of generative transformational grammar this dissertation explores properties of English predicates and their interaction with passive structure. Evidence is presented to demonstrate the need to take into account the semantics of a variety of verb types (not only those of physical action which are favored in most accounts but also those of relation and mental process) in an adequate description of English passives. It is noted, for example, that semantic differences between corresponding actives and passives are not consistent across these diverse types of predicates. It is argued that contrasts between corresponding actives and passives as well as differences in well-formedness among passives depend on the interaction between predication properties and inherent properties of passive constructions.

Distinctive information structure properties of passives are explored in some detail, and it is argued that sentences are well-formed to the extent that their predication properties are compatible with the distinctive functions of passive structure in discourse. The English passive is regarded in this discussion as the vehicle for various information structure options including the option to set the object as topic and/or theme and the option to include a specified by-phrase agent by means of a separate predication.


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CHAPTER I

INTRODUCTION

1.1 Introduction

The goal of this dissertation is to demonstrate that what looked so simple to early transformational grammarians is in fact quite complex. I am talking here about the old analysis of pairs of sentences like

1a John strangled Mary.
1b Mary was strangled by John.

These were related by means of an elaborate (and indeed formally irregular) set of elementary transformations triumphantly presented as the Passive Transformation. The reader may remember the examples almost inevitably dealt with individuals named John and Mary. Furthermore, the verb typically represented physical action, and this physical action was generally inflicted by the male upon the female.

Obviously it should not be difficult to show that such analyses were grossly oversimplified and even misleading. There are other kinds of verbs beside physical action verbs, just as there are individuals other than John and the unfortunate Mary.

I will explore in this study various dimensions of transitive verb types and their interaction with the passive. I will show that an adequate description of the passive will need to take into account significant aspects of their semantics—for example, whether they are verbs of physical action, mental process or relation. I will also try to demonstrate interesting differences in presupposition between many active forms and their corresponding passives. Finally, I will try to show that the by-phrase functions semantically as a separate predication.
All of this will, I hope, show that any attempt to deal with the passive just through syntactic formalizations will inevitably fall short.

The surprising variety of surface forms for the passive reflects more fundamental semantic properties. Keenan's 1975 study of passives in over thirty languages suggests that there is considerable variation in underlying structure as well. Keenan observed, for example, that "there is no universally valid structural characterization of just those NPs affected by [the passive transformation]. E.g., subject cannot even be structurally distinguished from direct object universally." Many languages present evidence of a higher verb such as the be of the English passive, but some, such as Tera and Swahili do not. Also many languages have more than one type of passive, each with a distinct structural description.

Because of such evidence Keenan argues for a relational description of the passive transformation stated in terms of the "changes" it induces in the grammatical relations (i.e., subject of, direct object of and indirect object of) between NPs and their verbs; that is, the relational differences between actives and passives. This requires that notions such as "subject of" and "direct object of" be defined in some way without reference to structure. He defines his relational passive transformation (rel-PASS) as a process which "demotes" subjects and which, in most cases, "promotes" direct objects. Though he believes rel-PASS to be more universal than a structurally defined passive trans-
formation, however, he does express the following important reservation (349):

...rel-PASS can only make predications about languages for which some reliable intuition of Subject, Direct Object, etc. is available. Schachter (1975) has argued with some persuasion, however, that these notions are not applicable to Philippine languages (Tagalog, Kapampangan, etc.) since the characteristic properties which usually define subjects are spread among several NPs in basic sentences (i.e., the NPs which undergo Equi, relativize, control reflexives, etc. only very imperfectly overlap). If Schacter's arguments prove correct, then universal grammar will be in need of a still more general notion of PASSIVE.

So far, the relational terms "subject" and "direct object" have not been given reliable definitions. So, rather than pursuing the possibility that passives can be defined in terms of these grammatical relations, and rather than adopting an analysis which would imply that passives are definable primarily in terms of "changes" in the corresponding actives (i.e., by a simple relationship between actives and passives), we will explore various means of characterizing passives as unique constructions which need not be defined with reference to actives. The potential of information structure distinctions such as the topic, theme and focus of the sentence will be explored as a possible means of characterizing properties of English passives which may be generalizable in descriptions of passives (or one type of passive) across languages.
The English language presents a fairly wide range of passive or passive-like constructions. There is the "get-passive" as in Fred got arrested at the demonstration.\(^1\) A construction with "they" as agent (e.g., They put this sixteen-year-old kid behind a wheel...) offers the passive-like option to avoid specifying an agent (Labov and Weiner 1977). They in such constructions could be described as a minimally-specified agent in contrast to the unspecified agent of a truncated passive such as Fred was bitten. There are statal perfectives, such as The window was shut in this photograph, which do not imply an agent directly. These are sometimes described as passives. All of these constructions share important properties, and for this reason an analysis which encompasses them all would be valuable. However, this discussion, which may be regarded as a starting point for an analysis which accounts for a wider range of phenomena, will be restricted to a rather narrow range of passive constructions, those with the following properties:

A. an object in surface subject position

B. be plus a past participle

C. two or more inherent NPs, one of which is an unspecified agent, plus the capacity to add a by-phrase which identifies an agent.

---

\(^1\)See fn. 26, chapter 4.

\(^2\)Svartvik (1966) notes that he found this construction to be extremely rare in printed text.
(2) exemplifies this type of passive.

2 Our cat was killed (by Hugo).

1.2 Theoretical Framework

The basic theoretical framework for this study of English passives is a semantically based version of generative transformational grammar, but one which also takes information structure into account. In such a model the abstract level of semantic structure is the deep structure level from which surface syntactic structures are generated. Within such a framework syntactic constraints can be analyzed as resulting directly from semantic properties and can be explained in terms of conditions on the well-formedness of semantic structures. In Chapter 3 of this discussion, for example, it is argued that although the differential availability of the passive construction to various predicates would appear, from a formal, syntactic point of view, to be an idiosyncratic phenomenon, it actually reflects underlying semantic regularities. This approach provides a means of explaining rather than simply describing syntactic phenomena.

Halliday's theory of the functions of language provides a framework for describing underlying semantic properties in terms of the interrelationships among meaning, structure and context which characterize the functions of English passives in discourse. He defines three sets of options as the main "functional components" of the grammar. The first,
the ideational component, is concerned with expressing propositional or cognitive content. The system of transitivity which defines processes and participant roles is one aspect of the ideational function. The interpersonal function makes distinctions of modality (e.g., the differences among commands, questions and statements) which define the communication role of the speaker. The third major function, the textual component, "expresses the structure of information and the relationship of each part of the discourse to the whole and to the setting" (1973:41). The theme-rheme structure of the clause and the assignment of information focus reflect textual decisions.

In describing the ideational function of language, Halliday (1973:39) defines the "transitivity" system as "the interpretation and expression in language of the different types of processes of the external world": with each major type of extralinguistic process he associates a type of clause as the speaker's means of expressing this process. A classification system which is roughly equivalent to his 1970 system, a classification of clauses as Action, Mental Process and Relation clauses, is adopted here. Structures are analyzed in terms of functional elements identified as processes (usually verbs), participant functions (e.g., actor, goal, processer, much like case distinctions) and

---

3 To identify the "grammatical subject" of a clause in this system (e.g., fish in The fish swam away, Can the fish swim? and The fish was eaten by Fred) is to make a modal distinction.

4 A later (1973:39) classification of clauses as Mental, Material, Relational and Verbal is not used here since the distinctions involved in classifying certain clauses as Verbal do not appear to me to be relevant to properties of predicates related to the passive option.
circumstantial functions (expressions of time, place and manner), and he identifies with each clause type a set of such transitivity functions, some of which are inherent to the particular clause type. The participants in two-participant Action clauses, for example, can often be described as actor and goal (e.g., in Fred hit Hugo, hit is an action process and its associated participants are an actor, Fred, and a goal, Hugo), while those in Mental Process clauses are described as processer and phenomenon.

In this discussion, while the finer role distinctions Halliday identifies will be employed to illustrate important semantic distinctions, two more general designations, "object" and "agent," will be used to indicate participant roles of broader scope. The object may, for example, be the goal in an Action clause, or the phenomenon in a Mental Process clause, and the agent, which will be defined in chapter 5 of this discussion as a "responsible participant," could be the actor in an Action clause or the processer in a Mental Process clause.

In describing the textual function of the clause, its function as a message within a discourse context, Halliday identifies options which the speaker may exercise in organizing the clause as an act of communication. The clause, he notes, is composed of information units or tone groups, generally one per clause, and the information structure of the clause, its division into that which is "given," presupposed or derivable from the preceding discourse (usually, though not always, the first part of the clause) and that which is "new," the information focus in each information unit, is one expression of the textual function of the clause. Main stress, or the tonic nucleus, marks the end of the
new information, he notes,\(^5\) and in the unmarked case this new information comes at the end of the clause. The division of the clause into a *theme*, that which comes first, and *rhemé*, the remainder of the clause, is another expression of the textual function of the clause.

Halliday merges the notion of the topic of the sentence, what the sentence is about, with the notion of *theme*, that which comes first in the clause, noting that the theme, the heading to the clause, identifies the topic under discussion. As Jeanette Gundel has pointed out, however, in many cases that which comes first in the clause is not its topic (where *topic* is defined as "what the sentence is about").\(^6\) She notes (1977:32), for example, that (3 a-c) below are not about a girl, *some people*, and *no one*, respectively. (Thus one would not say "As for a girl, she fell off the horse.") In sentences such as these there is no overtly-stated topic. We might say that in such cases the topic is the situation itself: that which the sentence is about would be the time or place or circumstances which provide the context for this statement.

3 a A girl fell off the horse.
   b Some people refused to eat the mousse.
   c No one will believe that stupid story.

The special functions of the *theme*, that which comes first in the clause, in English, should not be ignored, however. Thematization is


\(^6\) Gundel notes that the topic of the sentence is associated with the presuppositions attached to the sentence (i.e., if the sentence is about x, one would assume a successful reference to x), that it is not the focus of new information. See Hornby (1972) for evidence supporting this analysis.
one means of foregrounding or assigning special significance to a constituent, and of providing a link with the preceding discourse. In the following examples, the themes are not topics, but they do establish a point of departure for the clause, and they could serve to establish continuity with what has gone before. (4 a), for example, could be appropriate in the context of a discussion of a stolen purse in which I can't go shopping without my purse would not fit in as well.

4 a Without my purse I can't go shopping.
   b A bird was attacked by the cat.
   c Last week Fred was arrested by Max.

In the English passives which are the subject of this discussion, we can note that where there is an overtly-stated topic it is nearly always the object and where something else is the topic the object is still generally a thematized NP, appearing in initial position. And the by-phrase agent is generally located at the end of the sentence, in the position of the "unmarked" or neutral tonic, and so it is generally designated as the focus of new information or included as a part of the information in the clause which is to be interpreted as informative. So in an unmarked passive such as (2), the object, our cat, is both theme and topic, and the agent, Hugo, is designated by the tonic as new information.

1.3 Information Structure and Passive Constructions

In this discussion, English passive constructions will be viewed

---

7those defined in 1.1

8In a sentence with marked tonic, such as A child was almost killed by that horse, it could be argued that that horse is the topic.
primarily as information structure options which (1) offer a means of thematizing the object and designating it as the topic of discussion, (2) offer a means of leaving the agent unspecified, and (3) allow the option of adding a separate by-phrase identifying an agent and designating it as new information. It is important to view this potential of passive constructions in terms of options rather than absolute defining characteristics: as noted above, for instance, the passive object does not have to be the topic, but the point worth noting is that this potential is not offered by the corresponding active constructions. This is one characterization, then, of distinctive properties of passives. These properties, in turn, correlate with the distinctive functions passive constructions perform (functions which actives could not perform) and, as it will be illustrated in Chapter 3, with a distinctive sensitivity to predication properties.

Comparing English passives with the Tagalog construction which Paz Naylor (1976) identifies as the construction most clearly comparable with English passives suggests the crosslinguistic potential of information structure notions such as **topic** and **focus** in defining properties of passives. There is nothing in Tagalog which corresponds closely to the English subject, and so there is no way to formulate a definition of **passive** for both languages in terms of subjects and direct objects. Thus, a description of the passive construction, or at least, of one type of passive construction, as an information structure option which allows the object to be the topic under discussion (and the theme as well) and which allows the addition of an agent which is designated as new information fits the Tagalog passive, (5), as well as the English passive, (2).
5 Ang isda ay kinain ni Juan
The fish was eaten by John

Paz Naylor describes (5) as a marked theme construction, since the verb is ordinarily the theme in Tagalog but in this construction the object is the theme. The "topic" NP (the NP to which the verb is oriented and for which the verb specifies a case function)\(^9\) is the object in this sentence. Putting this NP in theme position at the beginning of the sentence gives it the function of a transition, linking the sentence to preceding discourse. It is thus identified as that which has been under discussion ("As for the fish you and I know about..."). Similarly, putting the verb in theme position gives it the function of linking the sentence to preceding discourse. The verb in this position also announces what the sentence is about (e.g., in the unmarked goal-oriented clause, (6), the message of the verb is "I am now talking about the action of eating, involving a goal"). So the combination of "topic" and theme properties yield an information function for the Tagalog object which is essentially equivalent to making the object the topic and theme in English. As in the English passive, (2), the agent in the Tagalog construction, (5), is designated as new information.

6 Kinain ni Juan ang isda
was-eaten by John the fish
John ate the fish.

\(^9\)Her definition of "topic" differs from the one adopted here. The NP she designates as the topic would ordinarily introduce new information (when it occurs in sentence final position), so it would not be a topic as Gundel (1977) defines the term. In a construction such as (13), however, this NP is not the information focus and it apparently takes on the information structure properties of both thematization (relating to previous discourse) and topicization (identifying what the sentence is about) of the English passive object.
1.4 Psycholinguistics and Passives

One does not, of course, assign information structure in a vacuum but in a discourse or presuppositional context. A message is structured in a particular way to insure the intended interpretation and to facilitate comprehension. A well-formed and appropriate message will, for example, offer new information with reference to what is known or given. As noted earlier, in English, given information generally precedes new in the sentence.

Since activities and passives differ in information structure they represent different presuppositions and they are, therefore, appropriate in different contexts. Because the unmarked simple active sentence (e.g., 7 a) associates the agent with the presuppositions attached to the sentence and focuses on the object as new information it is
appropriate in a context which is compatible with these assignments. (7 a), for example, would be a well-formed answer to "What did that rabbit do?" The questioner is presupposing that the rabbit did something and is seeking new information within the context of that presupposition. This would not, however, be an appropriate answer to "What happened to Fred?" because such a question indicates that Fred should be identified with the presuppositions attached to the sentence, not offered as new information. It would be anomalous because it would not fit the questioner's expectations. (7 b), on the other hand, in which Fred is the topic, would be a well-formed answer to this question.

While one set of expectations, then, would facilitate the interpretation of an active construction, a different set of expectations would facilitate the interpretation of a passive. For this reason, we should view skeptically the results of psycholinguistic experiments which isolate sentences from discourse context and then test the relative difficulty of processing actives and passives.

7 a That rabbit bit Fred.
7 b Fred was bitten by that rabbit.

In English, actives occur far more often than passives (Svartvik 1966), and so we could reasonably expect that in describing an event the speaker would favor the active construction (unless there is some particular reason to choose the passive) and that the hearer would expect to hear actives. Results of psycholinguistic experiments which employ isolated sentences to test performance in speaking and in processing information suggest that Subjects do, in fact, favor actives and that they tend to perform better in processing actives than passives.
Mehler (1963) reports that Subjects asked to recall lists of sentences recalled most of them, including most of the passives, as actives. And, in a variety of tasks which required comprehending isolated sentences, Fraser, Bellugi and Brown (1963), Gough (1965), Slobin (1966) and Bever (1975) all reported that Subjects performed better on active than passive sentences.

However, Olson and Filby (1972) found that providing a proper context for passives made them easier to process than actives. Pictures of activities involving a boy as agent and a girl as object were shown to Subjects. They were then asked to judge a sentence as true or false in relation to the picture. When asked to pay attention to the girl the Subjects made judgements about passives more quickly than actives, and when asked to pay attention to the boy they judged actives more quickly. This suggests that in appropriate contexts actives and passives may be equally easy to understand. This study provides an illustration of the semantic importance of the information structure properties of passives.

Along with its distinctive information structure properties, the passive has other properties not shared with active constructions. These properties will be examined in some detail and their relevance to theories about passives will be explored in the chapters which follow. In Chapter 2 some early transformational theories positing a very simple derivational relationship between actives and passives will be examined in preparation for an examination of some more recent theories in later chapters. In Chapter 3, it will be argued that because of its distinctive properties the passive construction is not equally compatible
with all types of well-formed two-argument predicates (those which are, that is, well-formed in active constructions). It is shown that the correlation between certain semantic predication properties and the compatibility of predicates with passive constructions is regular and systematic. In Chapter 4, the unique adjective-like properties of passives are explored and properties of the be of the passive and other adjective-like constructions are examined. In Chapter 5 I will, after Langacker and Munro (1975), take the position that the by-phrase of the passive is not an intrinsic part of the passive construction and that the agent of the basic passive is always unspecified. In contrast to these properties, actives in English do not allow unspecified agents. It is also noted that the by-agents in passives are semantically separable from passives in a way that active agents are not. And in chapter 6 the information structure properties of passives are explored in some detail. The appropriateness of a passive transformation (or set of transformations) which implies a simple relationship between actives and passives is questioned in light of these distinctive properties of passives.
CHAPTER II

SOME EARLY TRANSFORMATIONAL ANALYSES

2.1 Introduction

1 a Roger killed the dragon.
   b The dragon was killed by Roger.

The basis for the early Generative Transformational analyses of English passives is the relationship between corresponding active and passive sentences such as (1 a) and (1 b). The stereotype passive (1 b) and its active counterpart (1 a) are roughly synonymous: the event described in (1 a) and (1 b) is the same, Roger in the active (1 a) performs essentially the same function (killing the dragon) as Roger in the passive counterpart (1 b), and the role of the dragon (being killed by Roger) is also essentially the same in (1 a) and (1 b).

This relationship, long recognized in traditional grammars, motivated the analysis of English passives in Chomsky's *Syntactic Structures* (1957). In this early theory, Chomsky posited a derivational relationship between actives and passives: he derived the passive by transformation from an underlying structure which is identical to that of its active counterpart. Evidence supporting such an analysis is provided by various manifestations of the rather regular active-passive relationship. Not only does the passive sentence carry basically the same message as its active counterpart, but it also varies predictably and systematically from the active in structure. For a simple sentence such as (1 a) with a subject NP and a direct object NP, we could say

---

1 "Subject" and "direct object" are defined, for now, as the NP directly dominated by S and the NP directly dominated by VP on Aspects-style phrase structure trees.
the direct object of the active sentence appears in the subject position in the corresponding passive, the active subject takes a position following by, the be is added and the verb of the active sentence takes the past participle form in the passive. Furthermore, if an active sentence is "ungrammatical," or if it carries an anomalous meaning (i.e., if it violates common presuppositions), the same will generally be true of its passive counterpart. For example, the problem with (2 a) is the same as the problem with (2 b), and (3 a) is anomalous for the same reasons that (3 b) is.

2 a *The tractor occurred the cow.
   b *The cow was occurred by the tractor.

3 a ?The tuba played by John.
   b ?John was played by the tuba.

Chomsky's Syntactic Structures analysis offered a means of capturing all of these generalizations. In this analysis Chomsky posits a single underlying structure for the passive sentence and its active counterpart, and lets a single optional transformation (4) effect all the insertions and substitutions which make the passive sentence different from its active counterpart (Chomsky 1957:112).

4 S.A.: NP - Aux - V - NP
       S.C.: X₁ - X₂ - X₃ - X₄ \implies X₄ - X₂ + be + en - X₃ - by + X₁

Obligatory transformations such as the Auxiliary Transformation (1957:113) apply to the resulting underlying passive string (just as they apply to the underlying active string which does not undergo the Passive Transformation) to yield the correct surface structure. A rule (1957:43) specifies that if the active sentence "is a grammatical sentence of the form NP₁ - Aux - V - NP₂, then the corresponding string of the
form $NP_2 - Aux + be + en - V - by + NP_1$ is also a grammatical sentence."

Since (2 a) is "ungrammatical" by this system (that is, since it is not generated by this grammar), it follows automatically that (2 b) is ungrammatical also. Similarly, the "selectional dependency" restrictions which would apply to pairs of "non-sentences" such as (3 a) and (3 b) need only be stated once. Pre-transformational grammars had no formal means of capturing all of these generalizations.

Fillmore, in his article "The Case for Case" (1968), presented a somewhat different view of the properties which actives and their corresponding passives share in an analysis which he was to describe later (1977:62) as simply some "suggestions about a level of organization of a clause that is relevant to both its meaning and its grammatical structure." Like Chomsky he proposed that active and passive counterparts are derived by transformation from the same underlying structure, but he characterized this underlying structure in terms of case relations, the semantic relationships between the NPs and verbs in the clause. An active clause and its corresponding passive, in the analysis, have the same underlying case structure. So, for example, the relationship between John and break, characterized as an Agentive case relation, is the same in (5 a), an active sentence, and (5 b), its passive counterpart. Likewise, the relationship between vase and break, characterized as an Objective case relationship (later called patient).

\[^2\] Chomsky (1957:42,43) suggests the notion "levels of grammaticality" to account for cases such as these. (3 a) and (3 b), for example, would be "less grammatical" than "John played the tuba," but "more grammatical" than strings such as (2 a) and (2 b). Strings such as (3 a) and (3 b) would be generated by a Syntactic Structures grammar (1957:15), whereas strings such as (2 a) and (2 b) would not.
is the same for both (5 a) and (5 b).

\begin{align*}
5 \text{ a} \quad & \text{John broke the vase.} \\
5 \text{ b} \quad & \text{The vase was broken by John.}
\end{align*}

Neither active nor passive is more basic in this analysis. For a sentence such as (5), a subject selection rule presents two options: either the agent or the object will become the subject. If an NP of Objective case is to become the subject in a sentence which includes an agent, the verb must be marked with a special "passive" feature. After the passive transformation has applied, this feature is realized as the be-plus-past-participle construction.\(^3\)

A major assumption which underlies analyses such as these early transformational theories by Chomsky and Fillmore is that there is something to be gained by postiting a simple underlying source, then allowing transformations to do the work of accounting for form differences between constructions such as corresponding actives and passives. This sort of simplicity is assumed to be of greater value than, for example, the sort of simplicity which would result from postiting a more complex underlying source with simpler, more highly constrained and more generalizable transformational processes.

But although these early derivational analyses provided a formal

\(^3\)Fillmore 1968:33-40. This is explained again more clearly in Fillmore 1977:69: "in the case of the English verb break used transitively, its two arguments could have the case functions agent and patient, the agent being the entity responsible for the breaking, the patient being the entity which broke. In the surface structure, one of these arguments has to become the subject of the sentence. One possibility is for the agent to become the subject, as in [5 a]; another, which has side effects on the form of the verb, is for the patient to become the subject, as in [5 b]. I presented these as optional choices provided by a Subject Selection rule."
means of accounting for some predictable similarities and differences between corresponding active and passive sentences, something pre-
transformational analyses could not do, they also presented an array of new problems. Among the questions the proponent of such a derivational analysis of passives should be able to answer are the following:

How is the grammar to account for and explain well-formed two-argument strings which do not yield well-formed passives?

What is the function of be in the passive? Why is it be in particular that appears in English passives?

What is the function of by in English passives?

These questions, concerning properties of the "passivizable" predicate, properties of the be which appears in passives and properties of the passive by will be taken up briefly in relation to early transformational theories in order to lay the groundwork for a more thorough examination, in the chapters which follow, of various approaches to these problems in more recent theories.

2.2 Verbs and the Passive

The Passive Transformation in Chomsky's early transformational grammars (1955, 1957:42,43) is restricted to "transitive verbs": verbs which take both a subject NP and a direct object NP. The S.D. of the

4 At some point a decision has to be made about which verbs can form grammatical NP-Aux-V-NP strings. This is a complicated matter, especially since, as many grammarians have noted (e.g., Curme 1931:437, Lyons 1968:359, Halliday 1970:156), it is extremely difficult to make clear-cut distinctions between transitive and intransitive verbs in English. Many verbs, for example, can function as either transitive or intransitive predicates as break, grow and roll do in (a), (b) and (c). Also, some verbs, such as lay and tell, which were once intransitive can now be used transitively (Lyons 1968:359), while others such as
Passive Transformation, Chomsky notes, selects such verbs automatically in his *Syntactic Structures* grammar (1957:43). If a verb fits into a grammatical NP-Aux-V-NP construction, it is the kind of verb which can be the main verb of a passive clause. But the situation is not quite this simple. As noted in chapter 1, perfectly well-formed two-argument (i.e., NP-Aux-V-NP) active strings with certain stative verbs such as cost, resemble, and weigh, for example, do not have well-formed passive counterparts (e.g., The cabbage weighs two pounds. *Two pounds are weighed by the cabbage.*) and others with verbs such as know, see and like correspond to passives of varying degrees of markedness (e.g., Tom likes movies. *Movies are liked by Tom. Ethel knows Albert. *Albert is known by Ethel.*) Chomsky's 1957 analysis predicts, incorrectly, that two-NP strings with these predicates would yield passives

(footnote 4 continued) walk appear to be coming into a more transitive use (e.g., He *is walking the horse*).

a Fred broke the stick. b Al grew those plants. 
   The stick broke. Those plants grew quickly.

c Al rolled the ball. 
   The ball rolled.

Fillmore (1968) classified verbs for occurrence in specified case configurations assigning a verb such as grow a case configuration which includes an optional agent. In this way he allowed such a verb, listed as a single lexical item, to be used either transitively or intransitively. However, this analysis failed to account for semantic differences between transitive and intransitive functions of a verb which case assignments alone would not explain.

Later Chomsky (1965:104) suggested that his earlier requirement (1955) that passive verbs be "transitive" was made to exclude "middle" verbs such as resemble, fit, etc. However, in *Syntactic Structures* (1957:42,43), his claim was that all grammatical NP-Aux-V-NP constructions (and he gave no indication that this would not include those with resemble, fit, etc.) can undergo the Passive Transformation and form grammatical passives.
which are as well-formed as their active counterparts. Chomsky himself pointed out later (1965:42,43) that his Syntactic Structures analysis of passives failed to block strings which should not passivize and also failed to account for constructions (such as 37-40, chapter 3) with verbs such as argued and worked which he analyzed as "intransitive" (and therefore ineligible for his 1957 passive transformation) which do, nevertheless, "passivize."

2.3 Be

The be in passive constructions presents another problem for a derivational analysis of passives. Although there is no trace of it in the active sentence, it is supposed to appear, somehow, and for some reason, in the corresponding passive. Both Chomsky and Fillmore chose to have the be appear automatically. For Chomsky, the be is simply added by the Passive Transformation (see figure 4 above). Fillmore has it appear automatically in a passive construction as part of the surface structure realization of the "passive" feature on the verb when the passive option is chosen. To say that the be simply appears, however, is not a particularly satisfying explanation of why it appears or where it comes from. Neither analysis offers an explanation of why it is be in particular that appears in the passive. In these analyses its function is not related to some property of be (e.g., as observed in other constructions). It is treated as a randomly-chosen morpheme which serves no particular function.

2.4 The By-Phrase

As Hasegawa has pointed out (1968:230), no definite phrase
structure can be assigned to the by-phrase of Chomsky's 1957 analysis of the passive. It is created, as Hasegawa notes, ex nihilo. Two possible phrase markers, given in figures (9) and (10) (Lyons 1970:70), illustrate the problem. Either might be derived from Chomsky's phrase structure rules and Passive Transformation.

For his Aspects model (Chomsky 1965:103-105), Chomsky abandoned his simple derivational analysis and derived the passive from an underlying structure which included the by.

In 1966, Jacobs and Rosenbaum presented an analysis in which prepositions are present in deep structure as features on NP constituents. The feature <+by>, in this analysis, was marked on underlying subjects. When the deep subject NP occurs in surface subject position, the by is then deleted by transformation, but if the sentence undergoes the passive transformation, which would move the deep subject out of subject

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6 This analysis is presented in Jacobs and Rosenbaum 1968:136-141.
7 This accounts for cases in which a particular noun requires a particular preposition (e.g., on Monday vs. at three o'clock).
position, the preposition appears in surface structure, marking the NP as the underlying subject.

Fillmore (1968) adopted a similar convention for his case analysis, assigning prepositions to NPs in underlying structure on the basis of the case relation between the NP and the verb in the clause (rather than on the basis of deep structure syntactic relations and properties of the NP as in the Jacobs and Rosenbaum analysis). He specified that every NP is assigned a case-related preposition in underlying structure. By, in this analysis, is associated with the agent. Like Jacobs and Rosenbaum, he specified that the by must be deleted when its NP appears in surface subject position but that it does appear in the full passive (e.g., 1 b). A problem with Fillmore's underlying prepositions is that it is difficult, if not impossible, to establish principles which will determine which prepositions are to be assigned at the underlying level to the various cases, verbs and NPs.

Recently Fillmore (1977:65) commented on this problem in relation to his early analysis of the passive by-phrase:

... the specific proposals I had for the assignment of the individual lexical preposition made the system look fairly inefficient. In particular, as I tried to construct a grammar using these proposals, my initial association of the preposition by with the agent case had to yield in favor of a more complicated principle associating by with the highest-ranking case in the sentence, whatever case that might have been. This decision made it possible to account correctly for the by in eaten by George, destroyed by fire, and assumed by everybody (as long as it was constrained to allow known to me, etc.). In the end, however, such provisions did not look any better than an account according to which the preposition by gets introduced by means of a Passive transformation.

One can object, justifiably, to Jacobs and Rosenbaum's and Fillmore's somewhat ad hoc treatments of the by-phrase, especially
the suggestion that prepositions be assigned at an underlying level to active clauses in which they are bound to be deleted. Nevertheless, in contrast to Chomsky's treatment of the passive by, which was to have it simply materialize as a result of the passive transformation, Jacobs and Rosenbaum's and Fillmore's analyses assigned the by a source in underlying structure which was consistent with the source of other prepositions, and they also assigned it a function. For Fillmore it had the function of marking an agent. This analysis presented problems for Fillmore, however, as noted above, because some passive by-NPs did not fit his definition of an agent. In Jacobs and Rosenbaum's analysis the function of the passive by was to mark the underlying subject. In active sentences in English the underlying subject would ordinarily be identified by initial or preverbal position in surface structure. In the passive, if the by-NP is the underlying subject, we could say that it is removed from the position which would identify it as the subject and that it therefore requires identification as subject by some other means. In the Jacobs and Rosenbaum analysis the by serves this necessary function. In Chapter 5, however, where properties of the passive by-phrase will be explored in more detail, the assumption that the by-phrase NP is the underlying subject of the basic passive clause will be questioned.

In more recent analyses of English passives attempts have been made to overcome the shortcomings of the early transformational analyses described above in analyzing passive predicates, the be and the by-phrase; however, this has been extremely difficult to do without sacrificing the most important generalizations captured by these
analyses: the elements of similarity between the active and its passive counterpart and the systematic variation of one from the other.

In the chapters which follow, some more recent analyses of English passives will be examined with regard to the means they provide to deal with the problems described briefly above. The focus of Chapter 3 will be the relationship between predication properties and properties inherent in the passive construction. Particular attention will be given to regularities providing a means of explaining why some passivés are more marked than others.
3.1 Introduction

In an analysis of English passives it is important to account for the fact that the passive option is clearly available to some types of predicates, less available to others--yielding constructions of various degrees of markedness--and not available at all to others. We can begin narrowing the field of eligible predicates with a structural prerequisite: passive predicates include a past participle verb which functions as a two-argument predicate. But since there are well-formed active predicates with two NPs such as (6 a) and (7 a) which do not have well-formed passive counterparts (6 b, 7 b), it is clear that although the two-NP requirement is necessary in defining passive predicates it is not sufficient to account for restrictions on the passive option. And the variety of passive types represented in (1)-(5) illustrates a more complex problem: the passive construction is not available to all of these predicate types to the same extent or under the same circumstances.

3.2 Properties of Passive Predicates

Passives

1 Action
   a Max was murdered (by Hugo).
   b My hat was stepped on (by that horse).
   c Alice was strangled (by a frenzied lexicalist).

1"Passive" is defined narrowly for the purposes of this discussion, as noted in chapter 1.1.
2 Mental Process: Emotional Reaction (FLIP Verbs)
   a Al was surprised (by the mouse).
   b Max was shocked (by Hugo's language).
   c The child was frightened (by the clown).

3 Mental Process: Sensory
   a Alice's singing was heard (by the talent scout).
   b Lincoln's presence was felt (by the medium).
   c Robert was seen last night (by the policeman).

4 Mental Process: Evaluative
   a Sam was liked (by everyone at the party).
   b Max was admired (by many foolish men).
   c Alice was loved (by all of her associates).

5 Mental Process: Cognitive
   a Al is known (by everyone here).
   b The plot was soon perceived (by the audience).
   c Hugo's flimsy alibi was believed (by the whole gullible jury).

Two-NP Predicates Without Passive Counterparts

6 Relational: Nonreciprocal
   a-1 The cabbage weighs a pound.
   a-2 The suit fits Al.
   a-3 This shirt costs a dollar.
   b-1 *A pound is weighed by the cabbage.
   b-2 *Al is fit by the suit.
   b-3 *A dollar is cost by this shirt.

7 Relational: Reciprocal
   a-1 Fred resembles Ethel.
   a-2 Al married Susan.
   b-1 *Ethel is resembled by Fred.
   b-2 *Susan was married by Al.

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Many of the verbs presented in (1)-(7) occur in more than one type of predicate. Some of the verbs in these Relational predicates (6,7) may also function as Action (1) predicates which do have well-formed passive counterparts, e.g.:

- The clerk weighed the cabbage.
- The cabbage was weighed by the clerk.
- The tailor fitted the suit.
- The suit was fitted by the tailor.
- The priest married the couple.
- The couple was married by the priest.

A more detailed discussion of this sort of variation is presented in 3.4.
The passives of (1)-(5) have several properties in common: the verb object (or the NP which would appear postverbally in the active counterpart) is the surface subject in these constructions. There is a form of be along with a part participle verb in each of these sentences, and there is in each the sense of a second participant, an agent\(^3\) which may or may not be identified in a by-phrase.

But closer inspection reveals important differences among these constructions. They are grouped here to highlight characteristic properties of each of five different types of passives. As the classification of these predicates implies, each type has certain unique semantic characteristics. The predicates of (1) express actions, and those of (2), (3), (4) and (5) indicate four different types of mental processes: emotional reactions and sensory, evaluative and cognitive processes. This is not an exhaustive classification of types of passive processes: these particular types are presented here simply to illustrate semantic/syntactic differences among passives and to show the importance of such distinctions in analyzing English passives.

The classification of (1)-(7) is not made arbitrarily: each predicate type has unique syntactic as well as semantic properties. (2')-(5'), for example, illustrate complement constructions available to the particular Mental predicate type (or types) designated but not to the others. None of the complement constructions illustrated in (2')-(5') is available to the Action (1') or Relational (6', 7') predicates. Unlike the Mental predicates the Action predicates take manner adverbials (1'), and unlike the Mental and Action predicates, as noted

\(^3\)See fn. 5, this chapter.
above, the Relational predicates (6', 7') do not occur in passive constructions. In this section we will note differences in conditions on the availability of the passive option to each of the five types of predicates illustrated in (1)-(5).

1' Action (e.g., hit, strangled, beaten)
   x was _____ by y (maliciously with great enthusiasm cheerfully

2' Mental Process: Emotional Reaction 4 (e.g., surprised, annoyed, pleased)
   x was _____ (by the fact) that y was a linguist
   It _____ x that y was a linguist.

3' Mental Process: Sensory 4 (e.g., saw, heard, felt)
   Mental Process: Cognitive 1 (e.g., knew, believed, perceived)
   x _____ (that) y was a linguist.

4' Mental Process: Evaluative 4 (e.g., liked, admired, loved)
   x _____ (the fact that y was a linguist)
   y's being a linguist

5' Mental Process: Cognitive 4 (e.g., known, believed, perceived)
   It was _____ that y was a linguist.

6' Relational: Nonreciprocal 4 (e.g., cost, fit, weighed)

7' Relational: Reciprocal 1 (e.g., resembled, married)
   * y was _____ by y

Action processes such as those illustrated in (1), which indicate a clear flow of action from one participant to the other, are apparently well-suited to the passive construction: for almost any two-NP active

4 Only statal variants of the verbs listed occur in the predicates designated as Mental and Relational. See fn. 2, this chapter.
construction (e.g., 8 a-c) there is a well-formed passive counterpart (1 a-c).

8 a Hugo murdered Max.
   b That horse stepped on my hat.
   c A frenzied lexicalist strangled Alice.

The messages of the Mental predicates (2)-(5) offer more resistance to the passive option than the more clearly directional messages of the Action (1) predicates. So, for example, while (9 a-2), the passive counterpart of (9 a-1) is a well-formed passive, (9 b-2), the passive counterpart of the well-formed active (9 b-1) is odd.

9 a-1 Fred destroyed that radio.
   2 That radio was destroyed by Fred.

   b-1 Fred liked that radio.
   2 ?That radio was liked by Fred.

In this discussion the (?) notation will be used to indicate those passives which are "marked" or odd, meaning that, in my opinion, it is not highly probable that a context calling for these predicates as passives (rather than as actives) will occur. My own judgements of this sort of markedness, along with the judgements of those whom I have consulted, will be used simply as a heuristic to sort out properties of predicates which appear to be relevant to compatibility with the passive option.

One important semantic characteristic of the Mental predicates is that they indicate a process but not an action which clearly flows from one participant to the other. It is not clear, for example, whether (2 a) describes Al's response to a passive mouse or something the mouse did to Al, whether Alice's singing did something to the talent scout or the talent scout did something to Alice's singing in (3 a), or whether
liked in (4 a) indicates an effect Sam had on everyone or an honor everyone bestowed on Sam. We should note, however, that the more one participant (the passive surface subject) can be said to be affected by the aggressive or influential participation of the other the more clearly the passive option is available. This tendency finds three slightly different means of expression in the Emotional Reaction passives, the Sensory passives and the Evaluative and Cognitive passives.

Emotional Reaction verbs (2) apparently function as processes in well-formed passives in predicates indicating that a second participant (or entity) has caused or helped to cause the reaction of the first. When this sense of overt causation is absent, the closely related statal perfective construction (an adjective construction which will be discussed in more detail in chapters 4 and 5) is generally a more appropriate choice. Compare, for example, the statal perfectives (10 a) with the passives (10 b). Unlike other Mental predicates, the Emotional Reaction predicates require an animate object (the surface subject in the passive). The Sensory (3), Evaluative (4) and Cognitive (5) passive predicates require an animate agent which may or may not be identified in a by-phrase.

10 a-1 Al was annoyed with Fred.  b-1 Al was annoyed by Fred.
  2 Mas was surprised at you.  2 Max was surprised by you.

In general, where a Sensory process (3) such as seeing or hearing is interpretable as the effect of a stimulus simply impinging upon a nonaggressive agent (as in 12 b and 13 b), the passive is not the

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Agent, in this discussion, is defined in a rather broad sense as the "responsible participant." Agency is discussed in more detail in chapter 5.
appropriate construction for expressing this process. In such a case, the passive would be more marked than its active counterpart (e.g., 12 a and 13 a, respectively). But when such a process is undertaken more aggressively or when it affects its object (e.g., its credibility, well-being, etc.) in some way (as in 3 a-c), the passive option is more clearly available. So, of the Sensory passives, (12 b) and (13 b) below are a little more marked than (3 a), (3 b) and (3 c). Note, however, that the active counterparts of all of these constructions (11 a-c, 12 a and 13 a) are equally well-formed. What we have noted, then, is a semantic requirement of this particular type of predicate in relation to the passive option in particular, not a general (e.g., "selectional" as the term is used in Chomsky 1965) semantic requirement (i.e., one which should apply to a given predicate in any type of construction).

11 a The talent scout heard Alice's singing.
   b The medium felt Lincoln's presence.
   c The policeman saw Robert last night.

12 a Fred heard thunder.
   b ?Thunder was heard by Fred.

13 a Alice felt the cold rain.
   b ?The cold rain was felt by Alice.

The passive construction is apparently more clearly available to Evaluative processes (e.g., 4) when they involve more than one agent. For example, (14 a) and (15 a) are better than (14 b) and (15 b) although their active counterparts are all equally well-formed (14 c,d; 15 c,d).

14 a Milton is liked by everyone.
   b ?Milton is liked by Al.
   c Everyone likes Milton.
   d Al likes Milton.

15 a ?Pizza is liked by everyone.
   b *Pizza is liked by Al.
   c Everyone likes pizza.
   d Al likes pizza.
Cognitive processes often make a similar requirement. (5 a-c), for example, are better than (16 a-c) although their active counterparts (16 d-f, 17 a-c) are all equally well-formed.

16 a ?Al is known by Louise.
   b ?Some hostility in Alice's voice was perceived by Fred.
   c ?Hugo's alibi was believed by the gullible man.
   d Louise knows Al.
   e Fred perceived some hostility in Alice's voice.
   f The gullible man believed Hugo's alibi.

17 a Everyone here knows Al.
   b The audience soon perceived the plot.
   c The whole gullible jury believed Hugo's flimsy alibi.

It appears to me that in most unmarked Sensory, Evaluative and Cognitive passives the status of the entity represented by the object NP is affected. This may reflect a general tendency in all well-formed Mental passives for the object to be affected and for the agent, when an agent is identified, to be worthy of special notice (often, in the Sensory and Reaction passives, by aggressive participation and in the Evaluative and Cognitive predicates by being influential, capable of affecting the status of the object).

We can begin sorting out some of these observations by noting that the passive is an adjective-like construction. The adjective properties of passives will be discussed in some detail in chapter 4, but for now this observation alone is sufficient to highlight a compatibility principle which appears to operate between semantic properties of predications and the passive construction. When it is clear, in a Sensory, Evaluative or Cognitive passive, that the predication about the object affects or says something about the object's status such a predication can be interpreted as attributive or adjective-like. For example, in (14 a), because it is asserted that everyone likes Milton, liked can be
regarded as an attribute of Milton. The message of (14 a) finds a
near-paraphrase in an adjective construction such as Milton is well-liked
or even Milton is popular. Since we might assume that Al in (14 b),
on the other hand, hasn't sufficient influence to confer the status of
"one who is liked" on Milton in the sense that everyone does in (14 a),
(14 b) is not as likely to be interpreted as an adjective-like predica-
tion about Milton. This appears to me to be one reason why the passive
construction is less likely to be regarded as an appropriate vehicle
for the message of (14 b). In general, the adjective-like passive
construction is more clearly available to those Sensory, Evaluative and
Cognitive predicates which imply an effect on the object or its status
(and which thus imply a new attribute) than it is to those which do not
imply an effect. This is only one of many distinctions which can be
helpful in analyzing relative markedness among Sensory, Evaluative and
Cognitive passives. The effect on the object is generally more obviously
implied in Action and Reaction predicates, and the passive option is
more clearly available to these predicates. For example, in the passive,
The frog was squashed by a truck, an effect on the frog is clearly
implied, so that although squashed by a truck is an actional predica-
tion indicating something which happened, it is also an attributive one,
implying that those properties (flatness, etc.) which we would associate
with having been squashed by a truck can be attributed to the frog.
The active A truck squashed the frog is not attributive in this sense.
That is, the effect of the action is not attributively predicated of

6 Noted in R. Jacobs (forthcoming).
the frog, and the action predicated of a truck does not imply the assignment of an attribute.

In this section corresponding actives and passives have been compared to emphasize unique semantic restrictions which the passive option imposes on each of the process types illustrated in (1)-(5), restrictions which do not apply to the corresponding actives.

Another way of viewing this phenomenon is to note that the simple active construction allows an ambiguity in the interpretation of certain sentences which the passive construction does not allow so easily. While the active (18), for example, allows both the aggressive interpretation (18 a) in which Mary's status is affected and the nonaggressive interpretation (18 b) which implies no effect on Mary, the passive construction (8.e., 19) suggests the (18 a) interpretation. So the passive corresponding to (18 b) would be more marked than the one which corresponds to (18 a).

18 The detective saw Mary.
   a He was looking for her and he saw her. We can surmise that being seen by the detective affected Mary in some way (e.g., she was later reported to the authorities).
   b Mary just happened to fall into the detective's line of vision. Being seen by the detective did not affect Mary in any way.

19 Mary was seen by the detective.

20 The detective saw a cloud on the horizon.

21 A cloud was seen on the horizon by the detective.

7The verb see in (18) also allows an actional interpretation. Thus (18) could be taken to mean that the detective interviewed Mary. There is a well-formed passive counterpart for this interpretation as well.
On the other hand, some active sentences are amendable to only one interpretation. (20), for example, favors a nonaggressive, noninfluential interpretation in which the cloud is a stimulus which simply happened to impinge upon the detective. In this interpretation being seen by the detective would have had no effect at all on the cloud. Since this is not the interpretation the passive construction would favor, the passive (21) would be more marked than the "corresponding" active (20).

The examples in this section illustrate an important property of the passive construction: it carries a message of its own. That is, the passive construction is an option which carries semantic weight. The passive often encourages a semantic interpretation which differs from that of the active and it often, therefore, imposes on predicates semantic requirements for well-formedness which the active does not impose.

The adjective-like nature of the passive construction has been cited above as one property relevant to the compatibility between the passive construction and certain Mental predicates. This is a property of the passive construction not shared by the active construction. Other major differences between actives and passives in semantic interpretation and well-formedness constraints can be characterized as differences in information structure between active and passive constructions. Some differences in the availability of the passive option to various Mental and Actional predicates can be viewed in this light as well: as the interaction between semantic properties of a given predicate and the information structure properties of the passive construction.
Among the options available in structuring the clause as an act of communication are, as noted in chapter 1, the division of discourse into tone groups or information units (generally one per clause), the assignment of the information focus of each information unit, that which is designated (in most cases by primary stress or the "tonic nucleus")\(^8\) as new or informative and the assignment of the theme (first constituent) and the topic, which can be defined as "that which the sentence is about." The topic, as Gundel has pointed out, is associated with the given or presupposed information in the clause. Halliday notes that in English, in the unmarked case, given will precede new. There is a strong tendency, then, in English, for the topic to be placed in initial position and for the information focus to be at the end of the sentence.

The unmarked simple, active sentence (e.g., 22 a) is structured in such a way that the agent or logical subject (Alice) is the topic under discussion and is therefore associated with what is presupposed or given information, and the logical object (Fred) is placed at the end of the sentence and assigned primary stress, designating it as new information. But in the corresponding passive (22 b) these information structure assignments are reversed. The object (Fred), as the topic, would be associated with the presuppositions attached to the sentence (given information) and the agent (Alice) is designated as part of the new information. The passive construction may also offer the option of leaving the agent unspecified and designating the content of the verb (22 c) or some other information in the clause as new information.

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22 a Alice strangled Fred.
  b Fred was strangled by Alice.
  c Fred was strangled.

Although other options are available (e.g., the tonic may fall on some constituent other than the agent, as illustrated in 23, marking it as informative), in most cases the information structure of the passive construction encourages an interpretation whereby the object is presupposed or given and the agent or logical subject, if it is identified at all, is designated as new information.

23 a Fred's horse was bitten by a cat.
  b Fred's horse was bitten by a cat.
  c Fred's horse was bitten by a cat.
  d Fred's horse was bitten by a cat.

In order for a given predicate to be compatible with the passive option, then, it should allow such an interpretation: the semantic properties of the predicate should allow the object to be a part of the presuppositions associated with the sentence, and they should allow the agent to be focused upon as new information (thus separated from the presupposed part of the message) as in (22 b) or not identified at all as in (22 c). Viewing predicates in this way, it becomes clear that some are more compatible than others with this manner of structuring information. For example, an Action predicate such as (22) easily allows the object, Fred, to be the topic, that which the sentence is about, and thus to be associated with that which is presupposed in the sentence, and allows the agent, Alice, to be set apart as new information (22 b) or to be left unspecified (22 c). It makes sense, in other words, to talk about a process such as strangling to someone who already knows the object, and who might ask "What happened to Fred?" to which an appropriate answer might be (22 b) or (22 c), or to someone who knows
who was strangled and who might ask "Who strangled Fred?" to which an appropriate answer might be (22 b) which would identify the agent as new information. The agent in these cases is separable from the process. But the Mental Sensory, Evaluative, and Cognitive predicates, in general, are less compatible than the Action predicates with this sort of information structure. It is generally odd, for example, in talking about seeing, understanding or liking something, to designate that which was seen, understood or liked as given, to associate it with that which is already known, and to designate the identity of the one who sees, understands or likes as new information (e.g., 24 b) or to leave that participant unidentified (e.g., 24 c). In most discourse situations, that is, we would expect the act of seeing, understanding or liking to be referred to only in relation to the participant who did the seeing, understanding or liking. That which was seen, understood or liked would ordinarily be the new information (e.g., 24 a).

\[
24a \quad \text{Fred} \begin{cases} \text{saw} \\ \text{understood} \\ \text{liked} \end{cases} \text{that movie.}
\]

\[
b \quad \text{?That movie was} \begin{cases} \text{seen} \\ \text{understood} \\ \text{liked} \end{cases} \text{by Fred.}
\]

\[
c \quad \text{?That movie was} \begin{cases} \text{seen.} \\ \text{understood.} \\ \text{liked.} \end{cases}
\]

Gundel (1977) notes that nongeneric indefinite NPs are inappropriate as topics. (We would expect an indefinite NP to be informative; we would not expect it to be associated with the presuppositions attached to the sentence.) When an indefinite NP is the surface subject of the sentence, then, something else functions as topic. It is possible for
a passive to have a surface subject which is not a topic, as in (25).
In (25), a man is not "what the sentence is about" (the question 25 answers is not "What about a man?"). The situation itself might be considered the topic of (25). It is interesting, though, that a nontopic subject is not as easily tolerated by a Mental passive (e.g., 26 a), especially when the agent is left unspecified, as in (26 b).

25 A man was \{ murdered, strangled, run over \} (by Alice).

26 a A man was \{ surprised, seen, known, liked \} by Alice.

b??A man was \{ surprised, seen, known, liked \}

(1)-(7) above represent a classification of predicates which corresponds roughly to Halliday's (1970:152) classification of clauses as Action (1), Mental Process (2-5) and Relation (6,7). We have seen that each of these classes of predicates can be characterized in terms of shared semantic properties for which there are quite regular and predictable syntactic correlates. The failure of a two-argument predicate which forms a well-formed active construction to form a well-formed passive construction as well is commonly viewed as an instance of syntactic irregularity. One purpose of this section has been to demonstrate that this apparent irregularity actually reflects underlying semantic regularities. This underlying systematicity must be taken into account in any theory which seeks to explain rather than simply describe English passives.
Because of the diversity among passive clauses which has been illustrated in this section, attempts to formulate a unified formal analysis of English passives have not succeeded in either explaining or describing English passives adequately. Both Chomsky and G. Lakoff, for example, in the period between 1965 and 1970, attempted to design transformational analyses which would account for all well-formed English passives. Both proposed formal analyses, passive transformations with structural descriptions which specified well-formed two-NP strings, and both encountered difficulty in accounting for well-formed strings which met the structural descriptions for this passive transformations but which did not yield well-formed passives. The problem was envisioned primarily as one of blocking certain two-argument predicates from passivizing. Their attempts to fit various English predicates to their passive SDs and to block the ones which would not yield well-formed passives will be described in the following section to illustrate some of the limitations of theories which reflect a failure to take into account those semantic predication properties which are relevant to the choice of a passive construction.

3.3 Chomsky and Lakoff, 1965-1970

The analysis of the passive which Chomsky proposed in 1957 is strictly formal: his passive transformation applies to any well-formed NP-Aux-V-NP string. However, as noted in chapter two, this theory makes incorrect predictions about NP-Aux-V-NP strings such as (27 a) which do not yield well-formed passives or strings such as (1 b) which do not fit Chomsky's NP-Aux-V-NP mold but which do yield well-formed passives. (27 a) and (27 b) illustrate the importance of the verb in defining the
"passivizable" clause in such a model. One requirement Chomsky had to meet in order to make his passive transformation work was to make his theory explicit enough to account for those two-NP verbs which are not eligible for his passive transformation. Obviously it is not sufficient to specify that any "transitive" verb is eligible for the passive transformation when transitive verbs are defined as those which occur in NP-Aux-V-NP constructions. Cost, fit and weigh are all transitive (and thus eligible for the passive transformation) by this definition even though it is clear that the passive transformation should not apply to any clauses with the statal alternates\(^9\) of verbs such as cost, fit or weigh as main verbs.

In 1964, Katz and Postal (1964:72,148-9) demonstrated a way to avoid some of the problems Chomsky's *Syntactic Structures* analysis created for the classification of verbs which can occur in passive clauses. They derived the passive clause from an underlying structure with a passive marker, by + Passive, which was, in their framework, an expansion of the manner adverbial. This analysis, which was motivated by the claim that passivization is restricted to verbs which "take manner adverbials freely," eliminated the need for the problematical "transitive verb" restriction. The intent here was that if verbs were subcategorized according to whether or not they could take manner adverbials, those

\(^9\)See fn. 2, this chapter.
verbs (whether transitive or intransitive) which could not occur in passive clauses would be prevented from taking manner adverbials and would thus be barred from passivizing by the SD of the passive transformation, which would specify a particular expansion of the manner adverbial, by + Passive.

Chomsky presented this analysis in Aspects (1965:103-6), where his Passive Transformation is as follows: \[10\]

\[
28 \quad \text{NP-Aux-V-X-NP'-Y-by passive-Z} \Rightarrow \text{NP'-Aux+be+En-V-X-Y-by-NP-Z}
\]

(where X does not contain an NP)

The strict subcategorization feature (+ ___ NP Manner) marked those verbs which could undergo this transformation (Chomsky 1965:104). In keeping with Chomsky's constraint that strict-subcategorization rules be limited to strictly local transformations, the node Manner was directly dominated by VP.

This was Chomsky's way of accounting for the passive by as well as two problematical groups of verbs. The first group, which Lees called "middle verbs,"\(^{11}\) are verbs such as resemble, marry, fit, cost and weigh (29-33) which, as noted above, do take a following NP and which would, therefore, fit the SD Chomsky has proposed for the Passive Transformation in Syntactic Structures (ch. 2, fig. 4) but which do not passivize (Chomsky 1965:103). These are the Relational predicates discussed in section 312 (6,7). The second group of verbs are the

\(^{10}\)X, Y, and Z have been substituted for Chomsky's (...) for clarity. The transformation is given in a similar form in Hasegawa (1968:230).

"intransitive verbs" such as argue, work and decide, which occur in what Chomsky calls "pseudo-passive" constructions (37 b, 38 b and 39 b).12

29 a Fred resembles my brother.  
29 b *My brother is resembled by Fred.

30 a Roger married Sue.  
30 b *Sue was married by Roger.

31 a That poster costs a dollar.  
31 b *A dollar is cost by that poster.

32 a Ralph weighs five pounds.  
32 b *Five pounds are weighed by Ralph.

33 a The coat fits me.  
33 b *I am fit by the coat.

In Aspects, strict subcategorization restrictions prevent verbs such as those in (29)-(33) from co-occurring with manner adverbials. Since the by passive specified in the SD of the passive transformation is an expansion of the manner adverbial node, these verbs are also blocked from undergoing the transformation.

As George Lakoff (1970a) pointed out, however, while Chomsky's manner adverbial restriction blocks verbs which do not passivize from his passive transformation it also blocks a selection of verbs such as consider, know, think and see, which can passivize (34 and 35) but which cannot "take manner adverbials freely" (36) and which, therefore, could not meet the SD of Chomsky's passive transformation. (These would be included among the Mental predicates described in 3.2.)

34 a John considered Harry a fink.  
b Everyone knew that Bill was tall.  
c John saw Harry.

35 a Harry was considered a fink by John.  
b That Bill was tall was known by everyone.  
c Harry was seen by John.

12(37 b), without the by-phrase, and (39) are from Chomsky 1965: 104,105.
These verbs, as Lakoff points out, are stative, just as the verbs of (29)-(33) are, and stative verbs characteristically don't take manner adverbials. So to account for the fact that the verbs of (34) can passivize while those of (29)-(33) cannot, Chomsky would have to distinguish between two groups of stative verbs in terms of a particular manner adverbial (by passive) which does not occur in one (Lakoff 1970a: 156-158).  

Huddleston (1971:99) notes that by-passive doesn't behave like a manner adverbial anyway. It is not, for example, an appropriate answer to "how" questions (e.g., How was Mary kissed? Mary was kissed passionately. How was Mary kissed? ?Mary was kissed by John). Furthermore,
a manner adverbial and by-passive can be combined non-coordinately:
Mary was kissed passionately by John.

To handle "intransitive verbs" such as argued, worked, and decided in constructions such as (37)-(39), Chomsky decided to call such constructions "pseudo-passives" and analyze them as constructions with an intransitive verb followed by a prepositional phrase which is dominated by VP and which precedes the constituent Manner. In this way his rule restricting the Passive Transformation to verbs which take manner adverbials would account for the fact that these verbs are, in these particular constructions, eligible for passivization.15

Chomsky claimed that this analysis also accounted for the fact that the ambiguous sentence (a-1), which could mean John chose the boat or John decided while on the boat, allows passivization only for the sentence which carries the former meaning. This sentence, with the underlying structure (a-2), passivizes to become (b-2). But the second, to which Chomsky assigns the underlying structure (a-3), does not allow passivization since the locative phrase on the boat is not a constituent of VP, therefore could never occur to the left of Manner, and so could not meet the SD of his Passive Transformation.

a-1 John decided on the boat. (chose)

a-2 John decided on the boat. (chose)

a-d John decided on the boat. (while on the boat)
According to Lakoff (1970a:159-164), however, the verbs of clauses such as (37)-(39) are transitive.\textsuperscript{16} In this analysis all verbs are followed by a preposition at some point in their derivation.\textsuperscript{17} For many of these verb constructions the prepositions are deleted, but for others (such as decide on and work on in 38 and 39) the prepositions are not deleted. These verbs, Lakoff notes, are transitive. Decide on, for example, is to be considered a transitive verb (40 a) just as choose is transitive (41).

37 a Fred argued against the proposal vehemently.
   b The proposal was vehemently argued against (by Fred).

38 a Al worked at the job quite seriously.
   b The job was being worked at quite seriously (by Al).

39 a John decided on the boat.
   b The boat was decided on by John.

40 a John decided on the boat. (chose)
   b John decided on the boat. (while on the boat)

\footnote{15 continued}{For the same reason, (38 b) is possible while (b-2), the passive counterpart of (b-1) is not. That is, in (38), at the job is a prepositional phrase dominated by VP while at the office in (b-1) is a locative phrase which could not ossur to the left of Manner.}

\begin{verbatim}
   b-1 Al is working at the office.
   2 *The office is being worked at by Al.
\end{verbatim}

\textsuperscript{16}See also Curme 1931:99.

\textsuperscript{17}Even a sentence such as They decided is viewed as a reduced form of They decided on something (Lakoff 1970a:163). Cf. Jacobs and Rosenbaum (1968). A brief description of this analysis appears in 2.4.
40 a  John decided on the boat. (chose)

\[
S \\
<table>
<thead>
<tr>
<th>NP</th>
<th>AUX</th>
<th>VP</th>
</tr>
</thead>
<tbody>
<tr>
<td>John</td>
<td>PAST</td>
<td>decide on the boat</td>
</tr>
</tbody>
</table>
\]

41  John chose the boat.

\[
S \\
<table>
<thead>
<tr>
<th>NP</th>
<th>AUX</th>
<th>VP</th>
</tr>
</thead>
<tbody>
<tr>
<td>John</td>
<td>PAST</td>
<td>choose of the boat</td>
</tr>
</tbody>
</table>
\]

So following Lakoff's analysis, Chomsky's "pseudo-passives" are regular passives: transitive verb constructions. With this analysis, Lakoff was free to define the SD of his Passive Transformation as follows (1970a:164):

\[
NP - Aux - V - \ldots NP \ldots
\]

(where the leftmost \ldots does not contain an NP and where the rightmost NP is directly dominated by VP).

So Lakoff's Passive was restricted to verbs defined as "transitive" in structural terms; that is, he restricted the passive to verbs which can appear as the main verb in a clause with two NPS, the second of which is directly dominated by VP.

In this analysis, a sentence such as (42 a) would have no passive counterpart (42 b) because into the room is a locative phrase which is not a constituent of VP (43) (Lakoff 1970a:164).

42 a  John dashed into the room.
   b  *The room was dashed into by John.
   c  John dashed into the room with great enthusiasm.
The same analysis would apply to (40 b), *John decided on the boat*, in which *on the boat* indicates where John was when he decided.

But by Chomsky's Manner adverbial analysis, Lakoff notes, a construction such as (42 b) would occur because *dash* takes manner adverbials freely and prepositional phrases of direction are constituents of VP (Lakoff 1970a:165), so the underlying structure of (42) meets the SO of Chomsky's Passive Transformation. So Chomsky's Manner adverbial analysis not only fails to account for verbs which do passivize but which do not take manner adverbials freely (34-36), it also fails to account for constructions such as (42) which do take manner adverbials freely but do not take the Passive Transformation.

In his 1965 analysis (1970a), Lakoff suggested that the Passive Transformation might be optional or that it could be triggered by a passive market which could be a feature of the verb. But he could not pin down what it is that separates a verb which can undergo the Passive Transformation from one which cannot.

While Chomsky, faced with the task of defining transitive verbs in such a way that the "middle verbs" are excluded and creating a passive

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18 According to a later description (R. Lakoff 1971) which will be discussed in chapter 4, G. Lakoff analyzes the passive as a clause embedded as a subject complement to the verb *be*. 
transformation that applies to "pseudo-passives" with "intransitive verbs," gave up on the transitive-intransitive distinction as a means of separating passivizable verbs from those which could not undergo the Passive Transformation, opting instead for his ill-fated manner adverbial restriction, Lakoff retained a Structural Description for his Passive Transformation while filtered out all but structurally-defined transitive verbs. The underlying structures of constructions such as (29 a–33 a) fit the SD of Lakoff's Passive Transformation. So Lakoff had to block the "middle verbs" from this transformation (e.g., 29 b–33 b). To accomplish this, he suggested marking each of these verbs with a rule-feature [-Passive] which would have the following effect: if the passive transformation applied to a phrase marker which included one of these verbs, the derivational history of the string would conflict with the [-Passive] feature in the lexical entry and the derivation would be rejected. Such verbs, then, became exceptional cases in this grammar which were not explained but were, in essence, simply listed as exceptions.

Chomsky has more recently suggested (1970:203) that the underlying structure of passives is roughly:

44 NP - Aux - V - NP - by ∆

"where by ∆ is an agent 19 phrase related in ways that are still unclear in detail to adverbials of means and manner." "Passivizability," he noted, "is a property of verbs," so he suggested that this be indicated

19 The term "agent" is not defined within Chomsky's system. It is questionable that the NP of the passive by-phrase is always an agent in the sense of the term as it is defined in Fillmore (1968). This issue is discussed in chapter 5.
by associating with passivizable verbs the contextual feature \( \text{by } \Delta \) "either as a lexical property (where it is idiosyncratic) or by a redundancy rule of the lexicon (where it is subject to some regularity)."

Since he does not indicate what that redundancy rule might look like, we are left with no particular system of classifying passivizable verbs and a system of identifying the "idiosyncratic" cases which, like Lakoff's \((-\text{Passive})\) lexical feature, is no more revealing than a list.

3.4 Some Useful Distinctions

The most serious deficiency of analyses such as those of Chomsky and Lakoff described above is simply that they tell us very little about English passives. The Structural Description for the passive transformation or transformations indicates that a well-formed two-argument string is required. But there is no explanation of those well-formed two-argument strings which do not yield well-formed passives. Denying certain predicates a \( \text{by } \Delta \) feature as Chomsky proposed or giving the nonpassivizable predicates a \(-\text{Passive}\) rule feature as Lakoff suggested does no more than label them as idiosyncratic cases.

W.L. Bonney (1976:87), commenting on Lakoff's rule features in general, observes that such features might aspire to what Chomsky has characterized as observational adequacy but not to descriptive or explanatory adequacy:

...it is characteristics of features that their assignment to lexical items is not predictable from any property of the item other than that which the feature is designed to code. If it could be predicted, the feature would be redundant. Hence, the device of rule features is an adequate one for handling exceptions only if those exceptions are idiosyncratic, as Lakoff assumed them to be...
However, should such a property of these lexical items turn out to be a reflection of an underlying regularity, the rule feature device would have to be rejected as inadequate. For it is not a means of uncovering or representing new regularities, but merely a way of shifting putative irregularities out of the syntax into the lexicon.

It is argued in this chapter that although those two-argument predicates which do not yield well-formed passives or which form well-formed passives only under special conditions may appear on the surface to present syntactic irregularities they actually reflect the sort of underlying semantic regularities Bonney refers to here. One purpose of this chapter is to characterize the relationship between predicate properties and the passive construction in terms of semantic properties to which the passive construction is sensitive. These properties can then be incorporated in deep structure semantic constraints on the passive construction. Some properties associated with compatibility with the passive were outlined in 3.2. In this section we will explore further distinctions which can be useful in characterizing the correlation between semantic properties and well-formed syntactic structures.

The transitive-intransitive distinction has been defined in various ways which have been helpful in defining properties of English passives. In many pre-transformational theories, "transitive" verbs were defined as those which take direct objects, and "direct objects" were understood as receivers of the action of the verbs. The notional term "transitive," as John Lyons (1968:350) points out, suggests that the effects of the action expressed by the verb "pass over" from the subject (understood as an agent or causer) to the direct object (the patient or receiver).
With the advent of generative transformational grammar, many of the old notional definitions were discarded or moved to the background and terms such as "transitive verb" were redefined more "explicitly" in terms of phrase structure. (A structurally "transitive" verb takes two NPs, a subject and a direct object, and "subject" and "direct object" are defined in terms of phrase structure trees as the NP directly dominated by S and the NP directly dominated by VP.) In Syntactic Structures and in Aspects the only pattern Chomsky provided for analyzing main verbs which must take two NPs was the subject-direct object pattern (45), so it was natural within transformational grammar frameworks to begin to regard all two-NP verbs as transitive.

Action verbs such as hit, throw and kill (1, section 3.2) are transitive by both the old and new definitions. These verbs, as noted in 3.2, take both a subject (agent) and object (patient) NP, and they denote a process the effects of which carry over from the subject to

---

20 See, for example, Langacker 1972:86.

21 (if one had not begun already)

22 This is not to say that Chomsky himself did not recognize that the "middle verbs," 2-NP verbs such as have, resemble, cost, etc. are not transitive. In Aspects (104), for example, he notes: "in the earlier formulation (cf. Chomsky 1965 Ch IX) it was necessary to treat psuedo-passives by a new transformation. The reason was that the V of [the SD of the Passive Transformation] had to be limited to transitive verbs, for the ordinary passive transformation, so as to exclude the 'middle' verbs have, resemble, etc." But see fn. 5, Chapter 2.
the object. The Action predicates are the clearly "passivizable" ones.23

If a transitive verb is defined structurally as one which takes two NPs, Mental predicates with verbs such as like, hear or annoy (2-5) are also transitive. But here we encounter a semantic distinction obscured by such formal notions as subject and direct object defined in terms of phrase structure. These verbs, as noted in 3.2, are unlike the Action verbs in that they do not indicate a definite flow of action from one participant to the other. They indicate, instead, mental processes which involve two participants in roles which differ from those of the agent and patient of Action predicates. In Lakoff's analysis (1970a), passivization is allowed for these predicates because they take the two required NPs and they are not marked as exceptions. But as noted in 3.2 and illustrated in (46) (also 12-16, 24 and 26), the use of the passive construction for Mental predicates is much more limited than it is for Action predicates: there are many well-formed active Mental predicates for which the passive counterparts would be a little odd.

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23 In deciding to analyze constructions such as (35)-(37) as "pseudo-passives," intransitive verbs (argue, work, decide) followed by prepositional phrases which happen to fit the SD of his passive transformation, Chomsky (1965) misses the important point that verb-plus-preposition (or particle) constructions such as argued against, worked at and decided on in (35)-(37) do function in both the structural and notional sense as transitive predicates. As Lakoff pointed out (1970a), decide on in (38 a) is certainly no less transitive than choose in (39). Taking a verb (such as decide) out of context and classifying it as transitive or intransitive, i.e., failing to recognize its function as a predicate can lead to confusion as many verbs may function either transitively or intransitively (see fn. 4, chapter 2).
Verbs such as cost, fit and weigh functioning as Relational predicates are also structurally "transitive" if transitivity is defined in terms of the number of arguments a predicate requires. However, the Relational predicates clearly do not fit the traditional notional definition of a transitive verb: they do not indicate a process the effects of which pass over from an agent to a patient. They do not indicate a process at all, in fact, but rather a state; more specifically, an attributive or equational relationship. These are copular or adjective-like predicates which, like other copular predicates (e.g., 47) have nothing which could felicitously be called a "direct object" (in the notional sense) but rather a second NP which functions as a descriptor or completes a relationship predication. The function of the second NP of a Relational predicate such as (48), for example, is far more similar to that of the second NP of the copular (47) than it is to the direct object of the Actional (49).

47 a The cabbage is a whopper. 48 a The cabbage weighs thirty pounds.
   b The accountant is a Marine.  b The accountant resembles Fred.
   c The car is a Mercedes. c The car costs twenty thousand dollars.

49 a The cabbage hit the wall.
   b The accountant strangled Fred.
   c The car crushed Hugo's Mercedes.

One would not expect Relational clauses such as (47) to have passive counterparts. Likewise, Relational clauses such as (48) do not have passive counterparts. It is no accident, in other words, considering
the semantic properties of Relational predicates, that they do not take the passive construction.

In order to separate the nonpassivizable Relational predicates from the marginally passivizable Mental predicates and the clearly passivizable Action predicates, it is not sufficient to simply count the number of NPs each predicate takes; it is necessary to know something about the way those NPs (or the participants they represent) function in the clause. In this sense the notional definition of transitivity is more useful in defining properties of passive predicates than the structural definition is. The Relation predicates are not transitive in this sense, the Mental predicates are marginally transitive and the Action predicates are the most clearly transitive.

The observations in this section and in 3.2 suggest that clauses may best be described in terms of a continuum from least marked to most marked for passive, depending in part on how far the participant which would be the passive surface subject is perceived as being affected by the process indicated by the verb. Using the notional definition of transitivity given above, then, this would be a progression from most clearly transitive to clearly intransitive.

Halliday (1970) makes a distinction between Middle and Nonmiddle clauses, Middle clauses being those with one inherent (i.e., semantically present though not necessarily specified) participant and Nonmiddle clauses being those with two or more. This is similar to the structural
intransitive-transitive distinction in other frameworks. Passive clauses are always Nonmiddle clauses, but the passive option is not available to all types of Nonmiddle processes. There are, for example, no passive Relation clauses.

As noted earlier, Halliday identifies with each major clause type, Action, Mental Process and Relation, a set of roles or transitivity functions, some of which are inherent to the particular clause type. While two-participant Action clauses, for example, generally include participants which can be identified as actor and goal, participants in Mental Process clauses are described as processer and phenomenon (1970:154). And those in Relation clauses are assigned the roles term and value (1973). It is clear, then, that verbs such as cost, resemble and weigh, for example, in Relation clauses, are recognized as a special class of processes, not simply because they do not occur in passive

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24 Halliday redefines transitivity and argues against the efficacy of the notion for clause analysis. A transitive clause in his system is one having an actor, a process and a goal. But he notes that many two-participant clauses have nothing that could felicitously be labelled a goal or an actor. Halliday suggests that English clauses may be viewed more appropriately within an ergative framework: "...the ergative pattern, whereby a process is accompanied by an obligatory 'affected' participant and an optional 'causer' is more readily generalizable than that of actor and goal. It extends beyond action clauses to those of mental process and perhaps even to clauses of relation as well" (1970:158). Although the ergative pattern may be the more general one for English clauses, Halliday notes, the transitive and ergative systems may exist side by side in English. By his definition, the transitive system asks "Does the action extend beyond the actor?" while the ergative system asks "To what extent is the causer identical with the affected?" (1968:184). See also Lyons (1968:355-357), Anderson (1968:1-32) and Comrie (1979) for discussions of ergative systems of analysis.

25 A clause such as "Mary was hit" is analyzed as having two inherent participants even though only one is expressed.
clauses but because of the role relations that clauses with these processes have in common.

The *stative-nonstative* distinction is another one which has been useful in defining properties of predicates. In *Irregularity in Syntax* (1970a:142,159), Lakoff listed three ways to distinguish stative from nonstative verbs and adjectives. Generally, stative predicates, such as cost, seem and hear, are non-action predicates which cannot ordinarily take the progressive (50 b)26 or imperative (50 c) and cannot occur as the main predicate in do-something clauses such as (50 d).

50 a-1 The hat costs five dollars.
   2 The child seemed unhappy.
   3 Al heard a noise.

b-1 *The hat is costing five dollars.
   2 *The child was seeming unhappy.
   3 *Al was hearing a noise.

c-1 *Cost five dollars!
   2 *Seem unhappy!
   3 *Hear a noise!

26 Lakhoff does not apply these criteria strictly. He notes, for example, (1971b:334,335), that although "stative verbs and adjectives in general do not take the progressive auxiliary in English...there is a certain subclass of exceptions to this generalization. stative verbs which do take the progressive auxiliary." He cites the following as examples:

a I\[\{\text{am expecting}\}\] Schwartz' wife to run off with the butcher.

b I\[\{\text{am hoping}\}\] that my date will turn out not to have warts.

c We\{\text{are anticipating}\} that there will be a great advance in pornolinguistics.

To some, the imperative forms of these clauses are also acceptable (e.g., Just hope that your date will turn out not to have warts). Note that while the progressives above (a, b and c) suggest temporary situations the corresponding examples in simple present tense suggest less time-bound situations.
50 d-1 *What the hat does is cost five dollars.
  2 *What the baby did was seem unhappy.
  3 ?What Al did was hear a noise.

But the properties which are associated with the stativity distinc-
tion are not all directly relevant to the kinds of distinctions which
would facilitate an analysis of passives. The do of the do-something
construction, for example, is the do of Ross's (1972) higher predicate
analysis. 27 Ross has described this do as "a higher predicate of
intentionality" (1972:116). And, indeed, where volition or intention
or, at the very least, control would not be ascribed to the agent of a
particular clause, Ross's do does not ordinarily 28 appear. When it does
appear in such a clause, it suggests an odd interpretation (51 b). As a

27 Ross (1972:70) described this do as follows: "Every verb of action
is embedded in the object complement of a two-place predicate whose sub-
ject is identical to the subject of the action verb and whose phonological
realization in English is do." So, for example, Frogs produce croaks,
a sentence which has this underlying do, is analyzed as follows:

\[
\begin{array}{c}
S \\
V \quad \text{NP} \quad \text{NP} \\
\text{do} \quad \text{frogs} \quad \text{S} \\
\text{produce} \quad \text{frogs} \quad \text{croaks}
\end{array}
\]

Ross offers considerable evidence to support the presence of this do in
some underlying structures. It can be expected, for example, to surface
in structures such as (a)-(d):

a Frogs produce croaks.
b What frogs do is produce croaks.
c Frogs produce croaks in the pond, but they shouldn't do so
on the plate.
d Producing croaks, which is not difficult to do, is done by
frogs.

28 A sentence such as What the storm did was destroy our barn does
not seem as odd as (51 b). This may be because a storm, though it
performs without volition, is generally understood to operate under its
own power.
rule, a clause which does not have an agent which is understood to control the process presents no evidence of having Ross's do in underlying structure.

51 a-l The knife ripped his shirt in half.
  2 The windmill beat him to death.
  3 The rock crashed into the side of the building.

b-l What the knife did was rip his shirt in half.
  2 What the windmill did was beat him to death.
  3 What the rock did was crash into the side of the building.

So when a do-test is used to make the stative-nonstative distinction for a verb in the context of a clause, a verb functioning as a predicate which does not take such an agent would be classified as "stative." And just about every verb can be used as a stative predicate. Similarly, a verb functioning as such a predicate would not take the imperative, so it would qualify once again as "stative" (51 c).

51 c-l Rip his shirt, knife!
  2 Windmill, beat him to death!
  3 Rock, crash into the side of the building!

However, the same verbs, in constructions with obvious controlling agents, clearly function as "nonstative" predicates (52).

52 a-l Al ripped Bob's shirt in half.
  2 The policeman beat him to death.
  3 Hugo crashed into the side of the building.

b-l What Al did was rip Bob's shirt in half.
  2 What the policeman did was beat him to death.
  3 What Hugo did was crash into the side of the building.

c-l Rip Bob's shirt in half, Al!
  2 Policeman, beat him to death!
  3 Hugo, crash into the side of the building!

Many passives, including some Action passives, do not require the sort of agent the do and imperatives tests require, and so their active counterparts would be classified as nonstative (e.g., 53). The agent in these passives does not control the action the sentence indicates.
53 a-l He was beaten to death by the windmill.
  2 Alice was hit by a car.
  3 He was flattened by a rock.

b-l The windmill beat him to death.
  2 A car hit Alice.
  3 A rock flattened him.

c-l What the windmill did was beat him to death.
  2 What a car did was hit Alice.
  3 What a rock did was flatten him.

d-l Windmill, beat him to death!
  2 Car, hit Alice!
  3 Rock, flatten him!

The predicates classified as Mental in this discussion are stative, though as (54) illustrates, some have nonstative Action counterparts. But there are both stative and nonstative Action predicates. Even highly actional predicates such as (53) would be classified as stative because they do not pass the do-something and imperative tests. It appears that

The meanings of the stative and nonstative counterparts in (54) are definitely related. One consistent difference between these corresponding statives and nonstatives appears to be that the nonstatives suggest the more active participation of the subject. When a given verb (e.g., see or love) may function as either a stative or nonstative predicate the grammar has to provide a means of accounting for those properties which the two different predicates share while accounting for their differences. This problem is similar to the one posed by verbs such as break and grow which may function either transitively (as in Fred broke the vase or John grew tomatoes) or intransitively (as in The vase broke or The tomatoes grew quickly). (Such cross-classification is common for English verbs. See e.g., Lyons 1968:359, Halliday 1970:156, and Curme 1931:437.) Within some generative semantics frameworks, lexical decomposition, allowing the lexical item an internal semantic-syntactic structure, provides one means of accounting for such differences. For Lakoff, for example, the transitive verb break would have included a causal element whereas the intransitive break would not. (Lyons, 1968: 352-354, points out that in languages such as Turkish and French there is a productive rule for the formation of causative verbs.) The causal element, in turn, implies "case" relations between the verb and its arguments, as it requires a "caused" (a goal or patient) and a "causer" (an agent). Within such frameworks features attached to verbs and higher predicates such as Ross's do account for other predication properties related to distinctions such as stative-nonstative and transitive-intransitive.
the do-something and imperative tests do not discriminate in any particularly helpful way among predicates which are eligible for a passive construction.

54 STATIVE NONSTATIVE

A-1-a Margaret saw a frog. B-1-a Margaret saw a psychiatrist.
   b *Margaret was seeing a frog. b Margaret was seeing a psychiatrist.
   c *What M. did was see a frog. c What M. did was see a psychiatrist.
   d ?A frog was seen by Margaret. d *A psychiatrist was seen by Margaret.

2-a John considered Harry a fink.30 2-a John considered the proposal.
   b *John was considering H. a fink. b J. was considering the proposal.
   c ?Consider Harry a fink! c Consider the proposal.
   d *What J. did was consider H. a fink. d What J. did was consider the proposal.
   e H. was considered a fink by J. e The proposal was considered by J.

3-a The car weighed two tons.31 3-a John weighed the letter.
   b *The car is weighing two tons. b John is weighing the letter.
   c *Weigh two tons! c Weigh the letter!
   d *What the car did was weigh two tons. d What J. did was weigh the letter.
   e *Two tons were weighed by the car. e The letter was weighed by J.

4-a Juliet loved movies. 4-a Juliet loved Romeo that night.32

30 (54-A-2-a and d) are from Lakoff 1970a:157.

31 (54-A-d-1) and (54-B-3-1) are from Chomsky 1965:103.

32 Noted by R. Jacobs. Note that the active (54-B-4-a) is ambiguous, allowing either a nonactional (Mental) interpretation or a more actional (Action) interpretation, while the passive is unambiguous, allowing only the more actional interpretation. The fact that the passivizable predicate love favors the more actional nonstative interpretation may begin to account for McCawley's observation (1970:292) that "Hubert loves God is not funny in the same way that God is loved by Hubert is." As noted in 3.2, it is a property of the passive construction that it favors an interpretation in which one participant, the passive surface subject, is affected by the process indicated by the verb.
A-4-b *Juliet was loving movies. c *What J. did was love movies. d *Love movies! e *Movies were loved by Juliet.

B-4-b J. was loving R. that night. c What J. did was love R. that night. d Love Romeo! e Romeo was loved by J. that night.

The progressive, on the other hand, does make a discrimination which is helpful in analyzing predicates in relation to the passive construction: The progressive separates Mental and Relational predicates from Action predicates. This distinction is especially useful in separating the Mental predicates from the Action predicates. While neither active nor passive Mental predicates take the progressive\(^{33}\) (55), both active and passive Action predicates do (56). This is one more syntactic correlate of the Mental-Action semantic contrast which can be added to those noted in 3.2. The distinction between those predicates which occur in progressive constructions and those which do not will be referred to here as the Actional-Statal contrast. While the Action predicates will be defined as Actional then, by this criterion, the Relational and Mental predicates will be classified as Statal. This distinction will be important in the discussion of predicate types which follows in Chapter 4.

MENTAL

55 a Fred saw the grasshopper. *Fred was seeing the grasshopper.
*The grasshopper was seen by F.

ACTION

56 a Fred drowned the grasshopper. Fred was drowning the grasshopper.
The grasshopper was drowned by Fred.
The grasshopper was being drowned by Fred.

\(^{33}\)That is, they would not be embedded as -ing complements to a higher predicate be. See fn. 1, Chapter 4.
MENTAL

55 b Everyone knew Fred.
   *Everyone was knowing Fred.
   Fred was known by everyone.
   *Fred was being known by everyone.

ACTION

56 b Everyone ridiculed Fred.
   Everyone was ridiculing Fred.
   Fred was ridiculed by everyone.
   Fred was being ridiculed by everyone.

condition

c All the students liked Al.
   *All the students were liking Al.
   Al was liked by all the students.
   *Al was being liked by all the students.

c I have proposed that the notion of information structure compatibility also provides a useful means of analyzing predicates, particularly in relation to the passive option. Action and Mental predicates were examined in this light in 3.2. This concept also provides a means of explaining, in part, why the passive option is not available to Relation predicates.

It was noted in 3.2 that the relative markedness of Mental passives in comparison with Action passives is, in part, a reflection of the interaction between the semantic properties of the predicate and the information structure of the passive construction. While the passive (with unmarked focus) sets the agent apart by leaving it unspecified or by focusing on it as new information the Sensory, Cognitive and Evaluative Mental predicates generally favor a structure which sets the agent (the "processer" in Halliday's system) as topic (thus associating it with the presuppositions attached to the sentence) and the object (the "phenomenon") as information focus. That is, these predicates favor an active structure while the Action predicates are more
equally amenable to either an active or passive structure because of semantic properties of these predicate types. A further dimension to this interaction, the relationship between the information structure of the clause and the discourse context in which it functions will be explored in chapter 6.

The incompatibility between the Relational predicates and the passive construction also appears to be related to an interaction between semantic properties of the predicate and the information structure of the passive construction. In the case of the Relational-reciprocal predicates (7) there simply is no apparent reason to use a passive structure. If *Fred resembles Annabelle has roughly the same meaning as Annabelle resembles Fred* the assignment of the topic and information focus can be reversed without using the passive construction. There would be no particular advantage, then, in using a passive construction for such a predicate just as there would be no advantage in using a passive construction for a Relational-reciprocal clause such as *Alice is Fred's boss.*

In the case of attributive Relational-nonreciprocal predicates such as (57) or (58), the quantified second argument, the attribute, cannot function as a topic, even in active constructions (e.g., *As for five dollars, the coat costs it. *What about five pounds? Emily weighs it.)

57 The coat costs five dollars. 58 Emily weighs five pounds. *Five dollars are cost by the coat. *Five pounds are weighed by Emily.

34 Predication properties of the by which also make the passive construction inappropriate for Relational predicates are discussed in chapter 5.
Furthermore, in most situations it would not make sense to set the attribute as given and offer that to which the attribute is ascribed as new information. The Relational predicates, as noted earlier, are adjective-like (attributive or equational) predicates, and the usual order of an adjective construction sets that which is described as the topic (since it is natural to be talking about that which is being described) and the description as new information. It would be difficult to imagine a situation which would require the reverse.

It is clear that a formal, primarily structural analysis of English passives would be inadequate for the essential tasks of discriminating among the passivizable and nonpassivizable functions of a given verb and accounting for degrees of relative markedness among passive predicates. An adequate analysis of the English passives apparently requires that semantic predicate properties be taken into account. We have seen that many such semantic properties have regular and predictable syntactic correlates. The Mental Process predicates (e.g., 2-5), for example, cannot ordinarily take the progressive, while the Action predicates can. And the Mental Process predicates can be subcategorized by semantic properties as Emotional Reaction, Sensory, Evaluative and Cognitive predicates, each subcategory having characteristic syntactic properties, i.e., each accepting, for example, certain characteristic types of complements (2'-5'). So, as Jacobs\(^{35}\) points out, given a novel verb along with its meaning one can predict its syntactic properties. For example, given the verb conflagrate, along with the information that it

\(^{35}\)(forthcoming)
indicates the emotional reaction of being "burned up," we can predict that it will take the complements associated with the Emotional Reaction verbs (e.g., 4'). We could, for instance, expect a construction such as *I was conflagrated that Hugo was at the party* to be well-formed. We have also seen that the passive option is not as readily available to the Mental Process predicates as it is to the Action predicates, forming somewhat strange passives when certain semantic conditions (e.g., an effect on the object, a definite object) are not met. And we have seen that the passive option is not available at all to the Relational predicates which indicate states or relationships rather than processes and which are not at all transitive in the semantic or notional sense; that is, which do not indicate that one participant has an effect on the other. An account of English passives based on such properties offers the potential to predict syntactic constraints on a given predicate based on its semantic properties. An analysis which is syntactically based does not offer this potential.

In the chapter which follows, adjective properties of English passives will be examined further as we take up the question of the status of the passive be.
CHAPTER IV

ON THE VERB BE

4.1 Introduction

In Chomsky's early (1957) and later (1965, 1970) analyses, the be of the passive is simply introduced by transformation as though it were an arbitrarily chosen morpheme. Such an analysis offers no rationale for the introduction of be into the passive construction or for the choice of be in particular (rather than some other morpheme).

The major tasks this chapter undertakes are to find reasons for the presence of be in the English passive and to determine some of the properties of this be. In chapter 3 some adjective-like semantic properties of English passives were noted. In this chapter, further semantic and syntactic properties which passives and various adjective constructions share will be explored. A variety of non-passive be constructions will be examined first to determine properties which these constructions have in common with passives and to begin to focus on properties of the be of English passives.

4.2 The Be-Predicates

In this discussion the English adjective-like predicates or "be-predicates"\(^1\) will be set apart from the more verb-like predicates or

\(^1\)Illustrated in (2). Progressive constructions will be excluded from this discussion. The progressive, discussed in 4., will be assumed, tentatively, to be a higher predicate be which embeds an -ing complement. This complement may be either a be-predicate (e.g., He is being careful, He is being pushed by Hugo) or a do-predicate (e.g., He is sitting down, He is hitting Fred). The progressive be with its -ing complement, then, would form an adjective-like construction which differs from those of (2).
"do-predicates," those which take the "empty" do of the auxiliary analysis of *Syntactic Structures* (which must be distinguished from the do of Ross' 1972 discussion)² in constructions such as (1 b-d) and which do not require be.³ This is done primarily to focus on properties which the be-predicates, including passives, have in common and on interesting ways in which they differ from other predicates.

1 a Hugo threatened Fred.
   b Did Hugo threaten Fred?
   c Hugo threatened Fred, didn't he?
   d Hugo did not threaten Fred.

(2) illustrates some of the most common be constructions: predicate nominals (2a), attributive adjectives (2b), statal perfectives (2c), locative and time adverbial constructions (2d), and passives (2e).

2 a-1 x was a chair. (stative)
   a-2 x was a hero. (ambiguous: nonstative or stative)

   b-1 x was tall. (stative)
   b-2 x was careful. (ambiguous: nonstative or stative)

   c x was tired. (stative)

²See Lyons (1970:101) for a discussion of the "empty" or "dummy" do. This is the do which appears when there is no auxiliary in a verb construction which needs one, for example, to form a question or a question tag or to carry negation. The do of Ross' (1972) analysis applies only to a subclass of actional clauses: those with subjects which are agents. Ross offers the following as an example of a sentence which exhibits both do's: "What they didn't do is lock the door." (The "empty" do is underlined.)

³It should be noted that there are do-predicate verbs which can be substituted for the be in some be-predicates. Become shares most of the range of be (excluding the adverbial predicates) and seem and appear, two of a class of complement-taking verbs discussed in Gundel and Jacobs (1979), can apparently be substituted for be in some adjective predicates (e.g., He seems unhappy), though such predicates might best be analyzed as be-predicates embedded as complements to seem or appear.
d-1 x was under the table. (stative)
d-2 x was at three o'clock. (stative)
e-1 x was known by everyone here. (stative)
e-2 x was murdered by Hugo. (? stative/nonstative)

The be and do predicates naturally have properties in common, properties inherent in the function of predication. Stativity, for example, characterizes predicates of both the be (2, 3b) and do (3a) classes.

<table>
<thead>
<tr>
<th>STATATIVE</th>
<th>NONSTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-1 Fred resembled Washoe.</td>
<td>a-2 Fred imitated Washoe.</td>
</tr>
<tr>
<td>*Fred was resembling Washoe.</td>
<td>Fred was imitating Washoe.</td>
</tr>
<tr>
<td>*Resemble Washoe!</td>
<td>Imitate Washoe!</td>
</tr>
<tr>
<td>*What Fred did was resemble Washoe.</td>
<td>What Fred did was imitate Washoe.</td>
</tr>
<tr>
<td>b-1 Fred was tall.</td>
<td>b-2 Fred was careful.</td>
</tr>
<tr>
<td>*Fred was being tall.</td>
<td>Fred was being careful.</td>
</tr>
<tr>
<td>*Be tall!</td>
<td>Be careful!</td>
</tr>
<tr>
<td>*What Fred was doing was being tall.</td>
<td>What Fred was doing was being careful.</td>
</tr>
</tbody>
</table>

Stativity properties are often cited as a point of similarity between adjectives and verbs⁴ (Lakoff 1970a:115, Lyons 1968:323-325, Anderson 1968:63). An important difference between verbs and adjectives functioning as main clause predicates is that whereas verbs take tense, aspect and number agreement suffixes (e.g., 4a) adjectives do not (4b). Instead the be of the adjective construction serves these functions (4c).

4-a Al baked a cake. b *Al carefulled. c Al was careful.
Harold knows Max. *Harold talls. Harold is tall.
Sam is crying. *Sam is noisy. Sam is being
noisy.

It should be noted that passives are adjective-like in this sense: the be of English passives, like the be of all the other be-predicates (2), carries tense, aspect and number (5) while the "passivized" verb

⁴See Jacobs and Rosenbaum (1968:63-66) for a summary of arguments put forward for classifying verbs and adjectives together.
(e.g., murdered, observed and washed in 5b), like an adjective, maintains the same form regardless of the tense, number or aspectual specifications of the passive clause.

5-a Max murdered by Hugo. 
*Sheila observed daily by Al. 
*The clothes are washeding.

b Max was murdered by Hugo. 
Sheila is observed daily by Al. 
The clothes are being washed.

In addition to taking verb inflection, the be's of all of the adjective-like predicates exhibit the same distribution patterns (e.g., 6) and serve what may be interpreted as essentially the same semantic function: asserting the existence (or nonexistence, when combined with negation) of a relation, situation or state. 5

6-a Al was insulted (by Hugo). 
Was Al insulted (by Hugo)? 
Al wasn't insulted (by H.). 
Al was insulted (by Hugo), wasn't he?

b Al was unhappy. 
Was Al unhappy? 
Al wasn't unhappy. 
Al was unhappy, wasn't he?

c Al was a crook. 
Was Al a crook? 
Al wasn't a crook. 
Al was a crook, wasn't he?

There appears to be adequate justification, then, for a claim that English passives are adjective-like constructions and that the be of passive constructions is the be of other adjective-like constructions or a form of this be. 6

5 Semantic properties of be will be discussed in more detail in 4.7.

6 When a set of observed morphemes (e.g., the be of 2 e and the be's of (2 a-d) are identical morphologically, share syntactic properties (59) and have the same meaning there would appear to be sufficient motivation for a claim that they are the same morpheme. Considering the similarities among the be's of (2 a-e), it would seem reasonable to let the burden of proof rest most heavily on theorists who claim that these are different morphemes.
Among languages other than English it is not unusual to find passives which have more in common with adjective than verb predicates. Carmen Silva-Corvalan (1977), for example, argues that an analysis of the passive as an adjective construction is well-motivated for Spanish. Spanish passives, like Spanish adjectives, take degree modifiers and they are inflected for gender while Spanish verbs share neither of these properties. Warburton (1975:574) notes that Greek passives are like Greek adjectives in that they take degree modifiers and they can be used in comparative and superlative constructions. And Freidin (1975:401) notes that passives in French, Rumanian and Russian are inflected to agree with their surface subjects in number and gender just as adjectives are in those languages.

Although English passives may be described as adjective-like, they differ significantly from constructions such as (7) which are generally considered "adjective" constructions. A comparison of passives with other adjective-like constructions, then, allows us to focus on some of the unique properties of passives in English.

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But see fn. 10, this chapter.

There is also evidence that some English passives were more adjective-like in the past than they are now. According to Parker (1975), certain Old English passives took inflection just as adjectives did. For instance, in the following example, Parker notes that baptized does not simply refer to a baptized state and by a bishop could not be a locative phrase, so this is an example of a true passive. "The inflectional-e affixed to gefullod," he notes, "certainly agrees with the masculine, plural, nominative supeohtas," and the inflectional endings found on such Old English passives are identical to those of Old English adjectives.

Subeоhtas waeron...gefuhlode of...biscope...

The South Picts were baptized by a bishop
The full spectrum of English be-predicates extends from clearly statal adjective constructions such as (7) to statal perfectives such as (8) which generally indicate a state which is the end result of a process, to the more actional passive constructions such as (9) which indicate the existence of the process itself. In section 4.3 passives will be compared to statal adjective constructions such as (7) and (8).

7 Fred was tall.
8 Fred was surprised (and angry).
9 Fred was surprised (by Alice).

4.3 Statal Adjectives and Passives

Statals perfectives (sometimes called "statals passives," e.g., Curme 1931:445) can be identical to truncated passives on the surface. (10a), for example, is ambiguous between a passive interpretation and a statal perfective interpretation. (10b), on the other hand is unambiguously a statal perfective which indicates the state of the door. This can be contrasted with (10c) which is unambiguously passive, indicating a process which involved the door and another participant.

10-a The door was shut.
   b The door was shut in that photo (but open in this one).
   c The door was shut by Fred.

Statals perfectives and passives employ the same past participle predicators with be (e.g., be exhausted in 11, a statal perfective, and in 13, a passive) for somewhat different functions. The past participle can be described as an adjective in both cases, but with a predicative function which is more clearly attributive and descriptive in the statal perfective, more actional in the passive. Unlike other statal adjectives such as tall or Swedish, statal perfectives generally indicate the result of a process. To
varying degrees, other adjectives which do not employ past participles (and which might not, for that reason, be called "statal perfectives") may carry a suggestion of this sort of process meaning: for example, angry and rotten, which can be compared with the somewhat less final, more process-oriented angered and rotted. Passives seem to me to assert the existence of the process itself but also, as noted in chapter 3, to suggest attribution (generally by implying that the process affected the subject in some way). Some passives are inherently more actional (e.g., He was thrown by a horse), some less so (e.g., The building was neglected by the manager), some more attributive (e.g., She was admired by everyone). There appears to be a range, then, in be constructions with past participles, from ongoing process to final state, from action to attribution, with both process and attribution properties extending to both ends of the spectrum. In order to define common properties of English passives and to capture and characterize ambiguities such as the one illustrated in (10a), however, it is helpful to draw distinctions (albeit somewhat arbitrary ones) between the more statal and more actional passives and between passives and statal perfectives. Other properties such as stativity properties (considered separately, not in a lump) are helpful in making these distinctions.

Like stative adjectives such as (12a), statal perfectives do not occur as progressives (11b, 12b), as they do not directly indicate processes. Since they do indicate attributes, many statal perfectives can be conjoined coordinately with (semantically appropriate) known adjectives (11c, 12c).9 Degree modifiers such as very and extremely

9"and sick" was added to (11) and "by the job" was added to (13) to disambiguate these constructions.
generally apply only to adjectives, and many stative perfectives, like most adjectives, take degree modifiers \((11d, 12d)\). Statal perfectives, then, apparently do not differ significantly from other stative adjectives.

\[ 11-a \quad \text{Al was exhausted (and sick).} \quad 12-a \quad \text{Al was thin.} \]
\[ b \quad \text{*Al was being exhausted (and sick).} \quad b \quad \text{*Al was being thin.} \]
\[ c \quad \text{Al was sick and exhausted.} \quad c \quad \text{Al was tall and thin.} \]
\[ d \quad \text{Al was extremely exhausted (and sick).} \quad d \quad \text{Al was very thin.} \]

Unlike statal perfectives and other stative adjectives, most passives can occur as progressives \((13b)\) and cannot be combined coordinately with items which are readily recognized as adjectives \((13c)\). The major semantic difference between statal perfectives and passives is that while statal perfectives express the state of one participant, passives (including truncated passives) indicate a process which must involve at least two participants.

\[ 13-a \quad \text{Al was exhausted (by the job).} \]
\[ b \quad \text{Al was being exhausted (by the job).} \]
\[ c \quad \text{*Al was sick and exhausted (by the job).} \]

10 Degree modifiers are sometimes used as a test for adjectives. However, as Freidin (1975:399) has pointed out, adjectives such as dead, next and unpublished, which would not be conceived of in terms of degrees, would not take degree modifiers. And like these adjectives, passives, which generally specify events, would not be conceived of in terms of degrees. Degree modifiers test a semantic distinction, then, which need not coincide with a categorical (verb vs. adjective) distinction. So although taking degree modifiers may be interpreted as an adjective-like property, the fact that English passives do not ordinarily take degree modifiers would not constitute counterevidence to an analysis of passives as adjectives.

11 See fn.10 above for a discussion of degree modifiers. It should be noted that nonstative adjectives share these properties (e.g., Al was being careful (all day). *Al was careful and thin (all day).

12 These properties will be discussed in more detail in 5.2.
(11), for example, describes Al's state while (13) describes something that was done to Al. This is a characteristic distinction between statal perfectives and passives. But this sort of state-process distinction does not coincide with the stative-nonstative contrast.

Passives have interesting stativity properties. They do not meet two of the criteria Lakoff and others generally use to identify non-stative constructions: they do not ordinarily occur as imperative or do-something constructions (e.g., 14c,d). For this reason they are sometimes regarded as stative constructions (Keenan 1975). However, unlike most stative constructions, including statal perfectives, most passives, as noted above, can occur as progressives (e.g., 14b).

14-a Fred was hit by hailstones.
   b Fred was being hit by hailstones.
   c *Be hit by hailstones!
   d *What Fred did was be hit by hailstones.

Many passives also take manner adverbials (e.g., He was beaten maliciously, She was cheered with great enthusiasm), a recognized property of nonstative predicates (Lakoff 1970a:158,159). So most passives are neither clearly stative nor nonstative, and the stative-nonstative distinction cannot be used to separate passives from statal perfectives. Statal passives like (15) (with Mental predicates such as know, like, or hear) further complicate the picture. These more stative passives, unlike most passives, cannot ordinarily occur as progressives (15b) or take manner adverbials (15c), though they share two stative properties

13 Passive imperative and do-something constructions are possible (e.g., Be examined by a doctor before you return tomorrow. What Jackie is doing is being photographed). Such constructions are rare, however. The "get-passive," described by R. Lakoff (1971) is generally used for imperative and do-something constructions with a passive sense.
with other passives: they do not ordinarily occur either as imperatives or in do-something constructions (15.d,e).

15-a Fred is known by everyone here.
b *Fred is being known by everyone here.
c *Fred is known with enthusiasm by everyone here.
d *Be known by everyone here!
e *What Fred did was be known by everyone here.

The statal-actional distinction discussed in Chapter 3 provides a means of sorting out a part of this situation. As noted in 3.4, this distinction does not correspond to the stative-nonstative distinction (there are both stative and nonstative actional predicates).

Semantically, it was observed, statal predicates generally indicate copular-type (attributive or equational) relations or mental processes. And, as noted in Chapter 3, these two types of statal predicates correspond roughly to Halliday's Relation and Mental Process clause types. Actional predicates (which correspond to Halliday's Action clause category) express actions or events. As noted in 3.4, actional predicates occur in progressive constructions while statal predicates ordinarily would not. 14 Such a distinction is useful in analyzing passives since it separates those which will be referred to as statal

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14 Apparent exceptions generally involve the Mental Reaction and Sensory predicates. It was observed in Ch. 3 that these verbs, when used to express habitual, ongoing or inchoative processes sometimes occur as progressives, e.g., She is always surprising her students, He has been seeing more clearly every day (compare *She is being surprised by Bob's behavior, *Bob's behavior is surprising her, *He was seeing the grasshopper). One possibility is to analyze these as Actional functions of verbs which ordinarily occur in statal predicates. As noted in 3.4, the statal and actional functions of a given verb differ semantically as well as syntactically.

The Reaction and Sensory predicates also occur more often as passives than the Cognitive or Evaluative predicates do.
passives, those Mental be predicates (Reaction, Sensory, Evaluative
and Cognitive: 2-5, Chapter 3) which do not indicate a definite flow of
action from one participant to the other and which appear to be subject
to special compatibility constraints in relation to the passive option
(explained in 3.2) from the major class of passives, those which will be
referred to as actional passives, passives incorporating predicates
such as hit, helped, and murdered, which do, in general, indicate a
clear flow of action from one participant to the other and which can
occur as progressives (and can also take manner adverbials). This
distinction is illustrated in (16) as the distinction between
(a), (b), (d) and (e), the statal predicates, and (c) and (f), the
actional predicates.

4.4 Six Types of Predicates

Of the countless ways in which English predicates could be cate-
gorized, the system presented in (16) was chosen simply to illustrate
some generalizations about English predicates which are relevant to a
study of passive constructions. It should be pointed out, emphatically,
that (16) is not offered as a categorization of all English predicates.
<table>
<thead>
<tr>
<th>Be Predicates (adjective-like predicates)</th>
<th>Do Predicates (verb predicates)</th>
<th>(comments)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STATAL (− progressive)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a x was a building x was a person</td>
<td>d x fit y x cost y x resembled y</td>
<td></td>
</tr>
<tr>
<td>x was an accountant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x was exhausted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x was neglected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x was tired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x was ugly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x was tall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x was Swedish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x was in the kitchen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x was here</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x was at three o'clock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b statal passives:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x was known (by y) (cognitive)</td>
<td>e x knew y (cognitive)</td>
<td>Halliday's</td>
</tr>
<tr>
<td>x was liked (by y) (evaluative)</td>
<td>x liked y (evaluative)</td>
<td>Relation:</td>
</tr>
<tr>
<td>x was seen (by y) (sensory)</td>
<td>x saw y (sensory)</td>
<td>category</td>
</tr>
<tr>
<td>x was shocked (by y) (reaction)</td>
<td>x shocked y (reaction)</td>
<td>no</td>
</tr>
<tr>
<td><strong>ACTIONAL (+ progressive)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c x was a hero</td>
<td>f</td>
<td></td>
</tr>
<tr>
<td>x was a man</td>
<td>x sat</td>
<td>Halliday's</td>
</tr>
<tr>
<td>x was a nuisance</td>
<td>x stood</td>
<td>Action</td>
</tr>
<tr>
<td>x was thrown (by y)</td>
<td>x walked</td>
<td>clause</td>
</tr>
<tr>
<td>x was neglected (by y)</td>
<td>x threw y</td>
<td>category</td>
</tr>
<tr>
<td>x was killed (by y)</td>
<td>x neglected y</td>
<td>Roughly</td>
</tr>
<tr>
<td>x was careful</td>
<td>x killed y</td>
<td>equivalent</td>
</tr>
<tr>
<td>x was good</td>
<td>x gave y to z</td>
<td>to: Halliday's</td>
</tr>
<tr>
<td>x was cautious</td>
<td>x handed y to z</td>
<td>Action</td>
</tr>
<tr>
<td></td>
<td>x offered y to z</td>
<td>clause</td>
</tr>
</tbody>
</table>

16 EXAMPLES OF SIX TYPES OF ENGLISH PREDICATES
It certainly does not list all types of English predicates. Nor does it subcategorize verbs according to the types of complements they may take. It does not categorize verbs at all, in fact, but rather illustrates types of predicates.\(^{15}\) (A given verb may occur in several different types of predicates.) Furthermore, the six predicate types represented by (16) are not discrete categories.\(^{16}\) They should be viewed, instead, as territories which allow some wandering across borders. These territories must be viewed in perspective as points isolated (simply by choice for purposes of illustration) from what may be viewed as continua representing various types of processes. One of these is the vertical hierarchy of predicates in this discussion that the syntactic-semantic processes which operate within the clauses of (16) (and within words within these clauses) are essentially the same as the processes which embed and conjoin these clauses to other clauses. In (16), one level has been isolated: a simple clause level.\(^{17}\)

And since the English language is not static, (16) must be viewed in perspective among the processes of language change. As an illustration

\(^{15}\)E.g., love occurs in predicates representing five of the six categories in (80):
(a) The child was loved and happy.
(b) The senator was loved by us all.
(c) The senator was loved by Gertrude that night.
(e) Everyone loved the senator.
(f) Gertrude loved the senator that night.

\(^{16}\)The Mental predicates represent an especially fuzzy area, as noted in 3.4 and 4.3. And some predicates appear to be moving into more actional use (e.g., He is hearing pretty well now).

\(^{17}\)The examples in (16b) and (16c) without the by-phrase are regarded in this discussion as simple clauses.
of this point, a sentence such as Fred sees Alice every day may be viewed as ambiguous between a statal interpretation (Alice falls into Fred's field of vision) and an actional one (Fred makes a point of seeing Alice), and where the distinction between the two is made may differ from one speech community to another and from one point in history to another.

So the predicate types of (16) are not ironclad categories. They do, however, represent important generalizations which grammars of English should account for. (16) will be used to illustrate the remainder of chapter 4.

As noted in 4.2 (1), all of the do predicates (e.g., 16d-f) take the "empty" auxiliary do while the be predicates (17a) do not (17b) and, more importantly, cannot (17c).

17-a  x is pretty.     b *Does x is pretty?    c *Does x pretty?
      x was seen       *Did x was seen?     *Did x seen?
      x was beaten    *Did x was beaten?   *Did x beaten?

The question which arises next is whether or not the be of the be predicates is simply another auxiliary.

4.5 Properties of the Passive Be

The be of the passive and of other adjective-like constructions does have certain properties in common with other constituents such as the modals and have+en which are often called "auxiliaries." Auxiliaries (AUX) consistently shift to the left of the subject NP in unembedded questions, they precede not in negatives and they appear in question tags (18). As (19) illustrates, the be of the be-predicates has the same distribution.

---

18 See fn. 2, p. 70.
18-a  Al must hit Bob.  b  Al has seen Bob.
Must Al hit Bob?  Has Al seen Bob?
Al mustn't hit Bob.  Al hasn't seen Bob.
Al must hit Bob, mustn't he?  Al has seen Bob, hasn't he?

19-a  The dog was washed (by Al).  b  Al is fat.
Was the dog washed (by Al)?  Is Al fat?
The dog wasn't washed (by Al).  Al isn't fat.
The dog was washed (by Al), wasn't he?

But the modals and have+en apply to all of the predicates represented in (16). (20 presents an example from each group), while the be is restricted to those without a "main verb" (e.g., 16a-c).

20:

St. Adj.:
  a  x must be ugly.  x has been ugly.  x must have been ugly.
  b  x could be tired.  x has been tired.  x could have been tired.
  c  x might be a pen.  x has been a pen.  x might have been a pen.
  d  x may be seen.  x has been seen.  x may have been seen.

Act. Adj.:
  e  x should be good.  x has been good.  x may have been good.
  f  x might be killed.  x has been killed.  x might have been killed.
  g  x can be a hero.  x has been a hero.  x could have been a hero.

St. Vbs.:
  h  x would fit Al.  x has fit Al.  x would have fit Al.
  i  x could see Fred.  x has seen Fred.  x could have seen Fred.

Act. Vbs.:
  j  x may sit down.  x has sat down.  x may have sat down.
  k  x should kill Al.  x has killed Al.  x should have killed Al.
  l  x may give Hugo a summons.  x has given Hugo a summons.  x may have given Hugo a summons.

The linear surface structure order of constituents is, of course, important in English. In general, the rule is that everything to the right of a constituent such as a verb, an AUX, a negation element or a quantifier is within its scope\(^\dagger\) (Lakoff 1970a, 1971a:238-267, Jackendoff 1970b).

\(^\dagger\)As Lakoff (1971:240) notes, the rule is a bit more complex since command relationships must also be taken into account: e.g., in The books that many men read are few in number, many, being in a relative clause, falls within the scope of few.
1972, Chomsky 1971:207-212). Lakoff and others (e.g., McCawley, Ross) account for such scope or command relationships with underlying hierarchically arranged predicates and rules such as subject raising and predicate raising to derive the correct surface structure. Such an analysis provides a means of accounting for scope or command relations (including those which operate within words: Lakoff 1971:246-252), the interactions among these relationships and widely generalizable transformations, and the distribution of predicates.

Analyzing modals and have+en as higher predicates (modals, as surface order indicates, being the higher of the two) allows them to apply to any of the six types of predicates represented on (16).20 As McCawley has shown, there is some reason to regard tense as a higher predicate (McCawley 1970:298, 1971:221), and tense marking, of course, also applies to all of the predicates of (16).

An important property of the be-predicates (e.g., 85-a-g) is that the be (unlike the do of 16 d-f) is essential to its predicates. None of them can occur as main clause predicates without the be, even if another AUX is inserted (21. See also 17 and 18). It is the be that functions as the main verb in these predicates.

21-a *x must ugly. *x has uglied.
    b *x may tired (and lonely). *x has tired (and lonely).
    c *x might a pen. *x has a penned.
    d *x may seen. *x has seen+en.
    e *x should good. *x has gooded.
    f *x might killed. *x has killed+en
    g *x can a hero. *x has heroed.

20 The "logical predicates," quantifiers and negation, apparently occur at many different levels within or above any of the clauses represented in (16).
But the AUX elements, modals and have+en, occur with predicates which could get along quite well without them. (For example, they can be eliminated from all of the predicates of 20.)\textsuperscript{21} When an AUX is needed to carry tense or negation for a verb predicate as in (1), the "empty" do is inserted.

So although the be in English functions much like an Aux (in distribution and in carrying tense and negation, as illustrated in 5b and 6) it is also more basic than the other AUXs in the sense that it is essential to its predicates. So the be may be regarded as a main verb though a very "AUX-like" one. These generalizations might be made by analyzing the be as a higher verb if modals and have\textsuperscript{22} are also higher predicates and if certain distributional properties associated with AUX (such as movement to initial position in questions, attachment to negation and appearance in question tags) are regarded as properties of the highest predicate.\textsuperscript{23}

The progressive be+ing, which may also be analyzed as a higher predicate be plus an -ing complement, and which is also generally considered an AUX (e.g., Chomsky 1965), applies only to the more actional predicates (16c,f). This be occurs just to the left of the main verb and it functions as an AUX: that is, it takes tense and negation and it has the distribution properties of an AUX. The -ing of this

\textsuperscript{21}with alterations to allow for surface structure subject-verb agreement. There is a complex relationship between modals and tense which is beyond the scope of this discussion.

\textsuperscript{22}The -en of have+en would then be analyzed as a complementizer.

\textsuperscript{23}If tense is the highest predicate, these would have to be properties of the highest and second highest predicates, or something such as that.
construction is attached to the main verb (22), not to the modal or have (24).

<table>
<thead>
<tr>
<th>22-a</th>
<th>x is throwing y.</th>
<th>Is x throwing y?</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>x is giving y to z.</td>
<td>Is x giving y to z?</td>
</tr>
<tr>
<td>c</td>
<td>x is sitting down.</td>
<td>Is x sitting down?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>23-a</th>
<th>x is being careful.</th>
<th>Is x being careful?</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>x is being hit by y.</td>
<td>Is x being hit by y?</td>
</tr>
<tr>
<td>c</td>
<td>x is being a hero.</td>
<td>Is x being a hero?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>24-a</th>
<th>x must be throwing y.</th>
<th>Must x be throwing y?</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>x must have been throwing y.</td>
<td>Must x have been throwing y?</td>
</tr>
<tr>
<td>c</td>
<td>x must be being murdered by y.</td>
<td>Must x be being murdered by y?</td>
</tr>
<tr>
<td>d</td>
<td>x must have been being murdered by y.</td>
<td>Must x have been being murdered by y?</td>
</tr>
</tbody>
</table>

In passive constructions (e.g., 23b and 24c and d) the progressive be occurs just to the left of the passive be and, as noted earlier (6), the -ing attaches to the passive be, not to the "passivized verb, the verb which has traditionally been considered the main verb of the passive clause (e.g., hit in 23b and murdered in 24c and d). Again, as (4) and (5) as well as (22)-(24) illustrate, the passivized or ten verb of the passive clause functions in an adjective-like manner while the be functions as the main verb.

An analysis of the passive such as the one which appears in Aspects, in which the be is simply a morpheme inserted by a passive transformation (14, p. 11), leaves the status of the be as either an AUX or a verb undetermined (Hasegawa 1968:231, R. Lakoff 1971:150), fails to account for the AUX and verb properties of the passive be, and, as noted earlier, fails to offer any explanation as to why it is be in particular that is necessary for the passive transformation.

4.6 The be as a Main Verb

Kinsuke Hawegawa (1968) accounts for the main verb properties of
the passive be by analyzing this be as a main verb which takes complements. By Hasegawa's analysis, the sentence which is to undergo passivization is embedded as an object complement to the verb be. The -en of the verb of the lower clause is regarded as a complementizer. Such a construction then automatically undergoes the passive transformation. The underlying structure of Lefty was murdered by Hugo, for example, would look roughly like (25), and the correct surface structure order would be derived by transformation.

24 His discussion was restricted to the be of the passive; he made no claims about the be of other adjective-like constructions.

25 In complete form it would look like this (Hasegawa 1968:235):

It is simplified here to facilitate comparison with other analyses.
Chomsky's criticism of this analysis (1971:212) is that it allows as underlying subjects parts of idioms (such as *advantage* in *Advantage was taken of Bill* and *headway* in *A great deal of headway was made*) which only appear as subjects in passive constructions. Robin Lakoff (1971:152) also notes difficulties in accounting for the meaning of certain idioms with this treatment. In (26a), for example, the meaning of *track* is quite different in idiomatic use than it would be in isolation. However, for a sentence such as (26a) there is also the variant (26c) which has essentially the same meaning. But with Hasegawa's analysis, *track* has to be separated from the rest of the idiom in underlying structure (27) so it would not, by idiom analyses which require that an idiom be treated as a unit, be assigned its idiomatic meaning.²⁶

²⁶ A fault which R. Lakoff has found with Hasegawa's analysis (R. Lakoff 1971) is that he derives a second kind of passive which is formed with *get* instead of *be* in the same way that he derives the *be*-passive. The only difference between the two by Hasegawa's analysis is that the verb *get* is substituted for the *be* in the higher sentence. Lakoff offers evidence that the *get*-passive is semantically quite different from the *be*-passive. Note, for example, the difference between (1) and (2) in (a) and (b):

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Radicals must get arrested to prove their machismo.</td>
</tr>
<tr>
<td>2</td>
<td>Radicals must be arrested to prove their machismo.</td>
</tr>
<tr>
<td>b</td>
<td>Mary got shot on purpose.</td>
</tr>
<tr>
<td>2</td>
<td>Mary was shot on purpose.</td>
</tr>
</tbody>
</table>

Lakoff suggests an analysis similar to Hasegawa's for the *get*-passive and Lakoff Ross and Postal's analysis (27,28) for the *be*-passive to account for the difference between the two types. The *get*-passive is not discussed at length in this paper. My guess is that the *get*-passive may be a *be*-passive embedded to a more actional verb (e.g., *have* or *get*) which is in turn embedded to *do*, so that we have *What Mary did was get shot* and *What radicals must do to prove their machismo is get arrested*.

See Curme (1931:445,446) for a discussion of the *get*-passive.
26-a The FBI kept track of Bernardine.
b Bernardine was kept track of by the FBI.
c Track was kept of Bernardine by the FBI.

More recently it has been recognized (e.g., Newmeyer 1972, Langacker and Munro 1975) that English idioms are extremely complex phenomena which certainly do not yield to either a simple unit analysis or a simple analysis as individual lexical items. It is apparent that an adequate account of various types of idioms must allow a part of an idiom to retain its idiomatic meaning when it is separated from the whole, however, so Hasegawa's analysis should not create insurmountable problems for an adequate analysis of idioms.27

Hasegawa's decision to posit the passive surface subject as the subject of the higher clause as well as the object in the lower clause in underlying structure may be an unnecessary complication, or it may be seen as a means of accounting for some semantic differences between actives and their passive counterparts, differences apparently related to information structure. This issue will be taken up in chapter 6.

G. Lakoff, Ross and Postal (reported in R. Lakoff 1971:153) also

27 See also McCawley 1970:292.
posit the be as the higher verb of the passive sentence, but with the passivized clause as its subject complement (28). The higher be triggers the following process: the subject and object in the lower S are switched, then the new subject of the lower S is raised.

In such an analysis, the difference between (26b) and (26c) is in the choice of which NP (track or Bernardine) is to be switched with the logical subject (the FBI). As R. Lakoff notes, this introduces the problem of determining which NPs are "switchable." Hasegawa, on the other hand, has the problem of determining which NPs are possible subjects of be. (29) is a simpler example of the underlying structure of a passive sentence by Lakoff Ross and Postal's analysis.

Langacker and Munro (1975) have analyzed this be as a main verb.
which carries semantic content, a "stative-existential" meaning. They note (791) that a similar analysis is well-motivated for Mojave as well as the Uto-Aztecan languages.

There is considerable motivation for an analysis such as Langacker and Munro's or Lakoff's or Hasegawa's which derives the English passive construction from a clause embedded to a higher be: not only does such an analysis account for both the main verb and AUX-like properties of the passive be, it also accounts for some of the actional properties of the passive sentence: a clause which corresponds to an action clause is embedded to be to form the passive.

Such an analysis opens the way to a reexamination of the be of all adjective-like constructions (e.g., 16a-c). Analyzing them all as

28 Jacobs (1973) found evidence of underlying be and do predicates in Cahuilla and Cupenño, two Uto-Aztecan languages, and Langacker and Munro (1975) found such an analysis to be well-motivated for the Uto-Aztecan family as well as for Mojave, an unrelated language. According to Langacker and Munro, this be and do correspond roughly to the English stative-nonstative contrast (cf Jacobs 1973:232,233, a different analysis). According to Langacker and Munro's analysis, the be of the Mojave and Uto-Aztecan passive constructions is the "stative-existential" be, and this is the be of Lakoff Ross and Postal's analysis of the passive. This be contrasts with the do of Ross's (1972) analysis. They suggested, tentatively, that a similar analysis might be appropriate for English: that the stative-nonstative contrast in English declarative sentences may reflect embedding to be and do predicates in underlying structure. Since I would hesitate to posit an underlying be for stative predicates such as (16d), in which the be never surfaces, and since there are nonstative be predicates such as He was a hero and He was careful, I would not assign a stative meaning to the be of the passive. (I do not discount the possibility, however, that the nonstative be-predicates may reflect be-predicates which are, in turn, embedded to the nonstative do. Nevertheless, I would assign neither an underlying be nor an underlying nonstative do to predicates such as (16d).

29 In Langacker and Munro's proposal this clause has an unspecified subject, so the actional counterpart does not occur in English.
clauses embedded to a higher be would be one means of accounting for the fact that the be in all of these constructions functions as both AUX and main verb just as it does in the passive. 30

Figure (16) represents generalizations which no present system of analysis accounts for adequately. Within Halliday's systems of analysis (e.g., 1970) it is difficult to make generalizations about the passive be and the relationship of that be to the be of other adjective-like constructions. Some be clauses are Relation clauses, some Mental and some Action, for example, and the AUX-verb properties of these three be's are not fully accounted for. On the other hand, as illustrated in section 2.1, there is a need within systems such as Lakoff's (1971) to account for generalizations implicit in Halliday's categorization of clauses as Mental, Action or Relation. The major virtue of Halliday's categorization of clause types is that it captures semantic generalizations which have very reliable syntactic correlates. Viewed through Halliday's system, English syntax begins to look far less arbitrary than it does when viewed through a syntactically-based system such as Chomsky's. For example, the verbs of (16d), verbs such as cost, weigh and resemble, take two NPs but refuse the passive. These, as noted in chapter 3, would presumably be "idiosyncratic" cases for

30 Regarding the copular construction in English as dependent on the be only insofar as the be is necessary to form the predicate of a main clause (when the predicate of the lower clause is one which cannot function as a main verb) would allow prenominal adjectives without an underlying be to be posited as lower predicates. It would be possible, then, to posit an underlying be for just those clauses which have a surface be in English. If the be is regarded as a predicate which asserts existence, such an analysis would help to account for the difference between, for example, John felt angry and John felt that he was angry or John seems sick and John seems to be sick.
Chomsky (1970). And Lakoff did not improve on this situation by marking them as "exceptions" with a special rule feature. Halliday, on the other hand, analyzed them as processes in Relational clauses, thus including these clauses in a category with all the be predicates illustrated in (16a), the statal predicate nominal, adjective, perfective and adverbial clauses. Among the properties these clauses have in common are the following: They indicate a relationship rather than a process, they are not actional, and they do not indicate that NP₁ does something to NP₂ or affects NP₂ in any way. So, as noted above, it is clear that it is not purely coincidental that none of these clauses has a passive counterpart.

4.7 Semantic Properties of Be

The existential meaning which Langacker and Munro (1975) assigned to the Uto-Aztecan and Mojave be seems to be correct as well for English. Comparing, for example, the active (30a) which would not have the underlying predicate be, and its passive counterpart (30b) which does have the be, it is apparent that a part of the difference in meaning between the two is that x, y, and z are more real in (30b). They exist (or will exist). In (30a), by contrast, they may be purely hypothetical. (31a) and (31b) illustrate the same sort of contrast.

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31 See Lyons (1968:388) for a discussion of the existential vs. copular functions of be.

32 Noted by R. Jacobs.

33 See fn. 30.
30-a  x follows y and z (e.g., The reception follows the lecture and concert)
   b  y and z are followed by x  (The lecture and concert are followed by the reception)

31-a  This association aids unwed mothers.
   b  Unwed mothers are aided by this association.

And while negating (30a) or (31a) negates an action, negating (30b) yields a slightly different meaning which could be analyzed as negating the existence of an action or situation.

One possibility for drawing together the observations made so far would be to analyze the be of the actional passive as a verb which carries an existential meaning and which takes a complement which corresponds to an actional two or three-NP clause. The be which governs this construction could be considered the actional (+ progressive) form of the adjective be (or the actional counterpart of the statal adjective be). This would account for the fact that these passives take the progressive freely as other actional clauses do. Mental passives (e.g., 16e) might be viewed as clauses with different properties embedded to the statal adjective be.

It has been demonstrated that the be of the passive and of other adjective-like constructions in English acts like a main verb. But this does not necessarily mean that it has to be analyzed as a main verb with the status of other main verbs. An alternative way of viewing the be in question would be to say that it is called in by transformation

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34 The possibility that this is a clause with an unspecified subject is discussed in chapter 5.

35 A similar analysis might be applied to Spanish and German which have a stative be for statal adjective constructions and a nonstative be for passives.
to function in the AUX-like verblike manner described above in all those predicates which do not have a main verb in English (that is, the adjective and noun predicates, e.g., 16a-c). This sort of analysis would be an extension of an early proposal presented by Jacobs and Rosenbaum (1968) by which the copula is created by transformation in those instances where the verb has a -V or + progressive feature, then incorporated into AUX.

Such an analysis would assign less importance to the be than main verb status would suggest: it would be treated as a redundant element.36 The redundance of be is more apparent in languages in which there is no be in copular constructions such as Fred is a man or Fred is ugly (16a) and languages such as Russian and Latin (Lyons 1968:322) in which the be need only appear in such constructions in past tense, presumably just to carry tense. But there is neurolinguistic evidence which suggests that the English be may also be expendable in a way that other verbs are not. Schnitzer (1974) reports that an aphasic subject produced copular sentences without the be in instances in which the be was not needed to carry tense. It would be interesting to know whether or not similar evidence of redundancy can be compiled for the be of passive constructions as well.

But a higher predicate analysis can also account for the redundancy of be. A higher predicate need not always appear in surface structure. The do of Ross's analysis, for example, only surfaces in given contexts.

36 A problem with such an analysis would be accounting for the difference in meaning between a sentence such as John seems sick and John seems to be sick or John feels unhappy and John feels he is unhappy.
In English every surface level clause has to have a "main verb."\textsuperscript{37} So the be can be expected to surface in clauses with predications, such as nominals, adjectives and adverbials, which are not main verbs in English. If the "passivized" verb of the passive clause (e.g., eaten in The roast was eaten by Fred's cat) is regarded as an adjective, it is clear that all of the be clauses discussed in this chapter (i.e., predicate nominal, adjective and adverbial as well as passive: 16a-c) fit this description. One could say then that languages such as Russian and Latin do not have the main verb constraint that applies to English. (Viewed differently, they accept a wider range of constituents as main predicates.) So the be is not required to surface in copular constructions in these languages. If the higher predicate be analysis discussed in this chapter turns out to be valid for languages other than English, semantic considerations may be important in determining where the be does and does not surface in languages without such a constraint. That is, where be carries the least information it may be the most expendable.

If the higher be, as Lakoff and Langacker and Munro suggest, imputes existence to that which is embedded to it, it is almost redundant by definition. Almost, but not quite. If this analysis is extended to copular constructions such as (16a) in which the existence of an equational relationship or an attribute is claimed, the difference between asserting the relationship and asserting the existence of the relationship is negligible. But the passive presents a different sort

\textsuperscript{37}Schnitzer's aphasic subject may be said to have lost this rule.
of contrast. The difference between asserting that an action or process occurs and asserting the existence of an action or process is much greater. Following this line of reasoning, we might expect the be of the passive to surface more often among the languages of the world than the be of statal adjective constructions.

A matter which needs to be explored is the extent to which the languages of the world employ some means of denoting existence or of making a be-do contrast. A form of be or have is a common passive morpheme in a wide range of languages (R. Lakoff 1971:149, Keenan 1975). A related question worth exploring would be the extent to which the be or the have of passive constructions can be identified with the be or have of other adjective-like constructions in languages other than English.
5.1 Is It an Agent Phrase?

The passive by-phrase is often called the passive "agent phrase" or the "agentive by-phrase" (e.g., Chomsky 1970:203, Lyons 1968:296), suggesting that the NP of the by-phrase can always be characterized as semantic agent. To test the accuracy of this characterization it is necessary, first, to define "agent." This is not a simple task. At present, there are various definitions of agent in common use. D.A. Cruse (1973), for instance, examined statements about "agentivity" by several linguists, including, among others, Gruber, Halliday, Fillmore and Lyons, and found considerable disagreement, not only on how the "agentive" relationship is to be specified in a grammar but also on how it is to be defined. It is clear, however, as a starting point, that the term "agent" (or variations on that term) as it is generally used, refers to a case relationship, a relationship between a main verb and an NP within a clause. In this discussion the term "agent" will refer to an NP in an "agentive" relationship with its verb, and the task will be to define that relationship.

Fillmore (1968:24) defined "agentive" as "...the case of the typically animate perceived instigator of the action identified by the verb."¹ And Gruber (1967:943) defined an agentive verb as one whose

¹Cruse (1973:11,12) notes problems raised by the words "perceived" (by whom? for what purpose?) and "instigator." Who, for example, is the instigator in Jim put Mary up to persuading Tom to make Joan strangle the cat?
subject is the "animate" "willful source or agent of the activity described in the sentence." To Cruse (1973:21), agentive is a semantic feature which is "present in any sentence referring to an action performed by an object which is regarded as using its own energy in carrying out the action." Collectively, these three definitions include the qualities or features most typically attributed to the agent case relationship.

Agents are often described as necessarily "animate." Lyons (1968), for example, notes that the agent-nonagent distinction is relevant only to animate nouns. But if agents must be animate, the by-phrase NPs in (1a), for example, are agents while those in (2) are not.

1-a The barn was destroyed by Bill.
   2 The trash can was smashed by the elephant.
   3 Mary was knocked down by Ralph's mother.
   4 The kitten was carried off by the child.

b The barn was accidentally destroyed by Bill.
   2 The trash can was smashed by the elephant when he fell on it.
   3 Mary was knocked down by Ralph's mother as Ralph threw them both off of the porch.
   4 The kitten was carried off by the child in her pocket, though she didn't know it was there.

2-a The barn was destroyed by the storm.
   b The trash can was smashed by that machine.
   c Mary was knocked down by a bolt of lightning.
   d The kitten was carried off by the flood.

One question that can be asked here is whether the by-phrase NPs in (2) are any less "agentive" than those in (1a). It is clear that the NPs (meaning the entities those NPs represent) in question in both groups are responsible for what happened, that they acted (or could have been acting) on their own power, and that they brought about an effect on the subject. By assigning the by-phrase NPs in (1) to the
agent case and those in (2) to another case (e.g., instrument or force) we would lose those generalizations.

There is a distinction which should be made between these two groups, however. While the NPs in question in (1a) presumably acted intentionally, those in (2), being inanimate, are obviously incapable of intention or volition. If volition or intention are to be considered necessary for agency, the by-NPs of (2) should be assigned to a different case. However, if this sort of distinction is made, the by-phrase NPs of (1b) would also have to be classified as non-agents, since their actions are not intentional.

It is also often required of an agent that it be the "causer" of an action. But if agents must be causers, they would be expected to occur only in clauses which indicate causation. Then the by-NPs of (3), clauses which apparently do not imply causation (or do not imply causation by the by-NP) could not be called agents.

3-a The earthquake was felt by everyone in the room.
   b A thousand dollar ransom was requested by Hugo.
   c The lightning was seen by all of us.

Fillmore (1968) required that an agent be the "perceived instigator" of an "action." Although the by-NPs of (3b and c) might be called instigators, these clauses do not imply action. And the by-NP of (3a) is clearly not an instigator.

Another common requirement is that agents act under their own power. Cruse, for example, specifies that agents use their own energy, emphasizing that the source of energy must be within the agent. By this definition, then, a falling rock is not an agent. If this requirement is made, the inanimate by-NPs of clauses such as (4) should not be considered agents.
4-a Mary was struck by a falling rock.
b The car was damaged by hailstones.
c The indentation was made by a bat.

By-NPs such as those in (1 b-2 and b-3) would also be nonagents by this definition even though they are animate since their own internal energy source is not responsible for the action in these clauses. And if this criterion is used to identify agents, the by-NP of (5 a) will be identified as an agent while that of (5 b) will be identified as a nonagent.

5-a The box was crushed by the machine (when we turned it on).
b The box was crushed by the machine (when the machine fell on it).

Another way of distinguishing agents from nonagents was suggested by Gruber (1967) who related agentivity to the lexical item do. An agentive verb (one which takes an agent), he says, is "substitutable in all circumstances by the phrase 'do something'." This would be a test for the do of Ross's analysis. But most passives form very odd do-constructions (e.g., What Fred did was be helped by Sam) and substituting "do something" for passive verbs yields strange results (e.g., 6). So this test would classify many passive verbs or predicates as non-agentive. Even the verbs of the active counterparts of many passives are not substitutable by do something, most notably the statal or Mental clauses (e.g., 7-a and b).

6 Fred was helped by Sam.
   Something was done to Fred by Sam. ?Fred was done something to by Sam.

7-a 1 The gang knew Fred.
    2 Fred was known by the gang.
    3 The gang did something to Fred.

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2 Lyons uses a similar criterion (1968:341).
Some actional clauses with passive counterparts also fail to take this construction gracefully (7-c,d).

So all of the properties usually used as criteria to distinguish agents (e.g., animateness, volition, intention and causation) discriminate against passive by-phrase NPs in certain clauses. Faced with this complication we could give up calling the by-phrases of passives "agent phrases." But passive by-phrase NPs are agent-like enough that the common use of terms such as "agent phrase" for passive by-phrases is rarely questioned. This may be because in spite of this wide variation passive by-phrases do have one property in common. In all passives with by-phrases, the entity denoted by the by-phrase NP is responsible for the state, action or process indicated by the verb and its logical object. (This is true of all the example listed in this discussion, and I know of no exceptions.) In (4a), for example, although the rock did not strike Mary intentionally or on its own power, it was responsible for hitting her. And in (3a), everyone in the room was responsible for feeling the quake (if they had been drunk or unconscious they might not have felt it) although they did not in any sense instigate the quake or intend for it to happen.

One means of capturing this generalization would be to retain the
term "agent" for the NP of the passive by-phrase but to define it as a super-case specification (or "generalized" function in Halliday's sense 1970:149, 197:40) which indicates responsibility and which allows an agent to be subcategorized as a force, an instrument, an intentional instigator, an experiencer, and so forth, depending on the relationships that hold within each different type of clause.

Since case notions are often specified in generative semantically oriented frameworks as features on the verb or as predicates, a possibility within such a framework is to posit the by of the passive as a predicate which imputes responsibility or "agency" in this broad sense to its subject. This possibility will be discussed later in more detail (5.4, 5.5).

The meaning of agency or responsibility which is carried by the passive by-phrase could also be viewed as a property of underlying subjects (Lakoff 1977:249, Keenan 1975). Then if it is assumed that the passive sentence is a simple clause or that it derives from a simple clause embedded to be, the agentive meaning of the by-phrase could be taken as evidence that the passive by-NP is the underlying

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3 E.g., agent:instrument (4-c), agent:experiencer (7-b). It may also be possible for the agent (or responsible participant) to be a patient (agent:patient) as in This shirt washes well or This car steers easily, where the subject is not the actor or doer but a responsible participant nonetheless. (E.g., qualities of the shirt are responsible for its washing well.) See van Oosten (1977).

4 If the by-phrase is analyzed as an outside predicate attached to the basic passive clause (Langacker and Munro 1975), positing a simple agent relationship between Fred and hit, for example, in Bob was hit by Fred would not be possible. In such a case the agency relationship would probably best be analyzed as the relationship between the predicate by and Fred, and Bob was hit would be the receiver (patient or goal).
subject of this clause. But the situation certainly need not be viewed that way. Viewing the agency of the by-phrase NP as a case property imputed by the predicate by does not entail a commitment to the position that the passive by-phrase NP is an underlying subject (which somehow "became" the object of a preposition) and so, for this reason (which will be explained in more detail in 5.4), I prefer to regard it as such a case property.

The differences in case meaning among passive by-phrases (e.g., actor vs. force vs. instrument) may be handled by various types of grammars in a variety of ways. For now it is sufficient that one common element of meaning carried by passive by-phrases has been isolated. This clears the way for an attempt to determine where the by-phrase belongs in an analysis of English passives.

The by-phrase certainly is not an essential part of the English passive sentence. Truncated passives or passives without by-phrases (e.g., 8) occur more frequently in American speech than full passives or passives with by-phrases (Lyons 1968:378, Labov and Weiner 1977, Comrie 1977, Goldman-Eisler and Cohen 1970). And the by-phrase may be deleted from any English passive\(^5\) without rendering the sentence ungrammatical.

8 Lefty was murdered.

But the question of whether or not an agent is an essential part of the English passive is a separate issue.

\(^5\)It was noted in chapter 3, however, that some Mental passives with nontopic subjects are semantically anomalous (e.g., ??A rat was seen) or marked. Such sentences are interpretable but odd.
5.2 The Underlying Agent

Freidin (1975) proposes a lexical interpretive analysis of the English passive construction by which the passive is generated directly by PS rules. Within this system there is no need for a passive transformation. The passive and active forms of a given predicate are listed together in the lexicon in an entry which specifies differences in syntactic category, strict subcategorization and selectional restrictions between the two and which specifies their semantic "synonymy." Selectional specifications for the verb send, for example, would be listed as a set of case frames (9) which interpret the constituents immediately preceding and following the verb in terms of semantic functions.

9 V-Active: (SOURCE THEME)
V-Passive: (THEME SOURCE)

In this system the passive construction is analyzed as an adjective (AP) and the by-phrase is regarded as a prepositional phrase (PP). Prepositional phrases are optional in adjective constructions, and the lexical entry for a passive predicate indicates that the by-phrase of the passive construction is optional just as prepositional phrases are optional for other adjective predicates (10).

10 ROOT (Phonological Representation)
Semantic Representation: .......
Item: V-Active: (+ NP) ; ...
        V-Passive: (+ (PP)); Mpass; 

Mpass represents the morphological rule which generates passive forms (Freidin 1975:395).
The selectional frame given for send, for example (9), specifies that when an NP (within a by-phrase) does follow sent in a passive construction this NP is to be interpreted as having the function SOURCE. But this NP is optional.

I would question the simple synonymy between the active and the passive which this analysis appears to imply, and I would question the capacity of Freidin's grammar to make the kinds of generalizations which would be needed to explain relative compatibility among various predicates with the passive construction, but the problem with this analysis which is most relevant to the present discussion is that while it allows for the interpretation of the NP in a by-phrase as an agent it does not allow for the presence of an underlying agent in the truncated passive.\(^7\) There is reason to believe, however, that an agent is essential to passive constructions and that although it may not be specified it is always conceptually present in English passives. This is best illustrated by comparing passives with statal perfectives.

Most passives, as noted earlier, are actional (+ progressive) constructions whereas statal perfectives are statal (- progressive). There are other important differences between the two. As the following examples (11) illustrate, statal perfectives do not take by-phrases nor do they take manner adverbials. Passives, by contrast (e.g., 12), do take both by-phrases and manner adverbials.

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\(^7\) Freidin specifies that the passive verb is synonymous with the active verb (which does demand two NPs) but he also specifies that the purpose of the case frame marked on the verb is to interpret NPs. In the truncated passive there is no second NP to interpret, hence no underlying agent.
11  

**Statal Perfectives**

a The door was shut (and inconvenient).\(^8\)
   *The door was shut (and inconvenient) by Fred.
   *The door was shut (and inconvenient) with great enthusiasm.

b The building was (old and) neglected.
   *The building was (old and) neglected by the manager.
   *The building was (old and) neglected on purpose.

c The old lady was wounded (and sick).
   *The old lady was wounded (and sick) by the arrow.
   *The old lady was wounded (and sick) maliciously.

d The chair was damaged (and dirty).
   *The chair was damaged (and dirty) by the rain.
   *The chair was damaged (and dirty) easily.

12  

**Passives**

a The door was shut.
   The door was shut by Fred.
   The door was shut with great enthusiasm.

b The building was neglected.
   The building was neglected by the manager.
   The building was neglected on purpose.

c The old lady was wounded.
   The old lady was wounded by the arrow.
   The old lady was wounded maliciously.

d The chair was damaged.
   The chair was damaged by the rain.
   The chair was damaged easily.

One explanation for this is that while a statal perfective denotes the state of its subject (and thus generally involves only one participant) a passive denotes the existence of an action or process—one which involves at least two participants.\(^9\) For (12 a)-(12 d) to indicate

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\(^8\)Again the statal perfectives, which would ordinarily be ambiguous between statal and passive interpretations, had to be disambiguated by being conjoined with known statal adjectives.

\(^9\)Hasegawa assigns an underlying subject to the statal perfective then deletes it obligatorily. This seems to be an unnecessary complication since this subject is the NP of the by-phrase, and statal perfectives with by--phrases do not occur. There is no evidence of this subject.
action, it must be understood that there was a participant (animate or inanimate, singular or plural) which performed the action. Manner adverbials such as those added to (12) tend to pick out agents. So for (12 a), where no agent is specified, we could ask who the enthusiastic one was. We can assume it was not the door. Similarly, in (12 b-d), on purpose, maliciously and easily do not describe the manner in which the building, the old lady or the chair acted. There has to be another understood participant in these sentences. If there were not, the manner adverbial would not apply to these constructions. Adding an appropriate manner adverbial to a truncated English passive adds substance to the intuition that within the meaning of these constructions there is a hidden participant: one which is not identified but which is, nevertheless, essential to the meaning of the sentence.

Halliday (1970:151), as noted in chapter 3, draws a distinction between Middle clauses which have only one inherent participant and Nonmiddle clauses which have more than one, and he specifies that the passive option is available only through Nonmiddle clauses. Although a Nonmiddle clause may have two inherent participants, one or the other of these may not be "actualized"—it may not actually appear in the clause although it will be present conceptually. In a passive clause it is the underlying agent that may not be actualized.

Most transformational analyses of the passive do include some sort of subject marker in the underlying structure of the truncated passive, then delete it for surface structure. Often this constituent is a semantically empty node (e.g., Emonds 1970, discussed in Freidin 1975) or a place holder. But as (12) illustrates, the hidden participant of
the truncated passive is real—it is semantically present in the clause. There is a danger, however, in trying to specify it with a pronoun (e.g., someone or something) in a by-phrase (Chomsky 1964:71), as (13) illustrates10 (Leskosky 1973). It is probably best represented, as Langacker and Munro have suggested (1975), as an unspecified (but not empty) NP in underlying structure.

13 a Radicals are being elected to public offices all over the world. (By someone? something?)
   b England was defeated. (By someone? something?)
   c I want to be left alone. (By someone? something?)
   d Mary was hit. (By someone? something?)

Analyses which posit "someone" or the like as the underlying subject of the truncated passive are often motivated, in part, by a desire to find a corresponding active for every passive. In English, however, there is no corresponding active for the truncated passive. Active constructions with unspecified subjects are not allowed.

If the NP of the passive by-phrase is an agent and the underlying unspecified participant of the truncated passive is an agent, a question which could be asked (but rarely is) is whether or not these two agents are to be analyzed as the same underlying constituent. Within generative transformational theory it is generally assumed that the unspecified participant of the truncated passive corresponds to the specified by-NP of the full passive, and that both should be analyzed as the underlying subject of the basic passive clause (e.g., x in 14-a or 14-b).11

10(13-a) and (13-c) are from Leskosky 1973.
11(14-a)(adapted) is from R. Lakoff 1971. (14-b) is from Chomsky 1965:129.
This assumption allows the same transformation to derive truncated and full passives. And analyzing the NP of the by-phrase as the underlying subject of the basic passive clause allows the same presuppositional or selectional restrictions to apply to a string such as (15-a) and one such as (15 b), accounting for the fact that both are anomalous for the same reasons.

15-a  ?The window drank the tractor.
    b  ?The tractor was drunk by the window.

But as attractive as such a proposal is, analyzing the NP of the by-phrase as the underlying subject of the basic passive clause may not yield an accurate description of the English passive.

5.3 Langacker and Munro

Langacker and Munro, in independent studies of Uto-Aztecan and Yuman (Mojave) data, found evidence to support an analysis of passive constructions as clauses with unspecified (though semantically present) subjects embedded as subject complements to the predicate be. Their analysis differs from Lakoff's and from previous analyses in that the underlying subject in the embedded clause is always unspecified. The
agent phrase (in English, the by-phrase) which is rare in Uto-Aztecan and Mojave, is said to derive from an outside source: it is not an intrinsic part of the passive construction. By the analysis they propose for English, the NP which appears as the object of by in surface structure is also the object of by in underlying structure. By, they suggest, may be an underlying predicate which imputes agency to its object, and the by-clause is analyzed as a separate clause conjoined to the basic passive clause.

Langacker found no evidence that the agent phrase or by-phrase is an inherent part of Uto-Aztecan passives. The by-phrase is rare in some Uto-Aztecan languages and it is not found at all in others. He also found that the postpositions of the agent phrases he did find are "very dissimilar in form and in fact bear no historical relationship to one another." Although a basic Proto Uto-Aztecan passive construction could be reconstructed in a straightforward manner, he found that "there is no no-arbitrary way to reconstruct an agentive phrase as part of this construction." (1975:797) Synchronic evidence supports a similar analysis for Mojave.

Support for a claim that the agent phrase is not an inherent part of the basic, universal passive can be found in the Greek passive (Warburton 1975:572) which employs a preposition with a meaning different from that of the English passive by. Warburton notes that in those very rare instances of passives with agent phrases, the preposition generally used is apo, of which she notes: "This Modern Greek preposition expresses movement from, source and cause and thus it accommodates more naturally indirect than direct
agency." (1975:573) This can be contrasted with the English *by* which might be said to have brought in from outside the passive the meaning of means and of instrument and which, at any rate, most often expresses direct agency.

Langacker and Munro suggest, tentatively, that an analysis of the basic passive construction as a clause with an unspecified subject embedded to a "stative-existential" predicate *be* with the object of the lower clause moved to surface subject position be extended to other languages. They note that "there is no necessary relationship among these properties; and while there are constructions that display all these properties and may therefore be regarded as prototypical passive constructions we may also recognize the existence of 'semi-passive' constructions which combine two of these properties but lack the third."

Langacker and Munro suggest two possible analyses for the English passive which correspond to a true or "prototypical" passive construction (17) and a "semi-passive," a copular construction with a specified underlying subject (18). They suggest that the full passive with the by-phrase attached might have the underlying structure (19).

17

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  S
 / \       Fred was strangled.
 V    N
 be  S
 V    N
 strangle  \   Fred
```

Fred was strangled by Hugo.

(17) is a very attractive possibility as an analysis of the basic English passive for several reasons. First, an analysis of the basic passive should account for the fact that the truncated passive is far more common in American usage than the full passive (Lyons 1968:378, Labov and Weiner 1977, Comrie 1977:47, Jespersen 1924:168), that it has been observed to occur before the full passive in child language (Harwood:1959, Braine 1971), and that it has been associated with better performance in a variety of psycholinguistic tasks (Hayhurst 1967, Slobin 1968). Furthermore, a universally valid analysis of the

12(18) might also be considered, especially for the statal (Mental) passives which, as noted in Chapter 3, appear to be more closely tied to their agents than actional passives.
basic passive construction must account for the fact that in many languages, including Latvian, Machiguenga, Hungarian, classical Arabic, and Maninka (Keenan 1975:340,341), passives include nothing which corresponds to the English by-phrase. Lyons (1968:378) notes that it is, in fact, unusual among languages which have passive constructions with by-phrases for the by-phrases to occur even as frequently as they do in English. Langacker and Munro's analysis, by which the basic, unmarked passive has no by-phrase and the by-phrase derives from an outside source accounts for these phenomena.

A comparison of English actives and passives supports Langacker and Munro's analysis of the passive by-phrase as an added construction which is not the underlying subject of the basic passive clause. The NP of the by-phrase is separable from the passive clause in a way that the subject of the corresponding active is not. There is, for example, no unambiguous active counterpart for (20 a-1) or (20 b-1).

20-a 1 John was killed but not by Mary.
2 Mary didn't kill John.
3 John wasn't killed by Mary.

b 1 She was surprised especially by Fred.
2 Fred especially surprised her.
3 Fred surprised her especially.

Granted, (20 a-1) and (b-1) cannot be compared directly with sentences such as (20 a-2) and (b-2) because the former have to be derived from more than one clause--but that is the point.

An analysis of the English passive should also account for the second participant of the truncated passive which is an important part of the meaning of the sentence (e.g., 12) though it is not specified (e.g., 13). By this analysis it is this hidden participant which is
the underlying subject of the basic passive clause, and it is semantically present though unspecified.

In Langacker and Munro's analysis both truncated and full passives have the underlying unspecified participant. But in the full passive, this unspecified participant is usually identified by implication by the by-phrase NP. The sense of Fred was strangled by Hugo, by this analysis, is that Fred was strangled and it was by Hugo that Fred was strangled. Hugo is, in other words, responsible for Fred's having been strangled. Evidence that the by-phrase NP, when it does occur, does not always identify (by implication) the unspecified participant of the basic passive clause would provide strong support for this analysis. Perhaps (21) provides such evidence.

In these examples, the one who acted maliciously, on purpose, carefully or intentionally remains unspecified, and this participant is not coreferential with the NP of the by-phrase.  

13 In English the implication is usually that the by-NP is directly responsible for what is stated in the passive clause. As Warburton (1975) noted, the by-NP of the Greek passive is often indirectly responsible, as in ο νίκος σκότωσε από απερεία (Nick was killed through negligence).

14 These particular examples may not be widely acceptable. But the idea here is simply to have an inanimate NP in the by-phrase which can be contrasted to the unspecified underlying subject (which must be animate in order to take a manner adverbial). My point is that it is only by implication that the by-NP and the underlying subject are coreferential.

15 In these examples, the by-phrase NPs may be called agents in the broad sense, since they are responsible for the event specified by the verb and its logical object (e.g., the tractor is responsible for The old lady was injured). Agent:instrument would be a more precise specification of their role. If the full passive derives from two underlying clauses, it could be said to have two agents, one in each clause, one of which is specified, the other unspecified. The agent of the by-clause is always specified. In the examples above
21 a The old lady was injured maliciously by a tractor.
b She was run over by a car on purpose.
c The tank was covered very carefully by branches.
d He was intentionally inconvenienced by this "computer error."

In Langacker and Munro's analysis the only specified NP of the basic passive clause is the underlying object. Since English is a language which requires sentences to have surface subjects, it is natural in English that the one specified NP is moved to subject position. The beauty of such an analysis can only be appreciated fully by examining the alternatives available through other analyses.

5.4 Other Analyses

Chomsky (1970:203) posited an underlying structure, NP-Aux-V-NP–byΔ, for passives, specifying that by Δ is an "agent phrase"16 which is related to adverbials of means and manner. The passive operation in this proposal consists of two transformations which can apply independently.18 The first, which he calls "agent postposing," moves the subject NP to fill the Δ slot in the by-phrase, and the second, "NP Preposing," then inserts the underlying NP following the verb in the position vacated by the subject. By this analysis, then, when

(footnote 15 continued) (21), the one who acted maliciously, on purpose, carefully or intentionally would be the unspecified subject of the lower clause, e.g.:

V NP \\ NP
injured Δ the old lady

16 See fn. 19, Chapter 3.
17 Chomsky (1970:204) notes that the operation may be generalized to apply to nominals as well as sentences.
an underlying subject is specified it becomes the object of by in the passive and the underlying object becomes the surface subject. These processes are triggered by the underlying passive marker in deep structure.

Lakoff, Ross and Postal (R. Lakoff 1971), as noted above, did a better job of accounting for the semantic and distributional properties of the passive be. But they also attributed to this be some strange powers. By their analysis, a clause is embedded as a subject complement to the higher predicate be (See pp. 89-91) and this be triggers a process whereby the subject and object in the lower clause are switched and the new subject is raised. The former subject of the lower clause appears as the object of by in surface structure.

Neither of these analyses is completely convincing. It is hard to believe Lakoff, Ross and Postal's claim that embedding to be triggers a quite radical change in that underlying clause. For the full passive an NP which started out as a perfectly good subject is inexplicably moved to a position at the end of the sentence following by (a preposition which appears as a result of embedding to be) and a direct object is moved to subject position. One question which could be asked is how embedding to be does all this. And another question we could easily ask is why.

One honest answer to the "why" is that this sort of finagling is necessary in order to preserve a transformational analysis of the passive. Ever since Chomsky's Syntactic Structures demonstrated that Sincerity is admired by John could be derived from the same underlying structure as John admires sincerity, there have been those (myself
included) who were willing to allow the passive transformation some fairly radical grammatical manipulations in order to preserve this analysis or some remnant of it. This sort of frame of mind can even allow one to accept a linguist's claim that a subject can be converted to the object of a preposition by embedding its clause to be.

Perhaps the major virtue of passive transformation and the one which inspires the most loyalty is that it allows one set of selectional restrictions to apply nonredundantly to a pair of sentences such as (2:3).

If we accept the Langacker and Munro analysis there is no passive transformation. This avoids the problems involved in trying to "demote" an underlying subject to the status "object of a preposition." But they appear to lose, in the process, the advantage of being able to show that the same selectional restrictions apply to both the by-NP of the passive and the subject of its corresponding active. (Since their passive subject is the underlying direct object of the basic clause it creates no new selectional problems.) But, as Langacker and Munro note, they do not necessarily lose anything of importance (1975:816): "selectional restrictions, it is now generally agreed, amount to nothing more than semantic congruence; and judgements of semantic congruence must take into account the sentence as a whole." (See also Jackendoff 1972:1821, Lakoff 1971b.) So even if the object of by is not derived from an underlying subject, the necessary selectional restrictions will still be correctly imposed. By, he notes, is a predicate which imposes selectional restrictions of its own: "This predicate states a relationship between a nominal and a preposition and imputes agency (or similar 'case' relations) to the nominal; under any reasonable
analysis of *by* therefore, a sentence will be semantically anomalous if the nominal is one that is incapable of agency or responsibility with respect to the proposition" (1975:818).

5.5 What is the *By*-Phrase?

As (19) illustrates, Langacker and Munro suggest that the *by*-phrase may be analyzed as a clause conjoined to the basic passive clause. This proposal requires that the whole passive clause must be duplicated so that it can be subordinated to *by*, then deleted for surface structure. There may be a better way to analyze the *by*-phrase as an outside clause.

I am inclined to agree with Chomsky (1970:203) that the passive *by*-phrase is very similar to certain adverbials. It cannot be analyzed felicitously as an adverbial of time, place or manner because, as (22) illustrates, it can be combined noncoordinately with all three. It is not semantically similar to adverbials of time, place and manner anyway.

22 (time) a Fred was slugged by Hugo at three o'clock.  
(place) b Fred was slugged by Hugo on 35th Street.  
(manner) c Fred was slugged by Hugo with great enthusiasm.

It is, however, similar to another class of adverbials illustrated by (23) which are sometimes called adverbials of means.

23 a Through some miracle, Fred became a general.  
    b We met Lillian Carter at the gas station by chance.  
    c She finally passed her comps, by the grace of God.

The apparent scope of these adverbials is the whole clause to which they attach. Unlike that of modals, negatives and quantifiers, the scope of an adverb is not indicated by its surface structure position.
An adverb such as by chance in (23 b), for example, may be moved to any of at least three positions in the sentence without changing its scope. The semantic scope of the passive by-phrase, like that of the adverbials in (23), appears to be the whole clause it attaches to. So the kinds of selectional or presuppositional constraints that would mark hypotenuse as anomalous in (24 a) should be able to mark hypotenuse as anomalous in (24 b).

24 a ?Through the hypotenuse the chair was spoken.
    b ?The chair was spoken by the hypotenuse.

Lakoff (1970b:156,157, 1970a:169) has argued that the scope of some adverbials may be accounted for by positing them as predicates of higher sentences, as illustrated in (25). (See also Lakoff 1971: 258).

25

```
  NP  S
  it  I beat my wife
       S

  VP
  V
  [-V [+Adj in

  NP
  the yard]
```

I beat my wife in the yard.

And it is possible that something similar to (25) might be appropriate for the by-phrase of the English passive.

(26) is proposed as one possibility to consider. The by of this analysis is to be understood as a predicate imputing responsibility to its object (Hugo).
Fred was strangled by Hugo.

If the English passive by-phrase is to be analyzed as an adverbial, however, there must be an explanation for the fact that it cannot be moved around freely to various positions in the sentence as time and place adverbials can and the fact that unlike other adverbials it is apparently restricted to passives or to constructions such as (27) which are amenable to an analysis as surface realizations of underlying passive constructions (cf. Chomsky 1970:203).

27 a The destruction of the city by the enemy was unfortunate.  
    b The book is by Mark Twain.

Jackendoff (1972:105) notes that manner adverbials (e.g., 28a) are more restricted in sentence position than time and place adverbials are (e.g., 28b). Adverbials of means are also more restricted than those of time and place (28 c). And as (29) illustrates, the restrictions on the passive by-phrase appear to be no more stringent than those on adverbials of means or manner.

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18(27 a) The destruction of the city by the enemy is from Chomsky (1970:203).
28 a-1 She was beaten maliciously when the telephone bill arrived.
2 *She was beaten when the telephone bill arrived maliciously.
3 ?Maliciously she was beaten when the telephone bill arrived.
4 *Maliciously when the telephone bill arrived she was beaten.

b-1 Millie screamed last night at the party.
2 At the party last night Millie screamed.
3 Millie screamed at the party last night.
4 Last night at the party Millie screamed.

c-1 She found the locket by chance when she was cleaning.
2 ?She found the locket when she was cleaning by chance.
3 By chance she found the locket when she was cleaning.
4 ?When she was cleaning by chance she found the locket.

29 a She was kicked by Fred after the football game.
 b She was kicked after the football game by Fred.
 c ?By Fred she was kicked after the football game.
 d *After the football game by Fred she was kicked.

It is worth noting that in a construction such as (29c) the information structure functions of the passive construction, focusing on the agent (marking it as new information) and topicalizing the object would be lost. These functions associated with the passive construction may be one force that has held the passive by-phrase in its postverbal position.

The observation that the by-phrase of responsibility is apparently restricted to passives or to sentences which could be analyzed as passives at some level may reflect an inclination to interpret as passives sentences which simply share some semantic properties with passives. (The underlying structures of 27 and 30 a-c, for example, may not include passives, but the by-phrases

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19 assuming unmarked or neutral tonic.
of these constructions may well be the by-phrase of the passive.) Viewed in this light, the restriction of the passive by-phrase to sentences which are passive-like is not an unusual one since there must naturally be semantic restrictions on the use of all adverbials.

30 a She underwent tests by five different specialists.  
   b Alice had three children by Franklin.  
   c The interpretive dance by Mrs. Wilson was the highlight of the evening.

\[\text{noted in R. Jacobs (forthcoming)}\]
CHAPTER VI
INFORMATION STRUCTURE AND THE PASSIVE OPTION

6.1 Introduction

It has been noted in each of the preceding chapters that there is no simple relationship between active and passive constructions. The fact that an active construction with two NPs and a "passivizable" verb (one which sometimes functions as a well-formed passive predicate) is a well-formed sentence, for example, is no guarantee that its passive counterpart will be equally well-formed. As noted in chapter 3, the "passivized" verb functions more in the manner of an adjective than a verb: it is not inflected as a verb but retains the same past participle form regardless of tense, number, modal and aspectual variations in the sentence. Be functions as the main verb in passive clauses. By contrast, the verb corresponding to the "passivized" verb in the active counterpart functions fully as a verb, and the active clause does not have the be. Semantic contrasts related to the adjective-like properties of passive predicates were noted as well. In chapter 5, evidence supporting an analysis of the passive by-phrase as a separate predicate which is not an intrinsic part of the basic passive construction was presented. There is, on the other hand, no compelling reason to suspect that the subject of the corresponding active is not an intrinsic part of the English active construction.

In summary, then, the passive is quite a different animal from its active counterpart. All of these observations call the notion of a passive transformation (that is, one which converts an underlying
structure which is essentially that of the corresponding active plus some passive marker) into serious question.

Since the reasons for the existence of passive constructions, their linguistic functions in any language, can only be explained in light of such differences, in light, that is, of the special properties of passives, linguistic theories which seek to minimize differences between actives and passives obscure an important area of linguistic investigation. In this chapter these differences and differences among passive predicates will be considered in relation to grammar theories and their capacity to account for systematic relationships between meaning and surface structure. Relative markedness among passives will be examined in light of the special functions of passives in discourse.

6.2 Differences Between Actives and Passives

Simple derivational analyses of the passive, such as Chomsky's Syntactic Structures model, have now largely given way to analyses which specify some sort of underlying difference between the passive and its active counterpart. Still, however, it is commonly assumed that underlying every full passive there is what is essentially a simple active clause; that underlying Alice was hit by Fred, for example, there is a clause in which Fred is the subject and Alice is the direct object. Most proposals which include a passive transformation are based on this assumption. But if, as Langacker and Munro's evidence suggests, the basic passive clause has an unspecified subject and the agent phrase derives from an outside source, there is no active counterpart for the English truncated passive and the full passive
does not derive from an underlying structure which is essentially that of a simple active clause with a specified subject. If such an analysis can be applied to English, then, actives and passives in English are quite different constructions and there is no English active construction which corresponds directly to a passive construction. If this is the case, the task of analyzing the passive is to describe the passive construction—not to try to relate it by transformation to an active.

The assumption that there is a direct active-passive connection is based primarily on the meaning the passive and its active counterpart share. So an important question in analyzing passives is how similar the two actually are semantically. If the two are synonymous the grammar should account for this synonymy. If they are not, theories connecting the two by transformation must account for their differences. And if actives and passives consistently share only certain properties of meaning an analysis of the passive should account for those shared semantic properties.

In *Aspects*, Chomsky assigned the active and its passive counterpart the same underlying structure with the exception that the passive construction included a marker which triggered the passive transformation. Meaning, within this system, is totally derivable from deep structure, so, presumably, any differences in meaning between actives and their corresponding passives must be attributed to that deep structure passive marker. But no meaning was formally assigned to the marker. And in *Aspects* (1965:224) Chomsky himself observed, ominously, that *Everyone in the room knows at least two languages*, and its passive
counterpart. At least two languages are known by everyone in the room
differ in more than the active vs. passive relationship. At the time,
he suggested attributing this meaning difference to "an extraneous
factor--an overriding consideration involving order of quantifiers in
surface structures--that filters out certain latent interpretations
provided by the deep structures." Later, however, acknowledging data
such as (2) (from Jackendoff 1972), passives whose active counterparts
do not carry the same meaning, he was to change his theory to acknowledge the importance of surface structure (Chomsky 1971:213):

1  ...such matters as focus and presupposition, topic
   and comment, reference, scope of logical elements,
   and perhaps other phenomena, are determined in
   part at least by properties of structures...other
   than deep structures in particular, by properties
   of surface structure.

So by this new proposal, meanings were to be derived from surface structures as well as from deep structures.

2 a-1 The target was not hit by many arrows.
   2 Many arrows didn't hit the target.

b-1 Many arrows were not bought by John.
   2 John didn't buy many arrows.

c-1 Not many arrows were bought by John.
   2 John bought not many arrows.

If the major purpose of the passive transformation in the Aspects
model was to account for a paraphrase relationship between active-
passive pairs (by forming the formal link between their very different
surface structures and those deep structure--hence meaning--properties
they held in common) the deep structure passive marker of unknown
semantic effect obscures this purpose. And the 1971 theory obscures it further. It leaves no means of determining exactly which aspects
of meaning are to come from deep structure, which from surface structure and which from something between the two.

Examples (2) illustrate active-passive differences related to the scope of quantifiers and negation. Lakoff (1971a) analyzed quantifiers and negation as predicates and accounted for scope in terms of phrase structure dominance as well as surface structure order. The difference between (3 a) and (4 a), for example, would be represented as the difference between (3 b) and (4 b) (Lakoff 1971a:239).

3-a Many men read few books.
   b

4-a Few books are read by many men.
   b

It has been established so far that not all active-passive pairs are synonymous. Examples such as (2), (3), and (4), which involve
quantifiers and negation provide evidence of one type of active-passive difference. But examples of active-passive pairs without these "logical elements" which differ in interpretation in other respects are not difficult to find.

**Action**

5  
\begin{align*}  
& \text{a-1 That baby smashed the crate.} \quad \text{b-1 The crate was smashed by that baby.} \\
& \text{2 Hugo ridiculed Inga.} \quad \text{2 Inga was ridiculed by Hugo.} 
\end{align*}

6  
\begin{align*}  
& \text{a-1 The dog slept in my bed.} \quad \text{b-1 My bed was slept in by the dog.} \\
& \text{2 Emily sat on the balloon.} \quad \text{2 The balloon was sat on by Emily.} 
\end{align*}

**Mental Process**

7: Reaction  
\begin{align*}  
& \text{a-1 The clown frightened the child.} \quad \text{b-1 The child was frightened by the clown.} \\
& \text{2 The clown surprised the child.} \quad \text{2 The child was surprised by the clown.} 
\end{align*}

8: Sensory  
\begin{align*}  
& \text{a-1 The detective saw Mary.} \quad \text{b-1 Mary was seen by the detective.} \\
& \text{2 Al heard Mary's singing.} \quad \text{2 Mary's singing was heard by Al.} 
\end{align*}

9: Cognitive and Evaluative  
\begin{align*}  
& \text{a-1 Everyone knew Fred.} \quad \text{b-1 Fred was known by everyone.} \\
& \text{2 The customers liked Al.} \quad \text{2 Al was liked by the customers.} 
\end{align*}

\footnote{\text{Catlin and Micham (1975) found that subjects asked to judge the scope of quantifiers in doubly quantified sentences generally agreed that the first quantifier includes the second within its scope. They also found that for ambiguous sentences (e.g., Every man knows some woman and Some woman is known by every man)and for unambiguous sentences as well, actives were interpreted differently from corresponding passives.}}
In (5)-(9) we can note, first of all, that semantic differences between corresponding actives and passives are not consistent across these diverse types of predicates. As noted in chapter 3, active-passive contrasts as well as differences in markedness among passives depend on interaction between predication properties and properties of the passive construction, and properties of predicates vary. (6 a), for example, expresses an ambiguity which (5 a) does not express. (6 a) could be an intransitive which describes where the dog slept (in which case in the bed would be a locative phrase) or a transitive which describes something the dog did to the bed (which would imply an effect on the bed, e.g., rumpled covers, dog hairs, paw prints). The passive (6 b) would correspond to the second interpretation only, whereas the corresponding active would generally favor the first interpretation. As noted in chapter 3, an ambiguity between an interpretation which implies an effect and one which does not is often found in active Mental:Sensory predicates such as (3 a), the active generally favoring the no-effect interpretation, the passive favoring the effect interpretation (8 b). (7) and (5), on the other hand, do not appear to suggest this sort of ambiguity. In (7 b) as in (5 b) there is the suggestion that the passive surface subject (or properties of this subject) is in some way partially responsible for its fate, whereas the actives (7 a) and (5 a) do not suggest this interpretation. (Following each with "Really? Why?" highlights this contrast.) This is not true, or not so clearly true of (6), (8) and (9). These are simply informal observations derived primarily from my own\textsuperscript{2} intuitions.

\textsuperscript{2}somewhat suspect, considering my overexposure to passives
They do, however, suggest that active-passive semantic differences are not constant across predicate classes. This observation, along with those enumerated in section 6.1, casts doubt on the value of any simple unitary treatment of active-passive differences such as a transformation or a set of transformations designed to relate passives to actives.

There is, furthermore, as noted in chapter 1, reason to doubt that a universal passive transformation can be found. Keenan (1975), for example, in his study of corresponding active and passive constructions in over thirty languages, has found that there is "no universally valid structural definition of PASSIVE" (where PASSIVE refers to a transformation which links passives with their corresponding actives).

However, a search for universal characteristics of basic passive constructions, without reference to a passive transformation, may be more fruitful. Such a description should still offer a means of accounting for whatever meaning corresponding active and passive constructions share as well as for predictable semantic or functional differences.

Clearly, the English passive construction (10 b) and its corresponding active (10 a) share three lexical items: Fred, helped and A1. This alone would account for many of their shared semantic properties. In most analyses of the English passive (e.g., Chomsky 1970, Hasegawa 1968, Lakoff 1971a, Langacker and Munro 1975), the passive subject is at some underlying level the verb object. If the analysis of the passive indicates that the relationship between helped and A1 is at an underlying level an object
relationship for both the passive and its corresponding active, this would account for further shared meaning. And if Fred is the agent in (a) and by in (b) is a predicate which imputes agency (or responsibility for Al is helped) to Fred, this may well be sufficient to account for the remaining similarity between the two constructions.

10 a Fred helped Al.
   b Al was helped by Fred.

If it can be shown that certain properties which are unequivocally in the domain of underlying direct objects are properties of English passive subjects and that passive surface subjects do not have properties which are assigned exclusively to underlying subjects, an analysis such as Langacker and Munro's (19, ch. 5), in which the passive subject is the underlying direct object is a plausible description of the basic English passive. But if it can be shown that passive surface subjects have properties which belong exclusively to underlying subjects, an analysis such as Hasegawa's (25, Ch. 4), revised to show an unspecified subject in the longer clause) or Langacker and Munro's (18, ch. 5), in which the passive surface subject originates as an underlying subject, may be preferable. By such analyses the passive surface subject is the underlying object of the lower clause as well as the underlying subject of the higher be clause. For such analyses, nothing resembling a passive transformation is necessary.4

I suspect, however, that although these descriptions may

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3or (26), chapter 5

4See Hasegawa 1968 for a discussion of the transformations which would be required to derive the correct surface structure.
approximate a valid description of the basic English passive, they may bear only a very abstract relation to the universal passive or to that which is common among a variety of passive-like constructions. These descriptions apply only to underlying structures, which is appropriate since great variation in the surface structures of passives is certainly to be expected. Not all languages, for example, require that every sentence have a surface subject (Keenan 1975:347), and not all surface subjects share all the functions of English surface subjects (Schachter 1977). So although an accurate description of English passives may specify that an underlying object takes subject position and takes on other properties associated with English surface subjects, such a specification could not be expected to be universal. But we also have to bear in mind that the properties of underlying subjects and direct objects are not well defined. There is nothing certain at this point, for example, about where the line is to be drawn (or whether a line should be drawn) between underlying (understood or logical) subject properties and properties of surface subjects, or between underlying subject properties and agent properties which bear no necessary connection to underlying subjects.

However, allowing for a variety of passive constructions (within languages as well as across languages), it is still possible that universal passive characteristics or, at least, universal tendencies in passives can be defined. A widely observed property of passives (Perlmutter and Postal 1975, Keenan 1975, Warburton 1975, Langacker

\[^5\] cited in Keenan 1975
and Munro 1975) is a nominal with direct object properties (an under­
lying or understood direct object) which is in some way brought into
prominence, e.g., by taking on surface subject properties such as
subject position, marking and/or agreement. A possibility worth
exploring is whether or not these properties might be described best
across languages as topic properties. In English passives it is
apparently the case that where there is an overtly-stated topic NP
(an NP which identifies "what the sentence is about") it is generally the
object (which in English surfaces as the passive surface subject). Other
possibilities for defining passives in terms of information structure
will be considered in the discussion of functions of the passive in
discourse which follows.

6.3 Context

Halliday envisions semantics as a system of networks which
"describe the range of alternative meanings available to the speaker
in given social contexts and settings." These networks form a bridge
between the social system and the grammatical system. When the speaker
makes a semantic choice, this choice in turn "pre-selects" his avail-

It was noted in chapter 1 that a part of the theoretical framework
of this discussion is derived from Halliday's (1973) theory of the
relationship among three sets of options which he identifies as the
major functional components of the grammar: the ideational function,
which is concerned with content and which includes the transitivity
system, the system of roles and processes described in chapter 3; the
interpersonal function, which makes modality distinctions (e.g., questions vs. statements), which identify the speaker's role in conversation; and the textual function, which "expresses the structure of information and the relationship of each part of the discourse to the whole and to the setting" (1973:41). The function of language which Halliday identifies as the textual function is the major concern of this chapter.

According to Halliday, these three major functions, the ideational, the interpersonal and the textual, are the major components of meaning in language, and the form of language is determined by these functions. Naturally the interrelationships among these options are extremely complex; consequently, his system in its present form could not provide a thorough analysis (comparable to a derivation) of a clause in a complex setting (1973:92). The principal value of his work does not lie in the mechanical workings of derivations, however, but in the insights which have emerged from a study which takes a broad view of English clauses, expanding beyond functional relationships within clauses to functions in discourse.

In surface structure, Halliday notes, the thematic structure of the clause, its division into a **theme** (that which comes first in the clause and which is usually, but, as Gumperz has pointed out, not always the topic of the sentence) and **rheme** (the remainder of the clause) is one expression of the textual function of the clause. Another is the informational structure of the clause, its division into that which is "given," presupposed or derivable from the preceding discourse (usually, though not always, the first part of the
clause), and that which is "new," the information focus. (Gundel notes
that there is an inherent relationship between the assignment of topic and
that of given and new information, the gopic being associated with the
presuppositions, i.e., given information, associated with the sentence.)
As noted earlier, the tonic (main stress) generally marks the end of the new
information, and in the unmarked case this new information comes at the end
of the sentence. The related systems of thematic structure and information
structure (both regarded in this discussion as manifestations of
"information structure") are a speaker's means of structuring discourse
"to ensure its interpretation along predicted lines," and to relate
the clause to its context (1967:37). In a simple active clause such
as (11), the theme, the actor and the modal (logical) subject are the
same (Fred in this example) whereas in a passive clause, while the
theme and modal subject are identical (rock in 11 b), the actor is a
separate participant (the by-phrase NP).

11 a Fred threw the rock.
b The rock was thrown by Fred.

Halliday sees this separation as a primary reason for choosing or
"opting for" the passive construction (1970:161):

...theme, actor and modal subject are identical unless
there is good reason for them not to be. Where they
are not, the tendency in Modern English is to associate
theme and modal subject; and this is the main reason
for using the passive. The passive has precisely the
function of dissociating the actor from this complex,
so that it can either be put in focal position at the
end, or, more frequently, omitted...

A "good reason" might be that the topic under discussion is the
object (or affected participant) rather than the agent or actor. That
is, the sentence may be about the object. In the passive, the object takes the theme position at the beginning of the clause, and, as Gundel notes, this position is usually associated with the topic. One would also have a good reason for opting for the passive if the identity of the agent needs to be specified as new information. Halliday explains that that which is new needs to be made specific, and he views this as the function of the preposition by: a preposition is often used, he notes, to indicate the role of this unfamiliar element. In a passive with a by-phrase, by this analysis, the agent is set apart from the rest of the clause, its role is made explicit by the preposition by, and the tonic, in most cases, identifies this by-NP as the information focus.

This would explain why a pronoun is generally inappropriate in a passive by-phrase, as in *The fish was caught by him*. Since a pronoun generally refers to an antecedent, it is usually a "given" rather than a "new" element. However, in a marked construction such as (12), where the verb is identified as the focus of new information by tonic stress, the by-phrase pronoun is acceptable since it is not identified as the focus of new information.

12 Fred was almost killed by him.

In passives, the by-phrase agent may be focal (e.g., 13 a), less focal (i.e., not the primary focus of information) (13 b), or entirely absent in surface structure (13 c) (Warburton 1975:568). So although marking the by-agent as new information may be one function of passives and, as Halliday notes, one of the "good reasons" for opting for the passive, it is not a primary, consistent function of passives.
Langacker and Munro's analysis conflicts with Halliday's on the nature of the agent of the basic passive clause. Whereas in Langacker and Munro's analysis the underlying subject of the basic passive clause is always unspecified, in Halliday's analysis the agent of the basic clause is unspecified in the truncated passive but identified (in the byphrase) in the full passive. As I have noted in Chapter 5 (e.g., 21, Ch. 5), however, the second inherent participant (the underlying agent) of the full passive may have an identity separate from that of the by-phrase agent. This observation supports Langacker and Munro's analysis.

But Halliday's claim that dissociation of the agent from the central theme-subject complex of the clause is the primary function of the English passive, both truncated and full, does accurately describe what appears to be a consistent function of English passives. And his theory finds more syntactic motivation in a system such as Langacker and Munro's which posits an unspecified subject in the basic clause and locates the by-agent, when it does occur, in a separate clause than it does in an analysis such as Lakoff's or Chomsky's in which the full passive has a specified subject which is located in the basic underlying clause (and which is, therefore, central to the basic clause) but which is moved to the position after by in surface structure in the process of the Passive Transformation.

It was noted in chapter 3 that in order to account for predicates which do not take a passive construction as opposed to those which do
and to account for relative markedness among passives, semantic predication properties (described in some systems in terms of case relations) must be taken into account. One means which has been used to incorporate such properties into descriptions of English passives is the notion of the case hierarchy (Jackendoff 1972, Fillmore 1977, Lakoff 1977) which indicates that there is a gradation in the availability of grammatical options (subjecthood, for example) which depends on case relations.

Jackendoff's Thematic Hierarchy Condition (1972:43-46) illustrates a means of linking a case hierarchy to the passive construction. In Jackendoff's system, every sentence has a theme which is determined by the verb. The theme with verbs of motion, for example, is the NP understood as undergoing the motion (1972:29) and with verbs of location it is the NP whose location is being asserted (1972:30).

Jackendoff specifies other thematic relations such as agent, location, source and goal, which are similar to Fillmore's cases though they differ from them in that a surface structure NP may function simultaneously in more than one thematic role. So, for example, in Max rolled down the hill, Max is both theme and agent. Jackendoff's thematic hierarchy is as follows (14):

| 14 | 1 Agent |
|    | 2 Location, Source, Goal |
|    | 3 Theme |

His Thematic Hierarchy Condition (THC) is a rule (a well-formedness condition on interpretations) that the passive by-phrase must be higher on the Thematic Hierarchy than the derived (surface structure) subject. According to Jackendoff, this condition accounts for the well-formedness
of passive constructions and the interpretations they are given. He notes that this condition explains why, for example, (15 a) is ambiguous (with John as theme or agent-theme) while (15 b) is unambiguous (with John as the agent-theme). An agent NP in this system must be an animate participant which willfully performs the action of the sentence.

15  a John was touching the bookcase.
    b The bookcase was being touched by John.

In (15 b) John must be the agent; otherwise, the sentence would violate the THC.

Because passive by-NPs are usually agents in Jackendoff's sense, the THC usually works. But as J.P. Gee (1973) notes, it is not difficult to find violations of Jackendoff's THC among acceptable passives. When a by-phrase NP is a "nonagent" theme in a sentence with a subject which is a goal, source, or location, as in (16), the THC will be violated. Still, (16 a-d) are well-formed passives.

16  a The moon's crust was entered by the metal probes.
    b The slower cars were passed by the faster ones.
    c His body was pierced by the arrows.
    d The shore was touched by the breaking waves.

Gee notes, furthermore, that (16 d) casts doubt on Jackendoff's claim that John in (16) must necessarily be interpreted as an agent. There are also passives such as (17 a) and (17 b) which are unacceptable although they do not violate the THC. The actives corresponding to (17 a) and (17 b) are well-formed sentences.

17  a ?A rest was desired by John.
    b ?Happiness was found by John.

6 to J.P. Gee and to me
So Jackendoff's case hierarchy makes incorrect predictions. It should also be pointed out that what this system provides is not an explanation but rather a description of tendencies which have been observed, the primary observation being that passive by-phrase NPs tend to be agents (by Jackendoff's definition).\(^7\)

More recently Fillmore (1977) has outlined a hierarchy system which is a little more informative than the THC about observed tendencies in the assignment of case relation to sentence structures. This analysis is intended to relate the "nuclear relations" subject, direct object and indirect object to case relations in roughly the following manner: a case frame assigns roles to the participants in the situation represented by the sentence and this assignment determines the assignment of a perspective on the situation (that is, certain roles are brought into perspective as the nuclear subject, direct object or indirect object) by means of subject selection principles and a case hierarchy. For example, there is a selection principle which states that "if there is an agent which is brought into perspective, the nominal which represents it must be the (deep) subject" (1977:61). Fillmore suggests that the conditions under which a speaker can choose to bring certain participants into perspective may be determined by some sort of saliency hierarchy which may include conditions such as humanness, change and definiteness.\(^8\)

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\(^7\)Since I define the agent as a responsible participant (responsibility being imputed by the predicate by as in Langacker and Munro 1975), the passive by-NP is always an agent.

\(^8\)E.g., in describing a scene in which a person pushes against a table but it doesn't move, the speaker might say He pushed against the table. If the table does move (it meets the change condition) the speaker may say He pushed the table, putting that which moved, the table, into perspective as a direct object.
The observations which Fillmore's analysis presents appear to be fairly accurate. Clark and Begun (1971), for example, found some experimental psycholinguistic evidence to support the following "subject hierarchy" for English active transitive clauses: human, animal, concrete-count, concrete-mass, abstract-count and abstract-mass nouns. And Keenan (1975) has found in his study of passives in over thirty languages that "PASSIVE is harder to apply if the subject is not an agent and the direct object is not a patient." Fillmore's (1977) proposal brings together the idea of the saliency hierarchy (similar to Clark and Begun's semantic feature hierarchy) and the case hierarchy in his notion of perspective, when he suggests that "something like a saliency hierarchy determines what gets foregrounded and something like a case hierarchy determines how the foregrounded nominals are assigned grammatical functions" (1977:80).

Essentially, however, Fillmore's hierarchy analysis (1977), like Jackendoff's, is just a means of describing observed tendencies in isolated sentences: agents tend to be subjects (it is assumed that the by-NP is the underlying subject of the passive sentence, so this means that passive by-NPs tend to be agents, by Fillmore's definition), agents tend to be human (according to the saliency hierarchy), and direct objects tend to be "affected" or "changed" participants. This is an interesting way of describing tendencies among isolated passives; however, because language is a human activity rather than a mechanical process it is important to acknowledge that the subject, direct object and by-phrase preferences described above in terms of hierarchies reflect influences from beyond the clause, to view these preferences
in light of the reasons behind structuring information in one way rather than another. It is important, if we are to explain rather than simply describe such tendencies, to acknowledge the interrelations among clause structure, semantics and discourse context which Halliday described in terms of the ideational, interpersonal and textual functions of language. A central fact which any thorough analysis of English passives must account for, for example, is the thematization of the object. As theme, or that which comes first in the clause, the object will, in most cases, be the topic in the passive. And given an unmarked tonic, the by-NP will be the information focus. It is important to bear in mind that specification as topic and focus are not equally available to all participants in all situations. Presuppositions concerning semantic properties and relations within the clause as well as presuppositions concerning context influence these assignments.

As an illustration of the first type of presupposition, we might note that in the examples presented throughout this discussion, the passives designated as marked (?) are intelligible, but in each case it is difficult to imagine why anyone would want to use such a construction--why anyone would choose a passive construction rather than an active to convey that message. For example, in the following Mental passives (18), there would not, under ordinary circumstances, be any good reason to set the "phenomenon" (as Halliday identified it), the dog collar, as presupposed information and set the "processer," Fido, apart from the mental process, identifying it as "new" or informative. (In chapter 3 it was observed that it is, in general,
difficult to conceive of a Sensory, Evaluative or Cognitive process apart from the processer.) However, if, as part of the presuppositions attached to these sentences is the information that Fido immediately destroys all dog collars within biting distance, (18) begin to look less odd or marked.

18 ?The dog collar was \( \begin{cases} \text{seen} \\ \text{enjoyed} \\ \text{felt} \end{cases} \) by Fido.

For most passives of various degrees of markedness one could imagine a context which would make them less marked, more appropriate for the characteristic information structure of the passive construction. In general, as noted in Chapter 3, action predicates which indicate an effect on the object are the most clearly amenable, in an appropriate context, to a passive construction: it would be appropriate to express such a process as an adjective-like predication about the object and to separate the agent from the process, as the predication about the object is easily interpretable without a specified agent.

As an illustration of the second type of presupposition which influences the assignment of topic and focus, that of the immediate discourse context,\(^9\) (19) would be an appropriate answer to "What happened to Fred?" but it is not appropriate (or "well-formed" in this sense) in answer to "What did Hugo do?" or in any other context which would demand that Hugo be the topic.

\(^9\)Or what the speaker knows the hearer knows (as opposed to what the speaker knows concerning the content of his message). This might be characterized as a distinction between a textual and an ideational presupposition (to borrow Halliday's terms). We could also acknowledge interpersonal presuppositions, related to the speaker's perception of his role in discourse (e.g., as questioner or dictator), which would influence the structure of the sentence (as question or command, etc.) in ways which would be peripheral to the concerns of this discussion of passives.
19 Fred was shot by Hugo.

A second illustration is provided by Labov (1977), who, in his analysis of data collected in selected New York and Philadelphia speech communities, makes the following observation, which suggests to me the influence of discourse context on the structure of the sentence, specifically in the selection of the object as topic:

The selection of the agentless passive is most heavily determined by the presence of a preceding passive, and more generally by the length of the string of subjects in preceding sentences which are coreferential to the object of the transitive verb in question.

Here we see an example of a "good reason" for opting for the passive: if in the conversation the object of the predicate selected for the message is the topic under discussion it is natural to structure the sentence so that this object is the topic.

We have observed that relative markedness among passives as well as differences between active and passive counterparts (such as those illustrated in 5-9) are, in part, reflections of information structure contrasts: contrasts in presuppositions and thus in the assignment of topic and focus. It is important, then, for the grammar to account for such distinctions. Chomsky (1, above) assigns topic, focus, and presupposition distinctions to surface structure. But while it is clear that "presuppositions" would involve information outside of the sentence itself it is not clear, within Chomsky's (1971) system, how such outside information and its effects on the grammaticality of the sentence are to be accounted for.\(^{10}\)

\(^{10}\)E.g., How do the presuppositions available only at the surface structure level relate to the presuppositions implicit in his lexical selectional restrictions? Where does he draw the line between the two?
Lakoff (1971:234) maintained that the underlying semantic representation of the sentence must account for presuppositions, topic and focus: "Given a syntactic structure \( P_1, \ldots, P_n \), we define the semantic representation \( SR \) of a sentence as \( SR=(P_1, PR, Top, F, \ldots) \), where \( PR \) is a conjunction of presuppositions, \( Top \) is an indication of the "topic" of the sentence, and \( F \) is the indication of the focus of the sentence."

Lakoff suggests, further, that the notions **Focus**, that which is presented as being new information (generally realized in English as the constituent which receives "heavy stress")\(^{11}\) and **Topic**, what the sentence is about (generally realized as that which comes first in the sentence), may be among the presuppositions associated with the sentence (1971:236,261). Presuppositions, within this system, are expressed as phrase markers paired with the phrase markers of the sentence. Lakoff (1971a, 1971b) has demonstrated that in many instances it does not make sense to speak of the "grammaticality" of an isolated sentence: "A Sentence will be well-formed," he notes, "only with respect to certain presuppositions about the nature of the world" (1971b:329) (e.g., a person's judgement of of John called Mary a Republican and then she insulted him will depend, in part, on his opinion of Republicans). A person's linguistic knowledge, Lakoff notes, includes "the general principles by which a speaker pairs a sentence with those presuppositions required for it to be well-formed."

So the correspondence between a sentence and the (presuppositional)

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\(^{11}\)Lakoff observes, however, that tonic stress does not always mark the new element. In The tall girl left, for example, the new information is not that the girl is tall but that the girl who left is the one who is tall. It is, then, this assertion of coreferral tiality that is "new."
notions **Topic** and **Focus**, Lakoff suggests, might be handled by constraints (pairing principles) which link presuppositions and phrase markers.

Gundel (1977) derives left-dislocated sentences such as (20) from underlying structures in which the topic NP is cogenerated with the S which is designated as comment, which represents the predication about the topic (21). She suggested that such structures could be generalized to all sentences. Such an analysis would make it possible to account for the distinction which, she notes, all languages make between the topic, that which the sentence is about, and comment, the predication.

20 As for John, he **called** him.

21

```
   S
  /   \
NP1   S'

 x: John   He called x
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Both Lakoff (1971) and Gundel (1977) have presented these information structure distinctions as part of the basic, underlying semantic characterization of the sentence. And the observations which have been made concerning passives in this discussion suggest that such

12 E.g., (in more detail):
I...don't understand topic-comment structure.

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      S
     /   \       x be I
NP1    S'     x1 doesn't understand tc str.
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an analysis is well-motivated for English passives: among the basic, defining characteristics of English passives which, as noted in chapter 3, require predicates with compatible semantic properties; which, as noted in chapter 5, encourage an adjective-like semantic interpretation; and which, as noted in chapter 6, allow the semantic separation of the by-phrase from the rest of the sentence are the unique information structure properties of the passive construction.

In the grammar these properties could be accounted for in part and related to more general information structure phenomena as a characteristic passive structure or set of structures which thematize (or "topicalize," i.e., put in initial position) the object NP and identify it as topic in those sentences which have an overtly-stated topic NP, and which (as in Langacker and Munro's 1975 analysis) derive from a basic clause with an unspecified agent but which also have the potential to add a separate by-predicate which identifies an agent (which may be coreferential, by implication, with the unspecified agent of the basic clause). (22) is presented tentatively as one possibility for representing such a structure.

22 Fred was strangled by Hugo.
An analysis of topic and focus assignments by consistent criteria (e.g., Gundel 1977) would open the way for an examination of the information structure properties of passive constructions across languages. In studies of passives in languages other than English the properties of passives explored here: the identification of the object as topic or as a topicalized NP; the status of the by-phrase as a separate predicate, its semantic separability from the basic clause and its customary identification as information focus; the adjective-like properties of passive predicates; and the interaction among predication properties and all of these properties of passives should provide fruitful lines of investigation.
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