The Syntax and Semantics of HAVE and its Complements

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Abstract

The verb HAVE heads a diverse set of distinct but related syntactic constructions in English. The dissertation shows how these constructions are related to one another and how those relations can be expressed via a multidimensional network of senses.

The distinctness of the constructions can be seen in a sentence like *I had my moped stolen*, which is three-ways ambiguous. We can detect the presence of three constructions here by noting that the ambiguity cannot be resolved either by making reference to different constituent structures or by assigning different meanings to its individual constituents (particularly HAVE). Instead, the semantic differences lie at the level of the construction.

The inventory of HAVE-constructions includes the semantic subtypes Causative, Resultant State/Event, "Depictive", Attributive-Existential, and Affecting Event. I show that these all instantiate a single constructional schema, though they cannot be reduced to that schema. I also show that the complex semantics of individual constructions is a product of three dimensions of simple semantic factors: the semantics of individual constituents, of constructions as a whole, and of the use of constructions in larger environments.

Charles J. Fillmore

to my father

and the memory of my mother

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Dedication

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1. Introduction; Outline of the Dissertation

> "The task for linguistic theory is to discover the true nature of the biological endowment that specifies the general structure of the language faculty. It is a good research strategy to try to design a linguistic theory that permits a close approach to the absolute limit set by obvious [language-specific] idiosyncrasies . . . . Such a strategy may overshoot the mark by underestimating the idiosyncrasy of particular languages."
>
> —Noam Chomsky, "On Binding"

This dissertation is a case study of a set of related constructions in English[1], all characterized as being headed by the **lexeme** HAVE, constructions such as those instantiated by the following sentences[2],

1. I had my baby kissed by the President.
2. I had my bicycle stolen.
3. I had him climbing the walls.
4. The movie had him dying in the end.
5. Albany has an express bus running to it.
6. She has children coming to her house this Sunday.
7. I had him bring chips to the party.
8. She has children come to her house every Sunday.
9. The play has him lonely and old when he dies.
10. I have a tooth missing.
11. I had him in the palm of my hand.
12. She has me up a creek without a paddle.
13. I have $5 in my pocket.
14. The shelf has several books on it.
15. Imelda's count has Ferdinand as the victor.
16. No one will have this person as chairman.
17. I have my husband to keep honest.
18. I have my husband to keep me honest.
19. Rumor has it that he will not pass his orals easily.
20. We have eaten already.
21. We have to grade exams this weekend.

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[1] Part of the theoretical point to be made herein is that the constructions to be discussed are in fact distinguishable on formal and/or semantic grounds and are not merely instances of one construction (though they are that as well). This point will be discussed in some detail later in this chapter; for now I will assume it.

22. I have two sons.
23. I have no more patience.
24. I have $5.

Of particular focus in this work will be those in which the selectional features, or **valence description**, of the lexical head includes an embedded predication which is a required complement of that matrix verb, as in exx. (1) - (19).

The perspective from which this investigation is conducted is what is known as Construction Grammar, a collection of notations, descriptions, theoretical constructs and assumptions which are currently being developed in the linguistics department at the University of California at Berkeley. One object of this work is to serve as a case study, in order to shed light on the virtues and restrictions of the theory as well as on the details of the data. This chapter presents some background information about both the data and the theory. Here I will outline briefly some basics of Construction Grammar, the purposes of the study, and why these data should be of especial interest.

The remainder of this dissertation is intended to represent iconically some of the major tenets of Construction Grammar. For example, I will consider simultaneously the syntax and semantics of a particular construction or subconstruction in order to reflect the claim of Construction Grammar that the basic unit of linguistic information contains both of these. Moreover, in demonstration of the claim that constructions exist at all levels of syntactic constituency and at all points on the continuum of abstractness/specificity, I will describe the syntax and semantics of the relevant constructions by considering their **internal** syntactic and semantic properties (those found at the **constituent** level); their **external** syntactic and semantic properties (those found at the **constructional** level); and

[2] Sentences are not themselves constructions, which are rather abstractions over sentence types. This follows from the definition of a construction in which a fully-(lexically) filled structure is a limiting case. Sentences, however, can and do instantiate indefinitely many constructions. The constructions we're interested in here are those whose criterial property is being headed by the lexeme HAVE.

the properties exhibited by the construction when it is found in larger stretches of language (the context level). (I will be considering only a small portion at this last level of description in the current work.)

Chapter 2 is a compilation of the syntactic and semantic properties of the constituents that are internal to HAVE-constructions, especially those aspects of their syntax and semantics which are required for the description of HAVE-constructions. This set of phenomena I will refer to as "constituent-level" syntax and semantics.

Chapter 3 is a description of the "construction-level" syntax and semantics. By this I will mean those aspects of the syntax and semantics at the clause level which are not directly inferrable from properties of the individual constituents. It is here that I will discuss the constituent structure of the clause-level construction, control properties of the construction, and the aspects of the interpretation of particular instantiations of the construction which are not obviously derivable from composition of the semantics of the component constructions. Then I will provide a general taxonomy of the correlations between the syntactic properties of the constituents (with the corollary semantics) and the "constructional semantics", that is, which of the several semantic values of the subconstructions are available given a particular instantiation of the **skeletal construction.**

Chapter 4 concerns the "cross-clausal level" of the syntax and semantics, or more generally and more accurately, of the parameters of form and signification (including pragmatics), in which HAVE-constructions appear. Two general aspects of the context greatly affect the distribution of HAVE-constructions in the larger linguistic environment. The first amounts to constraints on clause-linkage, the second on discourse-pragmatic motivation for the use of the construction: questions of topicality and the syntactic expression of that discourse-level category. While these are obviously closely related phenomena, they are

demonstrably distinguishable in many specific examples, and each affects both use and interpretation of HAVE-constructions, suggesting that part of the constructional semantics on some readings amounts to a set of pragmatic conditions on use of the syntactic skeleton. The results presented here will be quite preliminary but are provided to demonstrate how important it is to consider the features of the surrounding context if one desires a comprehensive description of any construction, particularly a lexically-headed one.

This basically descriptive discussion leads naturally into a more theoretical issue addressed in Chapter 5: the question of the composition of the constituents and the degree of compositionality of the resulting clausal construction. This chapter will be a more serious look at the exact extent to which the **constructional semantics** is predictable from the **internal semantics** of the constituents plus general rules of composition (some of which are touched on here as well). This discussion will also inform a reexamination of the question of the lexical meaning of the verbal head of the clausal construction.

Chapter 6 is a consideration of the relationships between the different HAVE-constructions, and addresses the question of what level or levels of generalization are appropriate for the description of individual properties, as well as the question of the level at which to state the most general properties, common to all instances of HAVE-constructions. It will therefore include a schema of the **lexical network** (cf. Brugman and Lakoff (1988), Norvig and Lakoff (1986), Jurafsky (1988)) for the **lexeme** HAVE, intended as an abbreviation for the entire collection of the properties of each **lexical item** in the net.

Chapter 7 is the concluding chapter, in which I will touch on revisions to the framework that are shown to be necessary by these data; unsolved questions or problems; and directions for future research.

Appendices will contain some discussion of the various tests in reaching certain conclusions about HAVE-constructions as well as some of the finer details of individual instances of HAVE-constructions.

1.1 Theoretical Assumptions and Requisites of Construction Grammar

The questions to be investigated in this dissertation are framed within Construction Grammar, a framework for grammatical organization currently being developed in the University of California at Berkeley Linguistics Department (cf. Fillmore 1988, Fillmore, Kay, and O'Connor 1988, Lakoff 1987). Construction Grammar diverges in several general respects from most current linguistic frameworks,[3] and the assumptions embodied in Construction Grammar are crucial in my notion of the descriptive framework required for a full explication of the syntax and semantics of complex constructions with the verb lexeme HAVE. Sections 1.2 and 1.3 will be devoted to a discussion of the unusual problems of HAVE-constructions within this framework; in this section, however, I lay out some of the basic assumptions of the theory which provide my descriptive framework.

As a framework for grammatical representation, Construction Grammar differs from many other frameworks in taking as an essential concomitant of the description of syntactic form the semantics which are associated with particular configurations. No detailed claims about the exact nature of this association have yet been established; but the initial speculation is that there is a bidirectional relationship between syntactic form and semantic representation. It is at

[3] Some important general assumptions about the necessary association of syntax and semantics are shared by such frameworks as LFG (e.g. Bresnan 1979, 1982), GPSG (Gazdar et al., 1985), HPSG (Pollard and Sag 1987) and Cognitive Grammar (Langacker 1987, forthcoming). These theories all differ to a greater or lesser extent from one another as well as from Construction Grammar in the notation with which those claims are expressed and in the further implications are drawn from them (as well as in some of the fundamental assumptions about language.)

least true that from the production point of view, semantics sometimes determines syntactic form and from the interpretation angle syntactic sometimes form imposes a particular semantic/pragmatic interpretation. We claim that syntactic and semantic considerations are acquired simultaneously by the child, that the storage of information in the mind includes semantic and syntactic representations in the same site, and that, in a purely formal sense, the grammar will ultimately be simplified by such an approach. As such, syntactic and semantic information is, by definition, always included in a complete description of a grammatical phenomenon. This is in direct opposition to any theory which eliminates semantic considerations from syntactic description, as it is to any theory which claims a relationship between semantics and syntax but which provides no contentful analysis of the semantic side of that association.

Construction Grammar has many properties in common with such unification-based grammars as LFG and HPSG. The necessary association of syntax and semantics has already been cited. Of perhaps equal importance is the intuitive idea behind the technical concept of unification (cf. e.g., Shieber 1986). Strict unification is problematic as a desideratum for a natural-language grammar on philosophical as well as on technical grounds; but this is a topic which I will not pursue here, since the technical end of it is being pursued avidly elsewhere, and the philosophical side goes far beyond the scope of the issues to be addressed here. However, the intuitive idea of unification can be found in various frameworks and approaches throughout post-*Aspects* work in linguistics (the most salient and systematic theory being that presented in Langacker 1987, whose technical idea of integration is the analogue, relative to a completely different conception of human language, of unification.) The basic idea behind unification is that two linguistic structures can unify as long as the properties specified by those two structures are not in conflict. One case is when the

properties of each simply do not overlap, and the result of the syntactic combination is simply the sum of its parts. Another case of unification is one in which structure redundantly specifies properties of another, as for instance when a predicate specifies animacy of its subject and the subject constituent denotes an animate object.[4]

Another important intuitive notion is that of inheritance, which has also been used for a long time informally in linguistic descriptions and has again found a place in modern grammatical theories (e.g. feature percolation in the style of GPSG outlined in Gazdar et al. 1985). This idea is that some smaller constituent (e.g. a daughter node) provides some of the feature specifications (read: properties) for a dominating constituent. The usual case is when the daughter is the head of that larger constituent, but there are also cases of non-heads providing features for the mother constituent (as in the Foot Feature Convention of GPSG, critiqued in Zwicky 1989). In that case, it will be by inheritance from its head that a VP will acquire many of its formal properties (such as requirements on the subject as well as, in particular structures, agreement features. Something akin to inheritance operates to impart the semantic and syntactic properties of a lexical item into a paradigm of word-forms (which will typically include a set of phonological realizations). The complex structure associating a lexeme with word-form information on one side and constructional information on the other is a lexical network. The limiting case of a lexical network is when a lexeme has on the one hand only one paradigm of word-forms[5]

[4] One technical problem with unification that emerges immediately is that conflicts of the kind prohibited by unification take place all the time in languages, as when a basically count noun enters into construction with a determiner with basically "mass" semantics, as in *give me some pillow*. We will have to specify on a language-particular basis when such contradictions lead to resolution of the conflicting material and when they simply lead to anomaly.

[5] These are not phonetic objects, since a word-form is still an abstraction over individual pronunciations (and may even be an "input" structure to phonological rules).

and on the other only one associated valence description. The picture is in general much more complicated, especially once we consider cross-lexical generalizations—where networks operate across lexemes. (For instance, *with* has many of the same valence descriptions, and many of the same constructional readings, as HAVE. Cross-lexemic generalization is beyond the scope of this work.) But even considering only a single lexeme, the lexical network usually takes up an *n*-dimensional space, since

1. there can be more than one associated valence description, each of which partakes of other constructions with which they must be coindexed;
2. sometimes valence descriptions can be further specified into subtypes, in which case the constructional end of the lexical network will be a 2- or greater- dimensional space;
3. often the word-forms are constructed (in part) by general word-formation rules, so they too will be complex nodes formed by construction, and will also be subject to regular phonological rules[6].

All these considerations are premature in the absence of specific data, and will be spelled out in detail in ensuing chapters. The basic point is that whenever one can isolate a form-meaning pairing, that is a construction, by definition. Because one of the tenets of Construction Grammar is that strict compositionality must be proven on a case-by-case basis, rather than assumed (cf. Fillmore, Kay, and O'Connor 1988), complex constructions must be stated as well as simplex ones. That means for every construction that includes another one that has constructional status, the mother construction receives those constituent-level properties from the daughter construction. Hence a great deal of the information associated

[6] The distinction now known as lexical vs. postlexical phonology will be captured by differences on conditions on rule application.

with a given construction will be provided by indexation to another construction, one which makes up a constituent of the mother.

Another distinguishing feature of Construction Grammar is what counts as an adequate semantic description, at either the lexical or the sentence level. Construction Grammar is in some ways a natural outgrowth of frame semantics research, a program whose empirical results have demonstrated the inadequacy of feature analyses, or any analysis involving sets of necessary-and-sufficient conditions, in lexical semantic description. What is favored instead are semantic characterizations which include Wittgensteinian categories of usages, prototype-based definitions, and definitions of items which include large amounts of encyclopedic, or not specifically linguistic, information.

Because HAVE-constructions are complex constructions all of whose constituents are also either lexically-headed or unfilled constructions, we will interest ourselves in the semantics of the **component** constructions as well as the semantics of the clause as a whole, and both levels of semantic analysis will figure prominently in the description to follow.

Also, the meanings of many lexical items must, in whole or in part, be thought of as "lexical pragmatics", in which case doing lexical semantics—even the most minimal—is ipso facto doing pragmatics.

At the sentence level, analogous evidence can be martialled to the effect that there is a lot more to sentence meaning than propositional meaning, and that some of that information, "pragmatic" though it may be, must necessarily be associated with specific forms, and hence must be part of the corresponding constructional description. So in both such cases, neither truth-conditions nor necessary-and-sufficient conditions will constitute the totality of the semantic description. The formalization of these aspects of meaning is another matter. All I am pointing out here is that when doing a description of a construction,

whether it is lexically-headed or skeletal (schematic/unfilled), one must consider carefully the pragmatics associated with it.

In addition, we must also consider conditions of the environment in which this clausal construction may appear, and how the requirements of the larger environment affect our analysis of HAVE-constructions. This level of "constituency" or unit size is what is considered in Chapter 5.

Taken together, these properties of the construction will demonstrate the necessity for considering all levels of organization and generalization—from the individual morpheme up to indefinitely large discourse units—when one describes a given construction. Unfortunately, it is a lot harder to characterize the surrounding environment exhaustively once one is talking about the situatedness of sentences in larger discourses, so I won't be addressing the question of the larger, discourse environment in anything approaching the necessary amount of detail.

Taking the form-meaning pairing as the basic unit for linguistic description is hardly a new idea. Saussure, of course, defined the sign in roughly these terms. But the technical characterization of the construction is somewhat different from that of the sign in a number of ways. For one thing, constructions can contain constructions: the form/signification pairing is not confined to the level of the morpheme, contra the implication of Saussure. Second, the signification side of the construction, as I have suggested above, need not correspond to a reference, intension, or anything like that. It could be quite abstract, as when we say that the Subject/ Predicate construction's "semantics" is to predicate (a relation or property) of the subject referent. Third, though we do not want to confine the formal component to syntax alone, it need not necessarily include a criterial phonological component (just as the description of a phoneme need not include a criterial semantic component): as in the case of the Subject/Predicate construction, it may consist of purely schematic formal

information. An interesting formalization of something like Saussure's intuition appears in Langacker 1987, esp. Chapter 9, who comes to some rather different conclusions about the makeup of these two parts of this pairing.

Another important difference between Construction Grammar and some other theories of grammatical representation is that the only prior decision which is made about the "correct" range of data for investigation is that all facts of a language deserve equal consideration in the description of that language. This is not to deny the obvious differences between the "core" and the "periphery", the "productive" and the "idiosyncratic", or the "universal" and the "language-particular". Nor does it imply that these differences ignored or glossed over. In fact it is the gradient between the fully productive and the totally idiomatic that makes the study of constructions so fascinating. All regions on the continuum between productive and idiomatic exist in any language. To understand how language is acquired, how it's stored, or how it changes, one must appeal to all existing degrees of generality and productivity.

More important, it reflects the theoretical stance of Construction Grammarians that unpredictable or idiosyncratic areas of a language are just as essential to the description of a language as the most general principles of that language or the universal properties which characterize all languages, This conception requires that we treat all linguistic phenomena as serious objects of study rather than in an afterthought or appendix. Rather than establishing a dichotomy in the grammar between the general and the idiosyncratic facts of a language, Construction Grammar seeks to find generalizations at all degrees of abstraction and to supplement these generalizations with specific information wherever required. It might be thought of as a conservative concept of linguistics that it concerns the description of what languages are as well as speculations about what language is or can be, but that is what Construction Grammarians aim to do: to

discover principles of language in general and those of particular languages where such generalizations are consistent with all the facts to be explained. That is, Construction Grammar does not sacrifice observational adequacy for descriptive adequacy. From such a perspective a lexical entry or other construction may comprise many kinds of information; it may be idiomatic or idiosyncratic to some degree and fully predictable in other respects, and therefore an instance or special case of a more abstract construction.

The term "construction" is used in many ways in the linguistics literature, often in ways which conform to a certain degree with its technical use here. Individual constructions and classes of constructions have had a prominent place in the description of languages since the ancient grammarians, and certainly through modern, generative linguistic descriptions. One way to think of the outputs of PS and/or Transformational rules of the Standard Theory type (though certainly not of the GB era) is as descriptions of constructions or classes of constructions—though crucially, in the theory, (but not in informal descriptions) these have always (within interpretive-semantic theories) lacked any parameters of signification (by contrast with the Generative Semantic tradition, which took parameters of signification, and not of form, to be the critical units of description). However fruitful the descriptive work has been, and however important the theoretical implications of such descriptions have been, nevertheless the concept of the construction heretofore had no central place in a theory per se. Construction Grammarians think raising the intuitive unit "construction" to a carefully defined theoretical construct is a good idea. The current framework gives a precise, rather than merely notional, characterization of the **grammatical construction**, and provides it with the status it has not had in modern theoretical linguistics: it is the psychologically real storage unit of linguistic information, and emphatically not a mere epiphenomenon of more general principles. This

assumption not only eliminates the specious dichotomization of the general and the idiomatic; it also provides a specific architecture for asserting the association of form and signification.

The construction is an abstract unit, since any pairing of any formal properties with associated semantic or pragmatic properties is a construction. Within the current framework, a construction can exist at a level as low as that of the bound morpheme.[7] Much of the work already done within this framework has been at the level of the lexical item—either individual items with possibly unique properties, or classes of items with similar behavioral properties. Both free and bound morphemes can enter into constructions wherein the cooccurrence requirements of that morpheme are stated.

The set of requirements and possibilities selected by a predicating morpheme comprise its **valence description**, which contains the number, grammatical function, and semantic role of the accompaniments to the constructional head. valence descriptions can be part of the descriptions of morphemes that are not verbs (e.g. nominalizations), and complements need not correspond to logical arguments (e.g. the verb *word*, which selects a manner complement). Because such constructions contain both lexical and nonlexical specifications, they are know as partially-filled constructions. The only technical difference between these and unfilled constructions such as the Subject/Predicate construction is the

[7] So far all the real work has been done on free morphemes (though work on grammatical, bound morphemes, e.g. Nikiforidou 1984, is done in this general tradition, from the point of view of the semantics). I see no reason not to take the constructional unit to a lower level, in descriptions of allophony, morpheme structure conditions, etc.; but this extension has not yet been investigated to my knowledge within the theory. I believe that the innovations made in autosegmental and metrical approaches in phonology are compatible with the assumptions of Construction Grammar, or can easily be recast so as to be compatible. However, such extensions are certainly outside the scope of the present study, particularly since it raises the tricky question of what the parameters of signification associated with such structures should be (see Langacker 1987 for explication).

lack of any lexical requirements for the latter.

There is no reason for having a separate grammatical component in which are stored, for instance, lexical items on the one hand and lexically-unspecified word order or constituency rules on the other. (cf. Zwicky 1989 for an opposing view.) In fact, Rice (1988) provides evidence that the modern tendency to increase the size and complexity of the lexical component by including the syntactic properties apparently attributable to individual lexical items ignores the abundance of pragmatic and stylistic factors which affect the appropriateness of such specific, lexically-headed syntactic forms. She demonstrates that both specific semantic information about the lexical head and general information about the pragmatics and "semantics" of the syntactic configuration—in her examples the omission of direct objects—are equally necessary in describing the phenomenon. One obvious conclusion to draw from this is that the "lexicon" and the "syntax" cannot be in separate components, since their interaction in such specific examples is self-evident.

Lexically-filled constructions are to be distinguished from completely-filled constructions, which are idioms (e.g. *What have we here?*). (Such constructions will still have external requirements, as in this case pragmatic conditions on use.) Lexical entries are typically only partially filled, since they must specify the requirements from the lexical head on the larger syntactic configuration into which that item may be introduced.

But we can also identify those general principles of a language which make up the basic combinatoric properties of that language—e.g. that English has a "basic" SVO word order, and associate with such template structures some much more abstract semantic or pragmatic information, in this case, e.g., that this word order is the basic one--this perhaps comprising the large part of its parameter of signification—and whatever other pragmatics is associated with either the

word order itself or the specific values of the component constructions. Our account would also include such insights as the fact that Subject is an important grammatical and pragmatic category of English, while it may not be for all languages; or that in the usual case in English an adjective and a nominal will exemplify one of a set of possible modifier-head relations—the "X-bar" class of insights. Unfilled constructions such as these will correspond to the outputs of phrase-structure rules in other theories, with the proviso that all such constructions will reflect only "surface-level" facts about constituency; that is, this theory requires no analogue to the distinct levels of syntactic representation and principles of association required by, e.g., the Standard Theory. Lexical entries will be superimposed on those unfilled constructions. This is sanctioned by the unification-type basis of this framework: the superimposition of one construction on another can either involve a consistent fitting of specifications or an addition of specifications by combination with another construction.

The number of components in which linguistic information is placed is greatly reduced in this theory as compared with others, since the sole "component" includes not only all kinds of information found in different syntactic levels (numbering at least two) in theories such as GB, but also incorporates the semantic information which in other theories constitutes yet a third area of representation (e.g. LF). This position directly contravenes the assumptions of many other current theories, which take syntactic representation as the input to semantic interpretation (the corollary of this being that semantic interpretation cannot "serve as input to" or otherwise affect syntactic representation).[8] The

[8] This is not to suggest that semantics will serve as input to syntax in the way that, e.g., Generative Semantics had it do; Construction Grammar is not a generative theory as that term is popularly understood, and since it is monostratal, no grinding-out character should be imputed to the formalism. It is generative in the sense of accounting for nonoccurring as well as occurring strings (which makes it different from Cognitive Grammar) since constructions provide node accessibility conditions.

Construction Grammar perspective provides the apparatus for a description of language which is both broader, in allowing for descriptions of a much larger fragment of the language than otherwise would be possible, and richer, in allowing that the description of any given phenomenon will be more detailed and complete.

The picture that emerges from the Construction Grammar framework is one in which all the information necessary to the syntactic, semantic, and pragmatic[9] description of a sentence will be situated in one place: there will be no need for some such information to be located in one component and another type in another. However, the analysis of a particular sentence will entail representations at many levels of **constituency** and of **abstraction**: this is because any sentence will consist of instances of many constructions, composed and/or superimposed in accordance with the environmental possibilities each construction provides. Thus a typical sentence will serve as an instance of the "Subject/Predicate" construction, which houses the generalization that the average English sentence has a subject; beyond this, since every lexical entry is a construction, every lexical item in that sentence will be associated with the construction which constitutes the formal conditions on its appearance in that sentence, as well as its lexical semantics and pragmatics. Constituent structure considerations, such as that of the internal structure of the predicate phrase, will also be captured by means of constructions. Since constructions can vary indefinitely in the amount of specific information they contain, a particular sentence may instantiate constructions of great generality—such as those which provide basic word-order facts—and at the same time may instantiate a highly specialized construction—such as that provided by an idiom. It is in this sense that there are

[9] And some phonological.

many levels of description, to reflect that fact that generalizations about combinatorial possibilities are to be found at levels of specificity which may range from the highly idiosyncratic to the most abstract.

The monostratal character of the Construction Grammar notation means that however abstract or specific the construction might be, its structure is isomorphic to that of the actual string being analyzed: there is little place for invisible elements like those that figure prominently in GB, nor is there taken to be a level of function which constitutes a distinct representation from the description of constituency, as is the case in LFG. (It is not the case that the distinction between "function" and "structure" goes unrecognized in Construction Grammar; it is simply that the distinction is expressed in a single location.) This is not to deny the existence of distinguishable components in the grammar. We recognize that some facts are phonological, some syntactic, etc.; we also recognize that there are cases where we cannot determine at what level to state a fact so that it predicts all its consequences at other levels. But that may be beside the point in any case. We can recognize those distinctions between levels and nevertheless find it attractive to put all the different kinds of information in one place, as it relates to one pivotal property, e.g. a lexemic head, a set of "devoicing" rules, a pragmatic function.

A terminological note is in order here: since every association of formal and semantic generalizations is defined as being a **construction**, I will be using the term to refer to any type-instance of a selection description for complement-taking HAVE with its associated semantics and pragmatics. But the skeleta corresponding to the constituents of this larger construction will also be constructions. This is trivially true with the nominal complements—which simply exhibit the ordinary internal syntax of NPs—but interestingly true in the case of predicational complements, which exhibit highly generalizable internal syntax and

external semantics which also show up in other external syntactic environments. Hence a full description of HAVE-constructions—like a description of any complex construction—need only index or invoke the full account of the component construction. What counts as a separate *have*-construction is one of the issues to be established in the course of this dissertation, and as suggested above, the answer depends upon the level of abstraction, and the size of the linguistic unit, at which one seeks generalization. The main focus of this work will be a pairing of a single syntactic skeleton having a fixed amount of fairly schematic formal information, and a semantics which includes a set of pragmatic conditions as well as propositional meaning. There will also be more specific subconstructions, more specific both in providing more formal information and in containing additional construction-level semantics. These subcases will also be constructions which inherit properties from the skeletal construction and have also distinguishing features of their own. This kind of category is reminiscent of the Wittgensteinian "family-resemblance" based category except that in this case a set of necessary, but not sufficient, properties is provided by the skeleton. However, the whole set of constructions headed by the lexeme HAVE, of which this subset is only a fairly coherent part, cannot be said to have any distinguishable properties in common besides a very abstract pragmatic function.

A note on data collection is also in order. Since, as we will see, the external semantics associated with the various HAVE-constructions can differ in subtle but extremely important ways, I am working in large part from attested examples of the constructions, culled from both oral and written sources as I encounter them. When given as examples, I will surround these with quotation marks. Naturally I will supplement the attested examples with constructed ones, testing them with other speakers, and will manipulate the form of both attested and constructed examples in order to test whether the same proposition can appropriately

exemplify a related construction.

1.2 Aims of this study

This study is intended to make points at three levels: descriptive, notational, and theoretical.

First, this study is intended as a fairly detailed and nearly complete description of the lexical network associated with HAVE. In point of fact, I will be paying most attention to a subclass of HAVE-constructions, and some of the others that have already had a lot of play in the literature (notably the perfect construction) will be given short shrift. However, I will have at least suggestions about all the constructions associable with HAVE and how they form a complex lexical entry. Included in the descriptive portion of the study will be valence descriptions for specific cases as well as some commentary on the instantiations of specific constructions which have notable additional properties.

In serving as a case study for Construction Grammar, HAVE is especially challenging, since the variety of valence descriptions in which HAVE participates is unrivaled by any other lexeme in English. Furthermore, the variety and relatedness between readings of HAVE-constructions (i.e the construction-level syntax associated with some particular form) is analogously unparalleled among lexical networks (although other predicators such as DO, MAKE, BE approximate the range of complementation possibilities and concomitant readings). Of especial interest to me are questions of the relations between HAVE-constructions—what those relations are, the extent to which they are products of composition, and the degree to which they generalize over lexemic heads of constructions. An example of this last issue, which I will not discuss in detail in this work, is the properties common to *with* and HAVE:

25. We finally had the children safely tucked in.
26. With the children safely tucked in, we were able to relax and enjoy our evening.

A more extensive investigation, then, would address itself to the wide range of common properties of the lexical networks for *with* and HAVE and would attempt to account for their differences, wherever possible, by appeal to the different properties of their constituents, including their heads.

The state of the art of Construction Grammar really has only one mechanism for pinning down the relationship between two different constructions associated with (in the usual case) one lexical head. That is the lexical (redundancy) rule, which is an abbreviated admissibility condition to the effect that if valence description *A* sanctions the appearance of a given lexical head, then so does valence description *B*. Rules of this general form are familiar in post-Standard Theory analyses of such syntactic phenomena as "passivization" and "dative movement". Note, however, that rules of this form must meet two criteria: so far, at least, they relate two constructions associated with the same lexeme (or, as in the case of passive, a morphological deformation of the source lexeme). Secondly, the only area of differentiation between the two constructions must be housed in the valence description, which includes only information such as number and order of complements, control relations, and semantic role assignment. A lexical rule cannot relate two uses of a lexeme which differ only in some detail of its semantics, nor can it relate constructions cross-lexemically.

In short, lexical rules cannot express al the kinds of generalization necessary for describing relations between constructions. I will therefore be using some other devices. Lakoff 1987 includes a description of a set of constructions whose subcases often are related in something like the way I'll be sketching the relations between HAVE-constructions in what follows. He develops there a notation for providing a minimal specification of the syntax and semantics of a construction,

then develops a series of subcases which are either special cases with additional stipulated properties, or minor deformations of the "central" construction. In many cases, he argues, the special cases or deformed versions are semantically or pragmatically driven rather than simple formal variants. The description to be undertaken here is very much in the spirit of the Lakoff case study, but I will attend more systematically to the question of compositionality and the unification of component constructions versus the existence of constructions which are highly motivated but noncompositional products of their components.

The unsatisfactoriness of the Construction Grammar notation for such matters as are mentioned here reflects the lack of study heretofore made of the formalization of such phenomena, rather than to the phenomena themselves. It strikes me, though, that the structure of the lexical network, which is what the set of phenomena investigated here will finally result in, should be of paramount importance in establishing a notation. The theoretical goals, then, involve my desire to give some real substance to lexical description, especially the portion of linguistic description which is not easily done by means of the formal mechanisms of unification-based grammars, but which nevertheless must be done. I take this case study as demonstrating exactly how much we can rely on compositionality and how much external semantics must be a stipulated property of the construction: how much, then, can be attributed to constituent-level (internal) semantics and how much to constructional semantics.

1.3. Why HAVE?

A number of the reasons for doing a study of this kind should have become evident from the previous discussion. But perhaps it is not completely clear why HAVE is especially worthy of the kind of attention given it here.

The first and simplest reason is that HAVE is unique to English and cross-linguistically in both the number and variety of the valence descriptions which can be associated with it. That is, there is no other predicate—not even BE—which exhibits all the complementation possibilities shown in exx. (1 - 11). This is an especially interesting fact given that for the most part, each of the complementation possibilities associated with HAVE is also admitted in other lexical entries. The examples of HAVE in sentences (1 - 11) are presented along with examples of the same complementation requirements (or highly similar ones) with a different head:

(Immediately after the example numbers below is the list of complements selected by each syntactic type. Following that list, in parentheses, is an abbreviatory formula which I will be using throughout to refer to each subtype. The formula should be read as follows: the numeral denotes the total number of complements selected by HAVE; the abbreviation after the period specifies the phrasal type and morphological marking of the last complement (in unmarked complement order). All other information is predictable, based on these features: the subject is always a NP, as is the unspecified local complement, if there is one.)

1. NP_1, NP_2, V_{en} ($3.VP_{EN}$) I had my baby kissed by the President.
   I had my bicycle stolen.

   I got my bicycle stolen.

2. NP_1, NP_2, V_{ng} ($3.VP_{ing}$) I had him climbing the walls.
   The movie had him dying in the end.
   Albany has an express bus running to it.
   She has children coming to her house this Sunday.

   I saw something crawling up my leg.
   I heard him coming up the steps.

3. NP_1, NP_2, V- (3.VP-) I had him bring chips to the party.
   She has children come to her house every Sunday.

I made him bring the chips to the party.
I saw something crawl up my leg.

4. NP_1, NP_2, AP (3.AP)

The play has him lonely and old when he dies.
I have a tooth missing.

I consider that plan unworkable.
I found him quite pleasant.

5. NP_1, NP_2, PP (3.PP)

I had him in the palm of my hand.
She has me up a creek without a paddle.
I have $5 in my pocket.
The shelf has several books on it.

She keeps them in the closet.
He found them in his pocket.

6. NP_1, NP_2, (*as*) NP (3.NP)

Imelda's count has Ferdinand ?(as) the victor.
No one will have this person as chairman.

No one will accept this person as chairman.
His wife treats him like a prince.

7. NP_1, NP_2, V_i ($3.VP_{to}$)

(i) I have my husband to keep honest. (nonsubject control of XP)

My husband is easy to keep honest.

(ii) I have my husband to keep me honest. (subject control of XP)

I asked my husband to keep me honest.

8. NP_1, *it*, Stf (3.Stf)

One theory has it that the U.S. wants to prevent the contract from being signed.

(%)I believe it that the U.S. wants to prevent the contract from being signed.

9. NP_1, V_{en} ($2.VP_{EN}$)

We have eaten already.

10. NP_1, V_i ($2.VP_{to}$)

We have to grade exams this weekend.

We need to grade exams this weekend.

11. NP_1, NP_2 (2.NP)

I have two sons.
I have no more patience.
I have $5.

I possess $5.

The first unusual property of HAVE, demonstrated here, is the large number of its associated complementation possibilities.

Another property, which it is important to distinguish from the first, is the large number of construction-level, or external, meanings which a HAVE-sentence can exemplify. A preliminary list of these distinct readings and some examples of each are given in (12 - 16).

12. Existential-Attributive:
I have $5.
I have two brothers.
"No one will have this person as chair."
The shelf has several books on it.
"We have people running in front of our house every morning."

13. Affecting Event:
"A neighbor had at least two wives pass away before anyone thought anything of it."
I had my bicycle stolen.

14. Resultant State/Event:
I had them bringing chips to the party.
I had them climbing the walls.
I had him angry the minute I walked in the door.
"[Why does language have closed and open classes?] It could have everything be open!"

15. Causative:
I had them bring chips to the party.
I had my bicycle stolen.
"[We'll] have 'em deal with phonological problems."

16. Depictive:
The movie had him dying in the end.
"One theory has it that the U.S. wants to prevent the contract from being signed."
"Lefebvre had Canseco running all the way."
Jeane Dixon had Jesse Jackson winning the nomination.

Notice that there is no obvious one-to-one mapping between the syntactic descriptions in (1 - 11) and the semantic characterizations given here. Once again, HAVE is unique both within English and cross-linguistically in the number of distinguishable readings which can be attributed to it.

It is important to understand the substance of the cross-linguistic claim. It has often been noted that many languages do not possess a lexical item which is the translation equivalent of English HAVE. Hungarian, for instance, has a predicate which is more semantically specific than HAVE—closer to 'possess' or 'own'. A dative construction is used for relations for which such semantics are inappropriate but English speakers still use HAVE.[1] However, even languages which do possess a translation equivalent of HAVE nevertheless do not exhibit this range of construction-level semantics. These properties make the lexical network for this head a peculiarly English one, but one which nonetheless will necessarily make reference to constituent constructions and rules of composition which have analogues all over other languages. So although the **lexemic** structure is unique to English, both the lexical-level and the constituent-level properties do appear in other languages.

Another reason to look at HAVE is also evident from the preceding discussion: the question of the lexical semantics of this predicator—whether there is any and if so what there is—has not been addressed within a framework which takes the approach to lexical and constructional meaning advocated here, and the results of the investigations have been quite unsatisfactory. There are at least four plausible positions to hold with respect to the semantics of HAVE in constructions:

1. This so-called "lexeme" HAVE is really a set of homonyms, and which homonym you choose entails the valence description which is sanctioned, and hence determines the external environment.

[1] Charles Fillmore has pointed out to me that linguists' claims about the lack of a translation equivalent for HAVE provide indirect evidence for a polysemy, rather than abstractionist, account of English HAVE. For it is a lexeme with basic uses which include alienable and inalienable possession (rather than, say, a relation of experience, causation, or what have you) that is missing from such languages.

2. HAVE is lexically polysemous (that is, has specific and distinguishable lexical senses) and these senses entail which valence description is sanctioned, and hence determines the external environment.

The difference between positions (1) and (2) is the implicit claim that in (1) there is a single lexical network with a single lexical head and in (2) there is simply an unrelated list of valence descriptions. These two positions have in common that the semantics of any HAVE-sentence is simply a compositional product of its constituents.

3. HAVE is monoguous, with a single, highly abstract lexical semantics, or lexically-associated pragmatic instruction, as in the (mutually-inconsistent) analyses given by Bach (1976) vs. Anderson (1971) (to be summarized below). The constructional meanings are (either by stipulation or as a product of the composition of constituents) distinguishable from one another. Because of the lack of one-to-one mapping between syntactic form and constructional semantics, this position entails that the subconstructions are polysemous.
4. Both the internal semantics of the head and the external semantics are unary and abstract; the apparently different constructional semantics exemplified in (12 - 16) are the product of pragmatic rather than semantic principles.

The position I advocate is a mixed one, a combination of (2) and (3), where the lexical head is polysemous by virtue of the many lexical entries (with different meanings) it heads. The story is a little more complicated than this, even, because there is also an element of the pragmatic instruction analysis presented at the lexical level in (3) and at the constructional level (4) which will be justified below.

HAVE-constructions are a dramatic example of the inadequacy of abstractionist analyses and the futility of clinging to what Langacker calls the exclusionary fallacy (1987). The opportunity, provided by this framework, of examining the internal syntactic and semantic properties of a construction separate from its external ones allows one to extract the generalizations provided by an

abstractionist analysis, while also describing the necessary individual details which appear at the lexical level.

1.4 A Synopsis of *Mental Spaces*

In several places in the description of HAVE-constructions, I will have occasion to use a couple of concepts introduced in *Mental Spaces* (Fauconnier 1985). This book addresses many of the questions which have plagued semanticists and philosophers of language through history, most of which are not immediately relevant to our concerns. Two of the chief features of the approach—the spaces themselves, and the distinction between roles and values, are the chief mechanisms of this approach that will enter into my description.

Mental spaces and the entities and relations that populate them are not specifically linguistic structures. Rather they are a formalization of general cognitive abilities--the ability to create representations of participants, events, and states of affairs.

The Mental Space approach differs from Barwise-Perry type Situations (Barwise and Perry 1984), Kamp-style Discourse Representation Theory (Kamp 1981), and possible worlds in being cognitive constructs rather than set-theoretic structures intended to model possible states of objective reality. They resemble these other approaches in being models of representations which can include the imaginary, fictional, intensional—or even "real"—the difference in Mental Spaces being that all of these represent cognitive models of the cognizer rather than states, or possible states, of the world. Individuals, relations, properties all have representations within individual spaces, and counterpart relations can hold between entities in spaces by means of connectors. One popular example involves image-spaces or fiction-spaces, as expressed in (27) and (28) respectively:

27. In Len's painting, the girl with blue eyes has green eyes.
28. In that movie, Clint Eastwood is a villain.

Both of these sentences involve the following constructs:

—Two spaces: the "origin" or "real world" space and the image (painting) space in (27), and the fiction space in (28).

—Individuals in both spaces; properties of those individuals.

—Connectors, a means of representing links between individuals

In (27), there is a girl in each space; their coreference is expressed by means of a connector. Her eye color differs in the two spaces, because that property holds only within one space, even though there is a counterpart relation between the two individuals.

In the most accessible reading of (28), Clint Eastwood exists in the origin space, while the character he plays is an individual (or a role; see below) in the fiction space.

29. I hoped that after Jan. 21 our President would be shorter.

In (29), another salient formal construct is involved: the **role**, a predicate understood as an entity. (While it may be that Situation Semantics can derive this object from other types in its system, the role has no analogue in Discourse Representation Theory, the approach which bears superficial similarities to the Mental Space account.)[2] A role can be filled (with a **value**) by an individual within the same space. (29) has two readings: on one reading, the speaker is expressing the hope that the (current) individual filling the role of President

[2] A suggestive comment on a way of incorporating the concept of a role into something like Kamp's DRT is made by Heim (1982), who claims that her "file card" construct is the same as a "discourse referent" (in Karttunen's (1976) sense); but she cannot mean this, since, as she says: "File cards usually describe more than one thing equally well. For example, if a card just says 'is a cat' on it, then this description fits one cat as well as another." (p.282) If this comment is to be taken seriously, one could imagine an analogy between the file cards themselves, taken as objects, and the Mental Space construct of the role. I seriously doubt, given the ensuing discussion, that she herself would agree with this assessment.

shrinks after the specified date; on the more accessible reading, *our President* evokes a role which can be filled by different values (e.g. Ronald Reagan or Michael Dukakis), and the individual whose height is at issue is referred to by virtue of the fact that he fills that role. In the latter case, the role is saliently different from its value, and on these grounds must be recognized as a different entity.

For clarity's sake here I have used a role which is easily identifiable as such on intuitive grounds; but ordinary noun phrases, proper names and so on can be used to evoke "role" readings as well. In fact, the distinction between roles and values serves as the basis for Fauconnier's account of the "referential–attributive" problem exemplified in Donnellan's (1966) example of the man with the martini in his hand. Properties formalized as roles are predicated of their values by means of connectors of the same general type as provide counterpart relations across spaces.

The notational details introduced in *Mental Spaces* and elaborated in more recent works (e.g. Fauconnier 1988) are interesting in their own right as a perspicuous and intuitive way to formalize the semantic/cognitive properties of expressions which lead to the resolution of issues of reference, coreference, and inference. And of course I have not mentioned most of the interesting properties of this system nor the range of linguistic phenomena which it accounts for. But for my purposes, I need only the conceptual apparatus, not the formalism. I will be using them at two levels of the description of HAVE-constructions: to provide motivation of one aspect of constituent-level syntax (a peculiar property of marking for one value of the predicational constituent), and to provide for certain aspects of construction-level semantics (the "Depictive" constructional meaning).

2. Constituent-level syntax and semantics

In this portion of the description, I am concerned with the syntactic and semantic properties of the constituents which we can find as components of one or another of the HAVE-constructions. The idea here is to capture the properties of these constituents that recur across construction types, properties of phrasal schemata rather than of any lexically-headed construction. Thus HAVE-constructions may not directly refer to these properties of its constituents, but will refer to or index independent statements, since they are template structures with skeletal descriptions at the constituent level. Naturally, in the case that there are formal or semantic properties of one of the constituents which exist only in HAVE-constructions (or, put more generally, in a definable subset of possible external environments for that constituent), then we should want to say that those additional properties hold of the constituent by inheritance from the larger construction, which would make such properties features of the mother construction.[1] The purpose of isolating the properties of the constituents which hold, irrespective of the larger construction in which they are found, is thereby to discover the construction-level properties, which may hold of constituent constructions or may be assignable only to the mother construction as a whole.

The immediate constituents of HAVE-constructions are for the most part lexically empty, phrasal constructional schemata. The one exception to this is, of course, the lexeme HAVE.[2]

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[1] I will argue in sec. 3.1.1., for the perfect construction, that the association of properties may go in the other direction as well: a mother construction may have some feature by virtue of a daughter's having the feature.

[2] In Appendix B I describe some lexically-filled, somewhat idiomatic special cases of HAVE-constructions.

However, because there are semantic correlations with some properties of the internal constituency of these component constructions, we will have to pay attention to some of these formal properties which are not immediately dominated by the construction. In particular, the inflectional form of the VP, if that is the value of the third-place XP[3] in three-complement HAVE-constructions—or rather the semantics associated with such phrasal types—will be shown to have strong consequences for the possible constructional semantics of the string in which that VP is found. Because these inflectional morphemes can thereby be said to determine the semantic possibilities of that construction, it could be argued that, e.g., VP_{to} (the marked infinitive form of the verb phrase) is a lexically-headed construction whose head is *to*. (This has in fact been the practice in GPSG, cf. Gazdar et al., 1985.) In general, I agree with Bolinger (e.g. 1973) and Langacker (1987) in believing that there's no such thing as a completely meaningless linguistic unit. Having said that, though, I am perfectly comfortable setting aside for the moment such admittedly fascinating questions about these elements as

> What might the meaning or meanings of such units be?
>
> Is there an important distinction to be maintained here between "lexical" and "grammatical" meaning? and if so, do we want to take a position on the question of whether "grammatical" meaning is the kind of meaning which justifies the conferral of lexical head status on these elements?
>
> Is such "lexical" meaning as could be ascribed to them extant synchronically, or do we simply have some dregs of semantic leaching?

I think it is imperative that these questions be answered before we can be comfortable making the decisions about grammatically-marked phrasal types, but the answers to them are not crucial for the purpose of describing the internal

[3] "XP" is a variable generalizing over the phrasal types NP, AP, PP, AdvP, and VP.

properties of these constituents in the service of the constructional properties. So I am simply going to assume that these questions can be answered, and am going to treat the grammatical morphemes which distinguish one kind of phrase type from another as markers and stipulate that for my purposes the question of how compositional these complex constituents are does not arise. I will ask corresponding questions when I consider issues of the semantic properties of HAVE.

Having brought up the question of lexical semantics and implied that I think it might have a place in the description of lexically-headed constructions, I should say something brief about the different considerations of describing lexical as opposed to phrasal constituents. In describing the formal and semantic properties of phrasal constituents of a mother construction, we mostly need to concern ourselves with fairly basic facts about order and constituency and some general questions of semantics. We will also need somehow to appeal to a small amount of phonetic specification when dealing with phrases with these inflectional morpheme markers, such as the infinitive *to*. When we are dealing with the lexical head, the questions to be answered are altogether different. First recall that we're talking about the lexemic level, which entails that some ultimate and indirect reference must be made not to just one phonemic form but, in the general case, to a paradigm of word-forms. Secondly, any construction requires reference to two kinds of semantic information: the semantics identifiable with its constituents (such as Semantic Role), and the "lexical" semantics of the construction's head, which will be the subject of the next section.

A lexically-headed construction will specify some formal properties of the constituents it selects, and one of the formal properties it specifies is the phrasal type of its complements. Among the set of distinguishable form-meaning pairs, we can find any of the following phrasal types as one or another of its local

constituents (NP is the only possible value of the first constituent):

NP
AP
PP (and other "adverbials" like *there*)
"expletive" *it* [4]
VP

Among verb phrases we will find every variety found in English. Verb phrase values appearing in HAVE-constructions include:

marked infinitive VP (V_{to} [+max])[5]
bare infinitive VP (V- [+max])
finite *that*-marked clause (V_{that} [+max])[6]
so-called present-participial VP (V_{-ing} [+max])
so-called past-participial VP (V_{-EN} [+max])

Many of these phrasal types have been dealt with exhaustively in the literature, with regard both to syntactic matters such as constituency and to semantic ones. I will neither review the literature for any of these nor come up with a definitive distillation of the theories and the facts into an original account of all the properties of these constituents. Rather I will rely on the expertise of the reader to provide two things: some personal understanding of the relatively well-known aspects of these conventionalized bits of linguistic material, and a

[4] in a special "Depictive" construction; see Appendix B.

[5] The [max] feature expresses the Construction Grammar analogue to X-bar theory: along with [min], it characterises lexical items ([+min] [−max]), nonmaximal "phrases" ([−min] [−max]), and maximal phrases (([−min]) [+max]). The feature-value pair [+max] signifies that that constituent has the external syntax of a phrase of that type, and hence can fill a requirement in a larger construction for that phrase. For the most part, I have used "P" (like "VP") for [+max]. The feature-value pair [+min] expresses the property of being a lexical item.

[6] Again, only found in the special "Depictive", cf. footnote 4.
Sentences are defined as VPs because verbs are the heads of sentences in this framework; the distinction between sentences and other VPs is simply that the former has instantiated all argument positions formally required by the head. Usually I have used "S" for notational convenience and since no importance rests on recognising clauses as V[+max].

personal understanding of when certain of the questions do not need to be decided for the larger purposes at hand. For instance, consider the constituency of such internal elements of a phrase as its specifiers vs. its modifiers. While there is general consensus now that these two are found at different levels of constituency, it was not always the case. But if there were reason to doubt the validity of that decision about constituency, that would not affect whatever decisions we make about the role of a phrase qua constituent in a larger construction. Phrasal constituency is a question of the **internal** syntax, while I will be concerned here primarily with **external** properties.

Linguists basically know about the internal constituency of the phrases headed by the major lexical categories, or at least know what the issues are. So I will concentrate on the way the Construction Grammar notation will capture these insights and leave specific formalizations for another time.

In terms of the basic division of labor between syntax and the lexicon, Construction Grammar does not differ greatly from other lexically-oriented frameworks. The valence description provides a lot of the syntactic information associated with individual lexical items, either directly or as a formal consequence of the semantic properties of that valence description to general principles of syntactic expression. For instance, it is very likely that such apparent syntactic properties as the order in which complements appear in a given lexically-headed structure will fall out of template-style generalizations like the Semantic Role hierarchy (as first proposed in Fillmore 1968, 1986; see also Carrier-Duncan 1985, Foley and Van Valin 1984 for nice applications of the hierarchy to word-formation rules). This principle will provide the most neutral ordering of complements. Sometimes general principles of this kind can be overridden by the specifications of individual lexical heads. An example of this is the verb RECEIVE, whose normal first complement, i.e. its subject, is the directional Goal,

preceding directional Source. This order reverses the usual "unmarked" relative order of expressions of these two Semantic Roles. There are certainly good semantic reasons for this: lexical exceptions may be motivated by principles which are generalizable but less general than the principles they override (cf. Lakoff 1972). The effect of a principle like the Semantic Role Hierarchy (whose exact formulation I will not attempt here) is to provide ordering and constituency conditions distinct from the properties of lexically-headed constructions which would together determine verb phrase structure. Another likely general condition, and one which will also contribute to the form of verb phrases, is one to the effect that among verb complements, simple noun phrases will precede complements of any other phrasal type and will immediately follow their sanctioning predicator. This second constraint may follow from more general semantic and pragmatic principles such as the expression of affectedness or topicality in specific positions in a sentence.

Let us take a sentence like (1), and try to apply these principles and constructs.

1. Wilhelmina received a lovely pendant from Butch.

The head predicator, RECEIVE, provides the following properties to this sentence. First there is the semantics which it expresses, invoking a frame of property transfer which involves a number of participants. Secondly, RECEIVE imparts a viewpoint on that situation. It presents the point of view of the recipient. Together these two semantic properties give the following valence description skeleton:[7]

[7] Maximality of the constituents is given by general principles of instantiation.

RECEIVE

Go	So	Th
1	3	2
N	*from*	N

This schematic says: RECEIVE takes three arguments: a Goal, a Source, and a Theme, with the Source marked by *from*.

Note that, counter to the Semantic Role Hierarchy and by virtue of taking the perspective of the recipient, RECEIVE assigns the privileged status of first complement to the Goal (*Wilhelmina*). The phrasal types of the nominal complements will follow from general principles of the expression of participants plus information provided from the frame as to what kinds of entities these participants are. RECEIVE exploits the normal English grammaticalization of Energy Source as well as Physical Source in marking the Source NP (*Butch*) with *from*. Because RECEIVE expresses a deviation from the Semantic Role Hierarchy, which is specially marked and which follows from its lexicalization of perspective, that principle will not hold. But the other general principle, that simple noun phrases precede complements of other types, accounts for the relative ordering of *a lovely pendant* and *Butch*. So the most skeletal specification of properties of RECEIVE, the information not derivable from general principles, is simply:

RECEIVE

So	Go	Th
	1	

Note that with such a simple skeletal valence description as this, it is almost trivial to state the appearance of RECEIVE and its complements in noncanonical

sentence types like that called "Heavy NP shift":[1]

2. Wilhelmina received from Butch a lovely pendant encrusted with emeralds.

The "Heavy NP shift" construction will simply allow a complement of some predicator to appear in extraclausal position if it conforms to certain phonological or pragmatic conditions. Since there is no lexically-bound statement of complement order for RECEIVE, this will simply amount to an overriding of default ordering principles. And note that more than one skeletal construction for determining order can be found in a single sentence, as in (3), which exemplifies both "Heavy NP Shift" and "WH-movement":

3. Who received from Butch a lovely pendant encrusted with emeralds?

Other partially-filled constructions will allow the verb stem to unify with the inflection and their semantics to combine as well.

Alternatives of phrase structure and/or ordering, like "Heavy NP Shift", are associated with specific semantics or pragmatic conditions. "Dative Movement" as an example of a syntactic alternation that is with increasing popularity achieved by means of lexical redundancy rule. It is clear, however, that we must treat "Dative Movement" as an ordering template with specific conditions just as we do "Heavy NP Shift." However, we will not want simply to list for each lexical entry that it does or does not participate in the alternation; that would lack generality. It is a property of unification-based grammars that make use of mechanisms like inheritance that such a generalization need be stated only once, and

[1] It is crucial to remember that in this and ensuing discussions, I refer to structures using names associated with movement analyses. I am using these names of syntactic structures purely and absolutely as easy mnemonics. Since it is a static system, Construction Grammar rejects any description which takes the possibility of movement as a serious construct.

that individual lexical entries can be indexed to that single statement. But, like Rice's (1988) discussion of omissibility of verbal complements, this is another case where a simple listing of participation or not in the alternation is empirically inadequate: Rice's argument about the omissibility of complements being a function of a set of interacting, sometimes pragmatic, considerations applies to this phenomenon as well. Hence, it is not merely a lexically-associated variable ordering possibility, and thus cannot be expressed merely by lexical rule, unless that rule comes with specification of an elaborate set of conditions which must be met in order for the marked order to be felicitous. Rice's point, which seems to hold for "Dative Movement" (and for "Heavy NP Shift" as well) is that these alternations cannot be thought of as properties of individual lexical items. The lexical rule erroneously attributes the alternation to the head of a lexically-headed construction and ignores the fact that the same head may or may not felicitously participate in the alternation depending on the other semantic and contextual factors involved in the utterance.

Consequently, we must recognize that "dative-movement" may impose a slightly different interpretation on the utterance, in for instance presenting a dative goal as more "patientlike" or "affected", or presenting the transfer as more "completed" (cf. Borkin 1984, among others):

4.a. We taught Latin to the monkeys.
  b. We taught the monkeys Latin.
5.a. Roger slid a martini to Mary.
  b. Roger slid Mary a martini.

Since it is not merely an alternative ordering, it will have to be stated as a separate constructional template (with specifiable semantics), and as a subcase of a general class of "promotion" constructions (to include also so-called "locative alternation", "possessor ascension", and "passive", to name only a few candidates). The semantic properties of the construction will in large part determine

which predicators will participate in both syntactic forms. And when we find apparent counterexamples to a semantically-based description of such a template, we can search for a finer level of semantic description. For instance, there are predicators which seem to have the appropriate semantics but do not participate in the alternation, such as CONTRIBUTE and DONATE; but perhaps, as Fillmore (1986) suggests, this is because "Dative-movement" (that is the ditransitive structure which alternates with a prepositional-periphrastic one for certain predicators) is restricted to animate, rather than institutional, givers and recipients. So dative shift will be a member of the set of templates which collectively characterize the possibilities of verb-phrase structure.

Yet we do not have to list all the possible VP types (and of course we cannot: the whole idea behind generative grammars is to express the infinity of sentence types with a finite number of structure types). When we have the predicate-argument structure provided by the valence description, and some very general structural templates and constraints on structures, and we know how to unify all these different kinds of structures and satisfy all the conditions, all actual VP types are simply products of these distinct templates. This is particularly attractive in that because both all lexically-headed constructions and constructional templates are associated with semantic properties, there is a theoretical possibility that when the dust settles and we have a completely exhaustively described and explained language, most of the syntactic facts of the language will ultimately fall out from or will be motivated by semantic properties of that language's elements, plus very general formal properties of the language. This little sketch vastly oversimplifies matters, of course, because the limits of what we know are ultimately constrained by the little we know about lexical semantics.

I have been discussing the treatment of certain properties of VPs throughout this section as a kind of extended example, and also because VPs show the most interesting variations in formal properties. All phrasal constituents will be subject to the same kind of analysis. In particular, some of the attractive consequences of X-bar theory will be achieved by means of general conditions on ordering and constituency which, like X-bar theory, will generalize over the word-class of the head.[2] These general constraints, then, will provide order and constituency conditions on NPs, PPs, and APs, as well as VPs. In the remainder of Chapter 2, I will be concerned very largely with the semantic rather than the syntactic properties of the constituent constructions, and even so will concentrate in large part on the semantic properties which become relevant in the discussion of constructional semantics and syntax, the substance of Chapter 3.

2.1 The lexical semantics of HAVE

Because a lot of what becomes important when looking at the constituent-level semantics of the complements of HAVE depends on the claims being made about HAVE itself, the first constituent whose semantics I will consider will be HAVE, the head of the constructions. In this way, I hope to contextualize the discussions to follow to make a natural transition into a more direct discussion of the construction-level semantics in Chapter 3.

It all comes down to whether HAVE means anything or does not. There are a number of different classes of arguments in favor of the position that HAVE has no lexical semantics.

[2] Certain features of lexically-headed constructions and of unfilled constructions will ensure that the unfortunate occurrence of unbranching nodes resulting from the assumptions of X-bar theory will be eliminated in Construction Grammar. See Fillmore 1988 for explication.

The first kind of argument is exemplified by Bach (1967). He says this about HAVE:

> It has often been said that *be* has no meaning by itself but only in connection with *Predicate*, the passive construction, and so on. The same is true of HAVE. The two forms are distinguished syntactically from most true verbs by the fact that they have no selectional restrictions in themselves, but occur in constructions where selections reach across from subject to 'object' or complement. Likewise, from a semantic point of view, their contribution to the meaning of the sentence is determined completely by the items that they link. Consider, for instance, the following sentences:
>
> .
> .
> .
>
> | | |
> |---|---|
> | (8) I have a house | ownership |
> | (9) I have a cold | property-assignment |
> | (10) The house has a roof | whole-part relation |
> | (11) John has a brother | kinship relation |
>
> The foregoing can be multiplied almost indefinitely to illustrate this point. (pp. 476- 477)

There are a large number of unwarranted assumptions here which need to be scrutinized carefully. Two of these assumptions are closely related in the set of phenomena we investigate here, so I will consider them more or less together. The first is that if a large number of meanings are apparently to be ascribed to a single item, then it can have no meaning. This says: "one meaning or no meaning." But that assumption is demonstrably false, as we have seen.

Secondly, he makes the assumption that if a predicate has no meaning "by itself, but only in connection" with its selected complements, it must therefore have no meaning. This says something like: "constructional meaning minus constituent meaning equals no meaning", and depends on a very unsophisticated theory of composition. The Construction Grammar position is that constructional meaning is exactly what meaning is, in the general case, and how much meaning can be identified with individual components of lexically-headed constructions is more or less beside the point. In the following discussion, I will

address the concepts of a "constructional" meaning, as conceived within this framework, and fit into it a theory of lexical meaning which simply serves as the limiting case of constructional meaning. In that way I will show that the usual conception of lexical meaning is both unwarranted and inadequate.

One by now almost trite example is the case of negative questions, which in English conventionally convey hedged positive assertions: *Won't you help me?* implicates a speaker belief that the hearer should have engaged in the activity referred to; and this is a systematic association of this meaning with the conjunction of the features NEG and Q in a single sentence. Yet there is nothing in the semantics of either of these criterial features which predicts such a constructional meaning. But the noncompositional nature of the construction's meaning would hardly lead us to call either of these elements "meaningless": in fact this construction was addressed as part of a lively literature in which it was accounted for partly in terms of the constituents' contribution.

Bach's conclusion comes from an assumption which is easily proven false: the building-block view of composition. If one were to accept his claim that "the meaning of [HAVE] is determined completely by the items [it links]", one would still have to accept the premise that the process of composition allows for no overlaps or gaps in meaning of the constructed sentence with respect to the meanings of the component constituents. The NEG-Q construction type exemplifies "hypocompositionality": the constructional meaning is motivated by, but not a compositional product of, the constituent meanings. Another set of facts which is partly analogous to Bach's HAVE paradigm illustrates the idea of "hypercompositionality":[3]

[3] These nice examples and their interesting semantic properties were first brought to my attention by Robert Wilensky.

Beatrice opened her eyes / arms / hands
Beatrice opened her bedroom door / window / windowshade
Beatrice opened her birthday presents / the jar
Dr. Beatrice opened the patient's chest
Beatrice the contractor opened the wall between the two rooms

These sentences do not even include figurative uses with *mind, discussion, speech,* and so forth.

Given the enormous variety of relations understood in these sentences, one could just as easily claim that OPEN is meaningless based on argument forms like Bach's. HAVE might be an intuitively more obvious candidate for his account, but there is no principled way in which one could apply the argument to HAVE and not to OPEN. But of course what is going on here is that OPEN has, we might say, a very general meaning like 'create an aperture in, or in a surface frame-semantically inferrable from, NP_2''.[4] The kind of aperture, the surface, and the nature of the required activity is determined by properties of the NP_2'. Whether OPEN is seen as polysemous or highly abstract, the fact is that there is some overlap between the "meaning" of OPEN and some of the properties of the object referred to in NP_2—and that, hence, the particular relation expressed is determined by NP_2. In a sense, the question of whether OPEN is polysemous or highly abstract is also moot. If the lexical semantics of a predicator is just the collection of constructions which it selects and the semantics of the resulting individual examples, either a polysemy or an abstract analysis is compatible with this collection of frame types.

The building-block "theory" of composition should have been laid to rest long ago. It simply does not account adequately and coherently for all the kinds of fitting together of linguistic elements into comprehensible expressions.

[4] I am using the prime (XP') notation as a shorthand to refer to 'the referent of XP', in a way that is supposed to be reminiscent of common representations of lexical meaning. In no regard is it intended to remind the reader of X-bar syntax notation.

Bendix (1966) takes a highly abstractionist approach to the semantics of HAVE, an improvement over Bach's formulation in at least admitting some significance to the item. In substance, though, it does not differ from Bach's proposal, since the "meaning" Bendix attributes to HAVE is 'there is a relation between [NP_1'] and [NP_2'].' Bendix goes so far as to claim that a sentence like *Do you have that book?* is **paraphrasable** by *Is there a relation between you and that book?* Quite apart from the dubious validity of arguing meaning from paraphrasability, the idea that that sentence is a felicitous or natural paraphrase is patently ridiculous.

Bendix points out, like Bach, that the details of the relation are either inferred from context or are provided (by virtue of the "inherent" relation) by NP_2. (While I believe that the distinction between his "inherent", or semantically-provided, and "accidental", or pragmatically-provided, relations is ultimately a false dichotomy and can be accounted for by more general principles, he did observe the systematicity of the difference in interpretation when NP_2 is relational (as in Bach's exx. (10) - (11)) as opposed to when it is not, and the relation holding between NP_1' and NP_2' is "accidental" (cf. Bach's exx. (8) - (9)).

Beyond observing "inherent" vs. "accidental" relations holding in HAVE-sentences, Bendix's view improves upon Bach's only in the position of ascribing meaning to HAVE. This is practically a trivial difference, as the rest of his analysis resembles Bach's quite closely.

I will present my own views on the "meaning" and/or "meanings" of HAVE throughout this and subsequent chapters; but I will note here that if I were to hold a simple abstractionist view of HAVE, it would be something more like 'NP_2 serves as an attributed property or experience in which NP_1 is interested' ("interest" to be made more precise by the attribution of special cases, like

causation, affectedness, etc.). On this account, the constructions which it heads may be thought of in terms of "hypercomposition", because so much of the information about this relation of "interest" is filled out by the semantic frame associated with the NPs—including NP_1 as well as NP_2. This possibility is actually predicted by a frame approach to semantics in general, since linguistic expressions evoke entire scenarios which contain both the definitional properties of the referents of those expressions and noncriterial information, other associated individuals, and relations. Therefore it must be true that composing a sentence for any natural language will **entail** a superimposition of frames, and the kind of superimposition we find here is not even particularly unusual; it is simply unusually many-valued.

The business about the number of possible relations identifiable from HAVE-sentences brings up a simple inaccuracy in Bach's and Bendix's understanding of the contribution made by NP_2 to the interpretation of the HAVE-relation. Both make statements to the effect that there is no constraint on the relationship inferrable between NP_1 and NP_2 when they are linked by HAVE. In fact, between them, Bach and Bendix failed even to consider most of the construction types which HAVE heads, and hence most of the possible relations were not explicitly identified. But while the class of possible relations might be larger than one would hope for, it is by no means indefinitely large. If one considers the semantically most productive HAVE-constructions, the 2.NP and the 3.XP cases, the number of relations is about eight over both classes.[5]

Both Bach and Bendix (and Anderson (1971) as well, but to quite different ends) mistake the **internal** semantic properties of the sisters to HAVE for the **constructional** properties. It follows from a simple building-block conception of

[5] This number will be reduced considerably in later chapters when I eliminate some of them by invoking more general linguistic principles.

composition that these two levels of meaning should fail to be distinguished. Bach actually states that "the number of relations can be multiplied almost indefinitely"[6]. Though Bendix recognizes subclasses of HAVE-sentences, they are not particularly useful, since they are often based on possible paraphrases which themselves are instances of many-valued, or polysemous, constructions. He does show more sensitivity to the issues in at least classifying HAVE-relations according to shared properties of the local complement or complements. For instance, he classifies together HAVE-sentences in which NP_2 denotes a (nominalized) property held by NP_1 (though he draws entirely the wrong conclusions from that classification):

1.

A has strength
A has (much) happiness
A has (no) fear
A has courage
A has employment
A has equality with C
(Bendix 1966:47)

As Bach is simply wrong that the relations can be multiplied almost indefinitely, he is wrong about the accompanying claim that the meaning of these sentences is determined completely by the NPs. What could this mean if it were true? What about the words *I* and *house* forces "ownership" on the relation expressed in this sentence? Nothing, obviously; and in fact there are a number of other plausible interpretations of his (8). For instance, it could be used to convey the proposition that the speaker has access to a house, which he does not own, to use for his vacation. Or it could be uttered by a child about a toy house that he

[6] I admit that my argument against Bach in particular depends on my being correct in interpreting what he intends by "foregoing". I assume he means "relation type", not "exampie", because the latter claim would be vacuously true. I am also taking him to mean (analogously) that the relations he has in mind are at the same level of generality as the ones he mentions explicitly.

is holding in his hand. The other sentences more clearly encourage single readings along the lines he has suggested, but some of them are also open to other interpretations, as I will show in the following section. Bach is obviously assigning interpretations based on a default understanding of plausible relations evoked by semantic frames, without availing himself of the explanatory power afforded by admitting frames into the technical machinery, rather than leaving them unexamined and imprecise.

The most compelling point that the no-semantics and the abstractionist positions have in common is in predicting that in the absence of a relation provided semantically by NP_2, pragmatics will be sufficient to provide any possible relation. In that case, why can't HAVE "mean" (in context) 'get rid of', or 'love'[7], or anything at all? Let me give a real linguistic example, and point out the implications of this position:

> Susan decided to make bread one day. So she made the sponge, savoring the pungent smell of growing yeast, and let it work for a while, and added in the rest of the flour, enjoying the changing consistency of the dough as it got stiffer. Then she turned the dough out on her pastry board, and had the dough for a good ten minutes, enjoying every punch and fold and knowing with her fingertips when it was ready to rest and rise.

In this passage, every possible clue is given for the hearer to interpret *had* as 'kneaded'. It couldn't mean anything else. Yet finding *had* in that place in the passage is jarring. It is just as if a cough or a doorslam or another semantically incompatible verb were in there. Hence it cannot be that HAVE could mean simply 'find a relation'.

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[7] I know it can "mean" 'have sexual relations with'. In different contexts, it can also "mean" 'give birth to', 'eat/drink/otherwise ingest or partake of', 'do something linguistic with the effect that [NP_2 XP]', etc. I will claim that these aren't different lexical senses but are products of either general constructional semantics of HAVE-constructions or are specialised, idiom-like uses.

Intuitively, this may seem like a ridiculous kind of counterexample, and I may be accused of attacking a straw man, but the acceptability and the particular interpretation of *had* in the passage is unequivocally predicted by the both abstractionist and no-semantics positions. The obvious inadequacy of such an account has obviously been missed by the proponents of these positions because they are intuitively relying on frame-semantic information at the same time they talk in terms which are conceptually incompatible with frame- and cognitive-semantics.

I am not opposed either to the idea that HAVE has a very abstract meaning; nor do I completely oppose the position that says it serves the function of giving an instruction to the hearer to cast around and find a relation that holds between $(NP_1)'$ and $(NP_2)'$. The validity and predictive capacity of such views will be apparent from discussion to come in subsequent chapters. My discussion of Bach's and Bendix's claims is given with the intent of showing the flaws in their argumentation, irrespective of the correctness of their conclusions, and of suggesting that accounts of this type must be only the beginning of the story, not the end of it.

Another glaring omission in both arguments is their respective claims about HAVE as it relates to and is distinct from BE. For instance, Bach claims that HAVE and BE both have no semantics, but does not even address the question of why they cannot be used in the same contexts—why they do not select the same local complements. Again Bach's claims are not supported by the data: among the examples he cites, the relations he assigns to each of HAVE and BE overlap in only one type of relation: the one-place "property-assignment" (in *I have a cold* and *John is old*). Admittedly, most of his argument in this article is directly addressed to the removal of HAVE and BE from the lexical component in favor of their insertion by transformation, and they are mostly arguments from an

Aspects perspective of how much this would simplify the syntactic component. Nevertheless, such a glaring semantic fact as the nonsynonymy of HAVE-sentences and BE-sentences should at least have been mentioned.

Bendix ignores this obvious problem as well. With his analysis the omission is egregious, since he overtly uses paraphrase as a test not only for synonymy of sentences but for the meaning of HAVE itself; with the examples from his book given in (1) above, he provides paraphrases with BE:

2.

A has strength	A is strong
A has (much) happiness	A is (very) happy
A has (no) fear	A is not afraid/fearful
A has courage	A is courageous
A has employment	A is employed
A has equality with C	A is equal with C

Yet despite the question which leaps out from such a test, he never asks what properties of the sentence makes *A has fear* synonymous with *A is afraid* rather than with *A is fear.* There is an assumption about the differences between them hidden somewhere in Bendix's methodology, but his arguments from paraphrase are so hopelessly circular that they are impossible to tease out. By contrast, Bach's explicit claim that both HAVE and BE have no meaning must predict potential synonymy for every pair which differs only in the head verb.

Langacker (1975) addresses the semantic commonality of HAVE and BE in a much more perspicuous way. Even in using the paraphrase test he points up the systematic differences in their use. His conclusion about HAVE (restricting himself to two-place HAVE-sentences) is an interesting combination of elements of a locativist account like Anderson's and an account like Bally's (1926; quoted in Fillmore 1968) that the subject of a HAVE-sentence is an "interested party". I take Bally's account to be more contentful than, but essentially compatible with, Bach's pragmatic-construal account. Langacker observes the asymmetry between

the two participants and abstracts 'possession' (for him, the core use of HAVE) to refer to a shared "sphere of influence" (1975:385) in which the potential for influence is held by the referent of NP_1. While this account is both more abstract than I think is necessary and too specific to cover all uses of HAVE, it does address many of the inadequacies of the other accounts discussed here, and Langacker is careful to claim a fairly specific meaning for HAVE.

Another class of arguments which is invoked by Bach and also implied in Fillmore 1968 is that since no other language uses one lexical item to do all the things that English HAVE does, it has no semantics. Bach's statement is particularly amusing, since it is so prescriptive:

> Constructions corresponding to the English sentences in HAVE are notoriously varied, so that the situation in English where we have a special verb-like form is almost pathological. (479)

The most popular version of this argument type says that since many of the translation equivalents involve constructions headed by or otherwise defined in terms of grammatical morphemes, HAVE must be a grammatical morpheme, and therefore must have the vague, abstract or uncircumscribable meaning characteristic of grammatical morphemes. (It is not at all clear what point Bach himself wanted to make of the translation-equivalence argument.)

It is indisputable that HAVE lacks all the rich semantic detail that, say, DEFENESTRATE has; it is relatively simple and fairly abstract. But first of all to say that an English HAVE-sentence has a translation equivalent in a construction with a grammatical morpheme is not to say that the two sentences mean exactly the same thing; and if it does, it further does not mean that the "corresponding" morphemes mean the same thing. That is, there could be constructional translation-equivalence without morphological translation-equivalence. Furthermore, there is no clear consensus on what constitutes "lexical" versus "grammatical" meaning and what advantage, if any, maintaining the distinction has for the

linguistic investigator.[8] Finally, it is important to recognize that having either a general or an abstract meaning is not the same as having no meaning. Languages in general always have semantically general as well as semantically elaborate morphemes: Talmy (e.g. 1982) sketches out general patterns of languages' division of semantic space and discusses the functional motivations for those patterns. Furthermore, it is common to find a morpheme polysemous over a semantically-rich sense and a more general or more "grammatical" meaning. (Grimshaw and Mester 1988 discusses one such polysemous morpheme of Japanese, which bears a remarkable number of formal similarities to English HAVE.) Based on these cross-linguistically recurrent patterns it is obvious that the only valid conclusions to draw are about lexical semantic structuring in languages in general; no conclusions about the "true nature" of an individual morpheme in a given language are especially significant.

Throughout this section I have been imprecise in expressing my beliefs about the lexical, versus the constructional, semantic character of HAVE. The Construction Grammar doctrine is that all lexical semantics is constructional semantics. This is definitionally true, in one sense, because lexical items are defined as being necessarily and simultaneously associated both with a meaning or signification and with a valence description. In a more interesting sense, lexical items can be associated with "constructional" rather than "lexical" meaning when there is some imperfect compositionality of the constituents' meanings into the meaning conventionally associated with that structured group of constituents. It takes a fair amount of subtle argumentation to arrive at an analysis of imperfect compositionality which does not result in a paradox, since one could always

[8] Bach seems to think that HAVE and BE are not "true" verbs by virtue of this lack of good semantics; one can only guess at the notional basis of his folk category verb, since formally they're just about as good as verbs can get.

take the approach that the constructional meaning minus the meanings of the lexically-unfilled constituents (i.e. the selected complements) is the meaning of the head. Such an approach could be used to maintain strict compositionality. It would fail intuitively only if that approach would, say, result in positing two competely unrelated meanings for the same lexeme by virtue of its appearance in two different constructions, when the constructions' meanings can be related. That is a situation we could imagine obtaining with HAVE, and that is a reason for not requiring all constructional semantics to be reduced to lexical semantics. HAVE is an extremely good candidate for the Construction Grammar doctrine that "meanings adhere not to words but to patterns". In fact we will see in more detail just below that HAVE is associated with uniquely many valence structures. Each associated structure may be associated with more than one meaning; and it is not apparent that the constructions are compositional products of their constituents.

The concept of a valence description as an abbreviation for the construction in which the lexical item can appear has two immediate consequences: First, this virtually ensures a great deal of imperfect composition, because there will be so much potential for varying scene evocation based on the frames associated with the complements of the construction's head. Second, little difference is ascribed to the difference between lexical and constructional semantics. There are certainly some meanings of HAVE-constructions which cannot plausibly be ascribed to a composition of the lexical meanings of their constituents, but I think even these minimally compositional cases are subcases of the abstract semantic characterization for HAVE suggested above. The constructional semantics of these (e.g. the Causative construction) are noncompositional, because there is independent evidence (from the remainder of the lexical network; cf. Chapter 6) against associating the semantics of the whole construction minus that contributed by the

constituents to the constructional head, HAVE. Yet they are nonetheless not idiomatic, since they are motivated products of this general meaning of HAVE and the constituent-level semantics of its complements.

On the other hand, there are meanings of HAVE-constructions which are identified by nonexpert speakers as meanings of HAVE itself: certain of the constructional meanings are accessible to speakers with no additional clues either about the formal properties of the selected complements or about their (external) semantics. One of these autonomous or lexicalized meanings is 'possess'. This is just a very robust and accessible association of meaning with a constructional head in the total absence of any other information about the construction in which it appears, and it presents the limiting case of constructional semantics. There may be no important theoretical features to this detachment of the constructional semantics from the details of the construction, but this possibility does have consequences for the structure of a lexical network of a polysemous morpheme, since the same constructional semantics may be associated with more than one valence description.

2.2 Noun phrases

Section 2.1 was devoted to a preliminary discussion of the semantics of the only lexical constituent in HAVE-constructions. In the next several sections we will turn our attention to the properties of **phrasal** constituents, whose syntactic as well as semantic features are at issue. Again, I will concentrate on the semantic portion of these constituents which derives from their phrasal type and morphological marking—that is, those properties which are directly referred to in the valence descriptions of HAVE. The lexical semantic properties of **their** internal constituents will not be at issue.

Noun phrases can appear in three positions in HAVE-constructions: as subject, as second complement, and as third complement in 3.XP constructions (over the entire class of constructions of which HAVE can be a head, NP is the required value only of subjects). The semantic considerations which become important to the constructional semantics differ depending on which position is being considered, since each complement position of HAVE-constructions is associated with somewhat different constructionally-imposed semantic properties. In this section I will discuss general properties of NPs irrespective of their position, and some specific properties of the referential positions of NP—NP_1 and NP_2. I will discuss NP as a value of the predicational complement in sec. 2.3.7.

2.2.1. The theory of noun-phrase reference

How we think about the way noun phrases perform their referential function will have important consequences on how we think of the semantics of HAVE-constructions as being built up. Therefore, the first question we must consider is how noun phrases refer. It is fairly standard since the Generative Semantics era to think of nominals[9] as referring to entities or matter by virtue of evoking the set of objects or the totality of a mass of matter with the property or properties referred to by using the nominal (and then picking out a subset or portion of that set of objects or mass of substance). I shall call this the "reference-via-predication" view, and I will propound a somewhat enriched view of it in the immediately following discussion.

[9] If what I say in the immediately following discussion is correct, it would seem that it must be nominals at the level of N[-min][-max] that are predicates, since it must be the conjunction of properties evoked by the head nominal and any modifiers that is being predicated of some entity or material. Whether or not articles, quantifiers and demonstratives are also to be counted among the list of properties is open to dispute, since at least some of the functions of determiners involve pragmatics rather than propositional semantics. The main purpose of this discussion is to describe the predicative capacity of noun phrases, not merely of their head nouns.

It is extremely important to note that this view of reference does not entail a classical theory of categorization. Let us say that, for whatever reason, we want to distinguish incidental properties from criterial ones (i.e. those which form the set of properties predicated of the entity): we could still structure those criterial properties in a prototype-based category, as long as we had general principles of categorization from which we could infer membership status based on the holding of those properties. In this discussion I am vastly oversimplifying how the categories (or mental models of those categories) are structured as regards issues like criterial vs. incidental features, degrees of category membership, etc.; such matters are not of immediate concern to us.

Bach (1967, 1968) proposed (using *Aspects*-style notation) that all NPs start out in the base component as predicates and do their referring by means of a system of operators and variables which bind them to argument positions. McCawley (1968) elaborated and further formalized this position, using predicates and coindexing them with variables as arguments. He discussed some of the ramifications of this treatment for such classical phenomena as the referential/attributive distinction, *de re/de dicto* ambiguity, and the double-quantifier sentences. His article points out that to cover referential uses of language in cases like Donnellan (1966) discusses, we must appeal to some mental model which is shared, or presumably shared, by the interlocutors, rather than merely some idealized objective world or partial world. In Donnellan's example, *The man with the martini in his hand is a spy*, a successful act of referring can be effected even when the man denoted holds a gin and tonic, if the speaker believes he holds a martini, and the hearer can pick out the man based on his understanding of that description. McCawley observes that Donnellan's sentence can be handled if the speaker's information, however erroneous, is uttered in the belief that his hearer will, with the supposedly fitting description, be able to

identify the man. Fauconnier 1985 makes analogous assumptions, both in implying his acceptance of this theory of NP reference-via-predication (with roles as an important added construct) and in stating outright that the models he proposes should not be construed as referring to states of the world, but rather (he implies) are contained in language users' mental constructs.

While certain proponents of the reference-via-predication view would dispute this conclusion, the conception of the referring abilities of NPs (and, by implication, of nouns themselves) lends strong support to the position that linguistic expressions have meaning by virtue of a mediating cognitive structure, rather than by a direct link to the world referred to. This is because of the demonstrated fact that NPs can also have meaning, and hence reference, by means of evoking a frame. I cannot possibly do justice to a theory of frame semantics here, but I will outline just those aspects of it which are important for my data and sketch out how they relate to the referring-via-predication procedure. Frame semantics (propounded e.g. in Fillmore 1975, 1976, 1978, 1982, 1985) is simply this: associated with lexical items are large structures of general knowledge, including what is known in the linguistics literature as "encyclopedic information". That is, this is a theory of meaning (word meaning and sentence meaning and ultimately text meaning: cf., e.g., Kay 1983) which defines meaning as something much larger than, say, lists of properties which distinguish one lexeme's meaning from every other lexeme's, or the conditions which must hold "in the world" in order for a sentence to be true. Rather, lexical items evoke **frames**, which are not-specifically (or not merely) linguistic knowledge structures or mental models. Frames comprise at the lexical level the aforementioned encyclopedic information and, by extension at other levels, such rich areas of semantic and pragmatic signification as implication, presupposition, etc. A beautiful example of how these extralinguistic knowledge structures interact with specifically linguistic

considerations is the following simple, eminently interpretable sentence:[10]

6. We stacked the beer in the garage.

In thinking about the selectional restrictions on *stack*, we think about the selection of a direct object which refers to a group of objects with surfaces which enable stability of position when one of the said objects is placed on top of another. When we think about the semantic features of *beer*, among those we think of as the defining properties of beer is its being liquid, hence **without** a (fixed) flat surface such as is conducive to stacking. Yet it is so far from true that there is anything wrong with the combination of *stack* and *beer* that one must listen very hard even to be able to recognize what is remarkable about the sentence. There is a very obvious and very good reason for this, which comes down to our knowledge frame about beer in our society. We know about beer that it is sold in portions which are contained in vessels which have some surfaces onto which and by which stacking can be performed. Yet there is no evidence for the claim that these facts are facts about the **word** *beer*: it is obvious that they are facts about the **stuff** beer. Of course, in a cognitively-based, knowledge-structure approach to semantics, this is just what semantics is all about: it is where linguistic conventions abut properties of the (perceived) world.

The most standard approach to semantics—i.e. that concerned solely with truth-conditions—is consistent with the reference-via-predication view. However, for even simple cases like (6), such a view fails empirically. It seems not only empirically well-founded but theoretically more coherent to include frames and other mental constructs in a semantic theory, since predication involves the evocation of the sets of properties understood as holding of an entity. Once such models are introduced for the simple purpose of referring-via-predication, then

[10] graciously provided by Charles Fillmore

there is no cost in allowing these models to include much more—"nondefinitional" aspects of meaning—and to allow a theory of use in which speakers exploit that information as well. This may make the boundaries of "grammatical" knowledge hard to discern, or may make them disappear altogether. Far from being a problem for the theory, this is exactly the approach to the relationship between linguistic and general competence that a cognitivist position advocates.

2.2.2. Relational nouns

The theory of NP reference sketched in the previous section was really background information which will apply to any use of a noun phrase; it is not a particular fact about the noun-phrase complements of HAVE. One semantic property which has general relevance to HAVE-constructions and to a small inventory of other constructions of English is the property some nouns have of being "relational". Here I will discuss a little bit what "relational" means, how it fits in with noun phrase reference, what problem of HAVE-constructions it purports to solve, and what I think about the whole business.

Definitionally, a relational noun is one that denotes not a property or set of properties criterial to some category membership (remember my caveat in sec. 2.2.1 about theories of categorization)—that is, a one-place relation—but rather a two-place relation—and, additionally, it picks out one of its arguments as well. Kin terms, (body-) part terms, etc. are usually cited as examples of relational nouns. For instance, an item like *brother* is analyzed as really denoting the relation of siblinghood between two people one of whom is male, and (additionally) denoting the specifically male sibling (cf. Bendix 1966:7). An intuitive way to think about this is you can't be a brother unless you're a brother to someone (in the literal kin-term sense I refer to here). Another way to think about it, which is just a generalization over the last one, is that the criterial properties evoked by

the use of the word include relations to other entities or matter.

An example from part terms which is discussed in illuminating detail by Langacker (1987) is *hypotenuse*. That word refers to an entity which is a subpart of another specific object, namely a right triangle. In fact, all the properties which distinguish hypotenuses from other sides of geometric figures ultimately fall out of the distinguishing properties of right triangles. The Cognitive (erstwhile "Space") Grammar treatment of these nouns reduces this phenomenon to the more general distinction between **profile** and **base**, a treatment which has considerable merit, as we shall see presently. The point of the examples is that these nouns refer by virtue of a *n*- (usually two-) place, rather than the usual one-place, relation. Just to preview very quickly what about this semantic property is important to HAVE-constructions, one approach to the diversity of meanings of HAVE-constructions is to say that when NP_2 is a relational noun, the relationship between the two denoted entities is provided by the evoked relation—and, by inference or by corollary, no part of the meaning is provided by HAVE. The numerous questions such an account raises will be addressed later. But one question that has to be addressed here is: if when the relational noun is in NP_2 position it expresses a relation **and** one of the related entities, what is that noun doing when it is in NP_1 position in a HAVE-construction, or in any argument position of another predicate? It would seem in these cases that the relation is in some sense being directly referred to. Now in some such positions with some relational nouns the relation is still claimed to hold: for nouns like *finger* or *brother*, one normally finds an inflected or periphrastic genitive expression in which is found the other member of the relation: *My finger hurts; The brother of my math professor died yesterday.* In those cases the relation can still be being exploited since the other member of the relation is referred to. But in other cases, as for instance *The father spanked the child*, the other member of the

relation is not expressed inside the noun phrase, though certainly it is readily accessible from context. From an example like this, it is difficult to understand the content of the claim that the subject there denotes a relation and one of the members of the relation. We still want to say that we understand these entities in terms of a specific relation to some (unspecified) other entities, but that is not the same thing as saying they denote the relation.

However, this problem with what is being denoted *vs.* what is part of the background understanding of the denotation becomes a nonproblem once the idea of semantic frames (including an idea like that of profile and base) is introduced into the descriptive apparatus. In understanding word meaning in terms of the frame it evokes, the speaker understands the entire scenario—entities, the relations between them, the whole scenario—without really worrying too much about which particular part of it is being "referred to". This is not to say that nothing in particular gets referred to. Some distinction analogous to Langacker's between profile and base will ensure that there is a privileged participant in or part of this scenario that is singled out for reference. For instance, an expression like *wife* most assuredly cannot be used to evoke the male half of the marital partnership, in its strictest uses. In Langacker's terms, the female partner is the profiled entity, and the other information will constitute the base.

The frame semantic approach solves a problem which I have never seen addressed in the literature on HAVE, which is this: if a relational noun denotes the relationship between two entities, then how can a sentence like

7. She has a beautiful body

be ambiguous? On one reading, we're talking about the body she inhabits, and in the other we're talking about one other than the one she's in. According to the impoverished view of semantics assumed in the definition of "relational" nouns, we have two alternatives: to claim that relational nouns are monoguous and

always relational, or to claim that they are polysemous, with one relational and one nonrelational meaning. With the first alternative, the "nonrelational" reading of (7) must be the result of a "relational" reading of *body* and a pragmatically-provided argument of the relation (since it is not to be found in the sentence). That means both the relation between NP_1 and NP_2, and the holder of the relation inherent in NP_2, must be provided pragmatically. (In the latter case, the NP may contain an indefinite argument.) The second alternative entails rampant and completely redundant polysemy.

It seems that the frame semantics view provides the potential for resolving this embarrassing example. Using semantic frames in conjunction with the reference-via-predication view means that the relation is there to be exploited if necessary and can sit quietly in the background if it is not. A profile / base distinction, or its frame-semantic analogue, is much more general than that between relational and nonrelational, and does not suffer from the defects of the characterization of "relational" nouns with its underlying view of language.

Moreover, it is often impossible to tell just by looking at a noun whether it will be grammatically relational or not. That is, it is not always obvious from what one thinks of as the meaning of the word, and it is never obvious based on the entities referred to by the word. In other words, it is not—as one might expect—a purely conceptual class: it appears to be partly a formally defined class. Often the analyst must look for fine threads of evidence and even after that the answer is not unequivocal. For instance, a man can refer to his spouse as "the wife", while a woman cannot (so easily) refer to her spouse as "the husband". Does this mean that *husband* is a relational noun and *wife* is not? And if so, can we claim a conceptual distinction which this grammatical distinction reflects? None of these problems arise if we throw out the spurious dichotomy and admit frames in the background of all items to provide "relational" readings

if necessary.

There is another point which is often ignored or dismissed in discussions of relational nouns. Just as HAVE-sentences with indisputably "relational" nouns have a very prominent first reading, in which the relation expressed by the nominal is predicated of the other entity referred to in the sentence, other nouns which are not indisputably "relational" equally strongly encourage an analogous first reading, a reading which is overridden only with lots of context. In the previous sentence,

8. She has a beautiful body

the relational reading is immediately accessible and very prominent. The other reading or readings[11] are provided by specific contexts; it might be, for instance, that she has a cadaver that is really conducive to dissection. But exactly the same facts hold for nonrelational nouns: if I say

9. I have a wonderful haircutter

the hearer just as quickly, just as surely, and just as unmarkedly gets an interpretation of client-professional. And it is similarly difficult to get an alternative reading, because it is hard to imagine, out of context, what other kind of relation could hold between these two people as identified.[12] Of course, context will again provide nonrelational interpretations; for instance, it might be that the interlocutors must find a haircutter to recommend to a visiting relative, but the speaker of (9) does not employ the services of NP_2'.

[11] Whether we decide there are one or more alternative readings depends on what else we decide about the semantic properties of HAVE-constructions. For the moment it makes no difference which decision we make.

[12] The phrase "as identified" is important here. Frame semantics can only make sense in a larger context of something like Gricean cooperative principles: we have to know that my referring to a person as "my haircutter", as opposed to using "Jennifer", or some other description that fits her, is in the service of communicative intent.

But there is another fact to consider. It has been observed that

10. She has a body

is technically grammatical but borders on the unparsable, on the relational reading. Invoking the relational character of the noun and the facts about the world retrievable from the semantic frame, it is obvious that it is a bad sentence because it is completely uninformative. The sentence

11. I have a haircutter

is also pragmatically quite marked; it is not as strange as (10), but it is odder than (9). It is not completely uninformative because some people, as we know, do their own hair, while nobody has no body. But by contrast, (12), on the relational reading,

12. I have a brother

is less pragmatically marked. One can imagine saying (11) as an indirect response to a question like "Where should I get my hair cut?". (12), on the other hand, can just be uttered as a direct statement about the speaker's family. And *brother* is one of those nouns that are called "relational". The point of this is just to show that there is no consistent behavior of nouns in these constructions which would let you know that a noun is relational or not: a noun's being "relational" does not entail a particular grammaticality judgment in HAVE-constructions. The acceptability has more to do with what can be inferred about the world in general: the existence of certain relationships between people in the world isn't a fact that we need to make part of the grammar.

Nouns like *haircutter*, which are not "relational" on the traditional account, nevertheless have associated with them a rich background frame which provides a default interpretation of the relation which is just as robust as it is for uncontroversially relational nouns. Thus, no significance with respect to the

acceptability or interpretation of HAVE-constructions can be ascribed to the distinction between "relational" and "nonrelational" nouns. This collapse of the distinction entails the failure of a popular analysis of HAVE as meaningless: no position is tenable which relies on some asymmetry between values of NP_2 which "semantically" provide the relation between the two referents of NP_1 and NP_2, and those which do not, hence relying on "pragmatic" interpretation of the expressed relation.[13] This is not to deny the existence of a class of relational nouns which may have other semantic significance or grammatical reflexes in English.

2.2.3. Alienable and inalienable possession and NP_2

The concept of nouns of inalienable possession is quite closely related to the idea of relational nouns. The chief difference between them seems to be the kind of linguistic phenomena which are taken as evidence for their existence. Like "relational" nouns, inalienable-possession nouns are members of that class partly by linguistic convention, not because of objective properties of the world. (cf. Nichols 1986, Fillmore 1968:62.) For instance, it is evident that body parts are never truly inalienable, and disowning of relatives is done either legally or by practice all the time.[14] But there are languages other than English for which the distinction between "alienably" and "inalienably" possessable objects has linguistic reflexes for their referring nominals, such as, for instance, partaking of a dative-subject construction in the latter case and some verb-headed predicational

[13] The same argument can be made for genitives, cf. Nikiforidou 1988. In fact, many of the arguments made about HAVE in the traditional literature and counterargued here have analogues in Nikiforidou's discussion of genitives. The purported difference in interpretation between relational and nonrelational nouns is equally oversimplified as an account of possible interpretations of the genitive.

[14] Cattell (1984) gives a reasonable and intuitive notion of the semantic category of "alienability".

construction in the former.

The difference between alienable and inalienable is said to account for the following minimal pair:

13. I have a missing tooth
14. #I have a missing $5 bill

(* on the reading analogous to that in (11))

(13) cannot mean 'I possess a tooth that's missing [from someone else's mouth], as does (13′):

13′. I have the missing tooth.

The grammaticality judgments given by Fillmore are indisputably correct, but the difference in grammaticality cannot reduce to the simple difference between alienable and inalienable possession. We can see that in (15) and (16):

15. ?I have a missing daughter
16. "[I had to wait in line at the bank for half an hour because] they had three sick tellers."

These supposed counterexamples need a lot of explaining. (15) is intended to counterexemplify the claim that inalienable possession nouns can partake of this HAVE-construction in which HAVE cannot predicate a possession relation between NP_1′ and NP_2′. This is a counterexample, of course, only on the assumption that kin terms are just as inalienable as body part terms, but this is a safe assumption under a view which treats alienability as a binary property. (16) is presented as a counterexample in the other direction. When I heard this sentence uttered, it was evident that "they had three sick tellers" conveyed 'three tellers were absent because of sickness', so **in context**, its meaning parallels that of (13). (15) and (16) do not exhibit a perfect paradigmatic opposition to (13) vs. (14), but the fact remains that *teller* is not an inalienable-possession noun, yet it bears the same relation to the conveyed predication in (15) as *tooth* does in (13).

There is no question that there are robust linguistic reflexes of inalienability in other languages. But the cross-linguistic existence of a grammaticalized distinction should not itself drive us to say that HAVE encodes it.

In a way exactly parallel to the arguments given above for relational and nonrelational nouns, we can observe that inalienable-possession nouns pretty much automatically carry a rich background frame which is required for their understanding. I do not have an explanation for why (15), *I have a missing daughter*, is worse than (16), *They had three sick tellers* (if it is), but I note again that in (15) the relational character of the nominal (and hence its inalienabilty) is not really being utilized. By contrast, in the context of the utterance of (16), the background information invoked by the word *teller* was extremely relevant to the point of the utterance, namely that because they were absent, the bank was unable to provide the intended service. Given a frame semantics, *teller* designates a role which can be seen as bearing the relation to a bank parallel to that which an inalienably-possessed object bears to its possessor. Note that *teller* is unusual in that its construal as an "inalienable possession"—relative to the bank—appears to be different from its construal as a "relational noun"—of the client. Since both institution of employment and participant in rendered service will be part of the frame evoked by the use of the word, there is no conflict here, and no additional statement need be made. It is clear from these examples that contextually-evoked associations to backgrounded information in semantic frames are just as satisfactory for fulfilling the requirements of this kind of structure as is the putatively lexical property of inalienable possession.

2.2.4 Noun modification and predication; their semantics and syntax

Sentences like (17), which do not entail the existence of $(NP_2)'$, have been taken as evidence against analyzing HAVE as meaning something like 'possess':

17. I have a missing tooth.

As noted above, (17) doesn't mean 'I have a tooth [that's missing from someone else's mouth]'. The meaning of (17) is something more like 'I am experiencing tooth-missingness', much like (18), a three-place HAVE-construction which has *missing* in its XP position:

18. I have a tooth missing.

We could just treat (17) as we treat (18), in terms of its constructional semantics. This move not only assimilates two sentence types under one reading; it also eliminates the first step in the argument that HAVE has no real semantics.

But we need to justify this move independently, which is easy to do. We need only to observe that the analogous strangeness in reading appears as a possibility with other predicators, items that cannot plausibly be argued to have no lexical meaning, as for instance (19):

19. "I found a missing question mark on p. 241."

which is about as close to synonymous with (20)

20. I found a question mark missing on p. 241

as (17) is to (18). Similar examples are easy to produce: example (21)

21. The kids sat around all day making dirty dishes

seems (on the relevant reading) more natural than the roughly synonymous, three-place (22):

22. The kids sat around all day making dishes dirty.

Moreover, it is not difficult to find examples where a 2.NP sentence form with this kind of deviant-predication reading has no alternant in 3.XP, as is the case with PRODUCE (23):

23. The kids sat around all day watching the ballgame and producing

ty dishes.

All the sentences (17), (19), (21), and (23) are examples in which the predicator takes as its second argument not an entity but a state of affairs, even though its complement, the formal expression of its argument, is a NP with a modifier, rather than any expression which is overtly predicational.

Obviously, what is at issue here is that there is a discrepancy between the form of the expression, which includes a modifier, and its function, which is clearly predicational. This raises the question of what the relationship is between the two functions of modification and predication. In certain conceptions of a grammar (for instance, categorial grammar), predicates and modifiers are both defined as functors. This corresponds to an intuition that both match an entity with a state of affairs that holds of that entity. The difference between them, on that conception of a grammar, is that a noun modifier, or any modifier, takes as input a member of category X and gives up an object of the same category type; a predicate, on the other hand, takes an entity and gives out an object of a different category. In the syntactic analogue that interests us here, a noun modifier takes an entity and gives up an entity, while a predicate takes an entity and gives up a state.

A possibly unorthodox way to think about this is that modification is "backgrounded" or presumed predication, a predication not being predicated by means of the utterance. But this is just the usual case. The examples given above suggest that a modified NP can be used with the function of a predication. In the next section we will see that the modification structure cannot always be used with a predicational function. That is, one cannot always entertain a reading corresponding to the state-of-affairs reading of the NP_2 in (17), (19), (21), and (23), even when the predicator is one whose lexical semantics appears compatible with such a reading of NP_2. In fact, we will see that HAVE does not allow that reading in all cases. But this appears not to be a problem specifically for HAVE,

since it is just as difficult to get (24) on this reading as (25).

24. #I found my missing wallet (≠ I found my wallet missing)
25. ?I have a missing $5 bill (≠ I have a $5 bill missing)

The restrictions on the availability of this reading must be a consequence of a number of factors: the lexical semantics of the matrix predicator, the frame evoked by the head noun of NP_2, and such other properties of NP_2 as the form of its determiner (e.g. it is apparently impossible to get this reading when the determiner is possessive or demonstrative). I have not established what all the contributing properties are; but I do know that this structure works the way it does by allowing NP_2 to evoke its frame and to pick out its privileged entity in the frame without further bestowing of argument status on the referent of that nominal. Instead, the argument of the matrix predicate is the state of affairs, the scene, expressed by means of the NP.

This brings up the question of the existence entailment. In a case like *He has a missing finger* or *He was born with a missing finger* the finger's nonexistence is entailed. That fact is the reason that these sentences created such a problem in the analysis of the meaning of HAVE: How can HAVE denote possession when the "possessed" object necessarily doesn't exist? Now I think we have an answer, which is that maybe we have entailment in a mental space of some kind. Maybe what we have is in the frame for $(NP_1)'$ a slot for the referent of the head of NP_2. That seems to be true at least for HAVE (as we shall see in the next section). In the general case, with this deviant-predication reading, a space-builder is necessary where the head of NP_2 is entailed in that space. This is suggested at least by the fact that many predicators which allow the deviant-predication structure are verbs of creation, either in the real world/origin space or in some embedded space (as with FIND, DISCOVER, etc.). If this turns out to be true, it would go a long way toward generalizing Fillmore's (1986) original

explanation of the grammaticality of (17) as a consequence of the relationality or inalienability of NP_2. A noun's corresponding to the filler of a slot in a preexisting scenario is a general kind of referring of which being a relational noun is a special case.

To summarize so far: I have briefly outlined an account of the referential capabilities of noun phrases, supplementing a fairly well-accepted approach which appeals to the predicational potential of nominals with the rich but less widely-exploited potentials for referring—or rather evoking—which are provided by the theory of frame semantics. This general approach toward meaning will be invoked again later when the question of constructional semantics and compositionality arises. Here I have used the approach in an informal way to subsume under a maximally general account of reference a couple of previously-advanced hypotheses about the semantic properties of the second complement of (two-place) HAVE-constructions. I want finally to return to the matter of referring-via-predication and see what this account implies about predicational uses of nominals with specific reference to the predicational third complement in three-place HAVE-constructions. The attentive reader will already have noticed that while this is supposed to be a discussion of the internal properties of the constituent constructions, I have systematically been presenting my arguments by appealing to certain features of the external environment of HAVE-constructions. I shall continue in this practice in section 2.3, including section 2.3.7, where I address the question of how NPs function as predicational complements.

2.3. Values of XP.

The remainder of the constituents to be considered are all values of the predicational complement of HAVE-constructions, whether of the two-place or the

three-place varieties. Unlike the other constituents we have looked at so far, the XP position is the site of an enormous amount of variation as to phrasal type. We must consider the constructional semantics of each of the constituent types exemplified in (26) - (32). The table is to be interpreted in this way: the first column is just the name of the phrasal constituent whose properties will be at issue. The second column lists the HAVE-construction types in which that constituent is found (where the numeral denotes the total number of complements, and the phrasal designation is the last of those complements, as before).

	XP value	construction type	example sentence
26.	VP_{EN}	2.VP_{EN} (pass)	I have done it.
		3.VP^{EN} (perf)	I have it done already.
27.	VP_{ing}	3.VP^{EN}_{ing}	We had them rolling in the aisles.
			Her excellent teaching style had them knowing French in a matter of weeks.
28.	NP	2.NP	I have two brothers.
		3.NP	Imelda's count had Ferdinand the victor.
29.	AP	3.AP	She had him angry before she even opened her mouth.
30.	PP	3.PP	She has a hole in her pocket.
31.	VP–	3.VP–	She had him eat bread and water for a week.
32.	VP_{to}	2.VP_{to}	I have to finish this right away.
		3.VP^{to}_{to}	I have these papers still to grade.
			I have an understanding advisor to get me through this.

Note that all these include tenseless predicational complements. Some dialects of English have a related HAVE-construction which includes an uncomplementized finite VP, as in

33. I have an uncle's an engineer.

Knud Lambrecht has investigated this construction in Lambrecht 1988. I have not considered this construction in the present study, but I believe that it fits in semantically with my Attributive / Existential class, a constructional meaning which is in keeping with Lambrecht's functional explanation.

All of the complement values in (26) - (32) appear in other contexts in English; however, the external context of some is highly restricted, whereas for others it is quite free. The most restricted ones are NP (whose borderline predicational status has already been discussed), and the two infinitives, VP– and VP_{to}. The rest of the XP values appear both as optional secondary predicates (elsewhere known as "small clauses"), in sentences like (34) - (37):

34.	VP_{EN}	I ate my dinner heated over the campfire.
35.	VP_{ing}	I ate my dinner waiting for the bus.
36.	AP	I ate my dinner cold[15].
37.	PP	I ate my dinner out of the can.

They also as predicational complements of other predicators. Such predicators take propositional second arguments, and include valence descriptions which in a framework like the Standard Theory would have been derived by raising-to-object position, either optionally or obligatorily:

38.	VP_{EN}	I want my dinner heated.
39.	VP_{ing}	I want my dinner sitting on the table as soon as I get home.
40.	AP	I like vichyssoise cold.
41.	PP	I prefer my chili in the can.

While the two infinitives and NP do not appear as (adjunct) secondary predicates,[16] all of them are found as well as predicational complements:

42.	VP_{to}	I want him to leave.
43.	VP–	I made him leave.
44.	NP	I made him a star.

But VP– is distinguished from the other two in not being a possible complement of BE. That is, sentences of the form (45) and (46) are acceptable while no

[15] As far as I can tell, both (matrix) subject and adjacent-NP control are available to all values of XP.

[16] unless we consider purpose clauses to fall into this class, for which there are several counterarguments.

sentence of the form (22) is acceptable:

45. VP_{to} He is to leave immediately.[17]
46. NP^{to} He is a doctor.
47. VP– **He is leave immediately.

Thus we can see that there is no homogeneous class XP which we can treat as a single phrase-variable constituent type in all possible external contexts. I will use these differences among XP values later, in conjunction with their constituent-level semantics, as evidence for the lexical network I propose for HAVE.

2.3.1. AP

Most adjectives are analyzed as denoting one-place relations, although there are occasional two-place adjectives. Because they are states and states can either be enduring or can be a boundary of an activity or process, adjective phrases are aspectually compatible with XPs which bear either of the semantic relations of result or of co-incidence with the matrix-clause event.

A common default interpretation of adjectives is that they express properties which are not under the control of the entity holding them. But this is not necessarily true of adjectives. However, in HAVE-constructions, it is much easier to interpret the AP in a sentence like (48),

48. I had him angry the moment I walked in the door

as predicating a property not under the control of its attribuand. If such control is to be ascribed, it is more accessible when the AP is embedded in a copular VP;

[17] This is admittedly a pragmatically as well as semantically restricted construction: its external semantics is much less a compositional product of the semantics of its constituents than most copular sentences are. I am tempted to say that the BE which takes a VP_{to} complement belongs to a different valence description than the one that takes the remaining values of XP.

compare (49):

49. I had him be angry so that the children wouldn't tease him any more

where the XP has the interpretation 'act angry' or 'work up some anger (deliberately)'. There is no incompatibility with the meaning of the adjective that its attribuand be able to generate the property, but it is a marked interpretation.

This default interpretation for adjectives explains a supposed mystery of adjective distribution noticed by Cattell (1984). He claims that only "noninherent" adjectives can appear in HAVE-constructions. This claim is inaccurate in detail, since sentences like (50) are easily interpreted:

50. The movie version has him handsome and slender, even though he was just ordinary in the novel.

The sentence is interpretable simply because it describes a situation in which "inherent" properties can be brought about. To the extent that Cattell's observation is accurate, however, it follows from the external semantics of HAVE-constructions. Inherent adjectives are acceptable only if the reading is Resultant State/Event and it holds in an embedded mental space such that the bringing about of that state is possible in that world. I believe that the remaining oddness of using "inherent" adjectival XPs is simply that they are not sufficiently informative and are not sufficiently relevant to the subject referent to appear in HAVE-constructions.

2.3.2. PP

The most celebrated among the PP predicational complements of HAVE-constructions are those which express stative locations. These phrases had an important role in the Standard Theory argument (Emonds 1976:110-111) that certain HAVE-sentences were derived transformationally from existential sentences (and hence could contribute no semantics of their own). We'll look at this

phenomenon and the accompanying argumentation later. Furthermore, locative prepositions are indisputably predicators, unlike other prepositions which are arguably used only to mark Semantic Role. (So, for instance, an *of*-phrase will not qualify to be an XP complement.) Idiomatic prepositional phrases are acceptable, as long as their conventional meaning is predicational. Like adjective phrases, preposition phrases are not restricted to a particular constructional reading, nor to a particular semantic relation to the event expressed in the main clause. However, there are semantic restrictions on what prepositions can be used: PP XPs will have to be compatible aspectually with the predicate type selected by the reading.

I include in the class "PP" such objectless prepositions as those found in (51):

51. That man has plaid undershorts on.

The absence of a coreferential pronoun object of the locative PP XP is not a property peculiar to HAVE-constructions. Rather, it is a fact about attire nominals:

52. He put his plaid undershorts on.
53. He took his plaid undershorts off.

This is the normal way to express this special locative relation and is possibly a grammatical consequence of the semantic "reflexivity" of the action: to say (54) has different and slightly marked implications, and I am not sure (55) is acceptable at all:

54. #He$_i$ took his plaid undershorts off him$_i$.
55. ?*He$_i$ took his plaid undershorts off himself$_i$.

(on the reading where *himself* is the object of *off*.)

The attire examples are nice because they are very clear as cases where "locative" HAVE-constructions cannot be derived from the corresponding Existential copular sentences:

56. #The man's plaid undershorts are off.

Example (56) may be acceptable, but its interpretation must have quite different associated pragmatics.

A more interesting class of prepositional or preposition-like XP values are those exemplified in (57) - (58):

57. "I'll have this to you by tomorrow."
58. We are having the girls over tonight.

In these examples, the preposition phrase or particle seems simultaneously to express motion and to implicate the resultant stative location, the latter in accordance with the semantics of the construction in which they are found. Note that they can be paraphrased fairly accurately by means of a motion verb plus the preposition phrase:

57.′ I'll have this sent to you by tomorrow.
58.′ We are having the girls come over tonight.

I note this here because it suggests something very interesting about the expressive possibilities of prepositions: that depending on the surrounding environment, they can express a "hidden" predicate either of motion or existence/location, and that this freedom of expressive possibility makes them available for XP duty in a much larger range of constructional readings than I have found discussed as such in the literature.

2.3.3 VP_{ing}

The various verb phrases offer the most engaging semantic puzzles, because of their more direct paradigmatic opposition and because they are of the class which serves formally as predicational constituents in the largest range of contexts. Also, of course, inflectional morphology bears some indirect relation to the semantic aspectual interpretation which will prove so important in the

composition of constituents in HAVE-constructions. That morphology appears only on lexical verbs and hence itself enables a wide range of semantic variation.

VP_{ing} is found as the predicational complement in many readings of 3.XP HAVE-constructions: Resultant Event/State, Depictive, Experiential, and Attributive-Existential. More importantly, perhaps, the constructional readings which do not allow a VP_{ing} secondary predicate are the Causative (which selects either a VP– or a true passive participle) and the other semantic types which are associated exclusively with a single syntactic form, notably the Obligation case.

However, to say that a VP_{ing} form is in general available for the secondary predicate position is not even the beginning of an adequate description of this phrase type. There is a large number of syntactic environments in which this value of VP, having "progressive" inflection, is used when no especial progressive semantics is to be attributed to the verb so marked. Among the syntactic environments which select this predicational form are[18]:

Absolute-like, circumstantial clauses:[19]

59. Knowing how busy you are, I won't ask you to wash the dishes.

Postnominal modifiers:

60. Everyone knowing the answer will be excused from doing their homework.

---

[18] Williams' (1975) early work on "shallow clauses", which led to the considerable work on "small clauses", was largely devoted to analysing VP_{ing} predicates as they appeared in these larger environments listed below, and to assimilating them to one general category. Unfortunately, Williams did not address any of the issues of the different interpretations of VP_{ing} predicates in these different contexts.

[19] These are dealt with as a class by Erdmann (1981), who similarly observed the aspectually neutral semantics of these constituents in formally nonfinite contexts. He notes further that VP_{ing} can appear in XP constituent positions for other constructions, like the *There*-existential, with the same aspectual profile:

i. There is a panel of wood dividing each box.
ii. *A panel of wood is dividing each box.

Gerunds and gerundial nominalizations:

61. Swimming in the pool always makes my eyes hurt.
62. The bombing of Pearl Harbor is now considered to have been a mistake.[20]

These can be dismissed from consideration here, though a complete analysis of the semantic and distributional properties of -ING in general should include it. The complement positions that these gerundials fill correspond to nuclear terms, rather that predicational arguments, and hence are not members of the set we are considering here.

Besides HAVE-constructions, there are only a few types of predicators which take complements in VP_{ing}:

63. He started washing his car.
64. I saw it crawling up my leg.
65. These brakes need fixing.

Of these, only (64) exhibits progressive semantics for the VP_{ing} complement.[21] (65) is very strange semantically, since it is passive-like in its meaning, and only a small set of predicators (NEED, REQUIRE, WANT, and possibly a few more) allow the VP_{ing} complement type with passive semantics.

[20] I am ignoring here the distinction between "event" and "action" nominalizations, whose different semantics can be teased out by the following minimal pair:

i. His eating the apple was disgusting.
ii. His eating of the apple was disgusting.

(i) is a commentary on the manner in which the activity is carried out, while (ii) remarks on the fact of eating.

[21] SEE is an interesting predicator, because like HAVE, it has both two- and three-place valence descriptions. In a sentence like *I saw it [while I was] washing the dishes*, the VP_{ing} constituent can be interpreted as an optional secondary predicate, as evidenced by the possibility that NP_1 can distantly instantiate the subject requirement of VP_{ing}. However, there seems also to be a true three-place reading available for SEE in a sentence like (64), since there are two readings for (64): one in which the speaker observed the event of the object crawling, and another in which the speaker observed the object while it was engaged in the activity of crawling. The second is the secondary predicate reading. The first alternates with a VP– value of XP: *I saw it crawl up my leg*, which I will discuss in sec. 2.3.6.

Cases like (63) are somewhat subtle. It appears that the VP has true progressive meaning, especially if we notice that stative verbs, which cannot have (simple) progressive meaning in main clauses, do not sound completely acceptable in this form:

66. ?He started knowing their names all of a sudden.

(66) has an interpretation much like (67):

67. My students are knowing more and more French these days.[22]

which makes it seem as though START requires a true progressive, not the nonprogressive value of VP_{ing}. On the other hand, (68)

68. He started believing in the supernatural.

is fine on a simple, aspectually imperfective reading, while (69)

69. ?He is believing in the supernatural these days.

requires the same kind of special interpretation that (67) does. So it is unclear whether START and STOP and the other "aspectual" predicators require real progressive complements, though the implication of (69) is that they do. What is clear from these examples is that, whatever the aspectual profile, be it truly progressive or merely, and more generally, aspectually extended, VP_{ing} morphology on the head verb usually entails the occurrence of (some portion of) the expressed event.[23] However, this entailment must be relative to a mental space (which includes as a possibility the origin or "real-world" space) rather than just the real

[22] The comprehensibility of this sentence provides further evidence for the role-value distinction, since the only way we can interpret this sentence is to take *my students* as denoting a (plural) role whose value is changing over a period of time; it is the knowledge of French of a given group at time t which has increased over the knowledge of French found in the group filling that same role at time $t - n$. It has been observed repeatedly that the plurality of the participants is one of the features that makes a normally stative predicate interpretable as an active, hence progressivizable, predicate.

[23] This will depend on Aktionsart as well. If the verb is telic, its completion is not entailed; this is just the usual possibility with telic predicators with progressive inflection.

world, as suggested by (70):[24]

70. He imagined setting her corset on fire.

Certain aspects of the analysis of the distribution of VP_{ing} are complicated by its behavior in certain embedded contexts. There are some cases in which a normally-expectable use of a HAVE-construction in an embedded context, namely a postnominal modifier, is not acceptable, or not unmarked, as in (71):

71. I want to meet the woman {who has / #having} purple hair.

However, this is not a fact peculiar to HAVE-constructions, but is rather a general result when a referential head takes an *-ing* form modifying VP whose head is a stative predicator, cf. (72):

72. I want to meet the woman {who won / #winning} the contest.

This is just another wrinkle in the distribution of VP_{ing}—that when it appears as a postnominal modifier with a quantified head, either active or stative predicate heads of VP_{ing} are allowable, but when the heads are referential, VP_{ing} with stative predicates in modifier position are not acceptable or are highly marked. What is interesting about HAVE, of course, is that it is includes senses with both stative and active constructional semantics, so that many examples of the form (71) are not unacceptable, but force an active reading of the modifier—where the referent of its head is seen as having taken peculiar efforts or deliberation to bring about the state described in the modifier.[25]

---

[24] Again this is an oversimplification. It certainly doesn't differentiate, e.g., *I like eating vs. I like to eat.* The former has one reading which is pretty much synonymous with the latter (as well as one which evokes the activity of eating, say rather than the experience), and neither entails the occurrence of the activity more than the other. It is suggestive, however, that with subjunctives like *I'd like to eat*, the VP_{ing} form is unacceptable, except on a counterfactual reading.

[25] Profuse thanks are due to George Lakoff for proving to me that this was a red herring as far as HAVE is concerned.

By the way, it might be that the *Mental Spaces* framework will account for something that has always seemed a mystery: why postnominal modifiers in ING are better with quantified heads than with referring expressions as heads:

72. ?The/A boy knowing the answer will get a prize.[26]
73. Anyone knowing the answer will get a prize.

Quantifiers, for Fauconnier, set up a mental space, while referring expressions do not. Since ING-marking of a VP supposedly expresses entailment of the activity in a space but referring expressions do not set up separate spaces, only quantified expressions provide the space necessary for this kind of entailment. This is highly speculative and its correctness or wrongness has no consequences for the ensuing discussion. However, entailment in a mental space will arise again in our examination of HAVE-constructions, since the interactions between embedded mental spaces and acts of effecting or causing expressed by means of HAVE-constructions will provide the correct existence entailments of NP_2' in those environments.

The examples which provide evidence for the entailment analysis of VP_{ing} usually involve contrast with VP_{to}:

74. ?/#He started believing in UFOs, but then he came to his senses.
75. He started to believe in UFOs, but then he came to his senses.

There are also predicators which take VP_{ing} complements which indisputably have progressive meaning. Notable among these are the verbs of perception:

76. I saw it crawling up my leg.

Compare

77. I saw it crawl up my leg

[26] A definite NP is acceptable if it is interpreted generically. It is likely that this fact could be subsumed under the hypothesis about quantified expressions that follows.

where both VP XPs entail the occurrence of the event (in the perceptual space). I think that in this minimal pair, however, the VP- is aspectually neutral while in (76) VP_{ing} is a real progressive. Note that the marked infinitive is quite awkward with such verbs (except when they're passivized, which I take to be an independent phenomenon):

78. ?*I saw it to crawl up my leg.

This appears to be due to a clash between the external semantics of the marked infinitive and the existence entailment of complements of perception verbs.

The amount of work still to be done on the various interpretive possibilities of VP_{ing} phrases is staggering; it will require careful study of the semantic properties of the predicators that take them as well as attention to very fine details of the interaction of the Aktionsart of the head of VP_{ing} with the inflectional morpheme. At this point I can only note that there is a large number of contexts in which VP_{ing} can appear with a nonprogressive semantics (leaving out nominal-type complements):

—absolute clauses
—postnominal modifiers
—complements of "aspectual" predicators
—complements of NEED and WANT
—complements of propositional attitude (e.g. PREFER, LIKE, etc.)
—complements of HAVE

As we will see when we get to the constructional semantics of HAVE-constructions, sometimes the VP_{ing} complement of HAVE does have progressive semantics, and sometimes it just has an aspectually neutral but realis semantics. In the latter case, it contrasts in its aspectual profile with the bare-stem infinitive complement, a fact which has important consequences for the constructional semantic possibilities of the clause. For instance, a sentence like (79),

79. This new novel has Billy the Kid dying in the end

is ambiguous over a reading in which Billy the Kid is in the process of dying when the book closes, and another in which Billy the Kid has died. When the adjective in the VP_{ing} constituent is stative, the first possibility does not arise:

80. This new novel has Billy the Kid believing in UFOs.

(81), a HAVE-construction paraphrase of ex. (i), footnote 2, shows that a "Depictive" reading is not necessary for the nonprogressive use of VP_{ing} XP; but in (81), the VP_{ing} constituent is also easily interpreted as a postnominal modifier of NP_2.

81. Each box has a panel of wood dividing it.

My purpose in this long discussion of the external syntactic possibilities of VP_{ing} and it possible interpretation in these contexts is just to demonstrate that when used in HAVE-constructions, in examples like (80) and (81) and those to follow, there is nothing particularly special about the appearance of this XP value with nonprogressive semantics. HAVE-constructions are like other external contexts in selecting an aspectually neutral but realis predicational complement, and VP_{ing} has that as one of its values.

2.3.4. VP_{EN}.

The two paradigm uses of VP_{EN} are, of course, those in constructions with BE and HAVE as their heads. (I will not consider here the participial morpheme on nominal heads to render stative adjectives.) The general analysis propounded in Langacker 1982 that VP_{EN} profiles a sustained relation emerging from a process will do justice to these cases too.

One question to consider at this juncture is whether the VP_{EN} of the passive construction and that of the perfect construction are the "same" morpheme or

not. There is some evidence that they are distinct, and some evidence that they can be considered to belong to a single polysemous morpheme.

If one accepts a set of assumptions like Bach's they must be separate morphemes, since their building-block composition with either of the two meaningless morphemes BE and HAVE renders such different semantics. Now that that position is a straw man, however, we have to argue from some more reasonable premise.

Acknowledging the differences in the semantics of the two constructions, we have at least three options:

> to say VP_{EN} is the same morpheme in both cases, and composes differently with the different heads to give different construction-level semantics;
>
> to say that the two heads select different VP_{EN} and hence render different constructional semantics;
>
> to say that it is the composition of the head and the predicational complement, and that the difference in semantics is attributable to neither element.

Obviously the two constructions do have constructional status, and hence there is no psychological reason to decompose them. But there is also positive evidence that the VP_{EN} has two different interpretations independent of the presence of BE or HAVE.

The first kind of evidence is the existence of perfects, or perfect-like constructions, whose head is BE rather than HAVE:

82. The race is finished.
83. My wrist is swollen.
84. He is risen.

Obviously, constructions like this one, which I am arguing involve participial verb phrases, shade into the sometimes-identical ones whose complements we

identify as "participial adjectives". When the predicate is such that it can be intensified, the *very* test can sometimes choose between a participial-adjective vs. a participial-verb classification. Among the examples above, this only works for (83) (and the adjectival reading is certainly the preferred, if not the sole, interpretation for (83)):

83′. My wrist is very swollen.

It is probably the case that the others can be distinguished by the possible interpretations of intensifiers like *really*, which can operate on propositional content or speech-act preconditions (cf. Brugman 1986, Van Oosten xx), but the judgments are subtle. So (82) and (84) can contain *really* and *truly* only on the speech-act preconditions reading, which suggests that the participles there are verbs rather than adjectives. If they were adjectives no reading would be available for them (since the intensifier reading is incompatible with their semantics).

82′. The race is really finished.
84′. He is truly risen.

This judgment depends on a finely-honed ability to distinguish almost indistinguishable uses of adverbs.

A stronger piece of evidence was observed by Bresnan (1982). She noted that VP_{EN} complements of predicators and absolute clauses always have a "passive" rather than a "perfect" interpretation. This means that (85) can only have a paraphrase like (86), not (87):[27]

[27] A sentence like

I want it done by the time I get back

may be taken as an example of a participle which has a perfect interpretation even without the presence of HAVE. It does have "perfective" semantics; however, *it* is still construed as fulfilling the grammatical subject requirement of *done*, which is all I intend to invoke with the use of the word "passive"; I remain agnostic as to whether we need to further differentiate states resulting from the actions expressed by the passive verb.

85. I want it eaten by the time I get back.
86. I want [that meal to be] eaten by the time I get back.
87. I want [the cat to have] eaten by the time I get back.

Similarly, only (88), and not (89), is acceptable (cf. (90)):

88. Beaten by the odds, John finally conceded that there was no chance of finishing the race.
89. *Beaten the odds, John finished the race in a blaze of glory.
90. Having beaten the odds, John finished the race in a blaze of glory.

A traditional way to think about the facts in (85) and (88) is to consider those VP_{ing} complements to be obligatorily selected by BE, even when BE does not appear overtly. (That would entail a subsequent deletion of BE, a mechanism not part of Construction Grammar.) An alternative solution, which does not require selection by nonoccurring heads but entails a proliferation of objects in the lexicon, is one proposed by Bresnan. That solution is to acknowledge the two values of VP_{ing} as separate constructions and specify that HAVE selects only one of them, while BE can select either, and in verbal complement and absolute clauses, the one selected only by BE is the acceptable one. This analysis lacks elegance, a situation which is ameliorated considerably by the fact that Langacker (1982) has shown convincingly that the two versions,[28] while distinct, are related semantically in that one is a more elaborated version of the other. Polysemy analyses are "inelegant" only assuming a simplified view of what the phenomenon of polysemy is: descriptions of many-valued lexemes which make use of recurrent principles of semantic relation are not less economical than the alternatives. At any rate, "inelegance" is a liability only assuming that the sacrifice of descriptive adequacy is acceptable.

[28] He actually posits three: the stative perfect which is purely aspectual, the one which focuses on the end state of a process, and the one which profiles the process as well as its end state--the last being the true passive participle.

Bresnan's observations and the Langacker analysis of VP_{EN} together provide synchronic support for the hypothesis that the perfect HAVE construction is substantially broken off or distant from the remainder of the lexical network for HAVE. We can see that the interpretation of VP_{EN} in 3.XP is always with the so-called "passive" meaning:

91. *We had him eaten the whole chicken.
92. He has/had eaten the whole chicken.
93. We had the whole chicken eaten.
94. The whole chicken was eaten.

The difference between them is in their valence descriptions: in passive -EN, the semantic role of the stem does not fulfill the requirement of the grammatical relation of subject. In perfect -EN, it does. So (91) is unacceptable because, while the HAVE-construction apparently requires a passive reading of VP_{ing}, the existence of a direct object NP in the VP_{ing} phrase forces a perfect reading wherein NP_2 fulfills its subject requirement. The other examples, (92) - (94), contain no such conflict.

The Langacker-style semantic description of -EN as denoting, at least, the state designated as the final state of an imperfective process also captures the fact that past-participial forms may also be used adjectivally. This fact is somewhat unmotivated if one takes as the "basic" meaning of the past participle morpheme that form found in passive sentences, i.e. that the participial verb denotes an activity rather than a state. Langacker does give this as a meaning of -EN, but it is neither the sole nor the "basic" meaning. It is not apparent that he recognizes one meaning of -EN as privileged or basic relative to the others.

To sum up, then, the evidence presented here suggests that two different meanings of VP_{EN} are found in HAVE-constructions: one of them is that exclusively associated with the perfect constructions HAVE-2.VP_{EN} and BE-2.VP_{EN}. It allows the selection of participial forms of intransitive as well as

transitive verbs. The other, that found in HAVE-3.XP, is also found in complement positions in other complement-taking predicates, and in absolute VPs, and is more closely related to the use found in passive constructions, differing only in being a state as opposed to an activity.

2.3.5. VP_{to}.

The marked infinitive VP appears in many different syntactic environments, and has many different interpretations. It can bear a relation either of argument or of adjunct (e.g. in a purpose clause). As with all predicational complements, when it is used in argument positions, its particular interpretation depends in part on the semantic properties of the predicator that selects it. A noun adjunct use of VP_{to} is as the so-called infinitival relative clause, which shares some of the properties of marked infinitive verbal complements.

VP_{to} functions differently in HAVE-constructions depending on whether the construction is of a two-place or a three-place variety. As in the case with VP_{EN}, the two-place HAVE-construction with VP_{to} as its local complement is quite different from the three-place cases in terms of its constructional meaning, not fitting in any obvious way with the semantic classes I will propose for 3.XP. Based on its constructional semantics, this use of VP_{to} itself may be considered quite distinct from other uses of VP_{to}. In other words, the construction $2.VP_{to}$ is less analytic than either the 3.XP constructions or the 2.NP cases and hence less readily seen as a related construction.

VP_{to} has been studied most often, I suppose, in the context of its appearance in raising-to-object constructions. In Construction Grammar notation, raising to object structures are the projection from a valence description of a predicate which does not assign a semantic role to its second, nominal, complement but which does to its third, predicational, argument, which in its turn assigns a

semantic role to the matrix NP_2. The lack of semantic role assignment to NP_2 does not preclude the possibility that the Raising cases are semantically and pragmatically different from whatever unraised version is analogous, nor that in particular the NP_2 position doesn't have some signification of its own.

The common intuition that VP_{to} marks unrealized events is not quite accurate either for the Raising or the control cases, where neither the occurrence nor nonoccurrence of the embedded-predication event is entailed. In cases where there is no local nominal complement, only a predicational one, there is some feeling that while the expressed activity might be intended, it may actually not be carried out. This is most apparent when comparing sentences with two different valence descriptions for the same matrix predicator:

95.a. I started to tell the story, but before I could utter a single word, she broke in with her own version.
b. I started telling the story, but before I could utter a single word, she broke in with her own version.

However, in examples like

96.a. I like to eat
b. I like eating

the best that can be said is that perhaps the VP_{ing} form focuses on the activity while VP_{to} does not (cf. note 7). But there is no implication that the activity is unrealized in the case of the VP_{to} construction.

Similarly, in subject-complement uses of VP_{to}, there is some implication of distalness, but hardly of irreality:

97. To err is human; to forgive, divine.
98. It is easy to see that your argument is untenable.

However, the examples in (96 - 98) express the predicate generically rather than predicating it of an entity, so the question of realization may be irrelevant to them. The "irrealis" analysis gains plausibility under consideration of both

purpose clauses and so-called infinitival relatives.[29] Both purpose clauses and these relative clauses convey future or intended activity:

99. I stole money to buy food for my family.
100. The man to fix the printer is here.

However, even the infinitival "relatives" can sometimes be used for realized activity:

101. Sir Edmund Hillary was the first person to scale Everest.

There are a number of mysteries associated with these quantified or superlative NPs, with VP_{to} complements, and I cannot sort them out here. It does appear that the realis value of VP_{to} in this particular structure depends wholly on the tense of the matrix predicate.

However, in general, a marked infinitive phrase conveys futurity or unrealized action; it may further imply purpose. Moreover, the marked infinitive is most felicitously used when no reference is being made to the internal structure of the expressed state or event: it is aspectually unanalyzed, and often when it is used, aspectual distinctions are neutralized.

2.3.6 VP–

I would like to claim that by contrast with the marked infinitive, the use of the bare-stem infinitive entails the occuarrence of the expressed event or holding of the state; however, it does so in the space in which it is introduced, which may or may not correspond to the origin, reality space. The bare-stem infinitive is used with relatively less frequency as a complement than the marked infinitive, and the marked infinitive does not appear as an adjunct constituent. The kinds

[29] I have no strong belief that infinitival relatives are even modifiers as opposed to something more like optional nominal complements.

of predicators which select bare infinitive complements are modals, perception verbs, and certain verbs of causation (including HAVE):

102. You { may / must/ can / need not } eat your dessert.
103. I { saw / heard } the oppossum shuffle through the bushes.
104. I { made / had } him eat his dessert.

The examples in (102) can easily be seen as involving mental spaces additional to the origin space: like negation and other operators, modals are space-builders; hence any predicate in the scope of that operator will hold in that mental space. The causing predicates simply allow entailment of the occurrence of the event in the origin space.

The perception verbs also entail the occurrence of the predicational argument, but it must be in a perceptual space, since entities and relations observed may not correspond to those in the "real" world; for instance, when the units in a sequence of lights flash in quick succession, we are apt to see a single moving light. But in the perceptual space, the entities and relations perceived are entailed. A bit of evidence for this is that only the "evidential" senses—sight, hearing and touch—can take a VP— complement with a straightforward interpretation:

105. I could { see / hear / feel / ?smell } it rain.
105′. I could { see / hear / feel / smell } it raining.

For me, (105) with either *feel* or *smell* requires a bit of imaginative contextualization, and both can only mean 'I determined that it was raining by {feeling / smelling} the rain', and not merely 'I experienced the rain by {feeling / smelling} it. (I expect that *taste* works as *smell* does, but this example is not compatible with a plausible reading of *taste* as an "evidential" verb.)

There is an additional, aspectual difference between (103) and (106):

106. I {saw / heard} the oppossum shuffling through the bushes.

In (106) the activity is presented as having internal structure and its completion is left unexpressed. (103), by contrast, treats the event as aspectually unanalyzed. That feature plus the entailment of the event makes the event perfective.

While VP– complements do not entail the occurrence of the expressed event in the real world, the entailment does hold in the space in which that predicate is immediately embedded. That and its perfectivity make VP– conducive to the Causative and the Affecting Event readings of HAVE-constructions, both of which require an effect from one event to another event or to an entity, and both of which do not make reference to the aspectual profile of that predicate.

2.3.7 NPs as predicating complements

The kinds of evidence presented in sec. 2.1.1 in favor of the referring-via-predication approach showed that individuals get "called up" or denoted by virtue of holding the property or properties which constitute membership in the set thus characterized. The intuition this corresponds to is that nouns are "basically" predicates, just as are verbs, adjectives and so on, and a speaker must do something fancy to make them anything other than predicates. What such a characterization misses is not merely the man-on-the-street intuition that nouns basically refer and that when they predicate they are doing something special. It also fails to account for the theoretically-significant fact that nouns do not often or easily appear qua nouns in predicational positions. They are almost exclusively required to appear with some other element that provides formal features needed for conformance to English requirements on the appearance of predicates. The question we must address is whether it is only formal requirements which are met by these helper elements, or whether there is something lacking in the predicating capacity of noun phrases which is fulfilled in the larger

context.

The most obvious such context is when BE provides the requirements for verb phrases to render so-called predicate nominals. A sentence like (107),

107. John is a doctor

the claim goes, predicates "doctor"-ness of John; BE is there for the purely formal reason that English predicates are supposed to be members of the phrasal class Verb. Evidence for this view comes both from English and cross-linguistically. The internal evidence is that this requirement holds of the other lexical classes, so the facts about noun phrases are subsumed under a more general principle. The cross-linguistic evidence is that many, if not most, languages of the world lack anything like a copula: nouns, adjectives, adpositional phrases, and verbs serve equally well as predicators, syntactically as well as semantically. However, one need not accept a priori the argument that if an element obligatory in one language has no analogue in another, then that element is without meaning. If we applied that argument to, e.g., the frequent, grammaticalized, and obligatory distinction between dual and plural in other languages, we might be forced to conclude that the dual marker is meaningless, since English speakers get along perfectly well without it. There may be arguments for the semantic vacuity of BE, but this argument from cross-linguistic evidence is not particularly compelling.

At any rate, there is set of facts which suggests that whatever the predication possibilities for NPs are in English, they are not as straightforwardly accessible as are predicates of the other lexical classes. The evidence for this comes, in fact, from HAVE-constructions and other predicators which take predicational complements. Of the HAVE-constructions which contain a predicational complement, it is extremely difficult to construct examples which contain an unadorned NP in XP position. Furthermore, my collection of attested utterances contains

no such sentences,[30] though they do contain many examples for which a NP provides the semantic substance of the XP constituent, and it appears either in a copular VP or in a phrase marked by *as*. Predicators differ as to the ease with which they accept NPs in predicating position and what other kinds of phrasal forms are allowed in that position:

108.a. I consider him to be {foolish / a fool}.
b. I consider him {foolish / a fool}.
c. ??I consider him as {foolish / a fool}.
109.a. I found him to be {foolish / a fool}.
b. I found him {foolish / ??a fool}.
c. *I found him as {foolish / a fool}.
110.a. We {elected / ?*chose} him President.
b. We {*elected / chose} him to be President.
c. We {*?elected / chose} him as President.
d. We {elected / chose} him as our president.
e. We {?elected / chose} him to be our president.
f. We {*elected / *chose} him our president.

The extra examples in (110) are provided to demonstrate that there are nominals which function expressly as predicates. This is evidenced by the fact that noun phrases like *President* cannot appear in subject position. The class of nouns which denote what Fillmore calls "unique (institutional) roles" can all be used unadorned, as NPs, when they are used predicationally. It is because they are roles in some frame and we can refer to those roles that they are so readily usable as predicational complements. This is a more general and independent phenomenon. We refer by mentioning predicated properties, and one of these can be (the filling of) a role. The set of "institutional roles" comprises a class of nominals whose primary purpose is to express a role: hence a better candidate for predication for its own sake, and not in the service of reference.

[30] This isn't quite true: Late in the writing of this dissertation, and four years into my data collection, I finally heard an attested example of an unmarked NP in predicative position. This confirmed my belief that there is not strict grammatical prohibition on such a structure but a set of semantic and pragmatic conditions which conspire against it.

So even though ELECT might be mistaken for a quintessential example of a predicate that takes a nominal predicational complement, it is not a good example because its nominal complement is already predicational by definition. The case in which an unmarked but nonpredicative nominal is used in a copular VP to make a predicate is the one that is clearly ungrammatical with ELECT (the example (110.f)). ELECT is far from typical in its complementation requirements. Compare CHOOSE, which might otherwise be said to have a sense synonymous with ELECT.

These examples do not show anything systematic about the use of NPs as predicates, except that their distribution is not as free as are predicates of other lexical types. Therefore, the problem with the complementation requirements of HAVE must be a more general problem of English. Since this section purports to be a discussion of the internal rather than the external properties of constituents of HAVE-constructions, I will not go into too much detail here about which readings of HAVE-constructions are amenable to which formal types of predicates for which the semantic predicate is a nominal. But even a cursory glance at examples of HAVE-constructions shows compellingly that *as*-marked nominals are well worth considering in this regard:

111.a. "No one will have this person as chair[man]."

Notice that *chair(man)* is one of Fillmore's unique role nominals, and thus is inherently predicational; nevertheless, (111.b) is unacceptable, while (111.c) has a meaning slightly but crucially different from (111.a):

111.b. *No one will have this person chair.
c. No one will have this person be chair.

One sentence with an unmarked NP as XP, which unfortunately had to be constructed, has a few reluctant advocates for its grammaticality:

112.a. ?Imelda's count had Ferdinand the victor.
b. Imelda's count had Ferdinand as the victor.
c. *Imelda's count had Ferdinand be the victor.
d. ?Imelda's count had Ferdinand being the victor.

(Grammaticality judgments are highly varied across speakers and fairly shaky within speakers. This is the set of judgments I most frequently assign this paradigm.)

Without delving too deeply into the external semantics of the clause, we can notice that this is a sentence of the type I'll call Depictive: it describes some state of affairs or event that holds in a constructed or imaginary world, not necessarily in the real world. The obviously worst of the variants here, (112.c), is bad for reasons independent of the semantic predicate being a NP: it has to do with the preferred constructional semantics for sentences with an XP value of VP−.

The past-participle form is not possible in this configuration (i.e. in 3.VP) because a past-participle VP must have true passive or stative-"adjectival" meaning. I think that both the VP− exemplified in (109) and the VP_{ing} given in (110) are syntactically possible (given no semantic/pragmatic constraints): (109) is a little strange in this particular sentence because in the absence of context, the first reading of a 3.VP− HAVE-construction is the Causative, while the inanimacy of the subject referent precludes a Causative reading. Some speakers do accept this reading; they are probably getting it on a Depictive reading, which shares formal as well as semantic properties with the true Causative, but does not include the animacy requirement on NP_1'.

None of the remaining three possibilities listed in (112) is really comfortable, but for me at least the unmarked-NP value for the XP is the least acceptable among them. The other two possibilities, the *as*-marked NP and the VP_{ing} copular phrase, are semantically compatible with the constructional semantics forced by the other constituents of the sentence, because, as far as I can tell, they are two

different but equally acceptable ways to simultaneously mark and background predication by a NP. The copular VP does this in the usual way (the "progressive" morphology being there for reasons I will take up immediately below), and the *as*-marking does it in an indirect way.

The preposition *as* is the statistically most common marking for NPs in XP position among 3.XP.[31] What *as* seems to be being used for is to mark a role (in the sense of Fauconnier) rather than a filler ("value") for that role.[32] A role in Fauconnier's sense is not equivalent to a predicational use of a NP, since in fact both roles and values can be used as predicators. But roles evoke sets of properties; in other words, the distinction is orthogonal. But given the internal semantic range of and constraints on HAVE-constructions, it makes sense that the most common and least marked use of NPs as XPs in three-place HAVE-constructions is when one can give the NP XP a role interpretation, because roles are unmarkedly predicational. Such an explanation would then distinguish the functions of both the bare NP and the copular VPs. The copula is there in (109) and (110) to provide the aspectual inflection which can fill a bald syntactic requirement on formal properties of the XP on some reading, or can actually contribute aspectual information (or both).

Now I will present some evidence, independent of HAVE-complements, for *as* being a marker of a role interpretation for NPs *As* appears marking nominal second complements of several predicates which intuitively have lexical semantics compatible with just such an interpretation:

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[31] Thanks very much to Eve Sweetser for giving me the Fauconnier ms. and for working out this idea with me.

[32] How this is distinguished from the "unique role" cited by Fillmore may come down to uniqueness vs. nonuniqueness; I think it will also be a question of being institutional vs. not necessarily so.

113. The deed listed him as the owner.
114. The contract named him as (the) owner.
114.'.(vs. The will named him (the) owner.)
115. He served as head of the committee.
116. She acted as spokesman.
117. He works as a carpenter.
118. She was dressed as an Eskimo.
118'.(vs. She was dressed like an Eskimo.)
119. Speaking as an expert, . . .
120. I regard John as the best candidate.

I do not propose to account for the points of variation in these uses of *as*, or in fact for the lexical semantics of *as*: clearly more is involved here than just the difference between role and value interpretation of NPs. Borkin (1984) spends a chapter looking at *as* as it marks not just nominals but clausal elements; for her it is a phenomenon related to raising to object, and I do not think for her range of cases my speculations about *as* marking a role interpretation is adequate. Undoubtedly the term "role" itself subsumes a number of more specific functions (appearance vs. function, for example); the point here is that *as* is obviously being selected by this wide range of predicators because of its capacity to signal a role interpretation. (George Lakoff points out to me that with predicates such as *name, list,* and *regard,* which take as complements an unmarked NP and an *as*-marked NP, the role/value assignment of the two NPs is invariable; that is, one could not say something like *I regard the best candidate as John*, under normal circumstances where John denotes an individual. By Fauconnier's (1985) ID principle, a role expression can refer to an individual. It therefore should be, and is, possible to get a role expression in the unmarked NP position, just in case that role can be associated with a particular value, by the surrounding context, world knowledge, etc.)

Given that a subset of HAVE-constructions has semantics compatible with role readings for NPs (as predicates), and perhaps not merely compatible with them but actually preferring them strongly over the value (i.e. referential) readings, it is no longer mysterious that a substantial proportion of nominal

secondary predicates in HAVE-constructions are *as*-marked. If HAVE sometimes is used to evoke an institutional frame, then ipso facto it will evoke roles qua predicates.

I can also explain in part why some readings of HAVE-constructions cannot take *as*-marked NPs. I suggested to above that *as* does not merely mark a role, but (at least when its complement is a NP, as opposed to a clause), that role must be preestablished: in particular, it cannot be a role which is brought about. To put it another way: it is **approximately** true that *as* marks not just a role but a role whose existence is presupposed. In actions of causing, the state denoted by the predicational complement is effected by the causing event rather than exploited by it. Since this causing event is incompatible with the presupposition of *as*-marking, NP_{as} is not possible with Causative or Resultant State/Event readings. It is compatible with the Resultant State/Event reading just in case, as before, the existence of the role is preestablished but the filling is effected.

Notice, for instance, the difference in understanding of (121) and (121′).

121. The contract named him as (the) owner.
121′.(vs. The will named him (the) owner.)

Their only formal difference is the presence of *as*, but their semantics reflect exactly the difference between an act of naming which describes a (preexisting) state of the world and one which so creates that state. A similar contrasting set—which has not exactly the same semantic properties but whose differences are highly reminiscent—is (122):

122.a. She saw her daughter President before she died.
b. She saw her daughter be President before she died.
c. She saw her daughter as President before she died.

In (122.a), the subject referent may have seen only her daughter's inauguration. In (122.b), the sense is that the subject referent observed the presidential activity her daughter engaged in. And the most available reading of (122.c) implies that it is the filling of the preestablished role which is observed (or more likely in this sentence, imagined) by the subject referent.

In (123), the difference between the (a) and (b) sentences is that BE asserts predication, while *as* presupposes it. Another way to think about it is that (123.a) could predicate existence of the role; (123 b.) predicates the role-value identification.

123.a. We don't want to have Bush as President.
b. We don't want to have Bush be President.

Whatever the ultimate analysis of *as* and its function as a marker for NPs, the main point I intend in this discussion is to dispute the claim that NPs as a class are just as available for use as predicators as items in any other word class. To the reference-via-predication view I fear we must add a codicil to the effect that it is still reference that NPs primarily engage in.

3. Construction-level Syntax and Semantics

There is undoubtedly a great deal more to say about the properties of the internal constituents of HAVE-constructions; I hope here only to have pointed out a number of the considerations which will figure most prominently in the description at the constructional level.

In this chapter, we will examine the constructional properties and, on the semantic side, look at constituent-level properties in this larger context. The hypothesis here is that, as has been hinted at in the preceding discussion, there are semantic properties at the clause level which are not predictable from the meanings of the constituents. Of course, I would not have expended paper and ink on the properties of the constituents if I believed that they bear no relationship whatever to the semantics of the construction. What those relationships are will be the topic of Chapter 5.

First, however, it is in order to determine the syntactic properties of the construction. In doing so we will justify a few of the semantic claims which so far have been made without justification. I will take up the constituency questions first. I will take each structurally distinct HAVE-construction in turn, and produce some arguments for each to justify the claims about constituency that I am making. We will simultaneously consider the semantic properties associated with the distinct structural types, concentrating on the various readings one can identify with the 3.XP subtype. One important consequence of the investigation here is that there is no simple one-to-one mapping between a unique structure type and a discernible constructional meaning. Rather it will be necessary to draw generalizations over structure types, and to place semantically-based constraints on the realization of those skeletal structures as they correspond to one reading or another.

It is in this chapter that what I have called "construction-level" properties will emerge. The syntactic properties are unremarkable, for the most part; but the semantic properties, across the entire range of HAVE-constructions, vary widely and in ways not completely predictable from the semantics of the constituents and the principles of combination that are normally assumed to be more or less isomorphic between syntax and semantics (but recall sec. 2.2.3). So the general point to be made here, besides a basic description of these properties, is to examine seriously the extent to which constituent-level properties predict construction-level properties and the extent to which, on the contrary, we must identify some semantic features directly with the construction, that is, directly with the lexical entry. In the service of this investigation we will need to make recourse to frame superimposition and specialization of frames as a mode of semantic description.

3.1. Two-place constructions: Syntactic Properties.

There is not much possible argument about the constituency of structures with only two complements of HAVE, assuming that VP is a constituent in English. More precisely, if one assumes that English has a Subject/Predicate construction which is semantically-based but conventionalized into the syntax, (cf. Fillmore 1986) then one must conclude that for two-place constructions as well, HAVE and its nonsubject complement form a constituent. I promised that I would not have a great deal to say about $2.VP_{EN}$ and $2.VP_{to}$, but I have a little bit to say here about the valence descriptions.

One general fact about the two-place constructions is the auxiliary status of their head. For most American speakers, only the perfect HAVE has full auxiliary status, as it participates in "inversion" constructions, contracts, is subject to principles of negative placement, and so on. For other speakers, chiefly with

British dialects, any of the two-place cases—2.NP and $2.VP_{to}$ as well as $2.VP_{EN}$—may exhibit these auxiliary behaviors:[1]

1.a. %Has he a book?
  b. %He hasn't a book.
2.a. %Has he to leave so soon?
  b. %He hasn't to leave yet.
3.a. Has he left?
  b. He hasn't left.

I have no intuitions about whether (1-2) are all grammatical; if they are, then we must be able to state for those dialects something to the effect that there is a basic distinction among uses of HAVE that some are "main" verbs and others are auxiliaries. (The unequivocal auxiliary status of $HAVE.2.VP_{EN}$ will be discussed in sec. 6.3.3.)

The question of auxiliary status is actually quite interesting. There is a device of English which has been called "*got*-extension", of which the sentences in (4) are examples:

4.a. Has he got a book?
  b. He's got / He hasn't got a book.
5.a. Has he got to leave so soon?
  b. He's got / %He hasn't got to leave soon.
6.a. *Has he got left?
  b. *He has / hasn't got left.

There are other conditions on "*got*-extension" (Appendix C shows that it is available only to Stative uses of HAVE, including Stative three-place uses; there, in fact, I propose it as a test for Stativity). What is interesting about it for these purposes is that it appears to be used in order to allow HAVE to function as an auxiliary even when it heads constructions in which it normally functions as a

[1] These observations are adapted from Radford 1988. My thanks to Monica Macaulay for bringing them to my attention. Actually, Radford discusses only "inversion", and not negative placement, so I may be misrepresenting these dialects on that score. If the negative placement does not line up with the "inversion" behavior, then the auxiliary status of any use of HAVE besides the perfect is arguable.

"main" verb. Notice, then, that while the contracted versions in (4.b) and (5.b) are normal utterances, (4.b′) and (5.b′) (i.e. with nonreduced pronunciation) are strange:

4.b′. #He has got a book.
5.b′. #He has got to leave soon.

In fact, even sentences like (4.a) and (5.a), where HAVE is inverted, are usually pronounced with reduction of HAVE.

The proposal that *got*-extension "turns main verbs into auxiliaries" also accounts for the unacceptability of (6), since there HAVE independently has the status of auxiliary, and therefore (I claim) will not be selected by *got*. The facts of *got*-extension argue against a hypothesis I have occasionally seen hazarded, that HAVE must be categorized as an auxiliary in all its two-place uses. If that were the case, the generalization which prohibits the selection of the perfect HAVE by "*got*-extension" would not be available, and that distributional fact could not be accounted for in the usual way.

There are many more details of "*got*-extension" which are of interest, only some of which are addressed in Appendix C; Fodor and Smith (1978) examine some of them, but they study British dialects, which differ also in the distribution of this form of HAVE. "*Got*-extension" is interesting in the context of the two-place uses of HAVE and their possible auxiliary status, because it shows separately that the **lexeme** straddles the line between main and auxiliary uses, but that at the **lexical** level, the status of each lexical head is fairly clear. The facts simply must be stated at somewhat different levels of generality for different dialects: for my dialect, only HAVE.2.VP_{EN} is an auxiliary; for British dialects, all HAVE.2.XP are auxiliaries.

3.1.1. 2.VP_{EN}

2.VP_{EN} is my name for the perfect construction, which since post-*Aspects* days has been claimed to involve a "raising-to-subject" structure (e.g. McCawley 1987). The behavior of the perfect HAVE follows the standard tests for "raising": there are no selection restrictions between the verb and its subject; furthermore, it behaves in many respects like the rest of the auxiliaries (most of which are treated as "raising" verbs) with respect to phenomena like inversion and contraction. So just as the other auxiliaries are, it is taken to be a complement-taking predicator, with a valence description like this:

HAVE

+Aux

\- Cont

1 2

N VP_{EN}

This is just a formalization of what we already know about perfect HAVE: it is subcategorized by VP_{EN}; the understood grammatical subject of its complement shows up as its grammatical subject; it does not select a subject; it is available for certain contraction rules; etc. The only special feature of this lexical entry is that it is subject to special phonological rules in addition to being associated, via the lexeme, with a paradigm of word-forms.

In conceiving of Construction Grammar as a unification-based grammatical framework, the question arises of whether the semantics of perfect aspect should be considered an attribution of the perfect HAVE or of its participial-verb complement. Both alternatives can be justified, but at least the latter is necessary on empirical grounds. We have seen that we must distinguish perfect uses of VP_{EN} from passive ones, independent of the environment in which the participial phrase appears (cf. sec. 2.3.4.). This argues in favor of making 'Perfect' an

attribute of the participial VP (and presumably precisely that furnished by the past-participle morpheme). On the other hand, there are both naive-intuitive and theory-internal reasons for ascribing this semantic attribute to the head. Intuitively, many people speak of "perfect HAVE" as quite separate from the other uses of the lexeme, even if they are not really aware of the large number of constructions which HAVE heads. Theory-internally, it might be nice to be able to say (as Ted Gilchrist has suggested, p.c.) that the class of auxiliaries is characterized semantically by the fact that the semantics of the constructions with aspectual heads and predicational complements is a property of the head rather than the complement. Hence, on this account, if we assign 'Perfect' semantics to the head HAVE, we can ensure that HAVE is classified on semantic grounds as a member of the class Auxiliary, a class which then as a group will be available for such marked constructions as "inversion" for yes-no questions and negative-polarity adverbial clauses, and possibly to phonological constructions (i.e. a general contraction phenomenon) as well.

Whether such a move is justified and useful for the class of auxiliaries is not obvious at this point, especially when we consider modals, which do a great deal more than provide aspect. However, it does have an appeal for an account of the aspectual auxiliaries and for passive as well. But unification allows both the verb and its (morphologically-marked) complement to contain the semantic attribute 'Perfect'. This alternative does more than allow us not to decide: it is a formalization of the possibility that over time, the perfect semantics of the past participle could have bled over onto the auxiliary verb by virtue of the necessary association of the two elements in this construction resulting in a unified meaning. From the speaker/hearer's point of view, it is perfectly natural to associate that reading with both pieces together by virtue of its being a semantic attribute of the construction in which they both appear.

3.1.2. 2.VP_{to}.

The second two-place HAVE-construction to consider is 2.VP_{to}, the construction that has the so-called 'Obligation' reading. In this case, the constituency question we face is whether HAVE is a sister (7) to *to* or an aunt (8):

7. $[_{VP}$ HAVE [*to* $[_{VP}$]]]
8. $[_{VP}$ HAVE *to* $[_{VP}$]]

Up until now I have been treating this construction as though it consisted of HAVE and the infinitival complement (i.e. structure (7)); but there is some phonological evidence for questioning this analysis. The crucial facts are the celebrated cliticization-and-devoicing of *to*, so that *have to* comes out [haeftu] / [haeftə], and *has to* comes out [haestu] / [haestə].[2]

However, it is well-known (cf., e.g., Selkirk 1983, Zwicky 1982, Zwicky and Levin, 1982) that phonological and syntactic boundaries do not always coincide. Traditional syntactic tests like "conjunction-reduction" (exx. (9-11)) and "gapping" (exx. (12-15)) suggest that HAVE-*to* is not a constituent; but the judgments are not robust, particularly when the sentence is pronounced with cliticization/devoicing, and they vary a great deal with dialect:

9. He has to read the books and to write the report.
10. ?He has to read the books and write the report.
11. ?He [haestə] read the books and to write the report.
12. John has to read the books and Sue to write them.
13. ?*John has to read the books and Sue write them.
14. ?John [haestə] read the books and Sue to write them.
15. ?John [haestə] read the books and Sue write them.

[2] The cliticization but not the devoicing takes place in the past form. Whether this is for general phonological reasons, or is an arbitrary fact, I do not know. One person I know says [haeɾə], but the vowel length there suggests that the tap is an underlying [d], not a [t].

These examples suggest that on the most plausible analysis, *to* forms a constituent with the following VP—. I will just accept that conclusion for the sake of overall consistency.

The semantics of the $2.VP_{EN}$ reading are fairly straightforward: the predicational complement expresses some obligation on the part of the subject referent. Sweetser (i.p.) places HAVE TO in a semantic system with other modals of obligation like *must* and *ought* and observes (after Talmy 1982) that it implies an external authority's imposition, rather than an internal compulsion. This construction-level property is certainly not a product of the composition of its constituents. Assume that general properties of control work here as they do for other unsaturated predicational complements; then it must be that the matrix subject is also understood as the embedded predicate's subject, so the understanding of the embedded predications being carried out by NP_1' is accounted for by general principles. But in Chapter 2 I hypothesized that VP_{to} usually conveys futurity or irreality. Nowhere in the internal semantics of VP_{to} is there a reason to hypothesize either an invariant or even a recurrent semantics of obligation. Nothing in HAVE, as it behaves in the overall lexemic system, suggests obligation (I will discuss the $3.VP_{EN}$ cases below). In fact, from the use of HAVE, we might predict in the absence of data that if it were ever used in an Obligation construction it would have the force of internally-generated obligation, rather than externally-imposed obligation, since HAVE is otherwise identified in formally Stative uses with internally-associated properties and experiences.

So while the futurity and existence entailments of the Obligation reading can be attributed to similar semantic properties of VP_{EN}, most of its distinctive semantics will have to be stated as a condition on the construction rather than as a function of its constituents.

HAVE

Exp	Cont
1	2
N	VP_{to}

3.1.3. 2.NP

Presumably there is no need to say anything about the constituent structure of 2.NP. In the usual way, NP_2 is treated as the local complement of HAVE, and NP_1 as the nonlocal complement—the subject—of the predicate formed by the constituents of the VP. However, it should be noticed that just like any other NP argument, NP_2 may be modified in any of the usual ways. One of these ways, the postnominal modifier[3], provides the potential for a stretch of linguistic material to be structurally ambiguous over the 2.NP structure with a complex NP in NP_2 position, or (certain readings of) the 3.XP structure. (16) is an example of such an ambiguous stretch.

16. "Officer [Smith] consoles [Mary Jones],
who had friends exposed to the gunfire."

16.a. "Officer [Smith] consoles [Mary Jones],
who had [$_{NP}$ friends [$_{VP}$ exposed to the gunfire]]."

b. "Officer [Smith] consoles [Mary Jones],
who had [$_{NP}$ friends] [$_{VP}$ exposed to the gunfire]."

The ambiguity is almost impossible to discern, since the truth-conditions of the two readings are identical. In the reading corresponding to the constituency in

[3] In the generative tradition this was identified as the "WHIZ-deleted" relative clause. Since we do not have transformations or anything that produces zeroes or gaps, we will treat relative clauses and postnominal modifiers as separate objects, and derive the similarities from more general facts about the internal syntax and semantics of the modifying constituents, general facts about the external syntax of noun modifiers, and general facts about modification.

(16.a), the sentence predicates a relation between Mary Jones and a subset of her friends. In the reading corresponding to (16.b), the relation is one of interest or involvement between Mary Jones and an event that happened to (some of) her friends.

This potential for ambiguity is available for only some values of XP, as only some kinds of phrase can serve both as postnominal modifiers and as predicational complements ({ PP, VP_{ing}, VP_{EN}, AP, ?VP_{to} }; {* VP–, ?VP_{to} }). The significance of this structural "ambiguity" will be taken up in Chapter 6.

I briefly noted (sec. 2.2.2) that a sentence like (17),

17. */#She has a body

is, on the inalienable reading, so uninformative as to border on incomprehensible. By contrast, (18),

18. She has a beautiful body

is quite normal. I also noted the existence of 2.NP sentences like (19),

19. I have someone who's waiting for me

as one in which there is apparent selection by HAVE of a niece, namely the relative clause; cf. (20):

20. */#I have someone.

A niece-selection is a syntatically-marked situation which we usually want to avoid positing on theoretical grounds. For this case, we are not forced into this displeasing position, for it is simple in the context of (17) to see that this "selection" is not a true syntactic requirement. It is rather a requirement on the informativeness of an utterance. If (17) is uninformative on the grounds that everyone has a (inalienably-possessed) body, (20) is unacceptable on the grounds that it does not provide the addressee with enough information to infer the relation. And as in most cases of semantic or pragmatic "violation", it is no great feat to

find contexts in which the apparently unacceptable utterances are unremarkably acceptable and appropriately informative. *Star Trek* fans can have no trouble imagining (17) uttered as an informative remark about some entity who had previously existed only as a disembodied consciousness[4]; and (20) could be uttered in response to a question like (21), where the understood modifier is already provided:

21. Does anyone know of a person who can fix this bleeping alternator?

In fact, this condition on informativeness parallels a similar condition on *There*-constructions, where a sentence like (22)

22. #There's someone

(on a non-deictic, purely existential reading)

is also taken as being ungrammatical. But I have heard sentences like (20) and (22) uttered in situations where the predication usually provided linguistically in the sentence could be readily extracted from the linguistic or extralinguistic context.

This apparent syntactic constraint, then, is actually driven by a combined condition on semantics and informativeness. I will put this observation to some more general use in Chapter 4; but for these purposes it is worth noting that for the most part, even 2.NP structures can often be used with approximately the same predicational potential and communicative import as the three-place uses.

Finally, a brief commentary about passive is in order. It has been bandied about that HAVE does not have a passive version (except in certain highly idiosyncratic formulas) because NP_2 is not "a very good example" of a direct object. It is difficult to understand what such a claim could mean if it does not

[4] In that show, even the gender issue wouldn't be insurmountable. These "disembodied" entities always have voices, after all.

rest on a circular argument. In terms of not being a very good **patient**, this is certainly true; but patienthood does not correlate directly with passivizability (cf. Fillmore 1977, Rice 1987). To add substance to a claim like this we would need a real theory of the semantics of grammatical relations. In any event, the lack of a passive version has no direct ramifications on a decision to treat NP_2 as a syntactic local complement and the string [HAVE - NP_2] as a constituent.

The semantics of 2.NP cases vary widely, as many before me have pointed out. There are the possession cases of the alienable and inalienable types, and there are the more "pragmatically-provided" relations. I will discuss these as special cases of a number of other readings in sec. 3.3.3. There are also a couple of specialized uses, which I will touch on immediately below.

More details need to be added to a description of 2.NP to account for its properties when NP_2 is an event or state nominal. In sec. 2.2 I noted that all nominals will be associated with frames (and will hence have valence descriptions), which in the simplest case will simply provide the hearer with the opportunity to fix reference. For event or state nominals we will have specifically to provide valence descriptions which express the same relations between arguments and the expressed predication as is done with verbs, adjectives, and so on. In other words, we cannot expect to have "subject" relations of event or state nominals to fall out from general principles as we do for verbs.

There are two general kinds of patterns which are found with HAVE-constructions when NP_2 denotes a state or event. There are cases like

23. We're having a { party/reception/dinner/ . . . }

where NP_1 is understood as the instigator or Agentive argument in the activity referred to. There is also the much more common pattern found in (24) and (25):

24. I'm having { surgery / an operation . . . }
25. I have { a cold / an exam / a belief . . . }

where NP_1 is the patient or Undergoer of the denoted activity. The cases in (24) and those in (25) differ in that the first are Active, the latter Stative according to some tests. (It is not simply that one refers to an event, the other to a state, since both *operation*, an event nominal, and *belief*, a state nominal, are Stative.) I should also note that while I have not figured out a semantic reason why event and state nominals should pattern as they do with respect to which argument emerges in NP_1 position, I do not believe either that we can assume a simple marking of one pattern or another in the lexical entries for each item. That is, the pattern will be, at least in part, a consequence of more general semantic principles and not of lexical marking. This much is easily demonstrated: a little fooling around with these sentences gives different Activeness results, as when someone (let's say a doctor) says *I have surgery tomorrow* as opposed to *I'm having surgery tomorrow.* While both Agent- and Patient-Subject readings seem to be available to both of them, they have different preferred readings, evidently based on whether the verb is Active or not (and seemingly irrespective of whether it is really a progressive reading or not). I will attempt in secs. 3.2.3 and 3.2.4 to assimilate the semantics of these 2.NP event-nominal cases to the independently-motivated readings of 3.XP.

There is another set of readings of 2.NP, which we might even be tempted to think of as a sense of HAVE. These are the ones I have alluded to already: cases in which NP_2 denotes an entity or substance capable of being "partaken of" or consumed:

26.a. We had our dinner cold.
b. We were just having a snack when he called.
c. Nothing like having a good cigar after dinner.
d. We had a couple hits and passed it along.

A precise statement of the semantics of this reading is necessary, to capture the facts about usage that it's not **capability** but rather **typical purpose** that is at issue: it would be odd to say of your baby that he had [i.e. ate] dirt this morning, whereas if one says *I had resin for lunch* it is understood that the ingested substance must be part of some diet regimen: deliberately ingested and ingested in the conventionalized consumption setting. The consumption is typically confined to food, drink, or drugs. I have a speculation that the use of HAVE which means 'have sexual relations with' might be related to this use, perhaps by metonymy, but I have no evidence for this guess.

Sentences like *I had my dinner* (which, being in the past tense, are neutral over simple and "progressive" past events/states) are ambiguous over the 'partake of' reading and the simple Attributive reading, rather than being just vague. If this use of HAVE were just a subcase of the Attributive, it would not pass the progressive tests, which it does (cf. (26.c-d); Appendix C).

3.2. Some three-place constructions: Syntactic properties

Next I will examine some of the three-place HAVE-constructions. There are three major structure types for us to consider: 3.Stf, 3.VP_{to} (which has two subcases), and 3.XP, which will be considered separately in sec. 3.3. I have been prejudging their constituency throughout the previous discussion in giving them abbreviated titles like "3.XP (a three-place HAVE-construction with XP as its third complement)", and so on. Here I will substantiate these implicit claims.

It may be worth saying at this point that it is not possible to analyze any of the HAVE-constructions I am identifying as three-place as consisting of a nominal complement and an adjunct secondary predicate. Evidence for this is threefold: first, the set of XP types found in the predicational complement position of HAVE-constructions does not correspond precisely to the set of predicates found

in obvious adjunct positions; second, secondary predicates are defined as being predications added to an already complete predication, which would mean that for each such case the string [NP_1 HAVE NP_2] would have to be independently comprehensible per se—which is not the case; and third, I will show that in general, no three-place HAVE-construction assigns a semantic role to its NP_2, which would rule out a two-place + adjunct analysis of the structure.

In order to give the most general description possible, I have considered separately three types of HAVE-constructions which have properties more specific than those which are required at the most general level of description. The three constructions are exemplified here:

27.a. His routine had the audience rolling in the aisles.
b. #His routine had the audience roll in the aisles.
28. The conventional wisdom has it that Dukakis hasn't got a chance.
29. This question has a great deal to do with another related point.

In Appendix B, I show that these three constructions' special properties all have different sources: in the type in (27.a), there are unusual restrictions on the morphosyntactic form of the complement which are a consequence of the semantic conditions of the matrix construction and the idiomatic embedded predicate, so that an apparent constraint simply falls out of compositional principles. In (28), there is a marked syntactic type and a restriction on the semantics of the "Depictive", whose more productive instances are discussed at some length in sec. 3.2.5. Finally, (29) exemplifies a class of idiomatic expressions which are both formally and semantically irregular.

These three special construction types have nothing more to do with one another than being somehow special, in having unusual properties; it is simply for ease of discussion here that I have relegated them all to Appendix B.

3.2.1. 3.VP_{to}

There are two varieties of 3.VP_{to}, one in which NP_2 instantiates the subject requirement of the predicational complement and one in which it instantiates a nonsubject requirement:[5]

30. I have my husband ___ to keep me honest.
31. I have my husband ___ to keep ___ honest.

These two structures entail two different valence descriptions, because in the case of subject-complement instantiation, the predicational complement is a V[+max] (i.e. is a verb phrase), while in the case where a nonsubject requirement is filled by NP_2, the VP_{to} complement is, ipso facto, not a verb phrase (V[−max]). Notice also that in the second case, the matrix NP_1 must fulfil one of the complementation requirements.

However, there is no reason to believe that the two structures differ in their immediate constituency. We can eliminate immediately the possibility that either of them contains a complex NP with an infinitival modifier, on the grounds that NP_2 can be pronominal:

32. I have him to keep me honest.
33. I have him to keep honest.

Secondly, both NP_2 and elements of VP_{to} can be distantly instantiated for instance in questions (and hence cannot be in a NP island)[6]:

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[5] There are no gaps in Construction Grammar, only distant instantiation principles. My use of underlines here for the distantly instantiated complements' default locations is for the convenience of the reader and has absolutely no theoretical significance, except of being technically prohibited.

[6] Lakoff (1984) has demonstrated that the Coordinate Structure Constraint is not syntactic in nature and should be replaced by a constraint on predicational structure; presumably similar arguments can be applied to all island constraints. My invocation of them in syntactic terms is mostly for convenience.

34. Who do you have to grade your papers for you?[7]
35. Who(m) do you have to grade papers for?
36. ?Which papers do you have some students to grade?
37.a. For which students do you have papers to grade?
b. Which students do you have papers to grade for?

Actually, (36) and (37) are not as acceptable as they should be, although in my dialect (37) is pretty acceptable. They may be questionable because there are structures for which these are the WH-question analogues for which these constitute an island violation:

38. [I have [some students [to grade my papers]]]
39. [I have [[papers [to grade]] for my students]]

In fact, any structure which involves distant instantiation will suffer from this interference; so the only unequivocal argument against the complex NP structure is the acceptability of pronominal values for NP_2. But the three-place character of this construction may be fairly ambiguous, as we saw was the case for some $2.NP_{complex}$ structures. And just as in that case, it is often enough that the two structures render readings corresponding to identical truth-conditions with only imperceptibly different extrapropositional semantics.

Another possible constituent structure which these sentences might exemplify is one with a single, marked-infinitive clausal complement. Notice that (40) is fairly acceptable:

40. I'll have more today to grade by next week.

(40) is good even though its VP_{to} cannot be an extraposed infinitival complement, as evidenced by (41):

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[7] On the page, this question form of $3.VP_{to}$
i. I have [someone] to work for
is identical to that of $2.VP_{to}$
ii. I have to work for [someone].
However, they are pronounced differently, since the cliticisation-devoicing possibly available on the reading of (35) corresponding to (ii) is not sanctioned for (i), and hence not for the reading of (35) corresponding to (i). Presumably some conditions on phonological processes corresponding to GB WH-traces will have to be implemented.

41. ??More to grade just got put in my mailbox.

The adverb *today* in (40) must be modifying the matrix clause, since the embedded clause has its own adverb. Compare (40) with (42), which is also supposed to have two local complements rather than one:

42. I persuaded him this morning to meet me this afternoon.

In fact, the $3.VP_{to}$ structure for HAVE is a better example of a three-complement predication than that with EXPECT, which (according to the passive test) should have the same constituent structure as PERSUADE:

43. ?I expect him today to be here tomorrow.

This fact suggests that HAVE (in this structure, anyway) may be like PERSUADE in assigning a semantic role to NP_2, since that is the total difference between PERSUADE and EXPECT.

So far, we have discussed only the type of $3.VP_{to}$ schematized in (30). The structure portrayed in (31) has behavior more like that of EXPECT:

44. ?I'll have more [i.e. students] today to grade the papers by next week.

This sentence is not completely acceptable, but even in the absence of the adverbial phrase *by next week*, which modifies the embedded predication, it is still evident that *today* is not modifying that predication, but necessarily whatever predication is conveyed in the matrix clause. Here the time adverbial (modifying the matrix clause) appears between the two complements, suggesting that there is no clause boundary between HAVE and its local complements. It is interesting that the two $3.VP_{to}$ constructions, which apparently do not differ in structure, should nevertheless show this difference in whether the embedded predication can be adverbially modified. I have no explanation for this fact, and do not have any serious conviction that this difference amounts to the same property that distinguishes PERSUADE from EXPECT.

In fact, the opposite should be true: they should both resemble EXPECT in two ways. First, they should have two local complements, and second, the local nominal complement should not be assigned a semantic role by the matrix predication. Both structures have in common that NP_2' need not exist:

45. I have a paper to write.
46. I have a paper to keep me busy.

Both (45) and (46) could be uttered when the paper does not yet exist, from which I conclude that only the embedded predicate assigns a semantic role to NP_2.

The arguments given directly above rest on the assumption that VP_{to} cannot be either a purpose clause or an infinitival relative clause, and that the only alternative to these two is an infinitival complement. I have some preliminary evidence which suggests that we have here a fourth use of VP_{to} (exemplified in Chapter 5, in the sentence *I gave the letter to him to hide from my husband*). If that is the case, the preceding arguments may be invalid.

Unfortunately, then, no test conclusively shows that the string [NP_2 - VP_{to}] is not a constituent. The usual tests for WANT, which is claimed to have a marked-infinitive clausal complement, are passive and an effect of adverbial placement. Passive does not apply to WANT,

47. *He is wanted to leave

which is taken as evidence that there is no matrix NP_2 constituent to which passive can apply. But this test cannot be applied to HAVE, since virtually no uses of HAVE—including those with a local nominal complement—undergo passive. This test therefore cannot help us decide.

Similarly, the alternation between (48) and (49) for WANT is claimed to be an argument for the two-complement constituency analysis. If the intensifying adverbial intervenes between WANT and its complement, the complementizer *for*

must be inserted:

48. I want you to go.
49. I want desperately *(for) you to go.

However, again no use of HAVE allows this kind of adverbial modification, so again this test cannot apply.

In short, the constituency question for 3.VP_{to} remains ambiguous, as it does for other three-place structures headed by HAVE (cf. sec. 3.3).

One interesting property of the constituency structure exemplified in (31) is that the semantic role assignments are more like those of the complement in so-called "*tough*-movement" or "nonsubject raising" cases, in that the second complement requirement of the embedded predicate, as well as its first complement, is distantly instantiated. The first complement is **coinstantiated** with the first complement position of HAVE—that is, it is construed as being the matrix subject—while the second is instantiated in the matrix NP_2 position. This is the only case of complements of HAVE in which there is a distant instantiation (i.e. a "gap") in any other than subject position. I have no idea how English could have come up with two such disparate environments for this already marked complement form.

However, it seems not to be a coincidence that *There*-constructions exhibit exactly the same possibility:

50.a. There's still more stuff to pack.
b. There's all those papers to grade.
c. There's a vase to keep your flowers in.

The fact that these (i.e. HAVE- and *there*-constructions) are both presentational statements whose purposes are to predicate something irrespective of its grammatical status in the predication makes sense out of these facts: *tough*-"movement" structures are explicitly for the purpose of predicating a particular kind of property of an entity, a property which emerges in some interaction with

that entity.

The other use of $2.VP_{to}$ (corresponding to structure (30)) conforms to the usual requirement of English that the distantly instantiated argument of an embedded predication fulfil its subject requirement:

51. I still have my work to keep me busy.

As nice as it would be to reduce the number of distinct constructions, the type exemplified in (51) cannot be reduced either to a HAVE-2.NP sentence with a purpose clause or to a HAVE-2.NP sentence with an infinitival modifier in NP_2 position, as I have already demonstrated.

The semantics of $3.VP_{to}$ constructions is more easily identified. Like $2.VP_{to}$, $3.VP_{to}$ sentences are often used to express obligation. However, this is not a necessary part of $3.VP_{to}$, since sentences like (52),

52.a. I have a wonderful man to love
b. I have a wonderful man to love me

express a future activity or state which is not negatively evaluated, and hence is not considered an obligation. It is safe to conclude that neither obligation nor anticipation is part of the meaning the construction imparts on its instantiations: it is neutral between these interpretations, which are rather imposed by the evaluation of the event or state itself. I will just refer to the meaning of this structure as the "future commitment" reading, which I will take as a subtype of the Attributive-Existential reading to be discussed in sec. 3.3. Note here that the futurity is provided directly by the morphology of VP_{to}, as I suggested in Chapter 2 that futurity is often part of the meaning of the infinitive marker.

3.2.2. 3.XP

In each of the preceding subsections of 3.1 and 3.2, we have examined some constructions which had fairly specific syntactic properties and which were also

associated with some fairly specific, and in some cases unique, construction-level semantics. In the case of the three-place HAVE-constructions we have looked at so far, all have constructional semantics which can be assimilated under the semantics which we will shortly take up for 3.XP. 3.Stf, we noted, is a special structure associated with a reading which we also find for other structures: the "Depictive". The two cases of $3.VP_{to}$ could both be considered examples of the "Existential-Attributive" reading, but that is more by default than by virtue of positive properties, since Existential-Attributive is the most general, least "semantic" and most "pragmatically-provided" of the available readings. 3.VP– is most assimilable to the rest of the 3.XP types, since it actually has more than one reading and both of those readings are available to other subtypes of 3.XP. But all of these structures are restricted in their constructional semantics in a way that the remaining values of XP are not. In this section, I will first discuss the constituency of 3.XP, and then talk in some depth about the constructional semantic possibilities associated with this group as a whole. It is important to keep in mind that unlike in the other cases we have examined so far, there is a many-to-many relation between the specific syntactic form (specifically, the value of XP) and the constructional semantics—though, as we will see at the end of this chapter, there are restrictions on which form can be associated with which meaning. This many-to-many relation justifies treating this group as a single class for certain purposes, though we will spend some effort on their differences at the same time.

The forms of the argument for establishing the constituency of 3.XP will be of generally the same type as those for the preceding structures. The basic form is that since *X*, *Y*, and *Z* constituencies cannot be the correct ones because of properties α, β, and γ, respectively, we must conclude that constituency *W* is the

correct one.

However, there is an important positive argument to keep in mind, and that is that no other construction, structure or principle irrefutably requires reference to the string NP_2 XP as a unit. This is important because the correct understanding of this claim requires that we recognize the difference between semantic facts and syntactic ones. I have on several occasions, and will in what follows, appealed to the **semantic** unit corresponding to the string NP_2 - XP, because of the fact that together their semantics makes for a completely-filled predication (i.e. a proposition). The **semantic** unit is indispensable: in the parsing procedure, we will have to ensure that the external argument requirement of the embedded predication is satisfied. This amounts to recognizing the semantic unit status of $(NP_2$ - XP)'. But that in itself does not imply the syntactic constituency of the corresponding complements.

The possible structures which intuitively are compatible with the string skeleton

53. NP_1 HAVE NP_2 XP

are the four:

54. $[_S\ [\ NP_1\ ]\ [_{VP}$ HAVE $NP_2\ ]$ XP $]$[8]
55. $[_S\ [\ NP_1\ ]\ [_{VP}$ HAVE NP_2 XP $]\ ]$
56. $[_S\ [\ NP_1\ ]\ [_{VP}$ HAVE $[_{NP}$ N [– min] [– max][9] XP $]\ ]\ ]$
57. $[_S\ [\ NP_1\ ]\ [_{VP}$ HAVE $[_S$ NP XP $]\ ]\ ]$

The first structural possibility we can just dismiss as implausible. Such a structure would require a relation of dependency from a niece to an aunt. The only plausible case of such a dependency I know of involves *too-* and *enough-*

[8] This is a structure normally reserved for referring to sentence-level modifiers.
[9] This is the functional equivalent of "N-bar".

constructions (cf. Nikiforidou 1987), which technically requires the inheritance of features up to the sister level—an account which is much more plausible in the case of quantifier-like elements than it is for a predicate and its complement.

Both the (54) structure and the (55) structure are not to be confused with the structure represented in (58), which we do find sometimes, but which I claim is different from any of the HAVE-constructions we are considering here, and is a product of the adjunct secondary predicate construction rather than of a lexical entry for HAVE:

58. $[_S\ [NP_1]\ [_{VP}\ [_{VP}$ HAVE $[NP_2]\ ]$ XP $]\ ]$

This structure is exemplified by:

59. We had our soup cold.
60. I have that book on my desk.[10]

Actually, both (59) and (60) are structurally ambiguous in a way different from the structural ambiguity mentioned in sec. 3.1.3 (which discussed the possibility for either a postnominal modifier or a predication analysis). They are both ambiguous between the structure given as (55) and that given as (58). The reading corresponding to (58) in (59) is very accessible, because it is easy to get a reading of (61)

61. We had our soup

without the predicational complement. Here, as we noted earlier, we can discern a "meaning" of HAVE something like 'partake of'; so the secondary predicate *cold* in (59) bears the same relation to the matrix clause as it does in (62),

62. We ate our soup cold.

[10] "Adverbial" phrases can perhaps be assimilated to secondary predicates, though the theory of this has yet to be worked out.

Another way to disambiguate is to notice (as we will more systematically in sec. 6.2.2) that the use of HAVE as 'partake of' is active, and hence is easily interpretable when it appears progressive-marked, whereas the HAVE that normally appears in the obligatorily three-place structure is stative. (63) forces the reading of 'partake':

63. We're having our soup cold

while (64),

64. We had our soup cold just in time to serve it

disallows the 'partake of' reading because the manner phrase strongly encourages a resultant-state reading of the XP, which in turn is incompatible with the semantics of the 'partake of' reading.

By contrast, it is very difficult to see the difference between the two readings of (60) corresponding to structures (55) and (58). This is just another interesting example of when a structural difference does not lead to any easily-discerned difference in overall semantics, a phenomenon we have noted repeatedly. Again, I think the difference in semantics is there; in one case the speaker is predicating possession as well as something else of the possessed object; in the other case he is predicating an affectedness plus control relation between the referent of NP_1 and the state of affairs $(NP_2\ XP)'$. The best paraphrase I can produce (60) on the (55) reading is with a simple copular sentence (65), and on the (58) reading it is with a two-clause structure (66):[11]

65. That book is on my desk.
66. I have that book: it's on my desk.

The near-synonymy of the two readings depends on many factors: the fact that, because of world knowledge about books, possession can be **inferred** from the

[11] This might correspond to the thetic/categorical distinction, cf., e.g., Kuroda 1984.

relationship provided semantically by the sentence in the reading corresponding to (58); the fact that HAVE has both valence possibilities and has just these constructional semantic possibilities. But their difference is barely discernible: (60) is harder to see as ambiguous because the lexical semantics of HAVE on the two readings are difficult to keep distinct. For (59), by contrast, there is a direct correspondence between the lexical semantics of HAVE and its complementation requirements. This is another case in which a structural difference and real semantic ambiguity is almost imperceptible in actual use.

Given the inconclusiveness of the constituency tests, it is obvious that the arguments I will be making in favor of structure (55) will be existence arguments rather than uniqueness arguments.

That is one reason why one traditional argument, that of conjoinability, will be of no help here: for many instances, a string [NP - XP] will be analyzable as a complex NP, and hence will be conjoinable with an unmarked NP ((67) is structurally ambiguous over 2.NP and 3.XP):

67. "The task force has a $900,000 budget and 17 persons attached to it."

But a more compelling argument against using conjoinability as a test is that people simply do not observe the putative constraints on it, even with other predicators:

68. "Reporters outside the main gate could hear automatic weapons fire and sporadic explosions."

I will timidly advance the hypothesis that while the conjunction of a nonconstituent string with a constituent is done regularly, it is dispreferred when such a conjunction would force two different constructional readings of the two predications:

69. ?I have a nice big budget and the director eating out of my hand.

This is just another example of a putative syntactic constraint giving way to a constraint on predication (cf., e.g., Lakoff 1986)—in this case the semantic identity of predications.

Let me return to arguments for constituent structure. The first argument I can use is against structure (56): once again, we can see that NP_2 can be pronominal, resulting in a structure which rules out the possibility that XP is a postnominal modifier:

70. I have it on the shelf.
I had him open the can for me.
I had them rolling in the aisles.

Notice that the pronominal NP_2 also permits the structure in (58):

71. We had it cold.

Another argument against structure (56) is that distant instantiations which would under structure (56) violate island constraints are acceptable:

72. Who did you have your baby kissed by?
73. Which post office does Albany have an express bus running to?

(72) is a particularly interesting example, because a minimally-different sentence, (74), is less acceptable for me:[12]

74. ?Which post office does Albany have an express bus to?

Many speakers find this sentence perfectly acceptable, and the fact that I find it less so suggests that it is easier for me to parse this sentence in terms of a structure like (56) rather than (55). I do not know exactly why this is so, but I believe it has to do with the XP's being a preposition phrase and the motion-

[12] Actually this judgment waxes and wanes, and at best is very subtly different from that of (73).

plus-final state reading that prepositional XPs often exhibit (cf. sec. 2.3.2).

Notice that the PP here is readily seen as a postnominal modifier, which at first glance might be seen as interfering with the judgment for 3.XP. But by previous accounts, the fact that a phrase like this one could not be derived by WHIZ-deletion was taken as evidence for the complement, rather than modifier, status of the phrase. If this correlation can be seen to have any validity, then the sentence should still be acceptable on the 2.NP constituency as the 3.XP, since nouns with complements are not unambiguously islands.

Modulo our earlier observation that it needs to be distinguished from the other values of XP, the fact that the VP– is allowed as a value for the XP constituent of 3.XP argues in favor of structure (55) over both (56) and (58). That is because VP– is a possible value for neither adjunct secondary predicates nor postnominal modifiers. So to the extent that we can assimilate 3.VP– under 3.XP, we must allow for the possibility of structure (55).

Having brought up the Causative reading, it is worth mentioning that it is at least one reading for which on a priori grounds we might expect analysis (56) not to hold in any case. If we consider other periphrastic causatives and related structures, it appears self-evident that the secondary predicate should be a local, semantic-role assigned complement of the causative predicate. So for instance with Causative (cf. (75)) and Resultant-State (cf. (76)) sentences with MAKE,

75. I made the naughty child stand in the corner
76. She made him angry by nagging him constantly

the complement predication is best considered to be an argument of the causative predicate. The alternative would be another marked dependency relation: that between aunt and niece.

So far, I have not argued against structure (57), which differs from (56) not in constituency but in the assignment of S (or, rather, V) rather than N as the category of the embedded predicational constituent. (57) is certainly the most plausible structural alternative to (55). The necessary semantic relation between NP_2 and XP is one reason why a single clausal constituent is an attractive alternative.[13] Another reason is that if we consider the string (NP_2 - XP) to be a single clausal constituent, we can assimilate to that the dubious direct object status of NP_2 in 2.NP cases, and the inaccessibility (or rather the nonproductivity) of the passive version of HAVE falls out of a constraint to the effect that only objects can be the subjects of passive verbs. (But recall the preceding discussion of WANT.)

Another piece of indirect evidence is McCawley's (1983) argument for a constituency corresponding to (57) in analyzing the complementation structure of *with* in sentences like

77. With [$_?$ [BART] [on strike]], it's hard to get to work on time.

McCawley's analysis of *with* is significant for us because *with*-constructions share many of the constructional meanings as well as many formal peculiarities with HAVE-constructions.

Actually, I have not found a set of tests which unequivocally decides in favor of a 3.XP analysis as opposed to a 2.S– analysis. There are at least two kinds of reasons why establishing constituency is difficult for these cases. The first is that the tests I have applied do not give consistent results, even when one applies them to a single reading associated with the structure, **or** to a single value of XP. The second is that because the test results do correspond to one

[13] And note that even in the unusual case of $3.VP_{to}$ where NP_2 fulfils a nonsubject requirement of XP, it is still well to consider the two a constituent, since that would make the instantiation of the first argument by NP_1 a matter of simple coinstantiation.

another, and because the tests themselves achieved prominence within a theory that made radically different assumptions about language from the ones made in Construction Grammar, it is virtually impossible to determine what the tests are tests of: constituency? predication? semantic role assignment? It is a real challenge for a theory of grammar to reevaluate the classical tests in light of what we now know or can surmise about the semantic bases of apparent syntactic properties.

Appendix A gives the results of my application of five tests adapted from Postal (1974) to each of the readings I have postulated for the structures which include a predicational complement: Causative, Resultant State/Event, Attributive-Existential, Affecting Event, and Depictive. The results of the constituency tests are in many cases quite surprising, and for no reading are they collectively deterministic. I can only speculate on what the tests are really testing, and based on those educated guesses and on clues from other formal and semantic properties of each reading, I can make my best guess as to constituency; but after going through this exercise, one must question the validity of the entire enterprise of establishing a single, formally-defined and definitive constituent structure.

Lambrecht (1988) provides a non-exclusive constituent structure for structures of the form *I have an uncle's an engineer*. He gives convincing arguments for treating this kind of sentence as a syntactic amalgam, which then makes it available to more than one constituency analysis. In general, I am uncomfortable with saying that a sentence **simultaneously** has two different syntactic constituent structures, and I think a special case must be made for each such claim. However, I am perfectly happy to concede the possibility that what we are testing for ultimately is not syntactic constituency but semantic togetherness, e.g. predicate-argument relations in the matrix clause as opposed to those in the

embedded predication. I am also willing to entertain the idea that these sentences are compatible with two constituent structures and that, like viewing a Necker cube, the analyst can flash on either constituency and switch suddenly to the next. (The Necker cube analogy is especially nice because, after all, Necker cubes are not cubes at all; similarly, if we have two syntactic constituency structures, it is probably at bottom because of something like the semantic considerations after all.) Finally I should observe that Lambrecht's discussion emphasized the function of his examples in discourse as presentational. Of the set of constructions I have isolated, only some of them are used presentationally, and I will be arguing below that the discourse function is to some degree independent of the constructional semantics. Thus we must still have something to say about syntactic properties of the constructions as well.

I am not yet ready to give up on the existence of syntactic constituency, as I hope is evident from the preceding discussions of constituency which can now be unmasked as the oversimplifications they are; nevertheless, that amount of deception can be justified given the relative simplicity of those data and my only secondary interest in those subconstructions. Now I will discuss the class "3.XP", reading by reading, with special attention to the semantics of each construction, the conditions it places on the semantics of its constituents and the formal consequences that has, and such matters as the semantic role assignments which can be inferred. I will also demonstrate why the readings need to be distinguished from one another. For these questions I will be relying on the constituent-level properties which I talked about in Chapter 2.

The outcome of my discussion of constituency is far from satisfying; but it seems to be that given the existence arguments for the three-place structure I gave above and the lack of clear proof that any reading has a 2.S– (clausal complement) structure, I assume that the three-place structure, being the simpler

one, is the only one we can justify.

3.3.1. The Causative.

The tests in Appendix A are hardly as definitive as we would like them to be, given the intuitive understanding of the Causative construction and its similarities to other causatives, such as those in MAKE. On intuitive grounds one would just hope that the Causative construction would have three complements.

A sometimes-reliable way to judge whether a semantic role is assigned to NP_2 is to see whether a "passivized" equivalent of the $(NP_2 - XP)'$ proposition is semantically equivalent to the active transitive as for instance in (78) vs. (79):

78. I had the Pope kiss my daughter.
79. I had my daughter {get / be} kissed by the pope.

The argument is that if we have the feeling that different people are being prevailed upon, then the matrix predication is assigning a semantic role to that position, resulting in a nonsynonymy for the two sentences. I do not have a clear judgment of the nonsynonymy of these two.

Another argument, the occurrence of expletive elements in NP_2 position, will be taken up in sec. 3.3.5.

The causing act which results in $(NP_2 - XP)'$ is quite unspecific in its nature. Rader (1981) suggests that it must be a linguistic action (seen as a causing action). I do not think the causing action is necessarily linguistic, though that seems intuitively to be the typical case; however, this is no way to verify this, since to me all manner adverbial clauses seem equally unacceptable among HAVE-constructions:

80. She had the children quit talking
    a. #by calmly asking them not to.

b. #by bribing them with candy.
c. #by rapping their knuckles.

The meanings of the expressions in (a), (b), and (c) seem increasingly inappropriate as causing acts describable by means of a HAVE-construction; however, the expressions themselves are equally unacceptable in the sentence. All I can conclude from this is that Rader may have been right about the character of the causing act, but in my opinion, all that can be determined is that it is a kind of causation that does not involve forcing or even directly impinging on $(NP_2)'$. The only plausible alternative involves some kind of instruction. Furthermore, it seems as though one of the features of this construction is that the proximal agent of the caused event, NP_2', is being made to be willing to perform the act. In this way, some kind of instruction, whether linguistically or otherwise conveyed, can be seen as the typical causing act for this reading.

It seems as though, in general with HAVE-constructions, the emphasis is on the result of the act to the exclusion of manner and means. In fact, it appears as though the express purpose of HAVE in all usages is to provide expression of an event or state whose internal structure is unanalyzed. As a consequence of this, almost no true adverbials can appear modifying the matrix predication[14]. So for instance, even though of the Causative one has the feeling that (1) two actions are taking place and (2) the act of causing is somehow removed from the resulting event (i.e. it is not as direct a causing action as is expressed with, e.g. MAKE or GET), the matrix clause cannot be modified with one sentence adverb and the embedded clause with another:

81. ?*Yesterday I had him wash the dishes today.

[14] Certain adverbials which remark upon the internal state of NP_1' are sometimes acceptable. No other adverbs are clearly both matrix-level and grammatical.

And when there is sentence-adverbial modification, it is understood to apply to the embedded clause: in

82. I had him wash the dishes in the bathroom

it is understood that the dish-washing is taking place in the bathroom, rather than the causing act, whatever it may be. This is consistent with the vagueness of the nature of the causing act. The atomic, i.e. unanalyzable, nature of the causing act is odd considering that the one thing we do know is that the act of causing is intended by $(NP_1)'$— a Causative HAVE-construction cannot be used to describe an unintended or unwitting act of causation. NP_1 must be assigned the semantic role Agent, but we must further stipulate the deliberateness in the Agency.

The HAVE of the Causative reading is distinctly active, as we would hope a causative verb would be. Both the progressive-test and the *got*-extension test demonstrate this. The progressive test, though notoriously unreliable is fairly clear for this case: using present-participle marking on HAVE renders the possibility of a real present progressive reading:[15]

83. I'm having them wash the dishes tonight.
84. Can't come to the phone: I'm having my teeth cleaned.

On the other hand, "*got*-extension" is not possible for HAVE on this reading:

85. *I've got him wash the dishes.
86. *I've got my daughter kissed by the pope.

(The Resultant State/Event reading is acceptable for (86).)

[15] The true progressive is never the preferred reading, probably for the same reason that manner and means adverbials are not allowed: HAVE-constructions seem not to be compatible with a causing event type whose internal structure or properties is at issue.

Another property of the Causative reading is that the value of XP is restricted to VP– and VP_{EN}, on the true passive reading of the latter. Both of these syntactic forms correlate with aspectually perfective predicates; the rest of the predication types appear to be imperfective, with the exception of VP_{to}. We will see as we go through the various readings that the Activeness or Stativity of the matrix clause seems to correlate fairly well with perfectivity (boundedness) of the embedded predicate.

HAVE

Ag – Res

1 2 3

N N Pred(perfv)

XP must be either VP– or a true passive VP_{EN} (i.e. it cannot be a statively-interpreted VP_{EN}). Perhaps this fact can be explained: like other predicators which take VP– predicational complements[16], the HAVE-construction entails the occurrence of $(NP_2\ XP)'$. VP– seems to be expressly well suited for this purpose. The passive, of course, is used for the same semantic purposes but additionally to arrange the participants in the way most compatible with the communicative purposes of using the construction. Note that with a passive XP, the understood Agent of XP cannot be coreferential to NP_1, which is one of the features distinguishing the Causative reading from the Resultant State/Event.

3.3.2. The Resultant State/Event

At first glance, the Resultant State/Event reading is very hard to distinguish from the Causative. I think the fact of there being two so closely semantically related constructions has inhibited progress of study on HAVE-constructions for quite a while. However, there is no doubt that the Resultant State/Event reading is a distinct reading: unlike the Causative, it imposes no animacy

requirement on NP_1, which means it must have the semantic role Stimulus rather than Agent, with the corresponding semantic role for NP_2. Note that although being an Agent precludes NP_1 being animate, being a Stimulus as opposed to an Agent does not preclude NP_1 being animate; in fact the possibility of NP_1's being animate is one of the chief causes of the confusion evident in the literature:

87. Sally had Bill grinding his teeth in his sleep.
88. Sally's constant nagging had Bill grinding his teeth in his sleep.
89. "It was part of a scam that had the victims thinking they were beneficiaries of a windfall."

But we can see that they do have to be distinguished; while the Causative reading is active, based on the progressive-test, the Resultant State reading is not:

87′. *Sally was having Bill grinding his teeth in his sleep.
90. *My jokes were having them rolling in the aisles[17].

We can use the fact that the Causative HAVE is active and the Resultant State/Event HAVE is stative to demonstrate the constraints on the form of XP for the Causative test. None of these sentences is acceptable:

91. *I'm having him washing the dishes right now.
92. *We were having the house surrounded in a matter of minutes.
93. cf. We were having the house surrounded by the National Guard.

((93) is an example of the Causative reading.)

(91-92) are unacceptable, I argue, because the progressive morphology is compatible only with the Causative reading, as in (93), while the morphological form of the XP complement and its semantics in each of them is only compatible with the Resultant State/Event reading.

Notice another nice fact which distinguishes the Causative from the Resultant State/Event: take (7′), the acceptable Res E/S sentence:

92′. We had the house surrounded in a matter of minutes.

That has at least one reading in which the Agent of the embedded predication is coreferential with the matrix subject. (There is also a reading in which it is not.) By contrast, (93′) does not allow the coreferential reading:

93′. We were having the house surrounded.

As we noticed in sec. 3.3.1, this is probably a semantic constraint that the kind of causing the Causative HAVE expresses is incompatible with self-directed causation. This restriction does not obtain on the Resultant State/Event, however. That is because the matrix predication does not express agentive causation: it expresses that an event or state took place as a response to some stimulus, which apparently can be self-directed. Notice, too, that the Resultant State/Event reading does not, unlike the Causative, imply that the stimulating event was an instruction, and in fact examples (87-88) show that it need not be.

One similarity between the readings is that Resultant State/Event also disallows any adverbial which unequivocally modifies the matrix clause and not the embedded predication.

It is evident also that the embedded predication is unbounded, or imperfective, in the Resultant State/Event reading. Remember that progressive is only one variety of imperfective, and that VP_{ing} can be used in other embedded contexts to express imperfectivity without expressing progressivity. We can see that HAVE-constructions make use of both varieties of VP_{ing}. For instance, in (88) one can interpret *grinding* as progressive, but it may also just be imperfective; in (89), *thinking* cannot be interpreted as progressive, because it itself is a stative predicate and not available to a progressive; however, it may be interpreted as aspectually unbounded (imperfective). Throughout this discussion we will find that the subtypes of HAVE-constructions which accept aspectually imperfective XPs will allow either of these possible interpretations of VP_{ing} (as well as accepting other imperfective predicate types).

The most illuminating discussion of these HAVE-constructions that I have seen, Dieterich (1975), treats these as two kinds of causative, for which he has a Generative Semantic treatment which involves two kinds of logical form in the lexical decomposition, one which embeds the Dowty-style Agentive predicate DO, the other of which just involves CAUSE. The first of these (after Gruber (e.g. 1967) and Dowty (1979) makes the predicate active and agentive, and the other does not. Lexical decomposition of this type is one way to capture the idea that the bringing about of the $(NP_2$ - XP)′ event may be done intentionally, accidentally, or even un-knowingly by NP_1′, or NP_1′ may not be capable of intention. I have accomplished the same task here by the assignment of different semantic roles to NP_2 in the two readings.

HAVE

Stim — Res

N N Pred (impfv)

1 2 3

The next pair of readings share one general property: instead of expressing in the XP an event or state of affairs that results from some other event or state of affairs, as is true on the Causative and Resultant State/Event readings, the predicational complement in these are simply attributed to NP_2 with no temporal or causal relationship to any other event or state. (The participant role of NP_i will be discussed momentarily.) This distinction corresponds roughly to that found among (optional) secondary predicates, that they bear the relation "circumstantial" or else "consequence" to the main clause. The two readings are what I have called "Attributive-Existential" and "Affecting Event."

3.3.3. The Attributive-Existential

This reading can be seen as including not only 3.XP cases like those exemplified in (94), but also many 2.NP cases and the 3.VP_{to} case.

94.a. "There's another schema that has this built in, namely BUY."
b. "The downstairs windows had the curtains open and yellow light fell across the lawn."
c. "Dear Patrons: Please be patient. We have lots of new employees training."
d. "MIT had that ["nerd machismo"] as its main cultural feature."
e. "I had to wait in line for a half hour because they had three sick tellers."
f. "[Polysemy structure/diachronic semantics] is something which might have regularities to be observed about it."
g. "Elvis' inheritors had him to fall back on. Elvis had no one but James Dean and Tony Curtis."

Possession, subpart and inalienable possession are special cases which we may wish to identify as separate uses of the construction (to be discussed again in Chapter 6). As I noted earlier, these are cases for which the rich semantic frame called up by NP_2 is invoked. The specific relationship being attributed between NP_1 and NP_2 will be fixed sometimes by definitional properties of NP_2, and sometimes by "encyclopedic" properties. The important semantics contributed by the HAVE-construction is that $(NP_2)'$, or rather the predicate which it evokes, is expressed as an attribute of $(NP_1)'$. I don't think this argument is circular: relations can be seen as attributes and I think the independent concept of attribution is defined in part metaphorically. (cf. sec. 6.5)

The relationship between 2.NP.Attributive-Existential and 3.XP structures is more complicated than it appears at first glance. Notice that in cases of inalienable possession it is highly pragmatically marked (if not downright unacceptable) to paraphrase such relations using a 3.XP, even if it is truth-conditionally equivalent to the corresponding 2.NP sentence This is true for kin terms:

95.a. I have a brother (#in my family).

This is probably a good sentence if the speech act force of the utterance is not merely of predicating the relation, but of implicating something else: say, for instance, you're admiring someone's housekeeping and say "Gee, I could never keep my house this neat. I have a brother in my family." Here there may be an implicit contrast made between the speaker's family and the hearer's.[18]

For part terms, the constraint is even stronger:

95.b. She has beautiful eyes (*in her head / *on her face).

Certain sentences with body-part VP_{to} and an XP locative are acceptable and have a special pragmatic force:

95.c. She sure has a great pair of legs on her!

I am not sure what the conditions are for this usage.

Actually, the conditions which preclude a 3.XP expression of inalienable possession include not just the inalienability but uniqueness (i.e. complete predictability) of the location of the subpart with respect to the whole; hence (3.a-c) are completely grammatical. In some cases the corresponding 2.NP expression is less acceptable out of context, but they are all possible.

96.a. "I have keloid tissue (on my back)."
b. "Her face had laughter wrinkles (at the corners of the eyes)."
c. I have one uncle (on my mother's side).

(The attested examples were uttered with the XP phrases.)

Then there are relations which we would indisputably call attribution or alienable possession, which differ from the inalienable ones in allowing (with some semantic difference) either a 2.NP or a 3.XP expression:

[18] Thanks to Laura Michaelis for this nice example.

97.a. She has a red dress (on).
b. He has a book (in his hand).
c. He has the incriminating documents (in his possession).

In such cases the 3.XP may either be equivalent to the most accessible reading of the corresponding 2.NP sentence because the XP is pragmatically uninformative, as it is in (4.b); alternatively, it is because the XP, while adding specific information to the interpretation of the relation, merely expresses the most pragmatically plausible reading of the relationship, as it does in (4.c). On the other hand, the 3.XP reading may preempt the general "possession" reading, as it does in (4.a) (note that this sentence does not entail ownership of the dress by the wearer: some other kind of possession, roughly physical proximity and control, is being expressed). But in general this relation of alienable possession is expressible with both the two-place and the three-place structures. The specific attribution depends on whether there is an XP to provide a particular predication or one must rely on frame-semantic information.

Finally we can note that there are attribution relations which do not allow a 2.NP expression, only a 3.XP one:

98.a. The table has a book *(on it).[19]
b. The yard has three deer *(in it).

This is true even when one can easily infer the specific relation holding between $(NP_1)'$ and $(NP_2)'$. It seems more than coincidental that 2.NP can be used with animate subjects when the possession is either inalienable or inalienable, but with inanimate subjects only with inalienable possession. That suggests to me that there's something substantive and significant behind the man on the street's intuition that 'possess' is at least one of the meanings, and certainly a prominent one, of HAVE. It must involve more than spatial contiguity—location—as some

[19] where an asterisk outside the parentheses indicates that it is ungrammatical without the parenthesized expression.

(e.g. Anderson 1971) have argued. There seems also to be some control or influence exerted by $(NP_1)'$ on $(NP_2)'$. This isn't a new proposal: its essence is offered by Langacker (1975) as well as Bally (1926), and I will take it up again later.

These facts taken together support the hypothesis presented in sec. 2.2.3 that it is not simply the question of the alienability or inalienability of $(NP_2)'$, but more generally the richness of the background semantic frame that accompanies and is evoked by NP_2. Roughly, the degree of determinacy of the precise relation is inversely proportional to the acceptability of an expression of that relation as a predicational complement. Recall, too, that we found some sentences (in sec. 2.2.2 and 2.2.3) which were syntactically of the form 2.NP, but semantically predicated an attribution relation between the subject referent and a state of affairs, rather than another entity. While we must treat this phenomenon as an independent fact about noun modification rather than about HAVE-constructions, it provides a piece of evidence in support of the idea that two-place and three-place structures can be seen as invoking the same sort of attribution relations.

The fact that sentences like (99.a) and (99.b)

99.a. I have some cambozola in my pocket.
b. My pocket has some cambozola in it.

strongly favor a NP in XP coreferential with NP_2, plus the fact that their semantics shares certain salient aspects with the *There*-existential, led to the strategy adopted within the transformational framework that Emonds (1976) employed to explicitly state the relationship between these two constructions. He suggested that *There*-insertion sentences were the derivational source of 3.XPAttr/Ex HAVE-constructions with this coreferential NP. Emonds formulated the rule only to include locational PPs such as given above, but one could generalize the

formulation to include XP values such VP_{ing}, VP_{to}, and so on:

100.a. "These sentences have all got something wrong with them."
b. "Any causative is going to have a resultant state associated with it."
c. "The construction here has the noun as prepositional object."
d. "A pronoun has a bound-variable reading iff it has a bound empty category *c*-commanding it."

Emonds' rule depended on Bach's argument in favor of inserting HAVE transformationally instead of having it in the lexicon. Despite the elegance (relative to the theory) of this treatment, we can see that it's not sufficiently general to capture the class of Attr/Exist sentence types. Moreover, it's too general in obscuring differences in constructional semantics-pragmatics between *there*-sentences and Attributive/Existential sentences in HAVE.

Emonds' account is not general enough to generate all cases of Attributive-Existential, because it is definitional to the construction as Emonds formulated it that there be a XP, and that that XP contain a pronominal coreferential with NP_1. Neither of these conditions must hold. Even if to take the paradigm cases of inalienable possession away from consideration here, on the grounds that Bach's generalization covers them separately, there are still cases where a 2.NP expression is a functional and semantic equivalent of a 3.XP:

101.a. "I have homeworks I have to grade."
b. "The standard analysis has extraposition, IT-replacement, etc."
c. "MEAN can have some dative-like argument that's associated with it."
d. "It might be noted that kinship terms and other nouns indicating personal relationships have special patterns for the representation of their arguments."

While the coreferential pronoun in XP is typical, it is by no means required (except in the inalienable cases noted above):

102.a. I have money in his bank account.
b. "[The verb] DELIVER has a reception condition required. . ."
c. I have a little red button in front of each of my

experimental subjects.

(102.a) could be explained away as an example of a possessive-HAVE which would encourage a 2.NP reading, but this cannot be true of (102.b). Neither can we invoke this explanation for (102.c)—note the truth-conditional synonymy but non-equivalent construal of (102.d):

102.d. Each of my experimental subjects has a little red button in front of him.

In sec. 6.4, we will see how our claims about the constructional semantics of HAVE-constructions predict not only the difference between (102.c.) and (102.d.), but how they predict the differences in use between HAVE-constructions in general and *There*-constructions in general.

One point of elegance in Emonds' treatment which I can't account for specifically in terms of HAVE-constructions is that it allows both of the sentences in (103) to be produced by the same rule,

103.a. John's pocket has a hole in it
b. John has a hole in his pocket

since the movement making the locational object in the PP the surface subject can apply to either NP in a genitively-determined NP such as *John's pocket.* This is a nice result, but it is fairly clear that what we have rather is two possible instantiations of the same attributive HAVE-construction: in one case the attribuand is the object with the property (i.e. the pocket with the hole) and in the other it is the party who is affected by this state of affairs (John). This is just a "possessor advancement" or "active zone" (Langacker 1984) phenomenon, which is apparent in all kinds of other construction types.

Finally, mention should again be made of the subtype of Attributive-Existential which I earlier called "future commitment". The structure 3.VP_{to} is the best sentential instantiation of this reading, but there are also uses of 2.NP

which allow such an interpretation, given the right context and a NP_2 which denotes an event:

104. A: What are you getting a new down jacket for?
B: I have a ski trip next weekend.

In context, *ski trip* is unremarkably understood as denoting a future committed event. As Eve Sweetser has pointed out (p.c.), it must be understood as a planned event, not one hoped for or imagined: it must exist in a futurity space.

Of course, this is exactly parallel to the cases I discussed in sec. 3.2.1 of $3.VP_{to}$: *I have a paper to write* is a future commitment just as (104/B) is, and the morphosyntactic form of the predicational complement contributes that explicitly.

It is important to notice that this reading, and the one that follows, does not have truth-conditions of a neatly identifiable type as do the two readings considered just above. Sometimes these constructions express an objectively-verifiable relation of attribution or effect, as for instance when expressing a possession relation. But more often than not, these constructions are used to **impose** a particular interpretation on a scene: that the state of affairs expressed in [NP_2 - XP] can be attributed to—that is, can be seen as a property of—NP_1'. Similarly, the Affecting Event reading to be discussed next can be used to impose on an event that it had some effect on, or interest for, the matrix subject.

HAVE

Exp – Cont

1 2 3

N N Pred(impfv)

3.3.4. The Affecting Event.

Similar in many ways to the Attributive/Existential reading is the one in which some event $(NP_2 - XP)'$ is identified as bearing a relation of interest or effect on $(NP_1)'$:

105.a. "Flyers put up on campus had the word 'nigger' scrawled all over them."
b. "A neighbor had at least two wives pass away before anyone paid any attention to it."
c. "I used to have that happen to me." (find another ex)
d. "Texas had their winning streak snapped last night, they're six back."

((105.a) is ambiguous over Affecting Event and Attributive-Existential, depending on whether VP_{EN} is interpreted as passive or a participial adjective. The attested reading was as an Affecting Event.)

In these cases, a perfective (i.e. aspectually circumscribed) event is expressed in the string $(NP_2 \cdot XP)$. XP need not denote a single event, since it may denote an easily-circumscribed set of events as it does in (106):

106. I had that happen to me twice in one week.

The important property of XP is not how many events it denotes, but whether that event or the set of events is bounded, and whether its internal structure is considered. What differentiates the XP on this reading from that on the Attributive-Existential reading is just that in the former, the XP cannot be seen as a state comprised of a series of iterated events—it must be eventlike, hence bounded. Because of the aspectual properties which differentiate the Affecting Event from the Attr/Exist, there is a general restriction on XP to be either VP_- or VP_{EN} (in its passive reading), but nonetheless, sometimes it is difficult to discern how the XP is to be interpreted.

Like in the Attributive/Existential reading, it is very common to have in the XP constituent a pronoun coreferential to NP_1, (as in (105.a) and (c)) but it is not grammatically obligatory, as we can see in (105.b) and (d). This fact went unremarked by Emonds, incidentally, who looked only at a small subset of what

I have called Attributive-Existential, and really failed to notice the generality as well as the complications involved in the coreferential-noun phrase property.

Because a single affecting event cannot readily be seen as an inherent property of an entity, there are no cases on this reading corresponding to the inalienable-possession cases that I suggested could be seen as a special case of the Attributive/Existential reading. However, I would like to suggest that some of the cases of 2.NP where NP_2 is an event nominal can be assimilated under the Affecting Event reading. These would be cases like *have an operation, have surgery, have an examination.* Observing that there are 2.NP HAVE-sentences which can be seen as examples of this reading goes no distance in explaining the puzzle we mentioned earlier of when the patient or sufferer of a nominalization appears as NP_1 in a HAVE-sentence and when it is the actor or Agent. It merely adds a little symmetry to the distribution of syntactic types over semantic types.

About both of these readings a great deal more deserves to be said about Aktionsart and aspect considerations in XP. I've been couching the restrictions on the form of the XP as conditions on their syntactic form. But as far as I can tell these restrictions are completely semantically motivated. For instance, take the difference in semantics among (107.a-c):

107.a. We had a guy run right in front of our car.
b. We had some guys run right in front of our car.
c. We had guys running right in front of our car for the whole trip.

(a) univocally has an Affecting Event reading. (b) is ambiguous over the two readings, depending on whether $(NP_2)'$ ran as a group in a single event or singly in a set of distinct events. Because (c) contains an imperfectively-marked verb, and a duration adverb, it has the Attributive-Existential reading. One important point here is that having an XP of the form VP– does not guarantee an

Affecting Event reading, though having a VP of a participial form and a predicator of any other type seems to force an Attributive-Existential reading. The difference between (107.a) and (107.b) underscores an observation made by Comrie (1976) and others about aspect: that it is a property of an entire predication, not just of the head predicator. It also demonstrates again the oft-observed relationship between distributivity (of an event) and imperfectivity.

I cannot hope to sort out the fine details of aspect and Aktionsart which figure in the contribution by the predication to the constructional semantics; I can only note here that that contribution is considerable. I will take up the question of aspect and its contribution to the constructional meaning again in the next chapter.

HAVE

Pat — Event

N N Pred(perfv)

1 2 3

3.3.5 The Depictive

The "Depictive" reading is one which expresses a situation in which an entity, $(NP_1)'$, effects or portrays an event or state of affairs occurring in a world which is for some reason not the "real world". It is easiest to give examples in which the created world is a text, such as a movie or a play, but this reading can also express events or states of affairs in an intended or future world.

108.a. "[Third base coach Jim] Lefebvre had Canseco scoring all the way."
b. Jeane Dixon has Jesse Jackson winning the nomination.
c. "Gruber has aspectual information appearing under a node in the prelexical structure."

Several considerations must be met in a Depictive reading; most crucially, some constructed (partial) model or representation of the world, rather than the "real" world (Fauconnier's "origin" space), must be invoked. For instance, (108.a) would seem an impeccable example of a Resultant Event reading, out of context; but Canseco only got to third on the play, despite the fact that Lefebvre was waving him home. This is a nice example to show two things: first, that the "text" need exist only in the imagination of the "author" (as (108.b), a "predictive" use, also shows), supporting the hypothesis that this reading is a consequence of the creation of a daughter space, whatever the character of that space. Second, it shows that what counts as an appropriate subject of a Depictive construction is not an expression that conforms to a set of formal criteria, as might be inferred from Fauconnier's discussion of "space-builders", but is rather a matter of construal. (108.a) has a reading in which Lefebvre is a real-world (or origin-space) Stimulus and Canseco reached home in that real world, just the Resultant Event reading alluded to above. I can identify the sentence as instantiating the Depictive reading not from any clues in the sentence itself, but because the surrounding context told me that Canseco's scoring was in Lefebvre's intended world rather than in the "real" world.

As (108.a) suggests, the effectuation or portrayal expressed in the XP must take place in a daughter space or embedded world; consequently, (109) is defined as not being an example of the depictive reading, on its most accessible interpretation:

109. John Sayles has Charlie Sheen in his latest movie.

On the most accessible (and factually true) reading, Charlie Sheen is an actor rather than a character, and *Charlie Sheen* refers to that actor rather than to his

character.[1] Here we have a real-world causation or attribution which happens to make reference to an "daughter" world or space. The state of affairs described holds of the "real" world or origin space. The Depictive reading differs from the reading discussed in (109) in that the state of affairs or event occurs only in the daughter space, whether it be about the future real world, some imagined world, a defined (partial) world, as a theory, or a text.

We can also notice that it is the non-real (or non-origin) nature of the relevant space that allows embedded predications such that NP_2 is an "expletive" element (cf. sec. 3.2.1); compare (110-b) with (110-d), on the same embedded space reading for PERSUADE:

110.a. The director had there be a riot at the end of the first act.
b. Little Susie had it rain on her dollies' picnic.
c. ?*The director persuaded there to be a riot at the end of the first act.
d. ?Little Susie persuaded it to rain on her dollies' picnic.

This again suggests that no semantic role is assigned to NP_2.

Notice that so far, in our examples, NP_1 has always referred to the "author": the creator of the daughter space. There are also sentences in which the text (or world) itself is expressed as NP_1: In (111.a), one is given a lexical clue that $(NP_1)'$ is a text, but in general there is still the matter of the correct construal given frame-semantic information about $(NP_1)'$, since as we can see

[1] This business of reference across and within spaces gets complicated very fast. Several other readings are possible. The one in which *Charlie Sheen* names an actor but denotes a character can be seen in (i):

i. In his latest movie, John Sayles has Charlie Sheen help throw the 1919 World Series.

This indirect means of referring to the character Happy Felsch is accomplished by means of the cross-space connector of actor to role, (Fauconnier 1985:36) which reaches from the origin space to a drama space. But in this discussion I will confine myself to the simple readings which involve the minimum number of cross-space connectors but still provide a pragmatically accessible reading.

(111.b) and (111.c) differ in constructional semantics because of the different understandings of the referents of $(NP_1)'$, either as physical object or as world-creator. A similar difference obtains between (111.d) and (111.e), where one use of *view* is as a representation of the "real" world and another is a representation of a personal, partial world:

111.a. The theory has Sentence as a projection from AGR.
b. The movie has Happy Felsch help throw the World Series.
c. The movie has a scratch in it.
d. Their world view has Berkeley at the center of the Universe.
e. Their view has the Golden Gate bridge right in the middle of it.

Recall that 3.Stf is a construction whose NP_1 is restricted to a semantically-defined subset of "text" nominals (cf. Appendix B). In the cases in (111), by contrast, we have the formally more regular structure which is used more productively (in terms of there being fewer restrictions on the what fills NP_1 position), but to more or less the same semantic end.

The semantic difference between author and text has consequences for the form of the XP. Note the difference in distribution of XP types demonstrated in (112.a-b):

112.a. Chandler has Marlowe {be / being} relentless in his pursuit of the truth.
b. *The Big Sleep* has Marlowe {*?be / being} relentless in his pursuit of the truth.

We can see that the VP– XP form is much less acceptable with a text-denoting NP_1 than with an author-denoting NP_1. This condition holds quite consistently in my dialect:

113. Imelda's count had Ferdinand {?*be / being / as} the winner.
114. ?"When you send someone a letter, the prototypical scenario has them receive it."

I do not find sentences (113) and (114) completely unacceptable, and some people find them completely acceptable, a fact I will discuss directly below. The difference in acceptability of the VP– form with the two classes of NP_1 suggests that we really have a difference here between a Causative reading with "author" NP_1s,[2] an Attributive-Existential reading with "text" NP_1s, and a Resultant State/Event reading for either authors or texts. It is even possible, though not nearly so easy, to get an Affecting Event reading across spaces:

115. [I had the weirdest dream last night!] I had someone shoot at my mother (except she wasn't my mother, because I wasn't born yet).

This is a somewhat unnatural example, admittedly. I have put in the parenthetical phrase to force an origin-space reading of NP_1 so that this is not just a description of an Affecting Event reading inside a daughter space—that is, so NP_1 cannot be interpreted as existing in the dream space. The only other example of an experience I can imagine being described using a sentence of this type is one that novelists sometimes describe, of their characters taking on their own personalities and engaging in activities unanticipated by their creators. In such a case like that it might be possible to utter (115) with such a reading:

115. [Even though Dashiell Hammett conceived of Spade as an essentially sympathetic character,] he had him give up Brigid O'Shaughnessy without an iota of remorse.

These facts indicate that the putatively distinct Depictive reading should be assimilated under the four readings discussed in the immediately preceding sections, and that their special semantic properties are simply the consequence of operation across spaces. In support of this, note that as in the usual case,

[2] Causatives aren't completely productive. I think this is once again attributable to the aspectual boundedness of the embedded predicate on this reading, which is incompatible in many individual cases with the aspectual unboundedness which exists of properties and relations in devised partial worlds, the same property which leads to the use of the "historical present".

without a daughter space, VP_{EN} is available to fill the XP position of both the Causative and the Resultant Event/State readings:

116.a. The play has the hero robbed by a gang.
b. The play has the hero robbed at gunpoint.

Note also that just as in the usual case, VP_{ing} in Resultant State/Event is ambiguous over the true progressive and the simple imperfective event or state that we find in general in embedded contexts (cf. 2.3.3):

117. The movie version has her dying in the end

where on one reading she has died by the end, and in the other she is in the middle of dying.

What remains for us to do is observe, and formalize, the cross-space connections and the holding of relations in the daughter space under construction of the author or by attribution to the "text".

So why can some people get (113) and (114) with the bare-stem infinitive verb? According to my analysis, the inanimacy (non-authorship) of the NP_1 should be incompatible with the Agent semantic role of the Causative. I think the answer is that speakers of this idiolect can employ a marked identity relationship, that from text → author (the normal one being author → text, as in *Fillmore takes up a foot on my bookshelf.* See Fauconnier 1985:10ff. for explication). This hypothesis must be left for future study.

When one uses the mechanisms of the *Mental Spaces* framework, all the properties[3] of the "Depictive" reading fall out from independently-motivated principles of HAVE-constructions. So we can say that we have a different semantic-pragmatic dimension along which the readings hold, yet this dimension is not a specific property of HAVE-constructions, just an independent dimension with which they can interact. Especially, the gaps in the paradigm of Depictive readings can be seen as reflecting real-world restrictions on the kinds of effectuation

which can hold across spaces. The markedness of the Affecting Event and the Attributive-Existential for author subjects comes down simply to facts about the world.

One consequence of using the *Mental Spaces* conceptualization and the independently motivated semantic role assignments is that the correct entailment relations will be predicted. The entailment is in the daughter space rather than the origin space. Because the state of affairs or event expressed as the XP is defined as holding in the daughter space, $(NP_2 - XP)'$ is entailed in the daughter space but not in the origin space, as we saw with the Canseco example. This is just a special case of the usual entailment relation: in the rest of the HAVE-constructions, $(NP_2 - XP)'$ is entailed in the "real world"; but the more general principle is that entailment holds in the home space. For non-"Depictive" uses, the home space is the origin space, the space in which all relations hold in by default. Since one construal of (certain values of) $(NP_1)'$ allows the construction of a daughter space, the general principle will have the state of affairs or event expressed as $[NP_2 - XP]$ hold in the daughter space, the space in which it is set up.

3.4. What is Constructional Meaning?

Having described some of the more salient properties of each of the readings, it now becomes my task to make some declaration of what those meanings are. A large portion of the semantics of each construction comes directly from the semantics of the component constituents, but a larger portion must be attributed directly to the construction. I have suggested that by giving each reading a name; but titling the meaning of a construction is not the same as describing it; nor is

[3] Not quite all: there are some differences in tests for constituency which I do not see as predicted by the use of cross-space connectors or daughter spaces.

it the same as describing how it expresses that reading.

In Chapter 2 I sketched out the approach to word meaning called "frame semantics" and described a little of how evocation of a frame results in reference. If each word is identified relative to a background frame, and each lexical item is definitionally a lexically-headed construction, then it follows that what evokes those frames is really lexically-headed constructions. In the same way, the HAVE-headed constructions discussed here also evoke frames, but the frames they evoke do not have the function of reference. That function is not really a property of frames in any case; it is rather the function of the word which is used to evoke the frame. Since the head of the constructions we have looked at here is not a nominal, and hence not in the business of referring, the kind of frame evocation which will result from its use is rather different.

I have demonstrated, in fact, that quite a bit of "encyclopedic"-type knowledge must be ascribed to these constructions, such features as the peculiar restrictions on HAVE-Causatives. In a rather simple way, describing the conditions of use of each of these constructions amounts to describing the properties of the entire frames they evoke. The syntactic and valence skeleton furnishes the minimal conditions for the use of the construction, and must be filled in by particular expressions which fill the requirements specified in the valence description. Similarly, the frame evoked by the constructional meaning characterizes the relationships among participants whose identities are revealed by means of those particular expressions.

Thus one aspect of either the construction or the understanding of a sentence involves the superimposition of frames of varying degrees of generality. This is not to suggest that the specificity of the frame information is isomorphic to the specificity of the syntactic information, for surely the details of the constructional meaning are greater than the details required to specify the syntactic

requirements. Yet a constructional meaning like the ones we have seen with HAVE allows evocation of a schema which is an approximation to and conventionalization of some general, recurrent event type.

4. Cross-Clausal Syntax and Semantics

"Ordinary underpinnings reveal a country of apartments. Syntax adapts."

—Barrett Watten, "Conduit".

To this point we have considered the formal and semantic properties of HAVE-constructions without making reference to the context which surrounds an instance of one of these constructions. The analyses have been idealizations over examples taken more or less in isolation. As with any linguistic generalization, the facts become considerably complicated as we examine the influence of the larger context on the properties of the constructions.

I will consider here only those HAVE-sentences which occur in syntactically embedded or conjoined contexts, leaving the more general discourse properties for a more complete study. I am taking the syntactically embedded contexts as a reasonably representative sample of the behavior of HAVE-constructions in continuing discourse in general. With the small number of attested examples that I have, no sweeping generalizations can be justified; instead I will point out some suggestive features of these examples and hypothesize about the motivation for their unusual properties.

The embedded HAVE-sentences I have examined appear in the following syntactic environments:

as complements of complement-taking predicates
in coordinate structures with "Conjunction reduction"
in relative clauses and other postnominal modifiers
in adjunct clauses (adverbial and absolute-type clauses)

The irregularity that is immediately apparent is that certain HAVE-sentences which seem perfectly unremarkable in one of these embedded environments are distinctly odd—pragmatically marked and , in some cases apparently

ungrammatical—as main clauses. Consider the following attested utterances:

1. "I don't want to move into this tiny apartment and have it be all cramped."
2. "Wouldn't it be nice to have my work be my job?"

(1) is somewhat complicated by the fact that there is both coordinate conjunction and embedding of the HAVE-clause. I will simplify it for expository purposes by eliminating the first conjunct in the embedded clause, as (3):

3. I don't want to have my apartment be all cramped.

However, coordinate structures, an attested example of which is given as (4), exhibit so many of the same behaviors that they are worth considering alongside the embedded structures:

4. "I might have read the sentence a month ago and not had it mean the same thing."

The fact that springs to the analyst's awareness is that none of the HAVE-clauses in (2 - 4) would be as acceptable in main-clause versions (the cross-hatch notation signifies pragmatic markedness):

2′. #I had my work be my job.
2′′. I'll have my work be my job.
3′. #I don't have my apartment be all cramped.
4′. #I had it mean the same thing.[1]

(2′′ is relatively acceptable for reasons which will be discussed below.)

In accordance with the observations in Chapter 3, we must note that no feature of these sentences precludes the appropriate reading, given that the Attributive-Existential and the Affecting Event readings are more a function of construal than of anything (observable) about the described state of affairs or

[1] Though in what follows I will be invoking issues of topicality and preestablished presentation in preceding discourse, it is clear that (4′) is not difficult to interpret simply because NP_2 is pronominal rather than lexical. (3′) is similarly marked, even though NP_2 is lexical and therefore establishes the reference of the presented entity. Thanks to Michele Emanatian for this observation.

even which we could readily call truth-conditions. It seems to me that what makes the main clause examples (2′ - 4′) anomalous is that they are stripped of the additional information—provided prepackaged in the matrix predicates in the corresponding sentences (2 - 4)—which make their construal natural and relatively effortless. What this means is that the source of their difficulty is not a function of any property of their syntax. To demonstrate this, we can take the main-clause sentence (4′) and embed it in a discourse (one I constructed) in which it appears as a main clause:

A. Gee! I've been reading linguistics articles for years thinking that the cross-hatch notation meant that the sentence had an interpretation, but just not the intended one.
B. Yeah, I know. For a long time I had it mean the same thing.

We can see that the **syntactic** position of sentences like (2 - 4) is not what makes them interpretable: it is rather the surrounding information provided in the matrix clause that presents context enough to enable the evaluation of the expressed event or state, hence making the HAVE-construction pragmatically recoverable.

As one would expect, then, there are many examples of embedded (or conjoined) HAVE-constructions that are completely acceptable and easily interpretable as main clauses[2]:

5. "Remind Clarke to have the section written by May."

[2] In order to simplify the discussion I am considering as "matrix-clause" uses of HAVE-sentences those embedded under operator-type predicators such as auxiliaries. Technically, this contradicts the Construction Grammar analysis of auxiliaries, since in Construction Grammar as in most frameworks these days, auxiliary verbs are considered to be complement-taking predicators. The real distinction at hand exists at the semantic level: whether the clause fulfils the semantic function of being the main—i.e. propositional—predication. Auxiliaries do not for the most part contribute frame information, which is the chief criterion for being a "main" predicator. Modals must be considered separately, as we will see below.

5′. Clarke had the section written by May.
6. "I had my whole chemistry class having pens fall out of their fingers."
6′. The whole chemistry class {had / was having} pens fall out of their fingers.
7. "We can take something like ENJOY and have its direct object be a noun. . ."
7′. We can have the direct object of ENJOY be a noun.
8. "Idioms can further be divided into those which have words filling proper and familiar grammatical structures, and those which have words occurring in constructions which the rest of the grammar cannot account for."
8′. Idioms can have words filling proper and familiar grammatical structures, . . .

The sentences (2 - 4) fare less well than (5 - 8) in the extraction into a main-clause paraphrase of the HAVE-construction. While the following conclusions are quite preliminary, I have some idea of the differences between the two sets of sentences. One important difference between them involves the semantics of the matrix predication. In (2 - 4) the main predicates contain modal verbs or verbs of propositional attitude: predicates which are force-dynamic in the sense of Talmy 1985. (So does the HAVE-construction in (2′′), which is acceptable as a main-clause use, by contrast with (2′) .) So these sentences introduce (or maintain) a topical referent, but they also convey some force-dynamic speaker- or subject-attitude about the situation in which that entity appears. By contrast, the matrix predications in (5 - 8) are more simply presentational: the entity is presented in the matrix clause and the embedded HAVE-construction predicates something of that entity. So for (5′ - 8′), no great loss of contextualizing information is lost with the loss of the matrix predicates in the corresponding sentences (5 - 8).

In (2 - 4), it is not simply that the force-dynamically laden predicates linguistically provide more propositional material and hence more context. Rather, the kinds of propositional material provided–predicates about ability,

possibility, desire, conditionality, and so forth—also implicate more complex event skeleta. They introduce issues of causality, reason, adversity, and so on. The details about these other relations are not filled in—in fact with just one sentence, it is not even known whether they are at issue. But it does provide the hearer with a set of possible contextualizations for the utterance. When that predicate is absent, as it is for the main-clause paraphrases of the embedded HAVE-constructions in (2′ - 4′), that quite detailed framing skeleton is also lost.

It is also apparent from these examples that certain readings of HAVE-constructions are more accessible than others regardless of the syntactic properties of the context as long as the semantics of the context do not conflict with the desired reading. For instance, the Resultant State reading exemplified in (5) is completely acceptable in a matrix clause; in general this is true of Causative and Resultant State/Event readings. (6 - 8), however, are examples with Attributive-Existential or Affecting Event readings, and by contrast with the set in (2 - 4) are unremarkably acceptable as main clauses. I have no general account of what makes certain HAVE-sentences so much more acceptable to the constructed contextualization that seems to be at the heart of these sentences' acceptability. However, it may be that at this level, the level of the HAVE-construction itself rather than the predication embedding it, the complex event structure expressed by means of the Causative and the Resultant State/Event readings is semantically rich enough, and therefore contextualizable enough, so as to stand alone.

We have looked at this phenomenon from one perspective: how is it that many embedded HAVE-sentences would be unacceptable on the appropriate reading in a syntactically unembedded structure. There is another way to approach this issue: if a HAVE-construction were not available for use in embedded contexts, what constructions would we use instead, given what we know about the properties and purposes of HAVE-constructions and given that some of those same

purposes can be fulfilled by means of other constructions? And how acceptable are these paraphrases in fact, considering both their grammaticality and their pragmatic force? It seems that together the results of these two kinds of investigation will cast light on the question of why HAVE-sentences have the peculiar distribution that they do in these contexts. Let us then examine additional attested sentences, and apply the second kind of diagnostic to them:

9. "Does it bother you to have me smoke?"
9′. Does it bother you {if I / ?for me to} smoke?"
10. "Throw them on the floor, OK? I don't feel like having them in my way."
10′. . . .I don't feel like {?*them/?*their} being in my way.
11. "People talk about 'the horrors' of a crippied presidency--but when a president is the kind to do stupid things, it's much better to HAVE him crippled."[3]
11′. . . .it's much better for him to BE crippled.
12. "I'm SURE you can keep things from HAPpening that you don't want to HAVE HAPpen."
12′. I'm SURE you can keep things from HAPpening that you don't WANT to HAPpen.
13. "It puts you in the position of having it difficult to do anything. . ."
13′. It puts you in the position { #of it/its being / *that it is } difficult to do anything. . .

For most of (9 - 13) there are acceptable—i.e. grammatical and semantically coherent—paraphrases, as I have indicated. Some of these seem to have no completely comfortable paraphrase, and even some of those which do seem less pragmatically felicitous than the HAVE-clauses which are attested. The striking difference between the HAVE-clauses and their paraphrases in (9′ - 13′) is that, overwhelmingly, the HAVE-clauses have distantly instantiated subject complements (i.e. "gaps in subject position"), and the paraphrases do not.[4] Since I have

[3] Capitalisation in this and the following examples indicates heavy stress. That two of these examples have such stress on HAVE is pretty tantalizing, but its significance is as yet undetermined.

no corpus of extended discourse with which I can compare with these examples, it is impossible to determine how often such embedded clauses with gaps in subject position are used in lieu of a different structure with approximately the same semantics and pragmatics but with a gap, if anywhere, in a nonsubject position. HAVE-constructions are used in the production of embedded or conjoined structures with subject complements that are distantly instantiated in a context in which the filler of the subject complement of HAVE has already been presented. Usually such an NP appears as an argument of the matrix predicate, and a nonsubject one at that. In these contexts the HAVE-clause is either a modifier of this NP or else is another complement of the same predicate to which this NP is a predicational complement. This fact coincides nicely with well-substantiated generalizations about the presentation of given and new material, which e.g. Lambrecht has demonstrated is syntacticized (in French, Lambrecht 1985, and in English, Lambrecht 1988) as a strong preference in naturalistic discourse against lexical subjects. I do not want to make very general claims about English, based on a collection of sentences that still are not embedded in larger discourses and which were themselves collected haphazardly, but I do feel comfortable turning the generalization around a bit, to account for the apparent loosening of semantic conditions on the acceptability of HAVE-constructions.

There are two clauses to be considered here: the matrix predication and the embedded HAVE-clause. If constraints on information flow are roughly as

[4] Of the two exceptions of eighty in my collection which have locally-filled subject complements (i.e. appear in tensed embedded clauses), both have subjects which are higher on an animacy hierarchy than the understood subject complement of the most plausible paraphrase with a subject gap would be, cf. the attested (i) and its paraphrase (ii):

i. "That is something that I've never had appeal to me."
ii. That is something that has never appealed to me.

What we can make of this fact is at present unknown. Surely (ii) does not fail in acceptability or pragmatic fluidity.

hypothesized by Chafe (1976), Prince (1981), DuBois (1987), Van Oosten (1984) and Lambrecht, to name only a few, then we should expect an expression referring to entities just entering the discourse to appear as a nonsubject complement in the matrix predication, and the new information about them to be presented in such a way that the just-presented expression fulfils a subject requirement and the information about it is presented as the embedded predication.

Another fact which accords with my observations about force-dynamic predicates is why so often in my collection a HAVE-clause is used for an extraposed clausal subject complement, as it is in ex. (11), repeated here.

11. "People talk about 'the horrors' of a crippled presidency--but when a president is the kind to do stupid things, it's much better to HAVE him crippled."[5]

Often, the understood subjects of the HAVE-clauses are generic or unspecified, hence there is no earlier-presented entity whose expression fills the argument position of the embedded clause; yet (11) is at least as good as its proposed paraphrase (11′): there is still the implication that someone is having the propositional-attitude experience. With a *for*-phrase, the proposition could be true without an imagined experiencer. (The intended reading of the paraphrase is with the *for*-phrase as part of the embedded predication, not the matrix one—cf. Chomsky's (1974) discussion of *tough*-movement constructions—since the intent of the speaker of (11) is that it is better for the country that the president be crippled, under the circumstances. Perhaps the avoidance of this potential ambiguity is one motivation for the use of a HAVE-construction here.)

I am necessarily glossing over some important variations in the properties of the individual sentences. (10′), for instance, appears to be ungrammatical because FEEL LIKE is a subject-control predicator: its predicational complement's subject normally fills the requirement of subject of the matrix predicator. This follows from the normal syntactic properties of propositional attitude verbs.

At any rate, it is evident that there may be many reasons for a speaker to want an expression already found in the matrix predication to bear the relation of subject to the embedded predication. But even though this means that the semantic conditions on the use of HAVE-constructions may be neutralized, it is not the case that they may be suspended altogether. Notice, for instance, that while (14a.) and (14.b) are pretty much synonymous and are both completely acceptable, (15.b) is of questionable grammaticality and in any case is not synonymous with (15.a):[6]

14.a. He wants Jack to interview Harry.
b. He wants to have Jack interview Harry.
15.a. He expects Jack to interview Harry.
b. ≠He expects to have Jack interview Harry.

Notice that (14.b.) has an Attributive-Existential reading,[7] which in context is roughly synonymous with the purely propositional predicational complement in (14.a) In (15.b), however, the HAVE-clause has a prominent Causative reading, and not an Attributive reading. I cannot explain this difference in preferred readings; I only note that much more remains to be established about which semantic properties of the matrix predicate constrain the possible interpretation of the HAVE-clause. My point here is much simpler: while it may be true that HAVE-constructions are used for the discourse-driven purpose of creating a "gap" in subject position of an embedded predication, it does not follow that the HAVE-clause has no impact on the semantics of the sentence in which it appears.

This is another demonstration of the fact that composition is complex and has different manifestations. In (14.b), for whatever reason, the HAVE-clause is

[6] There is a syntactic difference between (14) and (15) as well: WANT, recall, supposedly takes a single, clausal local complement, while EXPECT selects two local complements, a nominal one and a VP-. That syntactic difference may be contributing to the difference between their readings.

[7] as well as a Causative reading, which does not concern us here.

superimposed on the rest of the sentence's meaning and hence makes no major propositional contribution to the sentence. In (15.b), for whatever reason, simple superimposition is not easily accomplished, and the HAVE-clause is interpreted as expressing an additional, causing, event.

In any case, there is an obvious relation, though not a one-hundred percent correlation, between the subject-"gap" phenomenon and the discourse category of topicality. A more general aspect of the larger contexts in which HAVE-constructions appear is that many of them can be seen as inherently "presentational", i.e. as expressly suited to the presentation of a new entity and the predication of something about it. It is obvious that the "Affecting Event" and "Attributive-Existential" semantic values of HAVE-constructions are particularly compatible with this discourse function.

It could be argued that these putatively semantic distinctions really reduce to the discourse function, and that any attempt to identify specific formal properties with a particular semantic value (e.g. to distinguish the Affecting Event from the Attributive-Existential based on the aspectual properties of the embedded predicate) is to miss the obvious conclusion that the construction's semantic properties fall out of the pragmatic purposes of the construction plus the semantic properties of the instances, in a given utterance, of the constituents of the construction. From my perspective, however, there is no contradiction in saying that the "semantics" is a consequence of its pragmatic use: one could just as easily say that it is its semantics that makes the construction available for the function of presentation. The more general point is that at the constructional level there is no principled way to distinguish semantics from pragmatics (assuming an a priori commitment to "the semantics of understanding" rather than to truth-conditions as the determinant of the scope of semantics). For these constructions, part of the semantics is construal of the situation (i.e. the question of

the "interest" or affectedness by $(NP_2 - XP)'$ on NP_1'. To put it in pragmatic rather than semantic terms, the construction is used to situate an event or state of affairs as it relates to some other entity (typically human) which has already been established in prior discourse.

These generalizations can apply to the Resultant State reading as well (and to the "future commitment" reading), although for these cases there is more to the constructional semantics than just the "interest" or "affectedness" relation. In fact, of course the relation of attribution or effect is itself often not really relevant to the larger communicative function at hand.

I do not think the observation that the semantic conditions on use of HAVE-constructions is loosened for discourse purposes invalidates the generalizations about semantics proposed in Chapter 3. I like to think of the relation between the readings of the constructions in isolation and their use in actual connected discourse with specific contexts as analogous to the relation between phonemes and the variation found in the morphophonemic system: looking at the larger context creates categorization problems for linguistic analysts only when they assume that category boundaries observed at one level should be maintained at the next level; but we know, for instance, that the neutralization of certain phonemic distinctions in connected speech doesn't itself imply—at least to most linguists—that those distinctions are not real or should not be recognized. (This discussion parallels that in Fillmore 1977 for the existence of Semantic Roles.)

Obviously the discussion in this chapter is just the beginning of a very large-scale undertaking. I have done little more here than to acknowledge the existence of environmental influences on the use and appropriateness of HAVE-constructions. But one position I have suggested is that when we entertain the possibility that there are aspects of the semantics of constructions which are not obviously direct consequences of the semantics of their components, it then

becomes very natural to consider as part of the "semantics" of a construction also its "pragmatic" factors. In fact, Construction Grammar provides a framework in which the pragmatic effects of the use of constructions are treated in basically the same way that the semantics and pragmatics of lexical items are treated. Generalizations of pragmatic effects over classes of constructions can also be treated naturally and coherently, as for instance when Prince (1981b) notes the distinct pragmatics associated with three "fronting" constructions, formally identical but functionally different. An interesting and I think important consequence of describing pragmatics at the constructional level is that special pragmatic purposes can be seen as correlating strictly with a specific formal property, as in Prince's cases, or with an essentially semantic property without a special formal correlation, as in our cases here.

5. Composition of Constituents

In this brief chapter I will investigate the degree to which the semantic properties of the HAVE-constructions can be predicted from the properties of their constituents. Construction Grammar has no commitment to the doctrine of strict compositionality as a driving force in its semantic theory; however, any theory which is sufficiently general must have principles for establishing the meanings associated with formally-identifiable stretches of language. In a case like ours, where a construction has as a constituent another skeletal construction—i.e. not merely a series of lexical items— a fully general account of the complex construction will require reference to its constituent constructions.

5.1 Composition and Compositionality

I have tried to be careful to distinguish "compositionality" from "composition" in my usage. Composition is how the meanings of parts of an expression come together to give the meaning of a complex expression. Compositionality is a doctrine according to which this putting together is done by a fixed mathematical function. I have no objection to the idea that there might be such a function, though I do not really believe that there is one. My objection to the doctrine of strict compositionality is that any such function must suffer a loss of intuitiveness, since the way the meanings of elements combine does not seem uniform across kinds of expression and kinds of combination. The other objection I have to it is that it is incomplete as a characterization of meaning, because it is couched within an overall theory of meaning representation in which can be found no place for psychological and experiential considerations. That means no cognitive structures—no lexical networks, semantic frames, mental spaces, or principles of metaphorical mapping (cf. Chapter 6)—can be used or represented as part of semantic knowledge. If such structures are part of knowledge

representation, then semantic representation is implicitly claimed to be separate from and to exist in a form different from knowledge representation. Such a position must fail empirically if all the linguistic evidence which led to the hypothesizing of semantic frames is accepted as linguistic evidence. But there can often be found a patch to cover some cases within model-theoretic semantics or Montague semantics or any other semantics which assumes strict compositionality (e.g. Dowty, Wall and Peters 1981:8 et passim; such models usually also assume the criterion of truth-conditions for meaning). My argument is simply that these facts are more intuitively and more naturally accounted for within a model of semantics in which the unmarked case of composition involves something more or less than strict compositionality and strict compositionality of a complex expression is simply the limiting case. In other words, the strictly compositional is easily accounted for within a theory which does not assume that property a priori; but the opposite is not at all the case. In fact, within compositional semantic models the only alternative to strict compositionality is idiomaticity, which allows a signifier of more than one lexeme (and whose constituents are hence meaningless). An approach like this fails in generality because it denies the existence of noncompositional but analyzable (and to some degree transparent) expressions such as members of classes of expressions which share a metaphorical mapping It also cannot express the fact that encoding idioms like *perform an operation* are both formulaic and compositional; and since it cannot formalize the existence of lexical networks (based either on word-sense or on selectional properties of the lexical item) it cannot express semantic generalizations which hold among entire semantically-defined classes of lexical items. All of these phenomena can be defined as outside the study of semantics; since linguistics is a wholly created object, anything can be defined as in or out of linguistics in general and semantics in particular. In short, there is only one kind

of argument which can be mustered in favor of doing semantics by using frames and a criterion of understanding rather than compositionally and with a criterion of truth. That is to say that the frame-semantics way accounts for more of the data and does so in an intuitive way. Depending upon theoretical commitment, that may or may not be an argument at all.

5.2. Specific semantic properties of constituents.

I have provided some hints throughout Chapter 3 as to what properties of the constituent constructions will contribute to the constructional semantics. Obviously, all the semantics of the lexical items will contribute some meaning, but those contributions are not constant across all instances (and are not properties of the construction in any case). Here I will be considering more general contributions.

5.2.1. Aspectual properties of the embedded predicate.

Among 3.XP constructions, I have suggested that aspect and Aktionsart are major contributors to the different readings. I think they must also contribute to the 3.VP_{to} case, the 2.VP_{to} case, and, by definition, to the 2.VP_{EN} case. I ran quickly through the uses, in other constructional contexts, of these predicator types in Chapter 2, where we were forced to conclude that none of them can be given a univocal semantics. VP_{to} is not always potential or unrealized, and does not always denote purpose, though it sometimes does each of these things. VP_{EN} is not always passive, though the bounded character of the perfect reading is also present in the passive. And so on. Thus, when HAVE selects a predicator of a certain type, it selects not just a particular form but at least one (though potentially more) of its associated constructional meanings. The basic dichotomy between aspectually perfective and imperfective predications correlates with the

difference between the Causative and the Resultant State/Event reading, and between the Affecting Event and Attributive/Existential readings. In this latter case, the correlation apparently amounts to the bulk of the difference between the readings: as we saw, the chief difference between them is that the unboundedness of the predicate on the Attributive/Existential reading encourages its construal as a property of $(NP_1)'$. It is not clear that it constitutes the entire difference, however.

The basic breakdown among the predicational types as to perfectivity or imperfectivity is roughly this: NPs, APs, and PPs[1] are apparently all imperfective, as is VP_{ing} and VP_{EN} on the participial-adjective reading. Perfective predicate types include VP–, and VP_{EN} on the passive reading. If VP_{to} has something to do with an intended future, I am not sure what to say about its aspectual properties: perhaps the unrealized character of such predicate types renders the question moot.

This is just the roughest of approximations, however. We noticed in sec. 3.3 that just as in main clauses, aspectual interpretation of embedded predications depends not only on the lexical category and the morphological marking on the predicator, but on the Aktionsart and, in the case of verb-headed predicates especially, the (semantic) number of the understood subject of the predicate. These two additional properties can be exemplified by (1) and (2) respectively, where in each case a bare-stem infinitive verb phrase is the predicational complement of an Attributive/Existential HAVE-construction:

1. "We do not substitute a theory whereby meaning flows down a grammatical model in a way that a compositional model

[1] assuming, as I suggested earlier, that PPs can only denote states, perhaps with a presupposed motion.

has it flow upward."
2. "I have a lot of women work for me."

Other factors which affect aspectual interpretation of a predicator are well known (cf. Dowty 1979, Foley and Van Valin 1984, etc.); e.g. a quantified direct object or a measure phrase will usually provide a telic, and hence perfective, reading, while a bare plural direct object will encourage an imperfective reading. And the two adverbial phrases *in (an hour)* and *for (an hour)* are each compatible only with perfective and imperfective predications respectively, so will force one or another reading in an unspecified case (e.g. *ran the course in/for an hour*). These are properties of the entire verb phrase, or in semantic terms the predicate (as opposed to the predicator which is its head), so they are in theory already taken into account before we consider the semantics provided by the inflectional morphemes.

In Chapter 3 when I discussed the conditions on predicational complements which correlated with the different readings of HAVE-constructions, I spoke in terms of restrictions on the morphosyntactic marking on XP. It is obvious from these examples that that was oversimplification and just plain wrong: the real condition is aspectual, and that correlates only approximately with morphosyntactic marking. However, in the majority of both attested and easily-constructed examples, the correlations mentioned above between aspectual reading and phrase type hold up pretty well. The description of the construction, however, must make reference only to the necessary semantic properties and need not refer to syntactic type at all, beyond noting with the variable "XP" that the position is to be filled. The provision of possible fillers of the XP position on a given reading will result from the constructions describing the phrase types themselves; that is, in independent statements about the aspectual properties of the phrase types we will find the conditions that will declare an XP of some type to be compatible with some reading or other. In the case of the various colorations of VP,

the constructional semantics of those phrase types will themselves be compositions of the semantic properties of their component constituents, as sketched above. I doubt that I have characterized the details of all the verb phrase types correctly, but whatever the aspectual properties should turn out to be for each phrase type, it is evident that aspect/Aktionsart, and not the syntactic types themselves, are the relevant properties for the appearance of embedded predicates in HAVE-constructions.

Because VP– is a preferred coding for perfective events, nonverbal predicates (with other basic aspectual profiles) are often found in XP position having a bare-stem infinitive BE as their heads. I want to claim now that BE is used in these situations to ensure that the basic propositional semantics—encoded as the complement of BE in XP—is given a perfective reading, which then makes it available to those readings of HAVE-constructions which select a perfective embedded predicate. (I do not think that is the only function BE has, but I think it is a primary one.) So for instance, (3) is more easily seen as an example of a Resultant State reading (as we can see with the adverbial clause), while (4) is better on a Causative reading:

3. Have him clean and tidy for the piano recital.
4. Have him be clean and tidy for the piano recital.

One special case of this is when the predicator is a NP. We noted in sec. 2.3.7 that NPs, for whatever reason, resist being in embedded predicate position in HAVE-constructions[2], so one way to allow a nominal semantic predicate in XP position is to embed it in a BE phrase. Since NPs are aspectually unbounded, this reduces to the general strategy of using the perfective interpretation of VP–

[2] It is a mystery why NPs are perfectly acceptable as the second local complement of both MAKE- and *with*-constructions.

with the head BE for the purpose of coding perfectivity.

5.2.2. Semantic Role Assignment to NP_1

The aspectual properties of the embedded predicate are not the only feature distinguishing the different readings of HAVE-constructions. One obvious point of difference between the Causative and the Resultant State/Event reading is of the semantic role assignment to NP_1 and NP_2. As I noted before, the Causative must have a deliberately Agentive NP_1, while the NP_1 of the Resultant State/Event reading need be only a Stimulus. This difference may seem wholly arbitrary at first, but it correlates with two facts already observed: the Agent semantic role restricts NP_1 values to animate (actually, I believe, to human) beings, while NP_1 with a Stimulus semantic role can be either human or not (cf. exx. (5)). The second fact is that the Causative HAVE is active, while the Resultant State/Event HAVE is stative, according to two tests: the progressive test (cf. exx. (6)) and *got*-extension (cf. exx. (7) See also Appendix C):

5.a. She had him grind his teeth. (Causative)
5.b. She had him grinding his teeth. (Resultant State)
5.c. *Her constant nagging had him grind his teeth. (Causative)
5.b. Her constant nagging had him grinding his teeth. (Resultant State)

6.a. She's having him grind his teeth (to test his bite).
6.b. *She's having him grinding his teeth.
6.c. *Her constant nagging is having him grinding his teeth.

7.a. *She's got him grind his teeth (to test his bite).
7.b. She's got him grinding his teeth.
7.c. Her constant nagging's got him grinding his teeth.

This makes perfect sense once we realize that the Causative reading expresses the performance of some act as well as the causal result of the act,[3] while the

[3] It remains a mystery that despite my conviction that Causative HAVE denotes an act, the character of that act cannot be described or elaborated upon linguistically in HAVE-constructions. Both adverbials expressing the state of the Agent at the performance of

embedded predication in a Resultant State/Event reading can be the result of some property of the stimulus just as easily as of an act. Gruber (1967) notes the correlation between the agentivity of a NP and the activeness of the verb, similarly between Experiencers and stative verbs. The correlation between Stimulus semantic role and Stativity in the verb seems a relatively small and quite natural extension of Gruber's observations. As they stand, his observations may account for why Attributive/Existential HAVEs are also stative, providing we can find independent reasons for thinking of the subjects of these construction types as Experiencers. The varieties of HAVE with true patients as subject, such as in *have an operation*, are also active, I think, as are the Affecting Event readings—although this latter reading seems compatible with both a Patient subject and an Experiencer subject. Putting an Affecting Event HAVE-construction into the progressive has the effect of making the subject seem more patientlike:

8. [Hey officer! Help me!] I'm having my car stolen!!

(Note that this has nothing to do with the embedded predication's Activity or Stativity.)

It is interesting that the Activeness of the matrix predicate correlates with Agent/Patient Semantic Role assignment to the complements, and Stativity with Stimulus/Experiencer. Gruber did not observe this directly, since his paper dealt only with the Stativity or Activeness of verbs of perception (where the Active perception verbs do not necessarily involve a Patient). However, Dowty and those in his tradition have exploited this correlation so that Semantic Roles follow directly from predicational aspect.

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the causing act (i), and manner expressions modifying the caused act (ii), are acceptable:

i. She resignedly had her husband sign the check.
ii. She had them come in slowly and sit down.

Another interesting consequence of the semantic role facts is that, since we have good evidence for postulating an Agent role in the Causative reading but have no evidence for assigning a (matrix) semantic role to NP_2 at all, we have to postulate some cooccurrence of Agent and Consequence with no direct Patient. (This issue is the topic of the next section.) This is despite the general expectations we have about the cooccurrence of Semantic Roles of particular kinds, e.g. Agent with Patient, Experiencer with Stimulus. Perhaps this fact can tell us something about how prototypical an Agent NP_1 of HAVE-constructions is, and maybe we can find some linguistic reflexes of this unexpected situation. (If we could, it might cast doubt on the adequacy of Dowty-type decompositions of Event types, since in his system there is no way of expressing a causing act involving direct action on a patient from one that has no direct patient.)

5.2.3. The Semantic Role Assignment of NP_2

Of the complements of HAVE-constructions, the one whose semantic role assignment is most difficult to establish is NP_2. Of course, we have not even established absolutely that NP_2 is a constituent separate from XP in any of the three-place HAVE-constructions, and any discussion of the properties of a separate NP constituent must stand or fall on the verification of my conclusion that there is a separate constituent.

For two-place HAVE-constructions whose local complement is predicational, the question of NP_2 of course does not arise. I would like to examine the three-place subconstructions and the 2.NP subconstructions separately, as the different assumptions we make about these two skeleta will have consequences for the conclusions we draw about them.

The argument in favor of assigning as semantic role to NP_2 in three-place HAVE-constructions is the sense that its referent is a direct contributor to the

interest or affectedness on the part of NP_1': that, e.g., in a Resultant State reading, NP_1' has influence over NP_2' such that NP_2' takes part in the resulting event or state. For example, in (9),

9. She had him in the palm of her hand.

the entity referred to by *him* is directly influenced by the referent of *she*, and as a consequence he bears a relation of the expressed type to her. In an Affecting Event reading, the presence of NP_2' brings about some action and thereby affects NP_1' (in (10), the presence of the agenda implicates that the lawmakers must do something with it).

10. "Lawmakers in Sacramento had a new agenda put before them today."

The intuition behind such observations is irrefutable—whatever the constructional reading of the sentence is, NP_2 always bears some relation to NP_1, but it may not be the kind of direct relation that Semantic Roles are taken to encode: rather it could be by virtue of NP_2''s relation to the embedded predication and the relation of **that** event or state to NP_1'. It remains in each case to be demonstrated that it is the named participant in the embedded event or state, and not the named event or state itself, which bears the relation of influence or interest to NP_1'.

The linguistic evidence suggests that in fact it is the predication and not the NP_2 participant in the predication that bears the relation to NP_1 that is appropriate for encoding as a Semantic Role. A number of traditional tests all suggest that NP_2 is not assigned a Semantic Role by HAVE.

Being expressed as NP_2 does not entail the existence of the denoted entity, as we saw in examples like (11),

11. I have a lot of papers to write this weekend

although one can certainly say that in the mental space of potentiality or futurity which is evoked by the predicational complement *to write this weekend*, the papers' existence is predicated. In the general case, of course, the predicational complement holds in the origin space or "real" world and hence NP_2''s existence in the real world is predicated; but again that is true by virtue of the origin-space location of the predicational complement.

Expletive or so-called "dummy" elements can appear in NP_2 position if the constructional semantics sanctions it. This is true by definition in the 3.Stf special construction, whose first local complement is the extraposition *it* (see Appendix B). It is also true in those "depictive"-reading cases which I have shown to be simply embedded-space versions of the Causative and Resultant State/Event readings (cf. sec. 3.2.5):

12.a. The director had there be a riot at the end of the first act.
b. Little Susie had it rain on her dollies' picnic.

As mentioned in that section, the claim that these elements are meaningful does not invalidate this as a test for semantic role assignment, since Semantic Role is simply a way of expressing what type of participant the referent of that NP plays in the propositional portion of the semantics of the expression. Some aspects of meaning are indisputably extrapropositional, and the most plausible and consistent analyses of the meanings of so-called "dummy" elements usually do not involve reference to the propositional semantics (cf. Langacker 1975, 1987; Lakoff 1987, inter alia; Bolinger 1973 is an exception, since he identifies "weather" *it* with a participant relation).

Finally, it is the aspect and Aktionsart properties of the predicational complement, rather than properties of the local nominal complement, which directly affect the constructional semantics of the three-place HAVE-constructions. This fact suggests that nothing in the matrix predication constrains their properties

except by constraining the properties of the predicational complement, thereby affecting its understood first argument, NP_2.

There is one putative counterexample which I believe actually supports this claim, and that is the number and countability of NP_2. I noted earlier that in general—independent of HAVE-constructions—these properties of the subject influence the aspectual interpretation of a predicate. This is true also in HAVE-constructions, as we would expect, but here the relevant subject and predicate are NP_2 and XP. For instance, in (13) and (14), the number of the respective NP_2 gives an Affecting Event and an Attributive-Existential, respectively:

13. I had a car almost run into me yesterday.
14. I had a bunch of cars almost run into me (all) yesterday.

(Example (14) also has an Affecting Event reading, in for instance a car pile-up that almost slammed into the speaker. This is just the usual case where a plural may or may not be distributed over time. The distributed reading is the one I am calling "Attributive-Existential", and I have forced that reading by adding *all.*)

I believe that this only strengthens the general force of my claim here about Semantic Role assignment, since it is by virtue of its relationship to the embedded predication and not to the matrix predicator that these properties of NP_2 affect the constructional reading.

However, all these arguments should not satisfy those who remain unshaken in the belief that there is some direct relation expressed between the referents of the two nominal complements. It has long been recognized, and perhaps lamented, that there is no direct correspondence between semantic role and grammatical relation exhibited by a nominal complement, despite the considerable progress toward finding the exact correspondence which has been done under the auspices of the Semantic Role Hierarchy. Such widespread linguistic

phenomena as "locative alternation" and Possessor Advancement require that we entertain quite seriously the notion that grammatical relations themselves impart some further understanding of the relations among participants in a scene. Informal and less-informal observations to this effect certainly abound, and have been used to account for the semantic consequences of the alternations mentioned above as well as, variously, "Dative Movement", "Raising (both to Subject and to Object)", and Passive, and probably many others. I cannot pretend to have an analysis of the semantic significance of the position to the immediate right of the verb[4] but the gist of many observations about direct objecthood is that—for Dative movement, Raising to Object, Possessor Advancement, and so on, the nominal found in this position is taken as being "more affected" or "more patientlike" than the corresponding nominal in the constructions which alternate with these. (Hopper and Thompson 1980, and Rice 1987, among others, take transitivity as a cognitively-based and not merely a syntactic phenomenon.) This is not to say that there is no conventionalization, or that the alternations are perfect or can all be assimilated to this generalization: the problems with and exceptions to this hypothesis are well known. Nevertheless, the facts about the semantic significance of grammatical relations remain to be understood and explained, and it may well be that once they are, the significance of the NP_2 position in HAVE-constructions will simply be covered by observations about NP_2 positions in general.

Another caution must be raised against complacently accepting the conclusion that NP_2 does not bear a semantic role relation to the matrix predicate. I observed in sec. 3.3 that three-place HAVE-constructions are very often all but indistinguishable from various of the two-place ones. Many individual sentences

[4] I generalize here, somewhat sloppily, from direct objecthood to first-local-complementhood. This may not be an apt generalization.

are compatible with both a three-place structure and one of any of the essentially two-place structures; either 2.NP with a complex NP_2, or 2.NP with an optional secondary predicate. (*I had the soup cold* is ambiguous in this way, as evidenced by the different interpretations forced by the two modifiers *yesterday* (forcing the 'partake of' reading of *had* and the optional secondary reading of *cold*) vs. *just in time for supper*, which forces a Resultant State reading on the sentence.) I observed further that very often the semantics associated with the two structures are so similar that, in context, a hearer could not readily choose one analysis over the other (and would not care that he could not). I believe that even when a sentence is technically compatible only with a three-place structure, the general fact of this rampant potential for structural ambiguity interferes with the parse, so that properties which we are justified in ascribing only to one structure bleed over into our interpretation of the other structure. (Norvig 1988 gives some compelling arguments that many sentences allow the hearer to entertain two readings simultaneously and in some cases to combine them into a single interpretation.) For an instance that is relevant to the current discussion, I will claim below that NP_2 of 2.NP is assigned a semantic role; and given the constructional semantics of the three-place constructions, it would be perfectly natural for a language user to interpret the participation of NP_2' in the embedded predicate in terms of a semantic-role type of relation to the matrix predicator. This is purely speculative, of course; a historical change such as the development of restrictions on the semantic properties of NP_2 would be required before we were justified in giving this speculation a more definitive status.

Most of the arguments that militate against assigning a semantic role to NP_2 in three-place subconstructions cannot be made for the 2.NP case: no expletive elements can appear in NP_2 position; no aspectual properties can be identified which lead to differences in reading. One argument, however, appears at first

blush to hold for 2.NP cases. That is the one that nothing about the semantics of NP_2 selects a reading for the HAVE-construction in which it appears.

On second glance we find that this is not true at all. We have seen, along the way and without taking any particular notice of them, all sorts of factors in NP_2 which contribute to a preferred reading, and in many cases a forced reading, of a NP_2 sentence. The fact that I have not isolated, nor can I explain, all the factors involved does not negate their importance.

For instance, properties of the determiner—e.g. whether it provides a definite or an indefinite interpretation—affects the constructional semantics of a 2.NP sentence. In (15.a), ownership is the slightly favored out-of-context reading, while in (15.b), physical control or proximity is the specific kind of "possession" involved, on the preferred reading.

15.a. I have a green dress.
b. I have the green dress.

We would not want to claim that such preferences are directly ascribable to the form of the NP, but rather that the form of the NP affects the form or the larger discourse which we can most readily construct as a context for the occurrence of the HAVE-sentence. This will be true of many, if not all, of the properties of NP_2 I will mention here.

Other determiners also affect the reading. If the determiner is possessive it tends to preempt a strict Possessive interpretation of the HAVE-sentence, as it does in (16.b):

16.a. She has many friends.
b. She has her many friends.

The fact of modification can mean the difference between a pragmatically odd 2.NP sentence and a perfectly acceptable one, implying a difference in readings:

17.a. #She has a mother.
b. She has a beautiful mother.

And a syntactic modifier in a 2.NP sentence can often fulfil the function of the predicational complement in any of the three-place HAVE-constructions:

18. I have a missing tooth.
I have someone I want you to meet.

Finally, nominalizations provide their own valence descriptions, one of which is selected for privileged status as the subject of the HAVE-sentence, which constrains the possible readings of the relationship between NP_1 and NP_2. In short, just as we observed that the interpretation of the relation is far from unconstrained, we can note similarly that it is far from true that in 2.NP sentences NP_2 contributes nothing to the reading. Hence we are justified in at least hypothesizing that NP_2 is given a semantic role in such structures.

This discussion may seem to entail a loss of generality in that in three-place HAVE-constructions there is no semantic role assignment to NP_2 while in two-place ones there is one. But it seems to me rather that this is an interesting way to capture the fact that the particulars of the relation which are made explicit in three-place constructions must be inferred from the frame-semantic properties of NP_2 and its associated background information. Previous accounts which discussed variously relational nouns, nominalizations, etc. in terms of the selection of NP_2 and the relationship to the denoted relation are approximations to a theory—still to be elaborated—which describes all nominal reference in terms of background scenarios so that relational nouns and nominalizations are just different varieties of special case. If this is true, and the NP in 2.NP structures provides—semantically, if you like—the predication which is to be invoked, then the Semantic Role assignment posited here is the most general. In both cases the precise relation being called up is that which holds interest or involvement for NP_1', and that then is the participant selected semantically by HAVE.

Also still to be worked out is a theory of semantic roles which recognizes that NP complements may, for one reason or another, actually refer to states of affairs (including relations between entities) rather than just to entities. Until we have such a theory, my claim that a semantic role is necessary for NP_2 in 2.NP has no more descriptive or predictive content than, for instance, the usual GB claim about Θ-marked nominals, which offers no account of the content of or differences between semantic roles.

5.2.4. The Semantic role assignment of the predicational complement.

The assignment of semantic relations to clausal complements is one of the continuing challenges for theories of semantic roles. I will not be able to address that general issue in this section, but I hope here to provide some beginning for at least a few of the immediately relevant cases.

What we are concerned with here is not the morphosyntactic or categorial properties of the predicational complement, but rather the fact of being a predicational complement. So this is an aspect of the semantics which is quite independent of those we investigated when looking at the aspectual properties of the different types of embedded predicates.

In the early days of generative grammar, a sharp distinction was made between complements and adjuncts, for good reason (e.g. island constraints were found to hold for postnominal modifiers but not so clearly for nominal complements). But certain observations have led linguists to consider complements and adjuncts as comparable for certain purposes. I would like to consider the comparability of the semantic role properties of the predicational complements of HAVE and the general class of (adjunct) secondary predicates.

The first issue to establish is what general facts about predicational complements and predicational adjuncts ("secondary predicates") are found among the

predicational complements of HAVE-constructions. We defined secondary predicates earlier according to two distributional properties: first they are selected by BE and second they appear as adjunct predicates (added to an otherwise complete predication). However, the two classes of predicators do not correspond exactly. The category types which BE selects are:

19.a.	VP_{EN}	He was beaten by thugs. He is risen.
b.	VP_{ing}	I am waiting for the bus.
c.	AP^{ing}	I am cold.
d.	PP	I am in the kitchen.
e.	VP_{to}	I am to work on Chagga tomorrow. This is to read to the children.
f.	NP	I am a camera.

The first sentence in (19.e) may or may not be considered an instance of this quite unremarkable class of predications; it all depends, as I have suggested before, on what kind of analysis we give of the semantics of VP_{to}. (I should note too that Stf is also a possible complement of BE in the idiosyncratic structure exemplified by *It's not that I don't love you*; but I will not consider that possibility here, since the clausal complement has a semantic function more like an argument than like a predicate, with the negative as an operator.)

The category types which appear as optional secondary predicates are:

20.a.	VP_{EN}	I ate my dinner heated over the campfire. I ate my dinner huddled over the campfire.
b.	VP_{ing}	I ate my dinner steaming. I ate my dinner waiting for the bus.
c.	AP	I ate my dinner cold. Do not go gentle into that good night.
d.	PP	I ate my dinner out of the can. I ate the spaghetti in my best white suit.
e.	VP_{to}	%I gave the letter to him to hide from my husband.
f.	NP^{to}	I woke up a poor student and went to bed a Lotto millionaire.

(20.a-e) give examples of adjunct secondary predicates whose subject requirements are filled first by the matrix object, then by the matrix subject. As

we observed earlier, there is no analogue among secondary predicates to the highly restricted use of the perfect VP_{EN} as a complement of BE.

Example (20.e.) is extremely interesting. (It is only marginal in my dialect.) It is not a purpose clause, since both the subject and the object requirements of *hide* are instantiated in the matrix clause (with *him* and *the letter* respectively), unlike purpose clauses, whose subjects are the only locally uninstantiated complements. Yet its scope is over the entire matrix predication, like secondary predicates and unlike infinitival relatives.

We might also take as a distributional criterion of secondary predicates their appearance as postnominal modifiers, as is implied in a rather different context in Chomsky's (1981) discussion of "small clauses". The set of complements which can serve as postnominal modifiers is not coextensive with the set of complements of BE (because BE allows a NP complement).

21.a.	VP_{EN}	The man beaten by thugs died in the hospital.
b.	VP^{ing}	The woman eating the sandwich is my sister-in-law.
c.	AP^{ing}	A question different from that just considered is: . . .
d.	PP	The oppossum in the backyard looks sick.
e.	VP_{to}	The guy to fix the printer is here.
f.	NP^{to}	**The box shoes is on the shelf.

(Noun-noun phrases cannot be considered fillers of this paradigm since the head of those phrases is the second noun, not the first.)

There are a number of interesting restrictions on both the heads and the modifier phrases in these NPs, which do not concern us here.

It became immediately apparent in sec. 1.3 that the complementation possibilities of HAVE correspond precisely to none of these other distributional classes. The class of XP values differs from those of BE in essentially prohibiting an

unmarked NP[5], and from the class of adjunct predicates in allowing VP_{to}. The XP of HAVE differs from all three inventories in allowing VP— as a value, a possibility which it shares with the complementation possibilities of MAKE, the modals, and the perception verbs.

Why is all this discussion of these sets of predicational phrases in these different positions and functions necessary? Because while there are indisputable reasons for treating adjunct secondary predicates as different from predicational complements, there are also reasons for looking at their similarities.

First we should note that it is rarely easy to know whether a predicate is a complement or an adjunct predicate to a matrix predicator. Sometimes it is unambiguous, as it is with BELIEVE3.VP_{to} (*I believe him to be the culprit*). In that sentence, we know that the VP_{to} is a complement. With LEAVE, however, it is less clear what we have:

22. I left him {speechless, in the cupboard, depressed . . .}

where the embedded predication's first argument position is satisfied by NP_2. There are still two readings of this sentence: in the first, the leaving takes place under the circumstances of NP_2''s state of speechlessness, depression, etc. Under the second reading, the embedded predication is understood to be a state of NP_2' which is a result of some act on the part of NP_1'. The second reading is easier to get with a sentence like (23):

23. Her actions left him speechless.

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[5] This may be for other reasons, and may not constitute a real difference. It depends on whether we can make general and independently motivated claims about the different functions of BE and HAVE to the effect that BE is there to make nonverbs into correctly-attired predicators, and that that difference is enough to make nominals in other predicational positions less favored. That will not be sufficient to explain why certain other predicate-taking items, e.g. the causative MAKE and the quasi-absolute marker *with* readily accept nominal XPs.

(The Stimulus character of NP_1 is reminiscent of the Resultant Event/State reading of HAVE-constructions.)

With the two uses of predicational complements with LEAVE, it is not easy to tell whether we have two three-place senses of LEAVE which differ in the relation the XP bears to the main predication (the two relations can be called "circumstantial" and "resultative"), one three-place sense whose apparent ambiguity can simply be resolved by more general principles (about the possible relations of secondary predicates and the lexical semantics of LEAVE), or two senses of LEAVE, one of which is two-place and one of which is three-place.

But there are also clear cases of secondary predicates—clear, anyway, in that the requisite assignment of a semantic role to NP_2 is evident. These are the cases that interest us, because in all the sentences in (20), the semantic relation of the secondary predicate to the matrix predication is "circumstantial". There is another possibility for adjunct predicates, however: the "resultative". Examples of this reading are given in (24):

24. I knocked him silly.
    She smoked herself into her grave.
    She drank herself sick.

I do not think we can assimilate all predicational complements to subcases of these two semantic relations. First of all, it will be too general to differentiate the complements in (22-23); secondly, it does not obviously cover the complements for predicates of intensional states like WANT, EXPECT, etc. But predicational complements of HAVE do assimilate rather nicely into this dichotomy: we could say that the predicational complements of the Causative and Resultant State/Event readings bear the "resultative" semantic relation, while the Affecting Event and Attributive-Existential readings contain predicational complements whose relation to the main predicate is that of "circumstance". This pair of possible semantic relations contributes to the compositionality of the 3.XP HAVE-

constructions, since the four readings Causative, Resultant State/Event, Affecting Event, and Attributive/Existential can be distinguished from each other based on the aspectual properties of the XP plus its semantic relation to the matrix predication:

	+ PERFECTIVE	− PERFECTIVE
Resultative	Causative (a)	Resultant S/E (b)
Circumstantial	Affecting Event (c)	Attributive-Existential (d)

TABLE 1

Examples of each are:

25.a. I had them wash the dishes.

b. I had the dishes washed in no time.

c. I had my dog die.

d. The book has a lot of pictures in it.

When we add to these the additional possibilities supplied by different mental spaces, we can see that we have accounted for all the readings of the 3.XP constructional skeleton. It remains to be seen whether similar discoveries about other semantic relations which can be borne by embedded predications will provide more dimensions into which to fit our other HAVE-constructions. I can imagine, for instance, a relation like "unrealized event" which might cover the complements of HOPE and EXPECT as well as the VP_{to} complements in both two- and three-place HAVE-constructions.

To sum up: this section has suggested that two properties of predicational complements—an internal one and an external one—contribute to the

constructional meaning of sentences headed by HAVE. The internal property is the aspectual profile which is itself composed of the Aktionsart of the head and the meaning of the inflectional morphology, if any, of the phrase. The external property concerns the general semantic relation of predicational constituents, and I have suggested that both adjuncts and complements bear the same potential relations.

5.3. Compositionality and Constructional Status.

This chapter has been about how most of the semantic content of HAVE-constructions can be identified with individual constituents. It is quite obvious that the jury is still out for many specific constituent types, as for the bare and marked infinitive VPs. The claims in this chapter also rest upon an account of reference whose fine details remain to be worked out. I hope I have shown at least that a lot of the semantics is either directly attributable to or correlates perfectly with some specific semantic property of its constituents.

The high degree of compositionality of the HAVE-constructions—most demonstrably, the different readings of 3.XP with respect to one another—does not in itself imply that the form-meaning associations I have described individually should not be recognized as separate constructions in the grammar. Constructions can, and must, make reference to other constructions independently described, but that just makes for a certain amount of economy in the grammar, since properties of constituent constructions need be stated only once and independent of their appearance as constituents of other constructions.

However, so far this account presupposes that there is exactly one reading associated with each constituent and that the composition involves the putting together of the head and each constituent with its meaning. However, I demonstrated in Chapter 2 that the opposite is the case: it has not been established

that any of the constituents have univocal semantics, and for several of them I have either demonstrated or invoked previous demonstrations that they quite surely do not. Just as HAVE is the head of many constructions, and their meanings must be stated as part of the individual constructions, each phrasal type will be many-valued, and its semantic possibilities must be stated individually. Therefore, a crucial aspect of the constructions will be to make reference to which of the versions of each phrasal constituent is part of the HAVE-construction.

Since constructions are generalizations over individual sentences it is perfectly plausible to hypothesize that constructions are encoded as valence descriptions, where the form of complements, particular assignments of semantic roles to those complements, and a construction-level semantic interpretation are specified. The existence of constructions at this level does not replace, nor does it preclude, our positing a construction or constructions at a higher level of generality, as I will do in Chapter 6.

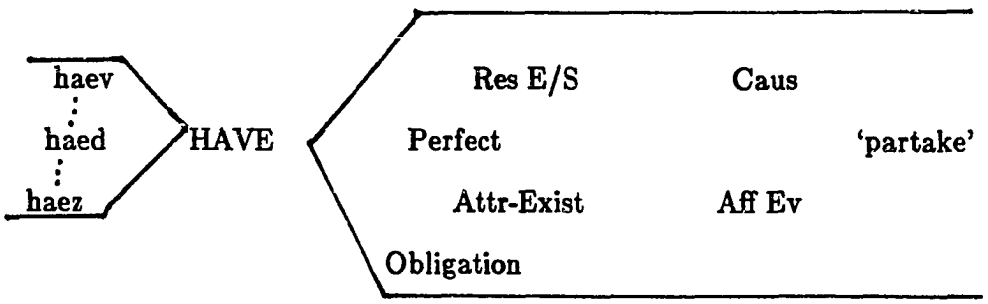
6. The Lexical Network of HAVE

> "Should we try to formulate a common semantic denominator or core for a single, polysemous form from which to derive its various distributional meanings, or should we simply list these various meanings?"
> —Edward Bendix (1966:11-12)

The answer to Bendix's question is: no.

6.1 Lexical networks, lexical entries, and lexemes.

I have assumed throughout the preceding discussion that the constructions under investigation have more in common with one another than simply the set of pronunciations which the head verb can receive—in other words, HAVE is an example of polysemy rather than homonymy. This claim will be reflected notationally by the existence of one lexical network. I have adopted a terminological distinction between the lexical item and the lexeme. The lexical item is the head of the lexically-headed construction: it is the item associated with a valence description. The lexeme is the nexus between the constructions found in a single lexical network and the paradigm of phonetic forms found in their utterance. It can be thought of as an abstract object which brings together all related phonological forms, on one hand, and all valence descriptions, on the other hand. A partial schematic for this area of nexus is shown in the figure:



This picture is highly schematic, and not meant to characterize exhaustively either the phonological or the lexical inventories. Each node is a complex of features, such as have been given in previous tables. The phonological side will

presumably consist of complex symbols as well.

The network is a structured cluster of lexical entries which have the same lexemic head and which are understood as together constituting a category of senses which share certain phonological information. Its shared phonological features are paradigms for pronouncing the word-forms containing both the stem and the inflectional affixes.[1]

More important for the questions of semantics and syntax which are our main concern here is the claim implicit in my positing a single lexical network rather than merely a set of separate lexical entries: that we can find semantic relationships between HAVE-constructions even when the senses must obviously be distinguished on semantic and/or formal grounds.

Lexical networks resemble in a very general way the practice of lexicographers of listing the different senses of polysemous items in one entry (sometimes in a many-layered set of sub- and sub-sub-entries) and homonyms in separate entries. The lexical network differs in one trivial way and in two important ways from this practice. The trivial difference is largely a terminological one: the dictionary-maker's lexical entry is my lexical network, and his sub-entry is my entry. The consequences of this difference are less trivial, however: when we define differences either in semantic or in formal properties as coinciding with separate lexical entries, we provide a natural means, the lexically-headed construction, for stating all these properties together. This does not preclude our finding or stating generalizations across lexical entries; it merely ensures that all such information is recorded systematically. (McCawley (1986) contains a

[1] Of course, HAVE is phonologically irregular in its least-marked paradigm, in that whatever inflectional endings there are, namely the third-singular present and the simple past tense inflection, cannot cooccur with the final consonant segment of the stem. The notation of the phonological properties, and questions of whether morphology should be done by construction, as syntax is, will not be worked out here.

perspicuous discussion of what kinds of linguists' intuitions might illuminate actual dictionaries.)

A more important way in which the lexical network differs from the lexicographer's lexical entries is that relations of sense or of valence description drive a **structuring** of the set of entries. As noted above, this is approximated in physical dictionaries by the practice of listed subentries; but the conception of the lexical network I am using here exploits the abstract nature of the lexical portion of grammars, the fact that a multidimensional model without a physical instantiation is an acceptable formulation. The metaphor I use in thinking about the lexical network is that lexically-headed constructions are nodes in this network; that their physical arrangement relative to one another, and the links between them, together code which nodes are related to which and notate separate dimensions of distinction and relation; that cross-lexical, general semantic and psychological principles of relation (or more precisely, motivated and possibly systematic regions of distinctness) constitute the links between nodes; and that the distance between two nodes and the strength of the link between them formalizes the strength of the relation perceived between two senses. Moreover, more than one link may join two nodes: the semantic relation may be motivated by more than one psychosemantic principle).

A smaller but significant point is that because lexically-headed constructions are pairings of semantic and syntactic information, a lexical network can consist of nodes that differ in either semantic or syntactic information, so words with largely the same semantic properties but of different word classes can be placed in the same network.

All this is of course an idealization: certainly such fine and invisible details of lexical semantics as how lexemes are structured semantically will be subject to a great deal of variation across speakers. Speaker *A* may find psychological

satisfaction in relation ρ between senses *a* and *b*, while speaker *B* will see the relation between them as an instance of link ϕ, and speaker *C* will find *a* and *b* linked by both ρ and ϕ. So like any grammatical description, this one is a skimming over of a set of relations of an idealized linguistic community, filtered through my own perceptions of semantic relations.

What justifies this approach to lexical semantics? There are aesthetic motivation; theory-internal motivation; direct linguistic evidence; and psychological evidence.

First, my sensibility says that such phenomena as man-on-the-street accounts of lexical meaning and folk etymologies are indirect evidence for such networks. We cannot expect (and probably do not want) all linguistic knowledge to be psychologically accessible. On the other hand, whatever evidence is consciously available to speakers—assuming it is knowledge of their own dialects at a given period, and not a matter of historical fact—must bear some relationship to their unconscious linguistic competence.

The theory-internal reason is in my view a corollary of the Construction Grammar tenet that all details of a language deserve equal attention and that the description of general principles need not entail a sacrifice in describing fine details. The lexical network provides an opportunity for lexical semantic facts to be stated so that semantic elements common to two senses can be described generally enough, while sense-particular properties are also described. The two common alternatives in lexical semantics—the homonymy approach and the abstract-meaning approach—sacrifice one of these or the other.

Langacker 1987 presents an attractive alternative to this false dichotomy. He advocates a general position which combines an abstraction over individual cases and separate statement of the subcases. He thereby incorporates the generalizing capacity of abstraction without the sacrifice of special properties

inhering in subcases. I will propose something like that for HAVE; however, I do not believe it is adequate for characterizing the myriad of relationships instantiated in lexical networks. I see no evidence for taking abstraction as a necessary universal property, or even a necessary by-product, of semantic relations of lexical items.

The direct linguistic evidence concerns principles of what is called analogy in more traditional approaches to semantics.[2] If a lexeme *L* has two senses, *a* and *b*, which differ in semantic property ρ, and lexeme *K* has two senses *c* and *d*, which differ in ρ as well, then the lexical network approach allows the economical statement of the synchronic state of the two polysemous lexemes: two networks, or subnetworks, accounted for by one psychosemantic principle; it also points the way for a historical explanation based on analogy. For if the development of polysemy of *K* is explained on analogy with *L*, there must have been a ρ recognizable in the network for *L* which served as the basis for the analogical extension of *K*. The existence of cross-lexemic generalization has been demonstrated to be not only widespread but quite diverse in its character, and the principles which account for analogous patterns of polysemy are the subject of a number of exciting developments in current lexical semantic investigation. (cf. Sweetser i.p., Lakoff & Johnson 1980, Lakoff & Brugman 1986, Fillmore 1971b)[3].

The psychological motivation for LNT is the long-recognized fact that it is much easier both to learn and to remember material that consists of some limited and motivated variation on previously-learned material. This is not true just of

[2] My thinking on this matter has been greatly illuminated by work in progress by Nikiforidou and Sweetser (1988).

[3] Obviously, not all polysemy can be thought of as resulting from such lexically-oriented principles. Some, e.g. Fillmore's *breakfast* (Fillmore 1982), follow directly from principles of subframe selection, i.e. the picking out of elements in a frame to be complements. Principles of subframe selection may or may not have significance for more than one lexeme.

specifically linguistic knowledge; it is a general fact about human learning and memory (cf.Shank 1982, esp. Part II, and Alterman 1986 within symbolic AI, and McClelland and Rumelhart 1986 and Rumelhart et al., 1986, for formulations of this principle within the PDP framework). While these properties of learning are practically a truism of psychology by now, the recent directions in psychology and Artificial Intelligence take the structure of the network itself to be a meaningful formalism.

HAVE is a good test case for Lexical Network Theory because it requires an expansion of the goals and an extension of the theoretical tools for an adequate description. This is for two reasons: first, the range of distinguishable valence descriptions is not approached by any of the items which have been investigated as lexical networks. (Sweetser i.p. investigates an inventory of items having common semantic properties which collectively have a wide range of valence requirements, but no one lexeme exhibits so wide a range.) That means that nodes of lexical networks must be distinguished on syntactic as well as semantic grounds. Secondly, though many of the items heretofore investigated in these terms exhibit some imperfection as to compositionality, previous accounts have treated the semantics as purely a property of the items themselves, and have not directly addressed the question of how, and to what extent, constructional meaning is a function of the semantics of its head in a construction with its complements. (cf. e.g., Brugman and Lakoff 1988, Norvig and Lakoff 1987.)

Hence the version of LNT employed here involves a reconception of what is at the nodes of the network: previous studies in LNT have implicitly presumed the correctness of the rather naive view of lexical meaning that somehow words in isolation can evoke the frames which uniquely determine their interpretation. By contrast, the Construction Grammar conception of the lexicon holds that a lexical entry is an abbreviatory description of the set of structures in which the

item can appear, and the set of readings corresponding to those structures. This position entails that there is no such object as the meaning of an isolated word. As I outlined in Chapter 2, this position appears too strong if taken at face value: in the limiting case, there will be isolable, if not necessarily constant, meaning contributed to any instance of a construction by a given lexical item. In that case it is sensible to talk about lexical meaning, that is a semantic association with that item independent of any facts about its possible neighbors. For instance, recall in sec. 3.1.1 that I suggested that the invariant association of the perfect semantics of its complement could have bled over into an association with the head; hence we can call that one the "perfect HAVE". Of course, since the "perfect HAVE" has a highly restricted valence description—it can appear only with a perfect-participial local complement—this is true by definition and does not exemplify a real detachment of meaning from its constructional surroundings. However, it does seem to be true that frequent use of an item in utterances with a given constructional reading can lead to the dissocation of that meaning from the **situated** item and its increased association with the item apparently abstracted from context. The fact that words are believed to have meanings independent of their placement in utterances—and even that what is taken to be the meaning or meanings of that item is fairly constant across speakers—is a testimony to our ability to extract generalization wherever we can find it. The association may be stronger or more tenuous; the relationship itself may be specific and identifiable or vague. There is no necessary contradiction between the common belief that meanings are associated with words and the Construction Grammar position that meanings are associated (by speakers) with constructions: since the latter position subsumes the former, it merely accounts for a wider range of semantic possibilities. In other words, we need not abandon entirely the intuition that words have meanings. Since semantic knowledge is just a subset of general

knowledge, and knowledge involves people, we can revise the naive view of lexical meaning in this way: lexical items carry their frame information as well as the linguistic expression of that frame information, and that is how they are meaningful to speakers.

Still, the question of whether meaning is associated with constructions or with the items that head them is more than a matter of terminological tricks or even theoretical commitment. We may find it necessary to recognize the degree to which constructional meaning can be divorced from the contributions of the nonhead constituents of the construction and hence can be ascribed to the head itself. If this really comes down to the degree of compositionality exhibited by a construction, as suggested, then the question "lexical or constructional meaning?" does not receive a yes-no answer. The answer will instead be a matter of degree: how accessible or retrievable the construction's meaning is from invocation only of the head.

From this account, then, we can characterize a lexeme as a collection of lexical items or lexically-headed constructions which all share an abstract phonological form (i.e. each indexes a paradigm of word-forms, including those formed by inflection), and which are related by means of motivated differences in their constructional meaning, the structural properties of their valence descriptions, or both.[4]

The common means of relating two lexically-headed constructions is the lexical rule, and I can demonstrate now that that means will not be usable for capturing most of the relations found in the network of HAVE. At most, it could be used to capture the fact that several readings of HAVE are instantiable either

[4] I am invoking here the notion of motivation as it is used in various movements within cognitive semantics, as for instance in Lakoff (1987). "Motivation" is not confined to synchronic causal relations.

with a 2.NP or with a 3.XP reading (cf. sec. 6.3.3). But it will not relate senses; hence it will not be of great use for us.

Lexical rules are used for expressing a relation between two valence descriptions. Those valence descriptions may be associated with different meanings, or they may be (claimed to be) completely synonymous. Lexical rules are usually generalizations over lexical-level alternations, i.e. they usually capture cross-lexemic generalizations. (Observe that lexical rules have replaced syntactic rules in many frameworks: they are supposed to have the same capacity of generalization, yet be more amenable to lexical exception and lexicalized semantics than the corresponding syntactic rules.)

A paradigm example of a lexical rule is "Dative Movement". The alternation in valence description is captured by an implicational statement to the effect that if a predicator *P* has valence description *A*, it will also have a valence description *B*:

P		
So	Th	Go
1	2	3
N	N	*to*
	A	

P		
So	Go	Th
1	2	3
N	N	N
	B	

(GIVE is the best example of this alternation.) The rule creates another lexical entry for *P*, but it may not make *P* polysemous, since in the general case nothing of the lexical semantics of *P* will be different. (This will vary with the alternation and the rule: with a causative derivational morpheme, for example, it is reasonable to conceive of the addition of a participant with an Agent Semantic

Role as a (systematic) change in the semantics of the derived predicator.) It may be that the rule itself imposes some semantics on the construction which results from it. We saw in Chapter 1 that this is the case with Dative-Movement.

Whatever the utility of lexical rules is, they will not help us in expressing the relationships between readings of HAVE. With the exception of the alternation between 2.NP and 3.XP, there is no reason to talk about a variation in valence properties (other valence descriptions will not be associable by rule). The semantics associated with each possible instantiation of the XP variable will correlate with the possible constructional reading; hence we need make no direct reference to specific complement selections when we describe the formal reflexes of each reading. We could take the means of instantiating XP with its various values as being accomplished by lexical rule, but such a move must be seen as a syntactic recapitulation of the semantically-based instantiation principles.

The main point is that the lexical rule does not provide the means for expressing the meat of the various distinctions among HAVE-constructions. That is because the variations are primarily semantic rather than syntactic. Again, we could choose to express the differences syntactically, but since syntactic variations (either in the value or in the number of complements selected) do not correspond one-to-one to the semantic differences, there would be no descriptive utility to this device.

6.2. Some contributing factors which are outside the network.

I have devoted a fair amount of space to characterizing HAVE-constructions partly in terms of what they are not. More precisely, I have talked in terms of what aspects of the form or signification of the constituent constructions do not specifically require reference to the constructions themselves, though surely the description of HAVE-constructions will have to refer, indexically, to them. All of

Chapter 2 was dedicated indirectly to showing that for the most part the construction-level properties of HAVE-constructions are found in other contexts, and hence are not specifically (idiosyncratically) properties of HAVE. Here I will briefly discuss some independent features of language or of its speakers' cognitive strategies which interact with HAVE-constructions so intimately and so naturally that they might be mistaken for properties of HAVE-constructions. Most of these have specific formal reflexes or indicators which can appear in HAVE-constructions; nevertheless I will argue for each that this is just a result of the ability of these structures to combine based on a unification of their semantic or pragmatic properties along with general potentialities for syntactic combination. In other words, unlike the component constituents which must be indexed by the HAVE-construction, these factors need not be referred to at all in the description of HAVE.

6.2.1. Mental Space phenomena

I trust that the discussion in 3.2.5 is sufficient to convince the reader that what I then called the "Depictive" readings of HAVE-constructions actually were the product of the semantics of each reading with the imposition of an embedded mental space, be it a future origin space, a modality space, a fiction space, or a space of a sentient being's beliefs or intentions. There is no question that these semantic possibilities are not properties of HAVE-constructions, or rather that they are properties only because of the semantic potential for HAVE-constructions in general. We know, moreover, that mental spaces are not located in the "grammar" per se; whatever they are, they are cognitive structures that mediate between linguistic expression and construal or production.

6.2.2. Evaluative factors giving rise to apparent constructional differences

Other psycho-pragmatic factors enter into specific interpretations of individual HAVE-constructions, factors which again mediate between the meaning of the construction and the construal of a particular exemplary sentence within its context.[5] For instance, I was convinced for quite a while that the 3.VP_{to} structure was necessarily associated with some "Obligation" constructional meaning, possibly under pressure from the fact that the 2.VP_{to} structure has only that reading. Sentences like *I have papers to grade* seemingly support such an account. However, a sentence like *I have a husband to care for* can be seen as expressing an obligation or a privilege, depending on how one evaluates the merits of the described situation. (The fact that *I have him to care for* is similarly indeterminate counterexemplifies any claim that the two "readings" might correspond to the difference between a VP_{to} complement and an "infinitival relative".) Thus the "Obligation" reading is a direct result of nonlinguistic knowledge or opinion—that is, a negatively-evaluated future commitment is ipso facto an obligation.

A similar argument may about made about a "malefactive" (i.e. negative-effect) interpretation which some speakers feel justifies the positing of a separate construction.

1. I had my dog die.
1′. I had my dog die on me.

It is true that a sentence like (1) expresses a situation which affects NP_1′ negatively; it is similarly true that the *on X* phrase (where *X* denotes the negatively-affected party) can appear in such HAVE-sentences. However, that is simply because it is compatible with any sentence which describes a negatively affecting

[5] Charles Fillmore and Robert Wilensky have in their various ways contributed to my understanding of the critical importance of this distinction, especially crucial when one is trying to identify readings of a many-valued construction.

event, and in fact it imposes a malefactive interpretation where otherwise one need not infer it; compare (2) and (3.a) (and contrast 3.b).

2. I was reading Asa a story and he went to sleep.
3.a. I was reading Asa a story and he went to sleep on me.
3.b. I was reading Asa a story and he went to sleep for me.

As for the "malefaction" reading of (1), again that is purely a product of (extralinguistic) evaluation of the situation, not imposed by the use of a HAVE-construction. Note that (4),

4. I had them flunk me

could be a description of a negatively-affecting event if the examination was the speaker's doctoral orals, or a description of a positively-affecting event if the speaker was describing the result of his army physical.

6.2.3. "Possessor Ascension"

The distribution of NPs known as "possessor ascension" exemplified in (5 - 7) must be the syntactic reflex of some general, pragmatically-based principle for arranging noun phrases (which in some cases is nonetheless syntacticized and therefore obligatory; compare (5) and (5′)).

5. I kicked him in the shins.
5′. #I kicked his shins.
6. The kitten amused me with his antics.
6′. The kitten's antics amused me.
7. John has a book on his desk.
7′. John's desk has a book on it.

Because its signification is extrapropositional, possessor ascension and all such pragmatically-based constraints on syntactic form depend for their description on a theory of semantics which includes a fairly explicit account of the semantic/pragmatic significance of termhood independent of Semantic Role[6], and

[6] as we have seen HAVE-constructions themselves do.

conditions on how principles like the Semantic Role hierarchy interact with the selection of topic to provide ordering principles. Van Oosten (1984) has an account of possessor_ascension (which she calls "property-factoring") which accords with my general ideas about its signification:

> . . .the choice of a [property-factoring] or non[property-factoring] sentence depends on what NP a speaker wants to have in subject position, and that therefore the choice depends on facts associated with subjecthood. PF sentences are used when the primary [i.e. the NP expressing the semantic argument] of the verb, a possessive NP, is not the sentence topic but that the possessor in the possessive NP is. . . .the sentence topic is not the primary but the Representor of the primary. (p. 109)

An account which has similar implications, though does not talk in terms of topichood or any such pragmatic category, is Langacker's (1984) description of "active zones".

However these semantico-pragmatic conditions are to find their way into our grammatical description, I would expect that they can be stated so as to accomodate naturally the kind of alternation exemplified above. The advantages of this approach for our data here are many and obvious: it allows a description of HAVE-constructions that ensures that both of these alternants (e.g. (7) and (7′)) will be treated along with the rest of the Attributive-Existential readings.

Remember that according to an account like Emonds' (1976), sentences like (7) and (7′) are each related transformationally to the same underlying structure, (7′′):

7′′. A book is on John's desk

and a feature of their production is the coreferential pronoun in the prepositional XP. But (8)

8. John has a book on your desk

is obviously acceptable, though somewhat constrained on pragmatic grounds, yet could not be generated at all according to Emonds' suggestion for the production

of (7) and (7′). This is despite the fact that (8) and (7) are formally and semantically identical in constructional properties. If we accept (7) and (7′) as examples of possessor ascension, as they obviously are, then the alternation itself will be an instance of a more general phenomenon, and hence no ad hoc account in the spirit of Emonds' proposal is necessary. It is obvious that the matter of the coreferential pronoun in XP is not entirely incidental, but it is equally evident that its frequent appearance is a consequence of the semantics of the construction, and the communicative purposes to which it is put. An event or state in which one is a participant is a paradigm case of an event or state which has the "interest" or "involvement" of that participant.

Furthermore, when the semantics of possessor ascension is worked out, it should be possible to account for differences in distribution of the two alternants, something which quite obviously could not have been done by the transformational account but—more importantly—could not be done purely at the lexical level even in a Construction Grammar account without loss of generality. For instance, we would like to be able to account for the fact that while (9) is acceptable, (9′) is distinctly odd:

9. His claims have little substance to them.
9′. *He has little substance to his claims.

Since (7) and (7′) are both acceptable, it is quite obvious that the unacceptability of (9′) has nothing to do with HAVE-constructions but has rather to do with some conditions, which I do not profess to understand, on "Possessor Ascension".[7]

[7] Ross (1967/1986), in his original formulation of the *There*-replacement rule, noticed the existence of this and other conditions on the appearance of the "ascended" version. In his discussion of the rule, Emonds did not comment on its numerous exceptions.

In separating the elements of meaning associated with each of these different contributions to the interpretation of individual utterances, it is not in general crucial to draw a strict dividing line between semantics and pragmatics, though for some cases that might be exactly the relevant distinction (assuming that we have a reason to maintain the distinction). The only important point here is that, wherever such contributing factors are stated, they will not be stated within the lexical network for HAVE. They must rather be stated so that they interact naturally and regularly with the various constructional meanings of HAVE to lead to the understanding of individual utterances such as those presented here.

6.3. The Network

6.3.1. The Stative-Active Distinction and the Core of the Lexical Network

I have referred rather haphazardly to various indications of the property [Stative] occasionally in the previous description. However, the distinction between stative and active uses of HAVE is in reality of crucial importance to the semantic properties and has important consequences for the economical description of each lexical entry (i.e. each construction) as well as for the architecture of the lexicon.

It is not so rare for predicators to have both active and stative uses, nor for there to be a slight semantic difference discernible in the two uses. As an example, take the uses of SURROUND exemplified in (10) and (11):

10.a. Stately elms surround the governor's estate.
  b. #/?Stately elms are surrounding the governor's estate.
11.a. #/?The National Guard surround/s the governor's estate.
  b. The National Guard is/are surrounding the governor's estate.

In accordance with the general behavior of stative predicates, SURROUND in (10.b) sounds odd because it uses progressive morphology to express a present

situation. This follows naturally from our understanding of the situation as an unchanging one (from our frame-semantic knowledge of trees), i.e. as a state. Conversely, in accordance with the usual behavior of active predicates, (11.a) is acceptable, with simple present tense morphology, only on a habitual or repetitive reading of SURROUND. This is because we understand the relation between the estate and the National Guard to be both temporary and the result of some action. Hence (11.b) is acceptable on a present tense-progressive aspect reading (as well as an immediate future, inchoative-like reading).

This kind of polysemy has been thought about in various ways and formalized by various means: by varying interpretations of the composition of the verb root with the inflectional morphology (e.g. Comrie 1976), or by appealing to different semantic decompositions of the verb root (e.g. Dowty 1979). We do not need to choose a formalism or even a particular conceptualization; I only wish to observe that among all the peculiarities of HAVE this bimodality is not one of its greatest.

It is even more common for a predicator that is, for instance, "basically" stative (in its Aktionsart) to be combined with morphology characteristic of an active predicator to render a predicate that is not merely active but differs noticeably from the basic use of the predicator in its other aspectual properties. We observed this earlier, in sentences like

12. My students are knowing more and more French these days

where *knowing* means something like 'coming to know': it has the properties of a Dowty/Vendler "achievement"—and hence an active—predicate. (This is also the second reading of (11.b.) alluded to above.)[8]

[8] Another complexity which I am assuming will not enter in here is that the grammatical categorization of stative and active corresponds only approximately to the cognitive distinction between states and actions. SLEEP is an example of a verb whose meaning has the properties of a stative predicate but which has the grammatical

The fact that the Stative/Active distinction—notionally—is exhibited by 2.NP examples reinforces the validity of the distinction for the network as a whole. Some relations expressable by HAVE-constructions seem to be notionally more stative, as is *have freckles*; some quite as evidently express a relation to an activity or an event, as in *have a party*. Moreover, some HAVE-relations notionally imply the possibility of control or effect, as in *have a car*, whereas other predicates, like *have an accident*, entail a lack of control on the part of the subject referent. We have noticed this variety of relationships as well as the fact that they fall into distinguishable classes (to be elaborated below). I established earlier that two-place and three-place HAVE-constructions can be categorized together without regard to their valence, based on their general semantic properties. Now I will use the formally discernible property of stativity to justify this, and to provide the central formal and semantic opposition which lies at the heart of the lexical network of HAVE.

Appendix C contains a discussion of some applications of the progressive test to some individual HAVE-sentences, along with their as-yet unexplained results, as well as a summary of the results of a set of tests for Stativity or Activeness for each of the HAVE-constructions.

properties of an active predicator.

	STATIVE	ACTIVE
subject +control	Resultant E/S NP_1: Stimulus (13.a)	Causative NP_1: Agent (13.b)
subject −control	Attr-Exist NP_1: {Experiencer, Locative, Theme} (13.c)	Aff Event NP_1: Patient (13.d)

TABLE 2

13.a. I had the socks darned in no time.
b. I had Waltraud feed the chickens.
c. I had rain falling on me all day.
d. I had tomato sauce get on my new silk blouse.

Table 2 presents the core[9] of the lexical network. The horizontal axis presents the basic opposition of Stativity vs. Activeness. Along the vertical axis is a differentiation on the basis of whether or not $(NP_1)'$ has control of or responsibility for the entity or state of affairs expressed as part of the (matrix) predicator—in other words, what the Semantic Role of the subject is. A position on the table toward the top of the page corresponds to a subject Semantic Role assignment toward the top of the hierarchy, and conversely.

Notice two things: first, this taxonomy categorizes the constructions with respect to each other exactly as does Table 1 in sec. 5.3. That taxonomy was based purely on properties of the XP phrase in 3.XP constructions. The

[9] It should be self-evident that my use of the terminology "core" and "periphery" here and in the following passage bears no relation to that prevailing in the linguistics literature.

taxonomy in Table 2 generalizes to constructions in which there is no XP. That is, where I categorized HAVE-construction types by the properties of the XP in Table 1, in Table 2 I arrived at the same taxonony based on the properties of two-place and three-place constructions taken together. Second, notice that the Stativity or Activeness of the HAVE-construction correlates very nicely with the Semantic Role of the subject: Agent and Patient subjects appear with active uses of HAVE, while Stimulus, Locative/Theme, and Experiencer—the "middle" range of the Semantic Role hierarchy—appear in stative HAVE-constructions. (The opposition here is very much in the spirit of the Actor/Undergoer distinction proposed in Foley and Van Valin 1984.) This accords with intuition, if Activeness of a predicator correlates with transitivity as it is characterized notionally or semantically (e.g. by Hopper and Thompson 1980, cf. Rice 1988) in terms of a number of factors.[10] Note that for HAVE-constructions, grammatical Activeness occurs irrespective of the "direction" of transfer of motion or energy as encoded by the Semantic Role of the subject).

It is obviously not a coincidence that the properties of the predicational complement discussed in sec. 5.3 correlate with those presented in Table 2. A "resultative" predicational complement must correlate with an Actor—i.e. an Agent or Stimulus—subject: they are mutually entailed. Orthogonally, we noticed earlier that an Agentive subject correlates with perfectivity of the complement, and has even been derived from aspectual properties of the predicates in such frameworks as Montague semantics (Dowty 1979) and Role-and-Reference

[10] The parameters of variation for transitivity listed by Hopper and Thompson include the distinctness of the two participants in the event: the more distinct the participants are, the more transitive, in this sense, the corresponding expression will be. For cases of real or understood inalienable possession (on which more in sec. 6.7), the distinctness is as low as one can find short of pure identity. Unfortunately, the Semantic Roles of the participant noun phrases alone will not capture this fact (but recall Fillmore's (1968) original formulation of Case Grammar, which at least addressed the encoding in English of inalienable possession, and attempted to formalize the relation in terms of Case roles).

Grammar (Foley and Van Valin 1984). In general, though some of these formal properties can be predicted from others, all are semantically significant and all encode different aspects of the event/state structures expressed using HAVE-constructions. I therefore see no reason to omit any from the description of the construction.

6.3.2. Grammaticalization and a weak homonymy proposal

Perhaps the question of polysemy or homonymy will also be a matter of degree, and I suggested before how it can be formulated by means of the structure of the lexical network. It may be that with regard to certain of the individual nodes of the network—for instance, the perfect HAVE—we will need to entertain a position of weak homonymy rather than synchronic polysemy, since there is no overwhelming evidence that this highly specialized use of HAVE bears other than a historical meaning relation to the rest of the network. Many speakers report an understanding of perfect HAVE to the effect that one's past experiences, particularly those one has initiated, are a kind of attribute (in a way parallel to our claim that "future commitment" sentences like *I have him to thank* are a special kind of experiential attribute, cf. sec. 3.1.1.). As Benveniste put it (1971:174), "The perfect is indeed a form of state expressing possession." This seems right as far as it goes; however, it doesn't go the entire distance in accounting for the semantic aspects of the construction beyond its being an experience, nor does it suggest any reason why this use of HAVE should, cross-dialectally, have the status of auxiliary.

This raises again the eternal question of whether a grammatical description should include some aspects of historical development. If the synchronic system includes vestiges of historical development, then we will want to include those hints, perhaps stating separately from the grammar "how they got that way". If

a speaker perceives that the perfect HAVE is semantically related to the other words HAVE, our we can formalize his intuition by including it in the same network. But if this perceived relation is vague, or weak, in the mind of the speaker, we can also notate that fact by means of a link which is weak or one which has no cross-lexical utility. That is, however motivated the link is or might have been, in the synchronic system it lacks general utility. We can encode idiolectal differences with the properties of the link: if it is tenuous enough we can imagine that for some speakers, and possibly for all speakers at a future stage of the language, this link might be broken off altogether.

To motivate, either synchronically or historically, the positing of a direct development from $3.VP_{EN}$ to $2.VP_{EN}$ would involve at least the reinterpretation of VP_{EN} from a passive to a perfect. The usual account involves the movement of 2.NP to clause-final position and a subsequent reanalysis of the VP_{EN} constituent. Concomitantly, we must provide also for the fact that the predicational complements of perfect HAVE need not be transitive. This broadened complementation possibility is of course encoded in the formal distinction between VP_{EN}[Passive] and VP_{EN}[Perfect], but that diacritic alone does not really account for the increased inventory of semantic possibilities. This "broadening" is actually more defensible as a synchronic relation than a diachronic one, since in the synchronic system both constructions have a predicational argument which is predicated of the matrix subject and which is understood as resulting from some past action on the part of the subject referent. We can further observe that both of these constructions exemplify the most general principle of control of predicational complements: that the nearest NP in the matrix clause fills the subject requirement of the embedded predicate. That fact plus the assignment of semantic roles by HAVE ensures that the correct predicate-argument assignment will be done for both constructions with no additional machinery needed.

This all boils down to a near-synonymy between (14) and (15):

14. I have written the papers.
15. I have the papers written.

The point of nonsynonymy between these two is basically one of whether the state or event is focused on or whether some participant in that scene is focused on.

These shared properties and the elements of similarity in the semantics of $3.VP_{EN}$.ResE/S and $2.VP_{EN}$.Perfect may be enough to motivate the maintenance of a synchronic link between the relevant node and the peripheral perfect construction. However, grammaticalization implies, among other things, a loss of compositionality, so it may be that the distinctness of the constituents of perfect HAVE has been eroded in favor of a constructional meaning which is at once less elaborate and less decomposable; this would imply the weakening of the perceived links to the meaning of $3.VP_{EN}$.ResE/S.

In this way we can give an account of the relationship between $3.VP_{EN}$ and $2.VP_{EN}$ which acknowledges both their similarities and their (idiosyncratic) differences, and which includes the potential that for individual speakers the differences may outweigh the similarities or vice versa. Formalizing the first of these idiolects would amount to detaching $2.VP_{EN}$ from that speaker's lexical network for HAVE and creating a weakly-homonymous $HAVE_2$. (It could equivalently be called "weakly-polysemous.")

If this is a plausible characterization of perfect HAVE, it is tempting to apply the same strategies in characterizing the status of $2.VP_{to}$ and its relation to the core of the network, assuming that it is related to the $3.VP_{to}$ structure in a parallel way. And at first glance, this would seem entirely satisfying. The structural alternation is completely analogous. There is near-synonymy between some examples of $3.VP_{to}$ and $2.VP_{to}$, just as between $3.VP_{EN}$ and $2.VP_{EN}$:

16. I have so many papers to write!!
17. I have to write so many papers!!

However, the real difference between $2.VP_{to}$ and $3.VP_{to}$ involves more of a semantic shift than can readily be attributed to "grammaticalization". Both of the grammaticalized, two-place constructions involve a broadening of the inventory of possible predicational complements; however, the constructional meaning of $2.VP_{to}$ with respect to $3.VP_{to}$ is quite specialized, and comparatively noncompositional—which we expect from grammaticalization—but as well less general, as it expresses obligation as opposed to mere futurity or intended action. It is not necessarily the case that this difference counterexemplifies current claims about the direction of semantic shift under grammaticalization, and I do not want to enter that fray here. For purposes of a synchronic and psychologically plausible account of $2.VP_{to}$, we should ask whether, and where, it is related to the core network. On structural grounds we would say it is related to $3.VP_{to}$, and we can find that semantic relatedness exemplified in (16)-(17). But I noted in sec. 6.2.2 that "Obligation" is not part of the semantics of $3.VP_{to}$; based on its constituent-level semantics taken together with the pragmatics of use of specific examples, we can say of $3.VP_{to}$ only that it involves a future or intended activity or state. So if there is a relationship between $2.VP_{to}$ and $3.VP_{to}$, it is based on the formal plus pragmatic—not strictly semantic—potential of $3.VP_{to}$. This is not an implausible basis for a relationship, but it is worth separate mention. Perhaps this fact (along with the observation in sec. 6.2.2) is enough to justify a separate subconstruction for $XP = VP_{to}$, with a "future commitment" reading, to act as the direct link from $2VP_{to}$ to the core.

On the formal side, there is a lack of parallelism between the "grammaticalization" evident in $2.VP_{EN}$ and that in $2.VP_{to}$. For one thing, the HAVE of HAVE TO does not have the full status of an auxiliary: I do not believe it is subject to

the inversion construction, at least not in any American dialect,[1] nor does it allow the attachment of negatives. The conditioned devoicing rule applies to it (cf. 3.1.2.); that property and its semantics point toward some grammaticalization in the direction of a modal verb. But neither does it have the syntactic properties of true modals, as it is not necessarily finite (it can be embedded under verbs that require VP_{to} complements, for instance).

In sum, the $2.VP_{to}$ and the $2.VP_{EN}$ constructions have peripheral status in this lexical net: they are not related by either strongly-felt or systematic links to any of the other uses. "Peripheral" status in the net with weak links to other senses can be thought of in either of two ways: the peripherality of their position in the net is a formalization of the fact that these uses of HAVE differ more radically from the "core" uses than any of the core uses do from each other; or alternatively, the weakness of the link can be seen as a generalization over idiolects for which the relationship is extant and those for which there is no, or only a historical, relationship.

6.3.3. 2.NP and 3.XP

Under the proposals I have sketched above in Chapter 5, the constructional readings, plus the theoretical assumptions we made about the potential meanings of the complements, together provide a motivation (though not a complete explanation) for the most striking variation in valence, that between 2.NP and 3.XP. We have seen that the background frame of a nominal complement provides information about the possible relations which the referent of NP_2 can enter into, and which count as relations expressable by HAVE (e.g. causation (*party*), possession (*book*), etc.). Some nominals are associated with frames which allow for a

[1] but recall the discussion in sec. 3.1.

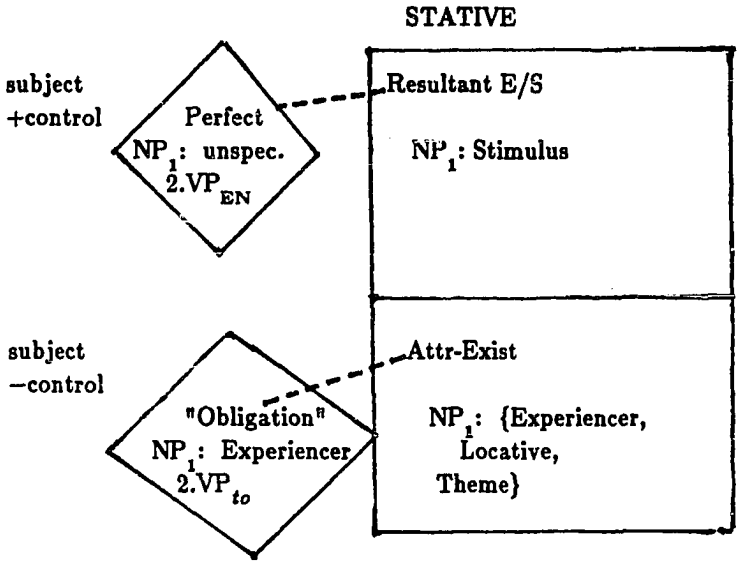


TABLE 3

number of such relations and hence are not in themselves informative enough to narrow down that relation. In those cases, the relation is expressed via an additional predicational complement. So this parameter of variation among HAVE-constructions is motivated by independently necessary principles of word meaning and communicative intent.

I discussed in sec. 3.1.3. the conditions which determine when a 2.NP valence description, and when a 3.XP structure, is allowed or required. But since those conditions are consequences of general semantic and pragmatic principles about the recoverability of the specific relation which is construed as an attribution (e.g. fixed location of NP_2 relative to NP_1, etc.), I believe that no specific constraints need to be placed on the use of either structure on any constructional reading. We need state only that both structures are available for HAVE, and let the chips fall where they may.[2] A fully elaborated theory of frame semantics will

[2] As I mentioned in sec. 3.1, there are dialects of English which allow "Subject-Aux inversion" for all instances of HAVE which have two complements, while no dialect allows "inversion" of HAVE in any construction with three complements. It may be necessary to list the two-place constructions separately from the three-place ones for the purpose of defining a subset of HAVE-constructions which participate in the "inversion" construction. This does not weaken my point very much, since the real generalization is at the semantic level rather than the syntactic, and my categorization does not deny the existence of

explain why sentences like *He has two brothers* has a vastly preferred primary reading (of a sibling relation) and also allows other attributional readings. We could make a similar observation about the other various kinds of what I have indiscriminately called "possession": ownership, contiguity of location, immediate responsibility, etc. Objects can be owned, held physically, or their existence can be brought about. All these possibilities come from the frame supporting the understanding of the nominal item, so that these different specific relations need not be formulated as separate senses of HAVE. However, we will undoubtedly find it necessary on psychological grounds to state specific relations as conventionalized readings of individual 2.NP sentences, as we would for *have a baby, have an operation,* etc., since as noted these have one reading which effectively precludes all other readings that we could conceive of.

In section 3.3, I noted that many sentences headed by HAVE have the potential to be analyzed as having either the structure 2.NP, as in (18), or the structure 3.XP, as in (19):

18. [[NP_1] [[HAVE] [$_{NP}$ [N2] [$_{XP}$ Modifier]]]
19. [[NP_1] [[HAVE] [$_{NP}$ [N2]] [$_{XP}$ Predicate]]

The example cited at that time was:

20. "She had friends exposed to the gunfire."

Recall that (20) is at least three-ways ambiguous. There is the single reading of 2.NP (corresponding to (18)), and there are two readings possible for 3.XP

syntactic differences, only of (unpredictable) semantic ones. It may be, in fact, that the constraint can be stated as a condition on "inversion" rather than on HAVE, since, I believe, all other verbs which appear in the "inversion" construction have only one local complement. If that is true, then the "inversion" capability may be a good argument for the three-place constituent analyses I have given.

(corresponding to (19)). One reading of (20) is the Causative, paraphrasable by (21):

21. She caused friends to be exposed to the gunfire.

The other reading available to (20) on the 3.XP analysis is the Affecting Event, as paraphrased in (22) (not very felicitously):

22. It happened to her that some friends of hers were exposed to the gunfire

as opposed to the $2.NP_{complex}$ reading, paraphrasable by a relative clause:

23. She had some friends who were exposed to the gunfire.

The two readings of (20) on structure (18) approximately paraphrasable by (22) and (23) are so close in meaning that not only is the difference inconsequential in use, but a number of linguist friends have complained to me that this is not really structural **ambiguity**, since "ambiguity" is about differences in meaning (irrespective of whether it is induced structurally, lexically, or in some other way). I think they **are** different: in the reading paraphrased by (23), the chief predication is about the subject referent and her relationship to the people who were endangered; in the (22) reading, the chief predication is about the endangerment of the friends, and the constructional semantics of the main clause conveys chiefly extrapropositional information about the effect of that event on the subject referent. However, this is something of an idealization: in actual use it is hardly clear-cut what a speaker intends the "chief" predication vs. the secondary conveyed information to be. Moreover, since both the truth-conditions and the larger part of the pragmatic information are shared by the two readings, it would be virtually impossible to find an actual situation of use in which one reading and precisely not the other was intended by the speaker.

One feature of NP_2 which strongly favors the "ambiguity", however, is when it is "relational" or otherwise evokes a two-place relation of which NP_1 can

easily be seen as the other member (recalling the analysis of noun phrases which was adopted above). Notice how difficult it is to get the 2.NP reading for (24), under the normal, nonrelational interpretation of *people*[3]:

24. #She had [[people] exposed to the gunfire].

Here the referents of *people* are presumed (by virtue of the use of the HAVE-construction) to be relevant to or of interest for NP_1' in some way, but the nature of that relation is not specified semantically, as it is in *friends.*

In Chapter 5 we noticed that the definiteness of NP_2 is another factor affecting which structure is attributable to an individual sentence:

25. She had her friends exposed to the gunfire.

The availability of the Causative reading for this sentence is unaffected, and the Affecting Event reading is also accessible. However, it is hard, if not impossible, to get the 2.NP reading, i.e. the "relational noun" reading, because the relation between NP_1' and (the head of) NP_2' is expressed internally to NP_2, by means of the genitive construction. (It is also a more general fact that determined nouns do not readily accept this kind of modification: usually the only interpretation one can give to a modifier under those circumstances is nonrestrictive, which is quite obviously incompatible with the constructional reading here.) A simple way to see this is to notice that on the intended reading, (26) is marginal because redundant:[4]

[3] There are quasi-relational uses of *people* to denote relatives, employees, etc., but maybe they're uses, not yet lexicalized senses. It is true that one must interpret the relation between the referents of the two NPs even on the three-place reading, but in this sentence, anyway, there is no specific framing which will fill in what that relationship is—beyond it being one of interest or involvement.

[4] There are completely acceptable readings of this sentence which are more apparent when contextualized like this: *She was grateful that even after her family had abandoned her, she still had her friends*, where some relation other than the simple one between friend and friend is being referred to by HAVE. That is not the reading I am hoping to isolate here.

26. #She had her friends.

The points of this discussion are, first, that one has to work fairly hard in some cases to isolate readings, and second, that the reason that this is sometimes so difficult is that 2.NP and 3.XP structures can both express a number of the same readings (where XP $\in$ { NP, PP, AP, VP_{ing}, VP_{to}, VP– }. Moreover, both are used in the service of the pragmatic function of "presentation" (cf. sec. 3.1.3.). This observation has a consequence for the structure of HAVE's lexical network: it may be that constructions will differ only in the formal valence possibilities, while being identical in their semantics.

In support of this conclusion I note that in 3.XP.Attr cases, especially those whose XP contains a pronoun coreferential with NP_1, it is often the case that even though the XP position is filled formally, and even though it is meaningful, it is no more informative than would be the corresponding 2.NP.Attr sentence, i.e. the same sentence but without the predicational complement[5]:

28. "Each of these constructions may have not only meaning associated with it, but pragmatic conditions associated with it. . ."
28′. Each of these constructions may have not only a meaning but some pragmatic conditions.
29. "I thus will henceforth assume that each terminal node in a deep structure has exactly one semantic reading attached to it."
29.′ I thus will henceforth assume that each terminal node in a deep structure has exactly one semantic reading.

When the XP is readily inferrable from the frame semantics of the NPs (plus the possible readings of HAVE-constructions), the 3.XP case is virtually equivalent in use to the corresponding 2.NP (with the XP just omitted). One way to think about the difference is that what is in the sentence semantics in

[5] Note that both (28) and (29) have a $2.NP_{complex}$ analysis as well.

3.XP is in the pragmatics in 2.NP.

Another way to think about it is that the semantics of the 3.XP reading may be more specific than that of the 2.NP reading, inducing a situation in which two sentences like (29) and (29′) may have "nondistinct" semantics, where the meaning of one is included in that of the other.

6.3.4. Some subentries

In deciding on when different uses should be considered different senses and hence different constructions, I have relied largely on semantic criteria which have direct formal reflexes. In deciding on special cases, it is in general more difficult to determine which of two situations obtains: it might be that a semantic difference has consequences for some other linguistic consideration. On the other hand it is possible that the difference is simply a result of the particular items which fill constituent requirements in individual sentences.

In general, I have argued in different ways in favor of a set of distinguishable readings, rather than a single vague one. But for other seemingly distinct readings, I have argued (in sec. 6.2) that the apparent grounds for distinguishability come from other sources, sometimes being a pure product of extralinguistic factors.

The question of what constitutes a separate subentry is in general more difficult to answer than I have made it out to be, and there are in fact cases in which deciding whether a use of a construction has the status of a separate sense is not obviously an empirical one but is rather dictated by the concerns of the theory. For example, I have blithely characterized the formulaic expression *have a party* as an example of a two-place Causative construction. But its meaning, in actual use, assuredly is something more than and different from what we usually find in HAVE-Causatives. Most saliently, more than causation is involved with

have a party: typically, at least, the one who has the party not only causes it to come about but is directly responsible for its execution, is present during the event, and so forth. None of these properties holds of the kinds of events usually expressed with Causative HAVE-constructions, as *I had him wash the dishes*, where the ultimate agent is not the proximate agent and so on. It remains to be seen whether this difference can follow from the fact that one of them uses its syntactic potential to specify the proximate agent, while the other does not have this potential: that is, can we generalize our theory of distant instantiation to cover nominalizations in some natural and perspicuous way? Since such an account is not on the horizon, we need to consider the possibility that there are special uses of the Causative construction which have the same semantics as the basic use, but which have additional semantic details.

We cannot dismiss HAVE A PARTY as an idiom, since the same meaning holds when NP_2 is any of the set of nominals which can be seen as of this semantic class (*soiree, reception, gathering,* and meal terms like *tea, luncheon* when preceded by a determiner and understood as referring to a social event). This might then be a candidate for a specialized submeaning of the Causative, definable by the semantic class of NP_2 and somewhat idiomatic in its constructional meaning. But I could more easily imagine an account in which such examples would be taken as straightforward instances of the Causative, and that the rest of these putatively semantic additions are merely part of the knowledge, not specifically linguistic, which is part of the frame evoked by NP_2.

It is not easy to know how we would decide one way or another. Many of the inferences which would be drawn from hearing *Delores is having a reception for Bill Blass* are cancellable. It might be that Delores is hiring caterers, decorators, musicians and housekeepers to do all the hands-on work; she is having her secretary send out the invitations; she is holding the event in a place other than

her own home; and she will not herself be present at the shindig. In that case, she bears approximately the same relation to the effected event that Bill has to the washing of the dishes in *Bill had Delores wash the dishes*, namely being only the ultimate agent. This may sound like a less-than-felicitous example of having a party than the typical case; but the point is exactly that it may be by virtue of not fitting the evoked **frame**, rather than not fitting the meaning of the **expression**, that this is so. (cf. Fillmore 1982b; Sweetser 1987.)

So perhaps the frame-semantics machinery allows us to get a little closer to answering the original question of whether HAVE A PARTY has a constructional meaning which deserves to be formalized as a special subsense of the Causative. At the moment that seems to be the most defensible analysis. On purely theoretical grounds it is a moot point: it may be that the lexical-frame semantics of the PARTY class folds into the semantics of the Causative construction like whipped cream into a mousse, completely assimilated into the matrix predication yet suffusing the construction with its essence.[6] In any case the formulaicity of the expression can be taken as a fact about the language that we will want to state, and one way of doing that is to give it its own subentry. Its high degree of predictability (relative to the generalized Causative reading) and its formulaic status can simultaneously be coded thereby.

The 'partake of' use of HAVE is a clearer candidate for a specialized lexical sense on the grounds of semantic idiosyncrasy, though it is available to any appropriate value of NP_2. In fact, it is not even evident on semantic grounds which of the core senses it is related to. Its formal Activeness and the fact that its subject is an Actor suggest that it is related to the Causative. But unlike the case of HAVE A PARTY, it cannot be reduced to a specialized subcase. For if we

[6] This may require an even more elaborate theory of composition.

made an argument of frame-driven specialization based on the frame evoked by NP_2, we would expect this specialized use of the Causative to lexicalize to 'produce' rather than 'partake of'. That is, it is not a **random** specialization of HAVE that it evokes a consuming action in the context of these nominals, since that is an Active part of their frame, but it is not the relation that we would most easily expect given a composition with a Causative constructional meaning. Furthermore, the consumer is not a typical agent as compared with subjects of real Causatives, since by his action he is impinged upon or affected (as well as impinging upon the consumed object or substance). On the other hand, attempting to assimilate it to the Affecting Event reading is unsatisfying: first, NP_2 does not (conventionally, at least) refer to an event, and second, there is no place in the Affecting Event reading to encode the activity of the consumer. Because the 'partake of' use imparts on its subject aspects of both Agentivity and Patienthood, I will propose a new Semantic Role, the "Agentive Experiencer", to categorize its NP_1 complement by contrast with those of the other readings. This additional category should not be taken as a serious proposal for Semantic Role theory. (If Semantic Roles are linguistically-significant conventionalizations of participant types, we should expect this sort of fuzzy case to exist: the small number of Role types will not equally comfortably categorize the entire range of participant types in the world. In response to the imperfection of this fit, we can conceive of Semantic Roles as categories with degrees of membership based on the number of properties held by individual complement types. Then a situation like this one—where the participant has properties of two Roles and its identification with a single one is difficult—is to be expected. It is worth extensive study to discover whether we can independently motivate a linguistically-significant class of predicators whose subjects both initiate and are affected by their act. Then it would be interesting to see whether the degree of membership

in the two Semantic Role categories differs, with the subject of individual predicators, and if so whether that has some impact on the behavior or distribution of their predicators or their subjects under a battery of tests.)

To get back to the question at hand: the 'partake of' sense is difficult to categorize with respect to an otherwise satisfyingly symmetrical taxonomy. It obviously must be considered a separate use of HAVE, a separate construction. It is a case within the lexical network of HAVE of a constructional meaning which cannot plausibly be claimed to correspond to a lexical meaning of HAVE; among the entire lexemic class, it is perhaps the least compositional. It cannot just be taken as a specialized subcase, as we have just seen, and I think our only recourse is to relate it weakly to each of the Active constructions. The weakness of the link is necessary for two reasons: first, the ambiguous semantic relation of the subject; and second, the fact that unlike the other two cases, the local complement of HAVE does not denote an event.

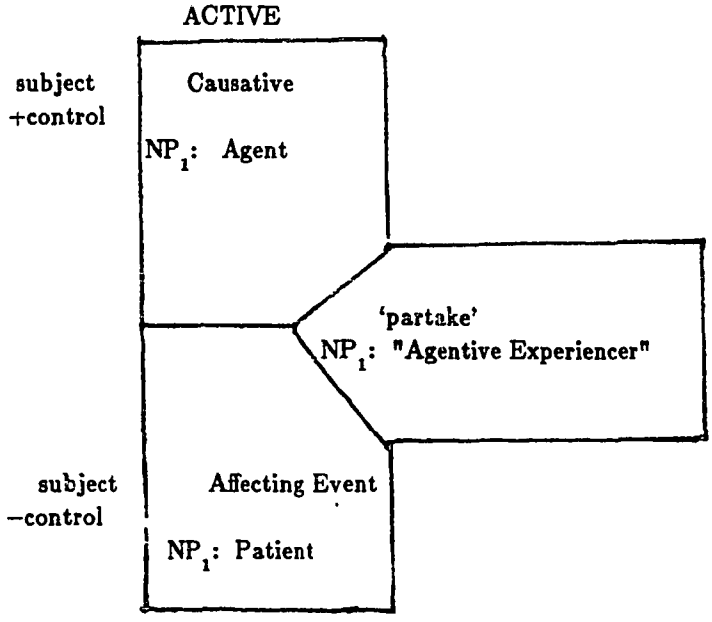


TABLE 4

Last but not least, we should consider some subcases of what I have called "Attributive-Existential". Intuitively it is evident that its specialized subcases of "possession", far from being fringe members, could be considered more "central" to the net, in a psychological sense, than any of the general, core uses I have examined in detail.

"Possession" is a cover term for a number of distinguishable relations. The most salient among them, and the ones I will discuss as prototypical cases, are the relations of ownership—a special case of alienable possession—and that of part-whole relation, a subcase of inalienable. I argue against a binary opposition between these two in Chapter 2; but I believe (with Nichols 1986) the opposition as made by grammars and/or grammarians approximates a real distinction in experience. The features of the two kinds of experience are worth listing: as a first approximation, we can characterize "inalienable" (or in Bendix's terms, "inherent") possession as a possession relation that makes reference to two entities in the same frame, while alienable (or "accidental") possession involves a relation with an entity not specified in the frame for NP_2. The lack of a clear binary distinction between alienable and inalienable possession then is reduced to a property of frames, since semantic frames themselves can be related to one another by frequent cooccurrence of the experiences: one frame can be a special case of, or a minor deformation of, another, or two frames can each be parts of a large scenario. Since "being in the same frame" is then a matter of level of detail and generality considered, two participants can be in the same frame for some purposes and in a different one for others. Hence "alienability" or "relationality", on this account, will also vary with the purpose at hand.

This sketch is not meant to account for the grammatical category of "alienability" or "relationality" as it is coded in languages that observe the distinction. Like any other grammatical distinction, that one is resumably a

conventionalization of the experiential difference and by definition involves a degree of arbitrariness in the **grammatical** categorization.

The two kinds of possession share some properties and diverge in others. The properties in common are these: a high degree of animacy, distinctness or salience of the possessor relative to the possessed. (This results in the asymmetry, in the usual case, of a HAVE-relation.[7]) A concomitant property is that the relation between the possessor and the possessed is defined in terms of the "sphere of influence" (Langacker 1987) of the possessor. "Sphere of influence" can include contiguity of location, force-dynamic potential or—in the prototypical case—both.

The differences between alienable and inalienable possession are these: first the definitional one, alienable possession is a relation between two highly distinguishable entities, while with inalienable possession the possessed object is defined partly in terms of the possessor. Alienable possession is a temporary relation, while inalienable is enduring. The possessor in an alienable possession relation is typically in control of whether he possesses the object—one can choose to own a piece of property, for instance—while the inalienable possessor does not have control over the fact that he is in the relation.

Possession usually implies control on the part of the possessor, and hence some potential impingement. But possession can sometimes involve "impingement" of a more abstract kind from the possessed object onto the possessor. This is especially evident in the case of inalienable possession, where by definition some aspect of the possessor's identity is associated with the possessed entity's existence.

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[7] These properties do not hold for kin relations, which are reciprocal.

Contiguity of location is another frequent and recurrent subcase of Attribution and deserves some special attention as well, particularly because the generative literature has focussed on explaining those cases. Contiguity of location may not seem intuitive as a kind of attribution, but it is not merely location which is being predicated: as Lakoff (1987:558) notes, the located object must be seen as part of an entire image centered at the locating object: in short it must be comprehensible as an attribute of that object (in being enduring or in filling a role understood as part of the schema for the locating object). In his discussion of *There*-constructions, Lakoff (1987) suggests that a sentence like

30. The waiting room has a receptionist in it

expresses a situation in which the designated receptionist is working in the designated office; hence *a receptionist* fills a role in the understood frame evoked by a waiting room. By contrast,

31. The waiting room has a Japanese businessman in it

can only be understood relative to a constructed scenario in which the businessman is filling some (preestablished) role in the evoked schema. Simple location cannot be expressed using a HAVE-construction.

The picture becomes much more complicated when an action or state is predicated of VP_{to}', rather than just location:

32. The waiting room has a Japanese businessman sitting in it.

This is certainly not the most pragmatically unmarked expression of the relation, but it is more easily interpreted out of context than is (31). So some generalization in addition to Lakoff's must be operating here. I will suggest in the next section that a more abstract relation, that of "protagonist", is at work here. but it is evident from these examples that the "locative" subconstruction is a kind of Attributive: the use of a HAVE-construction to express a locative relation is an

invitation to the hearer to categorize the contiguity of location between NP_1' and NP_2' as an attribution to NP_1'. It shares many of the properties of the possession relation; in addition, contiguity of location is a concomitant of prototypical possession, whether alienable or inalienable.

6.4. Generalizations at the lexemic level

Not enough work has been done on lexical semantics within the lexical network approach to justify any general discussion about the properties of lexical networks. In particular, it is not known whether all polysemous items will be structured so that one sense or set of semantic properties can be identified as the basic one from which all other uses constitute deviations or deformations. But for HAVE, there does seem to be one relation which holds for all construction-level cases and which we can identify with the lexemic level. That relation is that of "interest" or involvement (essentially Bally's (1926) idea): that NP_1' has some interest in the object, event or situation expressed by means of the other argument. The theoretical point to be made is that the "interest" or "involvement" relation is a superordinate, or highly general, category of relation, and that it can be instantiated in various ways, corresponding to the different constructions I have hypothesized. The constructions correspond rather straightforwardly to the kinds of states of affairs or events which would naturally be of interest to a participant (which I will call the "protagonist"); the events or states that he brings about by his agency or his unwitting stimulation, and the events or states which have some effect on him. Each construction corresponds to a schema[8] which is a subtype of a quite abstract schema of interest or involvement on the part of a

[8] This isn't quite accurate as a characterization, since as we saw in Chapter 3 and earlier in this chapter, there are conventionalized details of the scenarios described by the individual HAVE-constructions which are not specified in schemas as general as the ones I am talking about here.

(designated) protagonist. (Remember that sometimes the use of a HAVE-construction involves imposition, rather than mere expression, of that interest relation.)

I have argued that separate lexical entries are necessary for at least the four core senses; the two grammaticalized senses; and the special use with the meaning 'partake of'. If these entries must be stated separately, then we should ask what is to be gained by positing a common semantic property at this abstract, lexemic level. The advantages are several. First, it is another piece in the puzzle about how the constructions should all be headed by the same abstract phonological stem-representation: they all have some semantic material in common. Secondly, it provides a general understanding of why this construction should be used presentationally: if the event, object or situation is construed or construable as having relevance to or interest for some other entity, then it makes perfect sense that the construction should be used in discourse to introduce, relative to some previously-identified participant, the existence of some state of affairs or the occurrence of some event.

An essentially abstractionist account I have not discussed in much detail is the locativist account given by Anderson (1971). I do not agree with such a radical abstraction, but I do find two aspects of the locativist hypothesis appealing, features which are at least as easily incorporated into an "interest" relation. These are, first, that there is an asymmetry of thematicity or "aboutness" such that the subject referent is the "figure" or focussed-on entity. Langacker (1975) has a formal means of expressing this: the "neighborhood" relation, in which the possessor's sphere of influence defines the neighborhood. Secondly, the "location" relation must be greatly abstracted so as to include spheres of influence, applications of effect or influence—in both directions—and so on. This amounts essentially to the relation of "interest". All the advantages of the locativist hypothesis

(e.g. predicting the occurrence of actual locative relations, the possessor ascension facts, the participant-centered presentationals, etc.) can be explained equally well by an account in which "interest" and not "(relative) location" is the abstract relation in common among all the constructions.

It should be clear by now that the fact that one can discern a common property to the semantics of all these constructions does not in itself argue in favor of reducing the different readings to a single abstract relation. The Construction Grammar model includes the position that, if on no other grounds, psychological arguments militate in favor of the positing of separate constructions; also, that the clusters of formal and meaning features and properties are psychologically real categories. For reasons having to do purely with considerations of the grammar, there seems to be no other way to achieve even descriptive adequacy: that is, we could not predict the myriad formal and semantic differences among the constructional subcases based merely on the semantic relation of interest, even if we accompanied it with some skeletal formal information. I would go so far as to speculate that in the overall statement of the grammar it is more economical to state the subcases separately, since the list of appendices to any account based on an abstract semantics must be quite long. By contrast, it will be principled and hence more compact overall to posit a set of descriptions which can borrow properties not only from one another (i.e. their commonalities, which can be stated at the lexemic level) but from other-headed constructions (e.g. those headed by the aspectual inflectional morphemes). Needless to say, this comparison also applies to any homonymy analysis; whichever fine details of form or meaning must be stated for the constructional subcases, the existence of shared properties between any two entails a more economical description within the lexical network approach.

I would not call the lexemic meaning either a lexical sense or a constructional meaning. The lexemic level is analogous to the phonemic level in several respects. First, it is a category of categories which are themselves abstractions over actual linguistic performances. Second, both the phoneme and the lexeme can either be described as unrealizable abstractions or can be identified with one of their subcases. For instance, there is no /p/ which is neutral over aspirated and unaspirated values and is still pronounceable: the neutral segment is simply unspecified for one of its pronunciation features. Thirdly, whether we consider the category at the emic level to be identical with one of the subcases or an abstraction over subcases is often a matter of theoretical orientation rather than empirical determination. There are arguments in favor of treating [p$^{\neg}$] as identified with /p/; similarly I could martial arguments in favor of treating the Attributive constructional reading as containing the basic constructional semantics of HAVE. My choice to present an abstraction which is not found in actual sentences is justified in psychological, linguistic, and theory-internal terms. The status of both the lexeme and the lexically-headed subcases is, as far as I can tell, exactly analogous to the positing of an abstract phoneme and a set of (conditioned) allophones.

A final word needs to be said about the phonetic aspects of the lexical network for HAVE. Because this is a static model, there is no paradox to resolve in regard to the existence of phonetic and phonological information associated both with the lexemic level and with the lexical level. Obviously, all the phonetic information attached to the lexemic level will be ipso facto associated with the lexical level, and for the most part the phonological information to be found at the lexical level will in some sense be "added on"—that is, it will consist of deviations of one or a few of the features of the basic pronunciation, or will index processes which apply to a class of items of which HAVE is one member. Panini's

generalization, generalized as Wilensky's Law (cf. Wilensky 1983), would ensure that if there were a contradiction in information, that given at the lexical level would take precedence for application over that at the lexemic level. For our case at least, a lexical-level phonetic description will not consist of information completely overriding the lexemic-level phonetic information. After all, if it did, we would think of that association of phonetic form and semantic/syntactic information as a synonym or near-synonym, rather than a member of the same network. As trivially true as this seems, it was not always taken as self-evident. In the generative tradition of the Standard Theory, it was presumed for a while that a late syntactic rule converted BE WITH to HAVE. (HAVE had other transformational sources as well, depending on the analyst.) As far as I can tell, though this was not a phonological rule, it was tantamount to treating HAVE as a conditioned allomorph of *with*.

It should be clear that the lexemic-level analysis is not identical to the abstractionist analyses which I have discussed in earlier chapters. It differs from them, both in theoretical status and in descriptive content. First, it makes necessary reference to the lexical-level constructional descriptions, and is not meant to replace specific categorizations of the relations found expressed as HAVE-constructions, so while an abstract relation can be found to hold for all lexical-level cases, there is a level of semantic organization mediating between this abstract level and the specific information provided by the frame of the local complements. Second, the content of the abstract relation differs from Bach's, Bendix's, and Anderson's, since it neither means simply "RELATION" nor "location". Finally, the "interest" or "protagonist" relation resembles Bach's suggestion of making the HAVE-relation amount to the instruction to the hearer to 'find a relation between NP_1 and NP_2', in the sense that the "interest" or "involvement" relation is sometimes imposed pragmatically rather than being a direct

consequence of the semantics of the complements. But the resemblance stops there, and there are many more differences than similarities. The "interest" relation is an projection from semantics and is not meant to replace it; it is ultimately tied to distribution of referents in a discourse, and is not an ungrounded pragmatic instruction; and, since the construction is used to impose this interpretation as often as to report it, the abstract relation of "interest" will be based in the lexical-level semantic relation. This basic relation and the projection onto the network is the subject of the next section.

6.5. Speculations on the metaphoric/metonymic motivation of the network and its consequences for LNT

The network of lexical relations we have arrived at so far has not isolated a single lexical-level use which corresponds to a basic sense. True, we have an abstraction over all senses, which I have identified as residing at the lexemic level; but no lexical-level use has privileged status.

This fact is discomfiting if the naive judgments of the nonexpert speaker of English are among the pieces of evidence to be considered in the erection of an arrangement of constructions into a network. In my discussions with naive speakers, the assumption that HAVE means 'possess' was impervious to doubt.

A possible response to this phenomenon would be to accord these intuitions no significance. But if we are to attempt to account for them in some way, we can assume the position of Sweetser (i.p.) and hypothesize that whatever principles motivated the semantic extensions on a historical basis must be accessible to English speakers today. In theory, any number of other analyses, even one approximating the abstractionist proposals of Bach's, Bendix's or Anderson's, could be advanced by nonexpert speakers with as much explanatory and predictive power as the argument from possession. Yet these speakers do not entertain anything like an abstractionist position when explaining why HAVE is used in

expressing nonpossessive relations.

We may conclude, then, not only that the synchronic system exhibits the elaborate structure we have seen so far, but also that there is a further level of organization, one which motivates the particular sets of distinctions between sub-lexical semantic properties. That level of organization will be provided, or rather abbreviated, by one or more conceptual metaphors (cf. Lakoff and Johnson 1980) which take possession as their source domain.

Conceptual metaphors are not predictive devices. A metaphorical mapping will not itself predict when a particular lexical item will conventionally be used in the expression of that metaphor; neither will it circumscribe the boundaries of a lexical extension in a case like ours here. Conceptual metaphors are partial generalizations: they characterize in a unified way what extended uses of items we can find in a language. The existence of linguistic instantiations of a conceptual metaphor will be conventionalized. Hence such extended uses must be acquired item by item, or class by class, though one of the corollaries of positing this metaphor at the conceptual level is that general principles of learning, interpretation, novel use and historical change are thereby captured. The inventory of conceptual metaphors, then, exists at about the same conceptual level as mental spaces; it is a set of cognitive structures which is not confined to or located in the strictly linguistic area of our knowledge, but it does have direct consequences for semantic structure and hence for the expressive capabilities of individual linguistic items.

If we should not dismiss the intuitions of the man on the street with respect to his lexical organization, neither can we take them exactly at face value. All metalinguistic judgments are suspect and notoriously hard to elicit: metaphorical entailments, for instance, are partially accessible at best. Because I have not done the rigorous or systematic analysis required for a really elaborate

metaphorical account, I will present these as hypotheses and directions for future research rather than as claims.

I would like to suggest now that the two varieties of possession serve as a basis for the core of the network as shown in Table 2. The properties of possession resemble the various clusters of properties discernible in the core senses, though they also involve an abstraction from the relationship between two entities to the relationship between an entity and a state of affairs.

I observed earlier that alienable possession involves impingement in both directions, though in the typical case the possessor has more potential for manipulating the possessed part than the converse. And one's inalienable possessions function to identify and distinguish, and hence partially to define, the possessor. I think that it is this kind of possession which forms the basis for the use of HAVE for other Attributive-Existential uses and for Affecting Event uses. It is also characterized by a relatively low level of distinctness of the possessed object with respect to the possessor, which fits with the function of these constructions to attribute the existence of some state or occurrence of some event to the protagonist, to see it as a property of the protagonist.

By contrast, alienable possession is characterized by a high level of distinctness of the two entities and a relatively high potential for control of the possessor over the possessed. These properties resemble the features of the Causative and Resultant State/Event readings in that the events expressed by means of those two constructions are brought about by the agency or action of the protagonist, and the resulting event or state is seen as distinct from the Actor.

These facts suggest metaphorical mappings from possession to attribution and from attribution to experiences. The resulting mapping, EXPERIENCES ARE POSSESSIONS, associates the most general HAVE-relation, that found at the lexemic level, with the most "basic" or accessible HAVE-relation, that of possession.

Independent evidence must be collected to support these hypotheses. One suggestive fact is that many predicates which can express causative or Resultant Event/State readings have similar "basic" senses of ownership, contiguity in space, and/or control of the possessor over the possessed (e.g. GET, MAKE). But more than anecdotal evidence needs to be found, evidence which will demonstrate the conceptualization of experiences as attributes or directly as possessions.

However, if this mapping can be justified on independent grounds, one great problem for the structuring of HAVE's lexemic network remains. Both varieties of possession are categorized as stative relations. Even with alienable possession, HAVE focusses on the homogeneous state of possession rather than achievement of that state (as contrasted with GET, for instance). Lakoff has hypothesized (p.c.) that metaphorical mappings preserve such structural properties of the source domain as aspectual contours. Yet we have seen that HAVE has Active uses when the external semantics is not one of possession—a situation which is predicted as impossible by Lakoff's hypothesis, since the source domain does not contain an Active use of HAVE. Either there is something missing from this analysis in terms of the specific source domain and the details of the mapping, or Lakoff's hypothesis is wrong, or the lexical network for HAVE is not structured by means of metaphor.

If this large problem can be solved, we may be able to use the metaphorical mappings suggested to several ends: first, motivating the historical development of HAVE from 'hold' to more abstract senses; second, resolving the apparent contradiction between the most accessible meaning of HAVE and its most general meaning, as I have suggested above; third, motivating cross-lexemic generalizations, so that the network for GET, for instance, will be structured partially in terms of the same metaphor; and finally, motivating cross-linguistic generalizations, not only for cognates of HAVE but for datives and genitives, which have

some analogous nodes and relations between nodes in their networks.

7. Summary, Conclusions, and Future Directions

"In science, one can learn the most by studying what seems the least."
—Marvin Minsky, *The Society of Mind.*

In this final chapter I will summarize the findings of the previous six, including an evaluation of the theoretical apparatus I have used. After summing up the conclusions I believe can be drawn from this work, I will give a preview of what I think are the more interesting extensions of this investigation.

I have devoted a large portion of this work just to describing as many of the facts about HAVE-constructions as I have been able to make sense of. Needless to say, many of the details remain to be discovered and their descriptions to be refined. But at least, I believe, I have made a first pass at circumscribing the uses of HAVE and clarifying what remains to be worked out. I am not aware of another study of English HAVE which has attempted to describe or account for all its uses as a coherent set of phenomena, so I have contributed at least that much to furthering its study. All the previous research I am aware of has either glossed over details or has been expressly devoted to only a subset of HAVE-constructions, presumably because the variety of complementation patterns, and readings, is bewilderingly large. One satisfying result of this study has been to demonstrate that investigating an entire lexemically-defined class makes much easier the description of any portion of that class. I have been able to determine that the majority of uses of HAVE belong to a core subset of systematically-distinguishable constructions which have idiosyncratic aspects, but which are to a large extent predictable products of their constituents. In other words, attending to the lexemic level rather than the lexical level has allowed me to take an inventory of usages once described as indefinitely multipliable and reduce them to a single generalization with four largely predictable instantiations. This has made

the statement of each lexical entry simpler and more motivated, because the lexical entries differ from each other in completely intuitive ways. Even the uses of HAVE which do not fit into the core of the network can be stated relatively economically because each of them is a deviation from either a node or a subnode of the core.

The network is structured in terms of three levels of description. These three levels are: the constituent-level, the internal properties of the constructions which are components of the HAVE-constructions; the construction level, the internal properties of the construction, which are a partial function of the internal properties of its constituents; and the cross-clausal or context level, the external properties o of the construction, which are a partial function of its internal properties.

It is not the case that, for every lexically-headed construction, there will be such a dramatic difference between internal and external properties as we have seen with HAVE. But the theoretical distinction among them, and recognition of their distinguishable possibilities, makes the description of any given construction, in the long run, both more exhaustive and more elegant. For this particular case, it does much more: it demonstrates how unnecessary it is to entertain either a radical abstraction or a radical homonymy position, two positions which actually amount to the same thing in that neither imputes a real meaning to HAVE. These analyses are obviated by the Construction Grammar approach because the construction, by definition, has its own meaning which need not be completely predicted from the meanings of its components. As we have seen, however, the meanings of its components, as selected by HAVE, do make a systematic contribution to the construction-level meaning and provide specific values for the formal specifications at the construction level.

The increased descriptive capability does more than simplify the description of any use of HAVE; it also validates the use of the lexical network as a theoretical mechanism. The regularity among HAVE-constructions taken at the lexemic level suggests that there is grammatical significance to the lexeme, and there is therefore theoretical justification in structuring related senses of words according to their systematic differences rather than merely listing them.

In making this description, I have brought together two theoretical tools which have been assumed to be compatible but which have not overtly been used in concert before. I have taken the network structuring from Lexical Network Theory and the lexically-headed construction from Construction Grammar and placed lexically-headed constructions at the nodes of the network. Since both of these frameworks presuppose a frame semantic-approach to meaning, they are complementary. Using frame semantics in conjunction with these two has allowed the introduction of frames that express event types, not simply frames that situate the meanings of referring expressions. The network plus the frame associated with each construction provides the potential for the abstraction to the lexemic level. This is because the valence descriptions include descriptions of constructional meaning, and each lexically-headed construction is formally and semantically an instance of the lexemic skeleton and its semantics.

One continuing area of uncertainty among HAVE-constructions has been their constituent structures. While I settled on a three-place structure for the HAVE-sentences containing predicational complements, the facts are not altogether clear, and at any rate there is always a possibility of a nearly-equivalent two-place structure. The positive aspect of this indeterminacy is that most of the generalizations about different HAVE-constructions do not depend on the syntactic structure they exhibit, but rather on the predication they achieve and the pragmatic possibilities they thereby provide. There are readings which disallow a

three-place structure, and other which disallow a two-place structure. But such prohibited semantic-syntactic pairings are largely predictable from the semantics of the construction and need not be stated separately. Thus, each lexically-headed construction or node of the network which allows the valence alternation is really a generalization over two complementation patterns, one two-place and one three-place. It depends on whether one desires a description of maximum generality or one of maximal explicitness (and perhaps also on questions of psychological reality for the speaker) whether one chooses to represent at the nodes the particular complementation patterns or a generalization over them based on predicational structure.

In addition to the lexical-lexemic structuring I have identified several linguistic or linguistically-significant cognitive principles which account for certain of the variations either of form or of interpretation. These principles can apply at the lexemic level—as when force-dynamic predicates provide a textual schema for the embedded use of HAVE-constructions. They can apply across the inventory of lexical items, as when embedded mental spaces are used to provide the Depictive readings. They can apply to a single lexical entry as an instance of a larger, semantically-defined class of predicator types, as when principles of topic placement result in the "Possessor Ascension" alternation. And finally, I have suggested, these principles can operate to motivate the structure of the lexical network itself, as when a conceptual metaphor provides the motivation for the abstraction up to the lexemic level.

The basic conclusions for HAVE are that the lexical network has three tiers: the lexemic level, consisting of an abstraction over the lexical entries; the lexical entries themselves, including lexicalized deformations from the four core uses; and specialized subcases of lexical entries. Each of these contains parameters of form and of signification, so that the constituent level, the construction level, and

the context level will all be relevant to each of them. This means that the lexical network is an *n*-dimensional space.

One important consequence of the network being structured as it is is that the two kinds of "basicness" are revealed for what they are: there are the prototypical, basic-level and recurrent possession relation, which can be thought of as the paradigm use of HAVE, and the abstract relation of "interest" which contains the common denominator of meaning for all uses of HAVE. Even if one does not accept my speculations about how these two "meanings" of HAVE are linked by metaphor, it is important to realize that both meanings capture semantic facts about HAVE-constructions and are compatible rather than inconsistent.

In a sense, the fact that different amounts of specificity (both formal and semantic) are involved at different levels of description falls out of the fact that frames and schemas can also vary in specificity, i.e. that highly abstract schemas may be exhaustively instantiated by more specific ones. So this is an example of composition achieved by the superimposition of frames. The syntactic structures of the components give us a clue as to how to compose their meanings into the meaning of an expression, but it is the frames found at each level which determine the appropriateness of that expression to describe a given situation.

A number of extensions would test the general applicability of my conclusions, and would make the generalizations here more compelling, if the same methods I have employed and results I have found would generalize to a broader range of phenomena.

For English, I believe that there are a number of other lexemic structures whose lexical networks have much of the same structure. For instance, GET appears to have both Causative-type and Affecting Event-type uses (cf. R. Lakoff 1971, Rader 1976). It also has complementation patterns which are strikingly similar in range and variation to those of HAVE. In addition, it has a "basic" use

of acquisition which is quite similar to the "possession" use of HAVE. It will be interesting to see whether the differences in the use of corresponding HAVE and GET constructions can be seen as a function of differences in their basic uses, as Rader has suggested holds for the Causative constructions.

Another item which shares many uses with HAVE is *with*. It has the same two- and three-place complementation patterns, and many of the same constructional readings, but for each reading has constructional meaning slightly different from the corresponding HAVE-construction. also, it shows some distributional differences, sometimes in apparent free variation with HAVE (with concomitant semantic differences) and sometimes in complementary distribution with it.

From the point of view of Attributive uses of HAVE, it is natural to examine other expressions of possession or attribution, particularly the various genitive constructions like the clitic *'s*. Bendix implied that this alternation is significant; but the genitive constructions are plagued with a polysemy similar to that of HAVE, and the research on them has, until quite recently, been subject to the same kinds of abstractionist analysis as those advanced for HAVE.

Finally, the presentational function of HAVE-constructions should be contrasted with those of *There*-existentials. The similarities in both internal syntax and use have long been recognized. Since Ross' initial proposal (the *There*-replacement rule), various attempts to related them have been made, but differences in their pragmatics have only begun to be investigated (cf. Lambrecht 1988, Dahlstrom 1980).

From very preliminary investigation of these contrasting lexemic groups I surmise that while each of them has a range of uses which closely resembles that of HAVE, none of them has exactly the same range, and each of them corresponds to a different portion of the lexical network of HAVE. It is only by investigating each of them in the same kind of detail as I have done for HAVE that we can

fully attend to both similarities and differences in their formal and functional properties. This kind of cross-lexemic investigation is quite fascinating, and holds a lot of promise both for individual descriptive studies and for informing our ideas about the structure of a lexicon overall.

Cross-linguistic study, too, has this same kind of promise and more. We must admit that HAVE is, as far as we know, unique cross-linguistically as well as language-internally. It remains for us to find how other languages divide up and lexicalize this portion of semantic space. One direction of research would be toward the alienable-inalienable distinction in languages which formalize it, to see whether either of them has extensions whereby relations between entities and experiences are expressed as are relations between entities. Another salient area for cross-linguistic comparison is the dative and genitive markers, for languages which do not have a predicative translation-equivalent to HAVE. A final and distinct area is that of causation. Most languages have various means for expressing different kinds of causation, often lexicalizing or morphologizing differences in the directness of the causation. It is worth investigating whether there are other languages which systematically lexicalize "Causative" and "Resultant-State" (i.e. deliberate and nondeliberate causation) together, as English does across the lexicon.

Finally, a historical perspective would undoubtedly solve many of the mysteries which still remain in the synchronic system. I have concentrated on the symmetries of the lexemic structuring here, but it is certain that some of the irregularities to be found in the synchronic lexemic structure are a result of historical processes which might have been unsystematic, or might have applied to a class of lexical items not within one lexeme.

What I know about each of these further considerations has enriched my understanding of the phenomena I have dealt with here, and I can comfortably

speculate that looking at each of them will make the lexically-specific descriptions more simple, since many of the properties of each of them will be recognizable as instantiations of highly general semantic principles. It should also inform our hypotheses about reducing "semantic" knowledge to general cognitive principles, since we are justified in hypothesizing that similar cross-lexical, cross-linguistic, or historical generalizations are a reflex of general cognitive properties rather than mere linguistic idiosyncrasies.

Finally, studying linguistics word by word is only worth doing if that study gives the analyst a window on the overall syntactic and semantic system and on the cognitive structure that this system expresses. The same could be said for formalism, and for semantics and syntax in general.

Appendix A: Constituency tests for "3.XP".

What follows is the results of a single elicitation session I conducted on myself over a couple of days. My method was this: I decided on a set of tests from Postal 1974 and a couple of others[1] the results of which I decided I could trust to some extent or other. I went through, reading by reading, using a few example sentences varying in category of the XP constituent for each reading. The results appear in tabular form starting on the next page. Here I will discuss the tests I used, a couple I didn't use, and what the intended results of each are. The tests are of two general types: (1) whether NP_2, or (NP_2 - XP), is the constituent; (2) whether NP_2 behaves in a way characteristic of subjects or direct objects.

One test I did not use is the reflexive test on NP_2 (where it is taken as coreferential with NP_1), a standard test of the clausematehood of two noun phrases. The reason it is not a good test is that its semantics is incompatible with the constructional semantics of many of the readings. For instance, (1) is odd because if act of causing oneself to do something is incompatible with the distalness of the causing act which is clearly a part of the semantics of the Causative HAVE-construction:

1. #I had myself wash my car.

The proposition is much more felicitously expressed (depending on which aspect of the event is being linguistically focused on) by any of (2) - (4):

2. I made myself wash my car.
3. I got myself to wash my car.
4. I washed my car.

[1] suggested to me by George Lakoff, who is hereby thanked

It is odd for a different reason in (5), an example of the Attributive-Existential, where it is odd to talk about something being an attribute of itself:

5. #The house has itself covered with flowers.

(This sentence is just fine on a Resultant State/Event reading if the hearer is cooperative enough to understand the house as being anthropomorphized.)

Aside from semantic difficulties such as these, there is no structure or reading which disallows a reflexive NP_2 coreferential with NP_1.

Another test I found useless is the possibility of having "expletive" *it* in NP_2 position. This used to be taken as a test for a "raising" versus "control" structure; now it is generally taken to be a test for semantic role assignment from the matrix predicate (which is sufficient but not necessary to guarantee that NP_2 is in the same clause as the matrix predicator). I don't like it because I believe that the results of that test say less about the language than about the imagination of the person studying it. In fact, the uselessness of the expletive-elements tests is particularly dramatic when used in a construction one of whose uses is precisely for expressing causation in an imaginary or otherwise "embedded" world (in the Depictive reading). On such a reading sentences like (6-7) are fine (as I discussed at more length in Chapter 3):

6. Little Susie had it rain on her dollies' picnic.
7. The author has there be a riot in the second act.

Here are the tests that I used, with descriptions of their utility:

1. "*Tough*-movement", or "nonsubject raising". The mysterious construction whereby a nonsubject complement of an embedded predication appears as subject of the matrix predication. This used to be considered a test for the main-clause position of NP_2; we might now think of it as a test for the assignment of a semantic role from the matrix predicator, which entails its being a clausemate of

that predicator. Before applying this test, I thought it was pretty reliable.

2. "Right node raising": where a single, nonsubject and clausal constituent is simultaneously predicated of two propositional functions. This is a test for the constituency of (NP_2 - XP). RNR sentences are something less than completely natural: I rarely find one to be perfectly acceptable and felicitous.

3. "Heavy NP Shift": a second-complement noun phrase, usually a complex one or one otherwise containing a lot of semantic material, is positioned at the end of the clause rather than in its default position right adjacent to the predicator. This is a test for the (non)constituency of (NP_2 - XP) . I used to think this a reliable test, too.

4. "*Each*-shift": this is a strange phenomenon in which the word *each* binds NP_1, but appears right adjacent to the (usually quantified) NP_2. Supposedly it can appear right-adjacent only to direct object NPs (Postal 1974:206-221), though Postal himself calls this a "potential" test.

5. "*Not many* NP": according to Postal (1974:94-98), only subjects can appear with this form of quantifier; its unacceptability as a constituent of NP_2 means NP_2 is a direct object.

Test	Examples	Result
Reading: Causative		
1.	He would be good to have wash the dishes.	3.XP
	That bike was easy to have stolen by the gang.	3
2.	*I had, but I wouldn't expect Jane to have, Sue wash the dishes.	2
	*I had, but you can never imagine Joe having, a bike stolen for the insurance money.	2
3.	?I had wash the dishes the last person to finish eating.	2
	?I had stolen for the insurance money the bike my brother had given me.	2
4.	?*The men had two girls each wash his socks.	2
	?The men had two bicycles each stolen for the insurance money.	2
5.	?*I'm having not many people come to dinner tonight.	3
	?*I'm having not many students recommended for fellowships by the committee.	3
Reading: Resultant Event/State		
1.	He would be good to have washing the dishes.	3
	Those dishes would be nice to have washed by now.	3
	*?He's unpleasant to have angry at you.	2
	They're easy to have rolling in the aisles.	3
2.	?*I have, but I can't persuade Sally to have, the exam taking place after the homeworks are graded.	3
	?*I have, but I can't persuade Sally to have, the homeworks graded before the exam is given.	3?
	*My jokes have, but I can't imagine Bob's jokes having, the audience rolling in the aisles.	3
3.	I had washing the dishes everyone who came in late to supper.	3
	I had washed in no time all those dishes I brought back from Japan.	3
	?I had angry at me every student who had gotten less than a B in the course.	3?
	I had rolling in the aisles all the students who'd been so staid all semester.	2?
4.	The men had three women each washing their clothes.	3
	?The men had three shirts each washed by the women.	3
	??The teachers had two people each upset with them because of their grades.	2?
5.	?*I had not many students angry with me because of their grades.	3
	??I had not many audience members laughing uproariously at the jokes.	?

	*I had not many dishes washed in time for supper.	3
Reading: Attributive/Existential		
1.	*?Lots of joggers are dangerous to have run/running in front of your house.	2
	?*Deer are wonderful to have running through the back yard.	2?
	*Flowers are always wonderful to have on the dinner table.	2
2.	?*We have, but the people in the hills have never had, people run in front of our house.	3
	?We have, but the people in the hills have never had, people running in front of our house.	?
	?*That store has, but I don't believe the other store has, nice clothes in it.	3
	We have running in front of our house all kinds of joggers and their dogs.	3
	?We have run in front of our house all kinds of joggers and their dogs.	?
	That store has in it every gadget you'd ever want to have.	3
3.	?Several families have two people each guard their house.	2?
4.	Several families have two people each guarding their house.	2?
	The tables had several books each on them.	3
5.	?We have not many joggers run/running in front of our house every morning.	?
	?They have not many books on their shelves.	?
Reading: Affecting Event		
1.	**It is unpleasant to have rain on you.	2
	?*A new apartment is wonderful to have {clean / sunny}.	2
	*A lot of people are unpleasant to have yelling at you all day.	2
2.	I had, but Louise always manages not to have, people yelling at me all day today.	2
	?Our house had, but the neighbors' narrowly escaped having, the roof blown off it.	?
3.	Our house had blown off it the roof we had just finished putting on.	3
	I had yell at me today everybody who walked past my desk.	3
4.	We had six people each {yell / yelling} at us.	3
	The houses had several windows each blown out by the hurricane.	3
5.	?We had not many people thank us for our efforts.	?

?*The neighborhood had not many houses survive the hurricane. 3?

Reading: Depictive/Predictive

1. Tough-movement is semantically bad. Can't apply.
2. *Chandler has, but Hammett would never have, his protagonist unwittingly kill his client. 3
*?Chandler has, but Hammett didn't have, his client killed unwittingly by the dick. 3?
*The movie version has, but the original novel didn't have, him killing his client. 3
*?The movie version has, but the original novel didn't have, his client killed unwittingly by the dick. 3?
3. *Hammett has kill his client the unnamed operative for the Continental Detective Agency. 2?
?Hammett has killed by his client the unnamed operative for the Continental Detective Agency. 3?
**The movie version has killing his client the unnamed operative for the Continental Detective Agency. 3
?*The movie version has killed by his client the unnamed operative for the Continental Detective Agency. ?
4. "Rambo" and "Nightmare on Elm Street" have twelve people each dying horrible deaths. 3
Sayles and Polanski have one Sheen brother each in their latest movies. 3
5. Hammett has not many people survive the shootout. 2
"Rambo" has not many people surviving. 2
*"Rambo" has not many people survive. 2
?LaRue and Eileen had five people each on the cleaning crew. ?

Appendix B: Some Idiomatic HAVE-constructions and their properties.

In what follows I describe a number of idiomatic uses of HAVE-constructions. By "idiomatic", I mean that some aspect of their form or their meaning or both does not follow the specifications outlined in the discussion of the most productive constructions in Chapter 3. Typically, these constructions are distinguishable from the ones discussed in the main body of the text in requiring the specification of more lexical or morphological material. They actually have no more in common with one another than that, and the three sections really contain quite disparate kinds of phenomena. The first shows the interaction of the productive HAVE-constructions with a set of (fully-specified) predicational idioms, and suggests a solution for a previously troublesome (though admittedly minor) puzzle, showing that the conditions obtaining in the semantics of the predicational idioms explains constraints on the possible use of HAVE-construction types. The second again involves a set of predicational idioms, but this time the predicational complements are idiomatic not because they are figurative or not literally compositional, but because of nonpredictable semantics based on the formal properties of the XP. Furthermore, the XP has semantic properties which have (completely predictable) consequences for the semantic properties of the NPs. The third group is a class whose syntax is otherwise not found among HAVE-constructions, which exhibits semantic constraints on NP_1, and which otherwise constitutes a special case of the "Depictive" reading found among the more productive 3.XP structure.

1. ROLLING IN THE AISLES

The understandable confusion in the literature which has led to conflating the Causative and the Resultant State/Event constructions has created a problem of analyzing a class of idiomatic predicates. I will show here that recognizing the difference between these two will provide an intuitive answer to the apparent

problem, though formalizing the solution proves more difficult.

Example (1) is ambiguous over the literal reading of rolling in the aisles and the idiomatic one, 'exhibit highly amused behavior'.

1. He had the audience rolling in the aisles.

However, (2) is not ambiguous: it has only the literal reading which requires us to imagine an avant-garde performance:

2. He had the audience roll in the aisles.

This cannot be due to a requirement that the verbal head be -ING-marked, as (3) and (4) show (JUMP THROUGH HOOPS is of the same class):

3. A: I'm going to see Karen Finley's new piece tonight.
   B: Oh, it's so funny you'll roll in the aisles!
4. They jumped through hoops for Yoko.

If we notice also that (5) is acceptable, we get the idea that maybe the only acceptable reading of a HAVE-sentence with this kind of idiomatic complement is a Resultant State:

5. His wonderful antics had the audience rolling in the aisles.

Compare (6):

6. His wonderful antics had the audience laugh*(ing) uproariously.

(6) shows again the prohibition on the cooccurrence of inanimate subjects and infinitive VPs independent of the idiom. This animacy distinction is one of the crucial differences between the posited Causative and Resultant State. Hence we can conclude that the Causative reading cannot take such idiomatic predicates as its predicational complement.

Formalizing this requirement is not so easy. We will have to guarantee that some property of the idioms is incompatible with some property of Causative HAVE-constructions. The most obvious way would be in a difference in Semantic

Role value. But here we run into a problem: the only complement to which HAVE assigns a Semantic Role, I've claimed, is the XP. But I have claimed that the predicational complements of both the Resultant State and the Causative bear the Semantic Role "resultative". ("Resultative" and "circumstantial" are the only Roles so far isolated for predicational arguments.)

The only other possibility is one I already dismissed, assigning a Semantic Role to NP_2. Then we could easily distinguish a Patient (of the Causative) from an Experiencer (of the Stimulus). But since otherwise we have negative evidence for the matrix Semantic Role assignment to NP_2, we can't justify this move.

The last possibility is plausible: to conclude that idioms like these have imperfect aspect, which makes them compatible with the Resultant State/Event, and incompatible with the Causative. As neat and appealing as this is, it would require independent justification.

It may be that, for cases such as this one, we cannot identify specific formal properties which will reduce the semantic incompatibility to a single site. But the intuitively obvious answer is simply that the constructional meaning of the idiom is incompatible with the constructional meaning required of the mother construction, that their frames will fail to superimpose. This is because idioms like *rolling in the aisles* express a spontaneous response to a stimulus, and the Causative reading requires deliberate action and a proximate Agent, not Experiencer. This kind of situation is exactly what a frame semantics will allow, where a system relying on formalizable distinctions would require one of the other solutions listed above.

2. HAVE IN COMMON

There are two idiomatic phrases instantiating HAVE-constructions which are similar in having an open slot in VP_{to} position, a slot which is semantically

constrained. They are given in (1) and (2):

(1a) *Y* HAVE X_1 *to do with Z*

(1b) *W* HAVE X_1 *to do with {one another / each other}*

(2a) *W* HAVE X_2 *in common*

(2b) *Y* HAVE X_2 *in common with Z*

Where $X \in$ {*something, nothing, (very) little, much, not much, . . .*}

i.e. the set of semantically nonspecific quantifiers.

The *X* value of (2) can also be a more specific quantified expression (e.g. *one thing, three properties*) or can be a (NP or VP) description of a property. (In the case of a heavy NP or VP description, the *X* constituent may appear to the right of the expression, in the "extra" position.) The *X* value of (1) can also be null (in which case it is interpreted as something like "something").

The NP_1 values of (1a) and (2a) differ in correspondence with their semantics. Accordingly, (2a) must have a plural or conjoined NP in *W* position, since this is a so-called "symmetric" predicate.

Of course, (2b) is "less symmetric" than the 2-place version, i.e. *Y* and *Z* may have different discourse statuses, or the properties of *Y'* may be unknown prior to the discussion in which this is embedded, while the properties of *Z'* are previously known, etc. I don't want to try to determine whether this semantic property of the syntactic alternation of constructions headed by symmetric predicates is a fact about such predicates in particular or follows from more general discourse principles. Let's just say that they are truth-conditionally equivalent and leave aside for now the more interesting question of their differences. I want here to observe only that the requirement of multiplexity of *W* follows from the semantics of the predicate.

In (1b) a similar situation obtains: *W* has to be plural or conjoined, i.e. semantically plural, in which case the prepositional-object position corresponding

to *Z* in (1a) must be instantiated with one of the reciprocals.

It is obvious that (1a) corresponds syntactically to (2b), and (2a) to (1b), in the number requirements on *W*, and also in that the values for *Y*, *Z*, and *W* (within each variable) bear similar semantic relations to the predicate (let's say Standard and Target for *Y* and *Z*, and compared objects for *W*, i.e. the conjunction of Standard and Target).

The fixed portions of the expressions (the secondary predicate phrases in each one) also have exceptional syntactic requirements. One might identify the secondary predicate in (2) as a PP, but only with the stipulation that internally it is extrasyntactic, since the word *common* is in all other contexts an adjective and hence is not a sanctioned prepositional object. Despite its high degree of semantic transparency, the phrase *in common* seems virtually restricted to the HAVE-construction. (A possible exception to this is its marginal appearance in copular or *there*-existential sentences, as in *What is common between these constructions is their idiomaticity* or *There is a great deal in common between these two constructions*—the latter seemingly good only when the NP corresponding to *W* in (2a) is found in the *between*-phrase. I think some speakers also have the expression *hold something in common* in their idiolects, possibly also with *exhibit* and *share*; but these are marginal expressions at best, and seem to me derivative of the HAVE-construction. I'd say that in the general case, *in common* can basically appear only or only preferably in the HAVE-construction in (2a). (In modifying uses we are content to use the simple adjective *common*, though I could imagine that an expression like *the property in common between them* could be uttered.)

The fixed position (again the predicational complement) of (1a) is more interesting, because it is a syntactic pattern (VP_{to}) found in other HAVE-constructions, notably the nonsubject control cases (*I have papers to grade*) and

the "have-to" cases (*I have to grade papers*). However, the VP_{to} in (1a) is evidently not playing a role analogous to either of the infinitive phrases in the other cases cited. Certainly *X* is not filling the "object" role of *do* here, i.e. in the sentence *this question has nothing to do with the current issue* it is not being claimed that the question will do nothing with the issue. This "main-verb" use of *do* normally requires an agentive subject which NP_1 (*Y*) cannot be here.

3. RUMOR HAS IT . . .

The structure exemplified by

1. Rumor has it that Reagan's aides wanted to invoke the 25th Amendment

requires a constructional description separate from those of the other 3.XP cases. It is different in many ways from all the other HAVE-constructions. First, it takes a tensed and fully-saturated predicational complement, and hence there is no control relation to be posited between the second and third complements. Secondly, the second complement is an "expletive" *it*. Thirdly, this structure type is found only with one construction-level meaning of HAVE-constructions: the so-called "Depictive", in which a created world or partial world is described. Notice that the availability of the Depictive reading is in large part a function of the potential of NP_1 to refer to a world-creator, e.g. a text or an author. However, we can see that not all NPs which can be the subject of Depictive readings of HAVE-constructions can appear as NP_1 of 3.Stf. An example of the Depictive reading which has a different syntactic form, and cannot have a 3.Stf analogue, is given in (2):

2. The movie has him die in the end.
3. ?*The movie has it that he dies in the end.

There seems to be some dialect variation among speakers, but for me and those like me, NP_1 must belong to the class {*story, rumor, joke, . . .*}: the semantic

class seems to be that of a certain kind of text, one which bears an unsubstantiated or disputable relation to the conventional view of the world. (Some speakers report allowing an author subject, but only when there is a modal such as *will* or *would* to denote tendency of world-creation or reporting.)

Having established its semantic specialness, we need only demonstrate its constituency. It is uncontroversial that this, being an extraposition-type structure, should have the constituency characteristic of Extraposition in general, with HAVE, *it* and the Extraposed constituent as sisters:

4. $[_{VP}$ HAVE *it* $[_{Stf}$ *that* $[_{S}$]]]

In the service of this analysis I'll give just one test, which is pretty reliable:

5. Rumor has it around Washington that Reagan's aides wanted to invoke the 25th amendment.

The intent of this test is that a sentence adverbial must be in the clause corresponding to the proposition which it modifies, so if *around Washington* can intervene between *it* and Stf, its position must be in the matrix clause, and hence there is no clausal constituent embedded in the matrix verb phrase. Here the place adverbial (modifying the matrix clause) appears between *it* and the tensed sentential complement, suggesting that there is no clause boundary between HAVE and its local complements.

Semantically, it should be noted that the entire Stf of 3.Stf corresponds to the (nonconstituent) string (NP_2 - XP) of the other forms of "Depictive" construction, or for that matter any reading of 3.XP. This is just because in every case except the unusual $3.VP_{to}$ with a nonsubject instantiation, three-place HAVE-constructions are such that the external instantiation of the valence description of the embedded predicate is from subject position, which is filled by NP_2.

Extraposition was originally formulated in the standard theory as a transformationally-induced rule, which would translate into this framework as a lexical rule: a rule whose potential usability is sanctioned by the existence of another valence description for the same head. In this case, however, the lexical restrictions on NP_2 are such that nothing is really to be gained by having this valence possibility effected by lexical rule, as probably would be appropriate for the Extraposition structure in *I believe it that he said it.* Its near-formulaicity is better captured by associating the structure directly with the class of possible NP_1 as well as with the verbal head:

HAVE

Loc	-	Cont
1	2	3
N	*it*	Stf

where $NP_1 \in$ {*rumor, story, joke, theory,* . . .}
with the restriction on the semantics noted above.

Appendix C: Activity and Aspect in HAVE-Constructions.

I. Some Tests for Activeness and Stativity Applied to HAVE-Constructions.

What follows is a set of tests for Stativity (or Activeness) as applied to HAVE-constructions. The judgments are my own from one elicitation session.

The tests I used are the familiar ones:

1. The progressive test. Traditionally, Stative verbs do not allow a simple present interpretation when they are in a (main clause) progressive sentence, one characterized by the presence of the embedding verb BE and the inflectional morpheme *-ing* on the predicator in question. When any reading of this kind of sentence is available, it has inchoative-like semantics. (Recall from Chapter 2 that in untensed clauses, *-ing*-marked verb phrases need not have either progressive or future semantics.)

Active predicators can have the progressive reading, where the activity is in progress at the moment designated by the tensemarker. Other readings, especially a future reading, are also possible. In practice, it isn't always easy to get a present reading even for HAVE-sentences which otherwise appear to be Active. I believe that this is for the same reason that most adverbials cannot modify (the matrix clause of) HAVE-sentences: for some reason, the internal structure of the event is not being talked about with a HAVE-sentence. However, present readings can be forced.

2. The simple present tense test. Stative predicates are normally marked only for person in the simple present tense: there is no morphology bearing aspectual information. When Active predicates appear with no morphology beyond person marking in present tense, they cannot be given a simple present tense reading: typically the expressed situation is given a habitual or repeated interpretation.

The progressive *-ing* marking and simple present (lack of) marking should therefore be in complementary distribution, but we saw in sec. 6.4 that this complementarity is imperfect. (The simple present tense vs. the habitual readings are encouraged by the use of various adverbs.)

Two tests that are supposed to be tests for Activeness turned out not to be. The WH + DO test (*What he did was have me wash the dishes*) and the DO SO test (*I had him wash the dishes and Bill did so too*) are tests for Agentivity rather than Activeness. In the usual case, of course, these two features cooccur in a sentence; in my case, however, they do not, since there are uses of HAVE which are Active but whose subjects are Patients or patientlike.

3. *Got*-extension (cf. 6.4) as a test for Stativity has no utility as a test for other constructions, but the results of its application are provided here as a demonstration of the degree of correlation it has with the other tests. Its status and significance are discussed in Chapters 3 and 6.

The results are summarized on the following page. Because manipulating the different HAVE-sentences morphologically or syntactically often forces a different constructional reading, I will simplify the reporting of judgments so that an asterisk will be used to mean "ungrammatical on the intended reading"— the reading corresponding to that of the basic sentence. The $2.VP_{EN}$ construction is not considered here, as its auxiliary status invalidates the application of any of these tests.

Example	Result
1. Causative	
A. 3.VP-	
1. I'm having him wash the dishes right now.	Active
2. I have him wash the dishes {every morning / *right now}.	Active
3. I've got him wash the dishes.	Active
B. 3.VP$_{EN}$	
1. ?I'm having the dishes washed by Bill right now.	?
2. I have the dishes washed by Bill {every morning / *right now}.	Active
3. ?I've got the dishes washed by Bill right now.	Active?
C. 2.NP	
1. I'm having a party.	Active
2. *I have a party.	Active
3. *I've got a party.	Active
2. Resultant State/Event	
A. 3.VP$_{EN}$	
1. *I'm having the dishes washed already.	Stative
2. I have the dishes washed already.	Stative
3. I've got the dishes washed already.	Stative
B. 3.VP$_{ing}$	
1. *I'm having them rolling in the aisles.	Stative
2. I have them rolling in the aisles.	Stative
3. I've got them rolling in the aisles.	Stative
C. 3.PP	
1. *I'm having dinner on the table.	Stative
2. I have dinner on the table.	Stative
3. I've got dinner on the table.	Stative
3. Attributive-Existential	
A. 3.PP	
1. *The table is having a book on it.	Stative
2. The table has a book on it.	Stative
3. The table's got a book on it.	Stative
B. 3.VP$_{ing}$	
1. *I'm having the deer eating my savoy cabbage.	Stative
2. I have the deer eating my savoy cabbage.	Stative
3. I've got the deer eating my savoy cabbage.	Stative
C. 2.NP	
1. *I'm having a Porsche.	Stative
2. I have a Porsche.	Stative
3. I've got a Porsche.	Stative

4. Affecting Event

A. 3.VP$_{EN}$	
1. I'm having my arugula eaten by deer.	Active
2. *I have my arugula eaten by deer.	Active
3. *I've got my arugula eaten by deer.	Active
B. 2.NP	
1. I'm having liposuction.	Active
2. *I have liposuction.	Active
3. *I've got liposuction.	Active
C. 3.VP-	
1. I'm having the deer eat my arugula.	Active
2. *I have the deer eat my arugula.	Active
3. *I've got the deer eat my arugula.	Active

II. Some problems of aspect for HAVE-constructions.

What follows is a short and speculative discursus on the conditions of use of aspectual morphology and its interaction with HAVE-sentences.

First, consider (1):

(1) He's having an operation (right now) / (tomorrow).

(1) can either have a true present progressive interpretation, or can have an immediate future (intended or planned activity) interpretation, as indicated by the appropriateness of either adverbial. The same possibilities are available for (2). This suggests that this use of HAVE is Active.

(2) He's having his appendix taken out (right now / tomorrow).

But (3) only allows the future reading, not the progressive, as shown by the adverbials:

(3) He's having his appendix out (?/#right now / tomorrow).

The implication of the facts about (2) vs. (3) is that the predicational complement in (3), the particle *out*, names a resultant state which is imperfective, and hence which is incompatible with an Active use of HAVE. Based on these facts, we would conclude that PP (or particle) XPs are compatible only with readings of HAVE which are Stative, the conclusion reached in Chapter 5. A nominalization like *operation* is perfective and hence can appear with Active uses of HAVE, as the progressive test verifies.

Recall the brief mention in Chapter 2 of the fact that some event or state nominals can take as their subject in a HAVE-construction the Actor (Agent or Stimulus), while others take their Undergoer (Patient or Experiencer) as the subject of a HAVE-sentence. In a sentence like (4),

(4) He has an operation tomorrow

the preferred interpretation of the subject is that it refers to the surgeon. (Some speakers also get a reading in which NP_1' is the patient, but I believe that is never the preferred reading.) I had an idea that this wasn't just a fact about the semantics of the deverbal noun OPERATION, but that it followed from the different semantics of the two kinds of futures.

Take an additional minimal pair:

(5) He has a party tomorrow.
(6) He's having a party tomorrow.

(5) seems to have a guest (and only a guest) as subject referent, while (6) has the host (and only the host) as subject referent. This is exactly the opposite of the pattern exhibited by (1) and (4). By my current understanding of the nominals *party* and *operation*, there is no difference in the readings of the HAVE-constructions which results from them, since both expressions involve an Agent and a Consequent event.

The answer appears to be this: that to look at the event expressed by the nominal in terms of gross Semantic roles like Agent and Patient, and assimilating diverse participants like party hosts and surgeons to them, misses the appropriate level of semantic categorization. The important fact here, it seems, is that from the point of view of the surgeon, the operation is a future commitment, rather than an Agentive act, and hence the HAVE-sentence expressing it is Stative. From the point of view of the patient, it is an Affecting Event, and hence the HAVE-sentence is Active.

The converse holds for the *party* examples: from the point of view of the host, the party is an event he is bringing about, so the HAVE-sentence is interpreted as the specialized Causative. Compare the sentence uttered to the caterer:

(7) You have a party tomorrow

in which the party is taken as a future commitment, just as it is for the prospective guest.

If the Stativity or Activeness of the predicate is in one-to-one correspondence with the frame-induced participant status (rather than with Semantic Role) we can return to the hypothesis that the two kinds of futures are tied to different conditions of use, as suggested above. Under that account, (7), the Stative sentence, cannot be being uttered to the host, who has a role in the Active event.

The general results, then, suggest that even when the simple present tense form and the progressive form are used to express futurity, they can only be used if they are compatible in their basic uses with the construction in which they appear. This is not generally true, as we have seen. It must then be because HAVE has basic uses of both the Stative and Active types that using the "wrong" morphology is prohibited.

Finally, there are mysteries of aspect associated with a class of state nominal—nominals of illness or disposition.

(8) I'm having the hiccups (*right now / *tomorrow).

(8) is bad on both readings even given a pragmatic situation in which the speaker can predict having the hiccups (e.g. he is eating something that always gives them to him). It seems strange that the use of "progressive" morphology is prohibited even though having the hiccups is something enduring over time—intrinsically repetitive. As strange as it is, it is consistent with the hypothesis about event nominals that even with future meaning only one aspect marking, either the (unmarked) simple present or the progressive present, is acceptable.

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