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SIX ISSUES TO CONSIDER IN *CHOOSING A HUSBAND*:
POSSESSIVE RELATIONS IN THE LEXICAL SEMANTIC STRUCTURES OF
VERBS

BY STRANG C. BURTON

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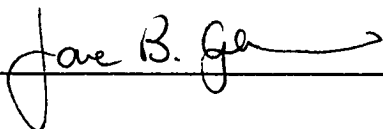
Doctor of Philosophy


Graduate Program in Linguistics


Written under the direction of


Professor Jane B. Grimshaw

and approved by









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ABSTRACT OF THE DISSERTATION

**Six Issues to Consider in Choosing a Husband: Possessive Relations in the Lexical
Semantic Structure of Verbs**

by STRANG C. BURTON

Dissertation Director:

Professor Jane B. Grimshaw

The starting point for this dissertation is the putting together of two ideas from the literature:

- (1) (i) Ritter and Rosen's (1993) proposal that have denotes an unspecified relation (based on Cowper, 1989; see also Belvin, 1995).
- (ii) Higginbotham's (1983) analysis of the possessive relation, in possessive DPs, as denoting an unspecified relation (see also Williams, 1985).

Noting the parallel between (i) and (ii), Ritter and Rosen's proposal may be understood as in a certain sense making use, in the lexical semantic analysis of verbal elements, of exactly the same possessive relation, ie. an unspecified relation, which has independently been proposed for semantic analyses of possessive DPs. Essentially what this dissertation does is to build on and explore some further consequences of that idea. The discussion here is not restricted to have, but explores more generally the idea that the possessive relation, treated as an unspecified relation, can be profitably seen to be an

element in the lexical semantic decomposition of a range of verbal predicates, including eg. get (which is treated here as in effect an accomplishment version of have) and also the verbs choose and find, and also various intensional predicates. One of the main consequences of making use of the possessive relation in the lexical semantic structures of verbs to be explored here is specifically that the unspecified possessive relation will be consistently open to the same range of interpretations, regardless of the syntactic category of the element introducing it; this turns out to predict then a general split, under certain conditions, between two readings for the possessive relation:

- (2) (i) Allowing contextually defined relations to furnish a value for the unspecified relation, vs.
- (ii) Allowing what Higginbotham calls an R-theta reading, where another DP in the sentence saturates the syntactically implicit internal argument of a relational noun.

A number of previously unnoticed semantic consequences follow from this, and otherwise problematic patterns of construal of the a-structure relations between certain verbs and their DP arguments, are explained.

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Introduction

0. Introduction

This chapter gives an overview of the dissertation. We will look first at an overview of some of the phenomena to be addressed, and then at a short overview of the analysis.

1. An Overview of Some of The Phenomena

The phenomena addressed in this dissertation all revolve around a set of superficially problematic interpretive properties of a class of predicates which I will call possessive verbs. Some examples of these verbs are shown in (1), among others discussed in the dissertation.

(1) Possessive Verbs: Some Examples

Have, Get, Obtain, Find, Choose, Select, Pick, Pick Out...

Some of the empirical phenomena which distinguish these verbs as a class, and which lead to various questions about their lexical analysis, are illustrated in the following sections. Verbs of hiring also show all of the properties we will outline here, though with a more restricted range of NP-complements, so I will set them aside for now; certain intensional verbs also share crucial properties with these verbs, but I also set them aside from the initial discussion.

1.1 The Husbands vs. Married Man Paradoxes

One special interpretive property of the possessive verbs is a systematic pattern of unexpected failures of entailments. The issue is illustrated by the following syllogisms, each of which constitutes an invalid argument.¹

(2)

All husbands are married men.

Mary chose a husband.

Mary chose a married man. (Inval.)

(3)

All husbands are married men.

Mary picked a husband.

Mary picked a married man. (Inval.)

(4)

All husbands are married men.

Mary found a husband.

Mary found a married man. (Inval.)

(5)

All husbands are married men.

Mary had a husband.

Mary had a married man. (Inval.)

Although husbands are in fact all married men, none of these syllogisms constitutes a valid argument: in each case, the premises can be true, while the consequent is false.

For example, observe that these are perfectly coherent scenarios:

¹ Moltmann (1995), while not discussing exactly this pattern, discusses some closely related evidence showing that there is something special about the referential status of the complements to *find*, *choose*, *get*, and *hire*-verbs (all the verbs discussed in this preface except for *have*); specifically she shows on slightly different grounds that an analysis treating those verbs as two-place extensional relations between individuals is problematic. See further important references to Moltmann's paper, below.

(6)

(a) Mary picked a husband--good thing she didn't pick a married man, this time!

(b) Mary chose a husband--good thing she didn't choose a married men!

(c) When Mary went to Tulsa, she didn't find any married men there, but she did
find a husband.

The invalidity of (5), with have, requires some more detailed discussion, since Mary had a married man is not obviously interpretable at all, except on a sexual reading; it is in fact invalid, even on other readings, but I set that discussion aside for now, simply noting that there is clearly something very different about having a husband as opposed to having a married man. The general issue here is: why are these arguments invalid? Superficially, it would seem that the arguments should be valid, because of the fact that the set of husbands is necessarily identical to the set of married men. In this respect, the possessive verbs are sharply different from other predicates: with other two-place extensional relations, the pattern of the syllogisms shown in (2)-(4) does constitute a valid argument, and this is as predicted, under standard logico-semantic theories, such as Montague (1970), Barwise and Cooper (1981), Kamp (1981), Heim (1982), etc.; all these theories correctly predict that to kill a husband entails to kill a married man, and that to kiss a husband entails to kiss a married man, and so forth, which is correct, for all extensional verbs except the possessive verbs. Note, for example, in contrast to (6), that these are impossible scenarios:

(7) (a) (!)Mary killed a husband, and it's a good thing she didn't kill a
married men.

- (b) (!)When Mary went to Tulsa, she didn't kiss any married men there--
but she did kiss a husband!
- (c) (!)Mary was in love with a husband, but she wasn't in love with a
married man.
- (d) (!)Mary frightened a husband, and it's a good thing she didn't
frighten a married man.
- (e) (!)Peter was a husband, and it's a good thing he wasn't a married
man.

But if a verb describing a relation (an extensional relation) between two individuals standardly does constitute a valid argument from V a husband to V a married man, why isn't this so with choosing a husband and choosing a married man, and the other possessive verbs? This pattern of unexpected failures of entailment is one of the interesting properties of these possessive verbs. In fact, the situation is more complex than I have indicated, since, as we will see, Mary chose a bachelor does entail that Mary chose an unmarried man; the arguments with choose, and the other possessive verbs, only fail unexpectedly with certain pairs of DP-complements, but I set this aside for now.

1.2 The Creation Switch Effect

Looking now just at the accomplishments in the possessive class (eg, get, find, choose) we find a second unusual effect: each of these predicates appears, in certain important respects, to be a kind of creation verb. However, these verbs are also only sometimes creation verbs: depending on choice of DP-complement, it is as if they switch back and

forth between being creation verbs, and not.

For example, consider the data in (8). This data shows that in the imperfective, possessive accomplishments fail to entail the existence of an object in the set denoted by the object-noun, something which is true only of acts of creation (the "imperfective paradox" effect).

(8) (a) **There are no husbands anywhere, but Mary is getting (me) one right now.**

(b) **There is no chairman anywhere, but the committee is finding (us) one right now.**

(c) **There is no chairman anywhere, but the committee is choosing one right now.**

(d) **There are no assistants anywhere, but Mary is hiring (me) one right now.**

Creation verbs like build, make, etc. show exactly the same pattern as in (8), as is well known (see eg Dowty, 1979, Vlach, 1981, and Landman, 1992). But, other than the possessive verbs, other (non-creation) predicates do not; ie. non-creation predicates entail the existence of the DP-object even in the imperfective:²

(9) (a) **(!)There are no husbands anywhere, but Mary is killing one right now.**

(b) **(!)There is no chairman anywhere, but Mary is kissing one right now.**

(c) **(!)There is no chairman anywhere, but Mary is talking to one right now.**

So far, then, the data in (8), and the contrast with (9), would seem to suggest that verbs

² Note that, given (9), a future-reading for the imperfective cannot alone explain the felicity of the examples in (8).

like get, find, and choose, simply are a kind of creation verb. But the situation is not that simple; for when we switch to other DP complements, using the same possessive verbs that acted as creation verbs in (8) above, suddenly these same verbs stop patterning as creation verbs. For example, consider now the data in (10), with the same verbs, but different DP-complements.

- (10) (a) ??There are no bachelors anywhere, but Mary is choosing one right now.
- (b) ??There are no idiots anywhere, but Mary is getting one right now.
- (c) ??There are no drunks anywhere, but Mary is finding one right now.

Note that Mary chose a bachelor, Mary got an idiot, and Mary found a drunk are themselves coherent sentences; the point is, though, that the verbs are not any kind of creation verb, with these complements; this is so, even though with egs like Mary chose a husband, above, the same verbs did seem to be creation verbs. (This effect does not arise with have, though have is in the possessive class, for principled reasons having to do with its aspect.)

So, first, why are these possessive accomplishments patterning like creation verbs? And second, why are they not always patterning like creation verbs?

1.3 A Systematic Ambiguity

With certain DP complements, possessive verbs are systematically ambiguous between two distinctly different readings. This ambiguity arises whenever the DP is headed by a relational noun, but it is easiest to illustrate with a complement like an assistant. This

ambiguity is noted also explicitly, again for all the verbs except have, in Moltmann (1995). Consider, for example, these sentences:

(11) (a) Mary got an assistant. (Ambiguous)

(b) Mary chose an assistant. (Ambiguous)

There are two ways of reading each of these sentences. One reading is: as a result of the action, Mary had an assistant, ie., someone was an assistant to Mary. On the other readings, the person is an assistant independently of the action, and Mary enters into some contextually defined relationship with them, as for example in the context in (12).

(12) Each woman at the office-party had to have a dance partner; Sue got an executive, June got a mail-boy, and Mary got/chose an assistant.

Mary found an assistant, with the possessive verb find, is also ambiguous, this time between a reading where, again, the person becomes an assistant to Mary, and a second reading where Mary locates a missing assistant. Parallel patterns of ambiguity arise systematically across the class of possessive verbs (it is hardest to see with have, but definitely exists).

Again, this effect is sensitive to choice of complement: the same ambiguity will not arise with possessive verbs when we switch to certain other complements. For example, the following sentences are all unambiguous:

(13) (a) Mary got a woman with a job. (Unambiguous)

(b) Mary chose a woman with a job. (Unambiguous)

(c) Mary found a woman with a job. (Unambiguous)

In (13), the only readings available are readings where the patient is "a woman with a job" independently of, and not as a result of, the action. Non-Possessive verbs, do not

show this same ambiguity, varying according to complement-DP. So: why are possessive verbs sometimes ambiguous between these two readings? And why is the ambiguity sometimes lost? And, an obvious thing to consider, does this relate to the Husbands vs. Married Men paradoxes, and to the Creation Switch effect? And if so, how?

1.4 As-Phrases

Another effect to be addressed here is the fact that possessive predicates license object-modifying as-phrases much more freely than most other predicates, as illustrated in (14) vs. (15); in (15), the as-phrases are much less felicitous, and seem to be acceptable, if at all, only on quite a different reading.

(14) Possessive Verbs and As-Phrases

- (a) Mary chose Doug as her secretary.
- (b) Mary picked Doug as her secretary.
- (b) Mary got Doug as her secretary.
- (c) Mary had Doug as her secretary.

(15) Non-Possessive Verbs and As-Phrases

- (a) ??Mary touched Doug as her secretary.
- (b) ??Mary kissed Doug as her secretary.
- (c) ??Mary talked to Doug as her secretary.
- (d) ??Mary frightened Doug as her secretary.

How are as-phrases licensed in (14), and why is there this contrast with the licensing of as-phrases by other predicates as in (15)? The licensing of as-phrases by possessive

verbs relates also in certain interesting ways to the other effects outlined above; for example, as we will see in more detail later, an object-modifying as-phrase will disambiguate an otherwise ambiguous sentence with a possessive verb, and block a creation-type reading for the possessive verb.

I will stop here in outlining the phenomena, but there are other interpretive properties peculiar to the possessive class, and a number of other interacting factors to look at with respect to the properties outlined above, which we will look at in the course of the text, below.

2. An Overview of the Proposal

The theoretical proposal to be developed here is closely based on an existing idea in the literature, discussed in Ritter and Rosen (1993), Belvin (1993), and Cowper (1989): that have should be analyzed lexically as marking an unspecified relation, ie. as a relation lacking inherent semantic content. I build on that proposal here in two related ways:

- (16) First, I propose that we can represent the unspecified relation itself semantically as a free variable over relations in logical forms. In taking this free-variable approach, I am basing the representation of have as an unspecified relation directly on Higginbotham's (1983) relational demonstrative analysis of the semantics of possessive DPs (outlined below, in Chapter 1). This proposal therefore predicts a parallel between the interpretation of have and the interpretation of possessives in DP: the meaning of have is the possessive relation, ie. an unspecified relation; have is the verbal counterpart of the possessive determiner.

- (17) Second, I propose that the have/possessive-relation is itself an element in the decomposed lexical structure of certain other predicates; specifically, this relation is part of the decomposed lexical structure of all the verbs I have called possessive verbs. In other words, this unspecified possessive relation can be used also as a building block, in constructing lexical representations for other predicates. For example, I will treat get (with DP complements) as an accomplishment version of have, such that the result-state of get is the unspecified, possessive, relation between individuals. In doing this, I am partly following existing proposals where have has been used as a lexical primitive in decomposed structures, including the analysis of certain intensional predicates in McCawley, 1974 (see also discussion in Dowty, 1979, and compare also Pustejovsky, 1993).

A number of new predictions fall out from this. Basically, by positing a possessive relation, we will see that the proposal will correctly predict the availability of two distinctly different readings for each possessive verb. The availability of each of these readings is predicted to depend in part on choice of object-DP, correlating with when the verbs are ambiguous. The two readings for each verb are also truth-conditionally distinct, and it is this difference which underlies, as we will see, the husbands vs. married-men paradoxes. And, in the relevant cases, one but not the other of the readings is a creation reading, explaining the creation-switch effect. In this way, with some further consideration of how adjuncts are interpreted, all of the empirical effects outlined in Section One above will follow. In each case, the two predicted readings for each possessive verb will be seen to follow from a single lexical entry, based on

considerations of how it is that the free-variable over relations, ie. the possessive relation, can be furnished with semantic content.

Chapter 1

Theoretical Background:

The Meaning of Possession, and R-Theta Possessives

0. Introduction

This chapter outlines a theory of the lexical semantics of possessive relations. The goal of this chapter is to summarize, as background based on existing ideas in the literature, answers to these questions: What is the meaning of a possessive relation? How can this relation be lexically represented? And what is the range of possible interpretations for this possessive relation?

The answers to those questions given here are drawn from work specifically concentrating on possessive relations within DP; but the relevance of this material to the dissertation as a whole will be in how the theory of possessive relations can be extended, as we will extend it in later chapters, to the lexical analysis of verbs. The theory presented here is based primarily, with some minor modifications and with some integration of ideas, on the lexical semantic analyses of possessive relations developed in Higginbotham (1983) and Williams (1985, 1987).

1. Possessive Relations Part One: Possession as an Unspecified Relation

1.1 The Problem: Why Does Possession Correspond to Any Relation?

Superficially, possessive constructions appear to describe ownership relations; however, more careful consideration reveals that possessive DPs can actually have an indeterminate range of interpretations, varying with context, of which ownership is only one possible value. The question which this raises is: what is the meaning of a possessive relation, given that it can mean anything? For example, consider Mary's cat. This possessive DP can, it is true, be read as meaning "the cat that Mary owns". However, in context, the same DP can be read as describing apparently any other relationship at all: the cat that Mary is drawing, the cat that Mary is performing an operation on, the cat that Mary must feed, the cat that Mary must kill, the cat that Mary is in love with, or even, to take an example from Williams (1985), the cat that Mary stepped on. Exactly the same considerations arise with all possessive DPs. So how are we to account for the meaning of a possessive DP?

1.2 A Solution: Possession Is a Contentless Relation The solution which I adopt here is the general model of possessive relations argued for in Higginbotham (1983) and Williams (1985), namely this: possession marks an unspecified relation between individuals. That is, possession describes a relationship between individuals with no inherently fixed semantic content. The value of the possessive relation gets content only from context, or from our imaginations. By treating possession as an inherently unspecified relation, with its value determined by context, we can explain why the content of the relationship varies freely in this way, so that eg. Mary's cat has basically

an indefinite range of meanings.

In developing lexical representations corresponding to this conception of possessive relations, we need to ask two further questions. First, how are we to represent, in eg. translations into predicate logic, an "unspecified relationship"? And second, how, more exactly, is such a relation interpreted? A useful way of answering these questions is given in Higginbotham's (1983) analysis of possession: possession can be represented as a free-variable over relations in logical form. Specifically, the possessor and possessed entity are arguments of this free-variable in logical form, and this variable over relations is then interpreted in the same way as other free-variables, ie. via deixis (see Lewis, 1975, Heim, 1982). This is also the approach I will use for representing possessive relations. To give an example of how this free-variable approach will work, let's consider again Mary's cat. Following Higginbotham's (1983) proposal above, we can treat this in terms of a translation into predicate-logic as in (1):¹

- (1) (a) Mary's cat...
- (b) [(the x:) cat'(x) & R(x,Mary)]...

(1b) says: (the x) such that x is a cat, and x and Mary stand in some unspecified relationship; this unspecified relationship is represented as the variable over relations, R. Note that the formula does not assert that some relationship holds (...($\exists R$)[R(x,Mary)]...), but rather derives a free variable at logical form. Because the R-variable is left free in logical form, it follows that R is subject to the same general

¹ I have made one change here from Higginbotham's proposal: I have reversed the order of the arguments of the unspecified relation R; see below for why I do this. Treatment of definiteness can be modified to eg. an iota-operator, but this is not directly relevant here.

interpretive conditions as pronouns: some contextually defined relation must, and any contextually present element may, furnish a value for this variable (again, see Lewis, 1975, Heim, 1982). This allows us then to derive precisely the indeterminate range of meanings for possessive DPs; whatever mapping relation between individuals and cats happens to be salient in the discourse will potentially furnish a value for the relationship between Mary and the cat. So, suppose that it has been mentioned in the discourse that Each cat is loved by a woman; then, this makes a particular relation between women and cats (one loving the other) salient in the discourse, and this relation can furnish the value for R in (1b), so that we derive, correctly, the reading "The cat such that it is loved by Mary". If any other mapping relation has been mentioned, context furnishes a different value for R, and we derive another meaning for Mary's cat, and so on. The prediction is that there should be, then, in principle, an indefinite range of possible interpretations for a single possessive DP, which appears to be correct. Obviously, this approach must assume that relations can be present as elements in the domain of discourse; see Asher (1993) for general discussion of abstract objects in Domain D and their licensing of other anaphoric elements in Discourse Representation Theory.

If, presented out of context, Mary's cat is read most plausibly as "the cat which Mary owns", this can be explained in one of two ways. First, it may be that the hearer is fixing on what happens to be the most pragmatically plausible relation he or she can imagine might hold between a woman and a cat, when no value is explicitly furnished; this assumes accommodation, then, on the part of the hearer. An alternative way of deriving the ownership reading is to specify an ownership reading as a default value for possessive relations (just in case it is a pragmatically plausible reading). Since nothing

crucial will hinge on this, I will not try to decide between those two alternatives; the important point is: possession can, in context, mean anything at all, hence cannot have a fixed meaning, and can be usefully represented as a free variable over relations.

2. Possessive Relations Part Two: Relational Nouns and R-Theta Possessives

2.1 The Issue: How do R-Theta Reading Arise?

We now turn to a second issue in the semantics of possessive relations. It has been noted, at least since Chomsky (1970), that nouns which license internal arguments pattern in a special way semantically in possessive constructions: the possessor can be read as satisfying the internal argument of the head-noun. This pattern is what Higginbotham (1983) calls R-Theta possession. R-Theta possession does not follow in an obvious way from the treatment of possession outlined above, ie. as an underspecified relation; in fact, at first glance, it is not clear why R-Theta readings should arise at all.

For example, let us consider a possessive DP with the head-noun husband, as in Mary's husband. Husband licenses internal arguments, so that eg. in the husband of Sue, Sue is the internal argument of husband; on that point, see Chomsky, 1970, Wall, 1972, Stockwell, Schachter, and Partee, 1973, Anderson, 1983-84, Higginbotham, 1983, and Williams, 1982, 1994, among others. Now, here is the issue raised by Mary's husband. If we assumed a uniform lexical semantics of possessives, the addicity of this head-noun should not, apparently, make a difference; what we would seem to predict for Mary's husband is this interpretation: the husband that Mary is having some contextually defined relationship with (or, perhaps, owns). In fact, that is not at all a salient reading for Mary's husband. Rather, the salient reading for Mary's husband is

simply equivalent to: the husband of Mary. Summarizing, what we seem to predict is (2), when what we actually get, saliently, is (3), where Mary is read as saturating the internal argument of husband.

(2) What the Deictic Theory (Sec. One, Above) Predicts for Mary's husband:

[(the x:) (∃y)[husband'(x,y) & R(x,Mary)]]

(3) What we Actually get for Mary's husband, saliently (the "R-Theta"

Possessive): [(the x:) husband'(x,Mary)]

The question is: what happened, such that the salient reading is this R-Theta reading in (3), rather than, what we would seem to predict, (2)? In fact, (2) is marginally possible in addition, as I discuss further below; but the important point is: where does (3) come from at all? Specifically, what happened to the hypothesized free-variable over relations, filled in by a contextually defined relation (or by an ownership default) that the possessive is supposed to correspond to? (3) lacks this variable; though (3) may be derivable from (2), it is at least not obvious how this should follow. The same issue of an R-Theta reading arises with all those nouns, ie. relational nouns, that potentially license complements, including friend, lover, boyfriend, sister, brother, thighs; see Stockwell, Schachter, and Partee, 1973, and Anderson, 1983-84, for discussion of which nouns are relational, ie. license internal arguments).²

² See Kayne (1984) and Williams (1985) for evidence against deriving R-Theta possessives by movement of the possessor from complement position; it is not immediately clear how such an account would give a uniform semantics of the possessive, in any case.

Note that the representation in (2) assumes that the implicit internal argument of husband is bound by an existential operator, if not syntactically saturated via theta-marking of a complement; this may be understood to be derived by a lexical process of relation reduction; see general discussion of this in Thomason (1976), Bach (1980), Dowty, Wall, and Peters (1981), and Dowty (1982), and alternative treatments outlined in Chapter 6, Section 3, below.

2.2 A Note: The R-Theta Reading is Only One Option

It should be pointed out that a free-variable reading is actually always in principle available, in addition to the R-Theta reading, even for DPs where that reading is available, like Mary's husband. With Mary's husband, this is not an obvious point, because the non-R-Theta reading is not at all salient, and requires a very particular context; but such a "contextually defined relation" reading is there, as an alternative. For example, in the following context, Mary's husband can take on a reading other than the husband of Mary:

- (4) Each marriage counsellor is bringing someone's husband each day to the conference for us to use as a subject in our experiment; the newest marriage counsellor is Mary, and her husband today is just not co-operating. (Non R-Theta Reading Salient)

There are independent reasons why the R-Theta reading is so strongly preferred with kinship nouns like husband, which I set aside from the central discussion; the point to be noted is just that the R-Theta reading, ie. the "husband of Mary" reading for "Mary's husband", is always only one option for a possessive, and is never absolutely forced.³

³ The availability of both R-Theta and Non-R-Theta readings is much clearer with representational nouns, as eg in Mary's picture. It is not crucial to the discussion, but there are two principled reasons why the R-Theta reading is preferred with some relational nouns.

(i) First, with nouns describing humans, it is hard to imagine odd out of context what mapping relation might be the value for R, since humans are not plausibly owned. The R-theta reading, because it makes clear the value for the relation, does not depend on any other contextually defined, hard-to-imagine, relationship (by linking Mary to the internal argument, it is clear on the R-theta reading that they must be in a marriage-relation).

(ii) Second, kinship nouns in general are somewhat marked if the value for the internal argument is not made clear; eg., A husband came in, or The Police arrested a husband, are somewhat odd, except in certain contexts. Anderson (1983-84) suggests that the internal arguments of kinship nouns are actually syntactically obligatory, though this is apparently too strong; but the

But, though the R-Theta reading is only optional, still, the central question remains: why, given the deictic theory of possession, is the R-Theta reading an option at all? Why, apparently, is the possessive not always interpreted in terms of a free-variable over relations, as outlined in Section One?

2.3 A Solution: Getting the R-Theta Readings for Free

For many purposes below, it will actually do simply to note that the R-Theta option exists for possessives; ie., we will be able to derive a number of effects below, simply by recognizing that possessors can be read in this way, and that it is not an accidental property of possessive interpretations that this is so. That noted, I will now show that we actually can derive the R-theta reading, under the underspecified theory of possessives, directly and automatically.

The derivation of R-Theta readings I will present here is based directly on Williams' (1985) discussion of the possessive. I will first outline Williams' account, which I will then implement in terms of Higginbotham's lexical semantic treatment. Williams (1985) account of (what is called here) R-Theta possession is as follows. We know that we can construe the value for the possessive relation in any way we want (provided some value is furnished for it). Now, given a DP like Mary's husband, where the head noun is one that takes a theme, one natural way of construing the intrinsically contentless possessive relation is this: read Mary as the theme of husband. Ie. we can

markedness of *husband* used when it is not clear who he is the husband of is a contributing factor. Of course, the R-theta reading makes the value of the internal argument quite clear: the possessor.

take that relation, the theme-of relation, as the content of the possessive relation itself. Thus, the R-Theta reading for Mary's husband comes for free: it is just one way of understanding the inherently unspecified relationship. For Mary's cat, or any other DP where the head-noun is non-relational (takes no theme), this will not be possible; nothing can be construed as the theme of cat, since cat does not take a theme.

Now, given the general format for the lexical representation of possession here, based on Higginbotham's decomposition (which Williams does not adopt), it is somewhat problematic to insert "theme of" as the value for R. However, there is a natural way of implementing what I take to be a closely related conception of how the R-Theta reading arises in a Higginbotham-style decomposition (though this is not Higginbotham's own approach). The implementation is as follows. In terms of semantic composition, we treat Mary's husband in exactly the same way as possessive DPs headed by non-relational nouns, eg. Mary's cat. Thus, the logical form we derive compositionally is, at first glance wrongly, as in (2) above, with a free-variable over relations, repeated in (5).

(5) Mary's husband

[(the x:) (∃y)[husband'(x,y)] & R(x,Mary)]

This does assume a uniform semantics, so that it makes no difference to semantic composition that husband has an implicit internal argument; but so far, it has not given us the R-theta reading. However, observe now that husband, the possessed noun itself, denotes a relation; it is, after all, a relational noun (see, eg Stockwell, Schachter and Partee, 1974, Williams, 1994). Now, we have already assumed that mention of a relation makes that relation salient in the discourse; but if that is so, then in (5), we are

in an interesting situation: the relation denoted by the possessed head noun itself can potentially furnish the value for the unspecified possessive relation, ie. the relational demonstrative *R*. Suppose we let it furnish this value (since any contextually salient relation may do so); that will give us a reading for Mary's husband equivalent to (6).

(6) Mary's husband, allowing husband to furnish the value for *R*

$[(\text{the } x:) (\exists y)[\text{husband}'(x,y) \ \& \ \text{husband}'(x,\text{Mary})]]$

At first glance, that might not seem to have given us the *R*-Theta reading; but in fact, it has, because (6) says nothing more and nothing less than (7), below; the formulas are logically equivalent. And (7) is the *R*-Theta reading.⁴

(7) \equiv (6)

$[(\text{the } x:) \text{husband}'(x,\text{Mary})]$

Thus, simply because the head noun mentions a relation, and because any relation that has been mentioned can furnish a value for *R*, the *R*-theta reading follows for free. It is as if the DP both presents us with a problem (find a value for *R*, a problem we always have in interpreting possessives), but now at the same time furnishes a solution for this problem, by mentioning a relation. Of course, other ways of fixing a value for *R* in Mary's husband should be possible, as they are, though only in context. Note that this way of fixing a value for *R* could not possibly arise where the head-noun is non-

⁴ Intuitively, the equivalence between the formulas can be shown as follows.

Suppose first that we are discussing the unique individual who is the husband of Mary (=7); then, it must also be true, a little redundantly, that this is the unique individual who is the husband of Mary and the husband of someone (=6).

Suppose, second, that we are discussing the unique individual who is the husband of someone and the husband of Mary (=6); then, it must be true by simplification that we are discussing the individual who is the husband of Mary (=7).

relational, as in Mary's cat, or Mary's Bulgarian. In these cases we do mention cat, and Bulgarian, and presumably make those properties salient in the discourse; but cat and Bulgarian are not relations, hence cannot furnish a value for R. The only assumption needed to derive the R-Theta reading, then, is an assumption we needed anyway: that mention of a relation makes that relation salient in the discourse. Note that this result depends on something I noted only in passing above: that the order of the arguments of R must be reversed from Higginbotham's original proposal. This reversal does not fundamentally change the basic conception of possession; the change is simply that, for example, rather than treating Mary's cat as "a cat such that John is related to it", we treat it as "a cat such that it is related to John", either of which seems reasonable on conceptual grounds. Thus, under various independently motivated assumptions, the R-Theta reading would appear to follow automatically, as a consequence of the underspecified theory of possessives. Again, though, I emphasize that for the analysis as developed below, the crucial point is simply that we know, independently from the interpretation of possessives in DP, that possessive relations somehow allow the R-Theta reading, when the possessed element is a relational noun.⁵

3. Part Three: Two Constraints on R-Theta Readings

We have now outlined the central elements of the theory of possession that will be relevant to the analysis presented below; however, at certain points in the later discussion, it will also be important to be aware of two constraints on possessive

⁵ Higginbotham's specific account of R-theta possession is that R is interpreted as a thematic relation.

interpretations, and before ending the discussion of possessive relations in general, I now quickly introduce these.

3.1 R-Theta Readings Necessitate Event-Identification

The first constraint on R-Theta possessives which it will be useful to be aware of is what I will call the Event-Identification Constraint, summarized in (8).

(8) The Event-Identification Constraint on R-Theta Possessives

On the R-Theta reading, the eventuality described by the possessive relation and the eventuality described by the possessed noun are necessarily identical, ie. correspond to the same event-variable.

(8) is really just pointing out something that follows from what the R-Theta reading means, looked at now terms of an event-based logic (on which see Davidson, 1967, Parsons, 1990, Pustejovsky, 1988, 1991, 1993, Higginbotham, 1985, 1987, Hegarty, 1991, Kratzer, 1989, among many others); but it is something that becomes important later at various points in the proposal, precisely in considering the event-structure relations corresponding to possessive relations. I explain briefly the motivation behind (8).

(8) is assuming first that nouns may describe eventualities, and second that the possessive relation itself may do so. On the claim that nouns may describe events, I follow Higginbotham (1987). On the claim that the possessive relation may do so, I note the following: that this possessive relation (even on R-Non-Theta readings) is accessible to temporal modifiers which bound the duration of events. For example, consider the data in (9).

- (9) (a) [Mary's cat for the last three years] has been Toby.
 (b) I saw [Mary's car for today] on the curb.

What for-phrases bound is events (see Davidson, 1967). In examples like (9), the for-phrase modifier inside DP is bounding the period of time that Mary and the cat/car stand in their relationship, ie. the extent of the possessive relation (whatever contextually defined relationship that is); since for-phrases bound events, and since they are in cases like these bounding the possessive relationship in (9), possessive relations must be at least in some cases a kind of event.⁶

Now, but why does R-Theta reading require identification between the nominal-event and the eventuality corresponding to the possessive relation? The reason is that on the R-theta reading, however it is derived, the possessive relation is the relation denoted by the possessed noun. If the possessed noun described a different event, we would simply not have the R-Theta reading. For example, consider the possessive DP Mary's boyfriend. Following a neo-Davidsonian approach, where each event asserted to hold in a sentence is associated with a distinct event-variable as a semantic argument, the R-Theta reading must correspond to a single eventuality, as in (10a), or a formula logically equivalent to it; if, contrary to (9), we were to treat the noun as somehow

⁶ With respect both to nouns and the possessive relation, we may wish to consider whether there is a stage vs. individual level distinction (on this distinction, see Milsark, 1974, and Carlson, 1977); this would have representational consequences, if we were then to extend to nouns and possessives Kratzer's (1989) proposal, that only stage-level predicates take event-variables as arguments. I do not pursue this idea in detail here, noting only that some nouns and some construals of the possessive relation are temporary, hence stage-level eventualities. In fact, Kratzer's proposal will not at all conflict with the proposal developed here; see some further comments in Chapters 2 and 3, below.

asserting a separate event, on the R-Theta reading, as in (10b), we would get the wrong reading.

(10) R-Theta Reading in Event-Based Logic

(a) What the representation must be, or be equivalent to: A Single Event (the x:)($\exists e$)[boyfriend'(x,Mary,e)]

(b) What the representation cannot be: Two Separate Events
(the x:)($\exists e_1$)[($\exists y$)[boyfriend'(x,y,e₁)] & ($\exists e_2$)[boyfriend'(x,Mary,e₂)]

(10a) says: the x such that he is (at some time) the boyfriend of Mary. (10a) is fine. But (10b), which (9) specifically rules, out says: the x such that he is (at some time) someone's boyfriend, and at some other time (not necessarily the same time) the boyfriend of Mary. (10b) cannot be what Mary's boyfriend means. For example, it would wrongly predict things like the following. Suppose Mary has had a boyfriend only for one day; but this fellow is a two-timer, and his other relationship, being a boyfriend to Sue, has lasted two weeks. Now, if we allowed non-identified events for the R-Theta reading, as in (11), then Mary's boyfriend for the past two weeks (on the very salient R-Theta reading) could felicitously pick out Mary's boyfriend's other relationship, even though his relationship specifically with Mary has lasted only one day.

(11) The Kind of Problem we get with non-identified Events: This should then be a grammatical reading for Mary's boyfriend for the past two weeks.

(the x:)($\exists e_1$)[($\exists y$)[boyfriend'(x,y,e₁)] & two-weeks'(e₁) & ($\exists e_2$)[boyfriend'(x,Mary,e₂)]

A natural way to rule out representations like these is to accept that on the R-Theta reading, the event described by the possessed noun (here, boyfriend), is simply not

distinct from the possessive relationship, ie. they are the same relationship. That is what (9) stipulates: however we want to derive the R-Theta reading, it cannot be derived in such a way as to allow the two events (the possessive, and the relationship described by the noun) to be separate.

Under the specific suggestion above about how the R-Theta reading follows, based on Williams' (1985) discussion, the relationship between R-theta readings and event-identification is an automatic consequence; the logical equivalence on which this explanation depends, $[(\exists y)[\text{husband}'(x,y) \ \& \ \text{husband}'(x,\text{Mary})] \leftrightarrow [\text{husband}'(x,\text{Mary})]$ holds, in an event-based logic, only if the events in the former are identical, ie. share an event-variable bound by the same operator. That is, $(\exists e)[(\exists y)[\text{husband}'(x,y,e) \ \& \ R(x,\text{Mary},e)] \leftrightarrow (\exists e)[\text{husband}'(x,\text{Mary},e)]$; but if the events in the former were not identical (bound by the same operator), the equivalence would not hold. However, whether this is the right way of deriving R-theta readings or not, the point is more general: however we seek to derive the R-Theta reading, it crucially must correlate with identification of the possessive relation with the eventuality described by the possessed noun.

Why is this important? Within DP, it may not be important at all; however, as we extend discussion of R-theta possession outside of DP, under the proposal below, we will see that a number of effects correlate with this.

3.2 Possession of Married Men: The Head Constraint on R-Theta Readings

The second constraint on R-theta readings which will become relevant later in the discussion is what I will call the Head Constraint on R-Theta Possessives. It is

summarized in (12).

(12) The Head Constraint on R-Theta Possessives

The possessor cannot be theta-related to (read as an argument of) a modifier on the possessed noun, and not as an argument of the head noun itself.

Certain effects looked at in the text below will require us to be aware of this fact, which holds for all possessive constructions. As an example of the kind of readings that the head-constraint is required to rule out, let's consider this DP: Mary's married man. Now, married apparently is a two-place, ie. relational, predicate; this is so both in the semantic sense, in that being married entails being in a marriage relation to someone, and in the syntactic sense that married apparently licenses two arguments, as in Bill is married to Sue.⁷ Now, even though (let us assume) married is a relation, and takes a theme, the equivalent of an R-Theta reading is not possible in Mary's married man: that is, Mary cannot, apparently, be interpreted as saturating the implicit internal argument of married. For example, neither of these readings is possible, for Mary's married man.

(13) What the Head Constraint Blocks, for Mary's Married Man

- (a) [(the x:) man'(x) & married'(x,Mary)] = "the man married to Mary"
- (b) [(the x:) man'(x) & married'(x,Mary) & R(x,Mary)] = "the man married to Mary, who she is having an unspecified relation with"

Both these readings are blocked by the head constraint, because in each case the

⁷ If the adjective married is not really semantically relational, and if Sue in the example is not really an argument of married, then this is a pseudo-problem, which will be fine. I am introducing the constraint to consider the worst-case scenario, since I cannot resolve here the syntactic and a-structure properties of all adjectives.

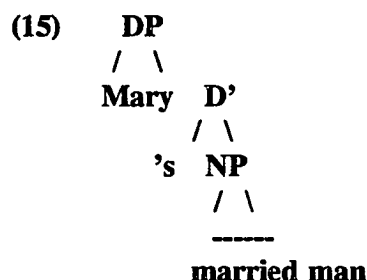
possessor is in a thematic relation to a modifier of the possessed head, without also being in this relation to the head. Congruent with this, neither of the readings in (13) seems to be possible; informants consistently judge that Mary's married man allows only an Non-R-Theta reading, ie. "the married man who Mary stands in some relationship with", as in (14)

- (14) $[(\text{the } x:) \text{man}'(x) \ \& \ (\exists y)[\text{married}'(x,y)] \ \& \ R(x,\text{Mary})] = \text{"the man married (to someone) who Mary is having an unspecified relation with"}$

I introduce this constraint mainly to be careful not to over-generate R-Theta readings. Note, for example, that if we allowed the relation married to furnish a value for R, as we allowed husband in Mary's husband, we would end up incorrectly predicting (13a) as a possible reading. The same issue must be dealt with, however we derive the R-Theta readings.

As with R-Theta possession itself, what is really crucial to the following analysis is simply that we be aware that this constraint exists, however it is derived. In this case, I will not attempt to derive the constraint from more basic principles; however, I will note that it almost certainly does follow from general constraints on argument relations. Specifically, the following considerations appear to be relevant. Presumably because the a-structure properties of a maximal projection are a projection of the a-structure of its head, a-structure relations in the syntax are such that an element cannot be an argument of any element in XP, without being an argument of the X-zero head of XP (Williams, 1982; di Sciullo and Williams, 1987; Grimshaw and Mester, 1988; Grimshaw, 1990; Williams, 1994; Neeleman, 1994). From this, it will follow that Mary cannot be theta-related to [married man]_{NP} in (15), unless Mary is also theta-

related to man.



But the R-Theta reading for Mary's married man would be just the kind of linking we said was impossible: on the R-Theta reading, Mary would be read as theta-related to married (saturating its internal argument), but have no relation to a position in the a-structure of man (man takes only an external, referential, argument, which cannot for independent reasons be assigned to Mary; see Williams, 1982, Di Sciullo and Williams, 1987). On the other hand, for Mary's husband, since husband is the head of NP, the R-Theta reading is a thematic relation with the head of NP: Mary is an argument of the head of the NP, hence we do not have any similar conflict. Because I have derived the pattern of a-structure relations in R-Theta readings in a way which does not involve direct theta-marking of Mary by husband, however, the relation between general properties of thematic relations and the Head Constraint on R-Theta readings remains unresolved here; I simply note that the Head Constraint very plausibly follows from these general considerations of a-structure relations.

4. Summary

The parts of this chapter which will be crucial later are summarized in (16)-(19), below.

(16) First, that the possessive relation corresponds to an unspecified relation

between individuals, which can be represented as a free variable over relations in logical form.

- (17) Second, R-Theta Possessive readings arise, as follows. Where noun' is the denotation of a relational noun (eg, husband', friend', etc.) then if (a) is possible, then (b) is systematically an available interpretation as well.

(a) noun'(x,y) & R(x,Mary)

(b) noun'(x,Mary)

And similarly, where any other individual-denoting element substitutes consistently for Mary.

- (18) Third, that R-Theta Possessives are governed by the Head Constraint: The possessor cannot be theta-related (read as an argument of) of a modifier on the possessed noun, and not as an argument of the head noun itself.
- (19) Fourth, R-Theta Possessives are governed by the Event-Identification Constraint: the possessive relation on the R-theta reading has the same semantic content, hence describes the same eventuality, as the possessed relational noun.

This concludes the overview of general issues in possessive interpretations, motivated by considerations of possessive DPs, which we will now go on to extend in a partly novel way to the semantics of elements other than the possessive determiners.

Chapter 2

The Proposal

0. Introduction

The proposal to be explored in this dissertation is that the possessive relation is a component of the decomposed lexical semantic structure of certain predicates. The hypothesized possessive relation in verbal structure is the same as the possessive relation in possessive DPs: an unspecified relation between individuals, ie. a free variable over relations. In this chapter, I will present the specific proposal about how the possessive relation fits into the lexical semantic structure of various predicates. I first present the proposal intuitively, and then introduce a specific representational implementation.

The representational implementation introduced makes use of existing theories which allow us to explicitly represent the set of events described in a sentence, and the relations between these events; specifically, I here use a neo-Davidsonian system (see references, below). The main reason this is useful is that the interpretation of possessive verbs will turn out to necessarily correlate with a certain pattern of event-structure relations in the sentence. In particular, we will see that certain readings for these verbs must correlate with event-identification between the verb and the DP-object.

1. Possessives in the Lexical Semantic Structures of Verbs: The Idea

The specific proposal to be developed here is that there are three ways in which this possessive relation can appear in the decomposed aspectual structure of predicates, as follows. First, there are a number of verbs where, as I will argue, the possessive relation is the result-state of an accomplishment. This includes the verbs get, find, choose, and various synonyms. I summarize this claim in (1):

- (1) For accomplishments in the possessive class (eg., get, find, choose), a possessive relation is the result state of the predicate; ie., the output of the action is an unspecified relation between individuals.¹

For example, the proposal to be explored here is that Mary got a cat is equivalent to: Mary entered into an inherently unspecified relationship with a cat. The state they enter into is then predicted to have the same semantic content as the relation asserted in Mary's cat, ie. a relation with no inherent content. Verbs of hiring also arguably pattern as possessive verbs, and will have essentially the same result-state, though they also have slightly different semantic properties, as discussed in Chapter Five.

In addition to the accomplishments, there is also one (but, for principled reasons, only one) aspectually simple verb in the possessive class. This is main-verb have. The proposal to be explored below for have is this:

¹ Tests establishing that get, find, and choose are accomplishments, or allow accomplishment readings, are straightforward, eg.: Mary got/found/chose a husband in less than ten minutes. See Vendler (1967), Dowty (1979), and Smith (1992).

- (2) **Have is the verbal counterpart of the possessive relation alone, ie. it corresponds simply to an unspecified relation between individuals.**

For example, Mary had a cat is predicted to mean: Mary stood in some inherently unspecified relationship with a cat. This treatment of have is, as noted in the preface, almost exactly identical to, and based directly on, a proposal for main-verb have in Ritter a Rosen (1993) (in turn based on Cowper, 1989), although R&R do not link their proposal explicitly to the semantics of possessives; see further discussion of the relation to that work, and also a detailed look at what (2) predicts, in Chapter Four, below.

Finally, there are certain intensional predicates which, as I will argue, should also be analyzed in terms of a possessive relation, including: need, want, desire, long for, and a number of others. The analysis of intensionality adopted here is basically that of Hintikka, 1967, so that for example Mary needs a cat means: in every possible world where Mary's needs are realized, she has a cat. The new point here is, that have as an element in the decomposed lexical structure of intensional predicates is treated not, as in previous work, as a kind of primitive, but as above. In other words, we predict the sentence to mean: in every possible world where Mary's needs are realized, she and a cat (de dicto, or de re) are in an unspecified relationship. This is equivalent to decompositions of these verbs into lexical structures containing have, as in McCawley (1974), under the underspecified analysis of have.

2. Possessives in the Lexical Semantic Structures of Verbs: Overview of the Representational Assumptions

Directly following Higginbotham's (1983) analysis of possessives in DP as outlined

above, I am here adopting a free-variable analysis of the lexical representation of possession in verbs like have, get, choose, and etc. The other components of the representations simply integrate this free-variable element into existing decompositional approaches to the representation of predicates, as follows.

First, for the possessive accomplishments, which are aspectually complex predicates, the general representational system I assume is one in which such predicates are decomposed into two sub-eventualities: an initial activity, and a resulting state (see Vendler, 1967, Dowty, 1979, Smith 1992 on this general approach). It is the resulting state which is the possessive relation, hence represented as a free-variable in logical forms under the proposal here. For example, the result state of Mary got a cat will come out as this: R(x,Mary); and the whole sentence Mary got a cat will be treated as meaning (looking here at the agentive reading):

- (3) (a) **Mary did some action (there was an event where Mary did some action).**
- (b) **The result of the first event is that there is a second eventuality, a state, where R(x,Mary) holds.**

In representing this, I will follow the general treatment of aspectually complex predicates developed in Pustejovsky (1988, 1991, 1993), which is in turn explicitly a neo-Davidsonian implementation of the theory of the aspectual structure of predicates developed in Vendler (1967) and Dowty (1979). I introduce no essential revisions to the representational system, except precisely to introduce result-states with a free-variable over relations, ie. R(x,y), into the set of semantic primitives in the system. So, for example, the specific lexical representation for get which I will propose will derive

a representation like, (4), below; (4) is just a way of expressing, in this approach to logical forms, what (3) says (though see note below, regarding the event-variables of nouns, which I will introduce shortly):

$$(4) \quad (\exists e_1, e_2, x)[\text{cat}'(x) \ \& \ \text{act}(\text{Mary}, e_1) \ \& \ R(x, \text{Mary}, e_2) \ \& \ \text{CAUSE}(e_1, e_2) \ \& \ T(e_1) < \text{now}]$$

To make things more readable, I will often present, as an alternative format, somewhat abbreviated versions of the logical forms as in (4), also moving the event-variables which are arguments of each element onto separate, linked, tiers (here, roughly but not exactly following Pustejovsky, 1988, 1993). For example, as an alternative to (4), I give (5), which is an abbreviated notational variant. Again, (5) is just a way of representing the idea in (3).

$$(5) \quad (\exists x)[\text{cat}'(x) \ \& \ \begin{array}{c} [\quad e_1 \\ \quad | \\ \text{act}'(\text{Mary}) \end{array} \ \& \ \begin{array}{c} \text{CAUSE} \quad e_2 \\ | \\ R(x, \text{Mary}) \end{array}]$$

All the other accomplishment verbs in the possessive class can be treated in an exactly parallel fashion, though in some cases with further refinements to the definitions. Compositionally, these representations (the representations as in (4)) will be derived assuming a Heim/Kamp theory of NP-interpretation (Kamp, 1982, Heim, 1981), assuming now in addition existential closure over event-variables (following Landman, 1992, Parsons, 1990; we could also derive this allowing tense to bind the event-variables associated with the tensed predicate, as in Hegarty, 1991).

For have, the proposal will be spelled out also in a neo-Davidsonian system, but here have is proposed to be a simple stative corresponding to the possessive relation.

That is, the proposal will treat sentences with main-verb have as assertions of the existence of an event where a free-variable relation holds between individuals. For example, Mary had a cat will be treated as corresponding to: $(\exists e)[\text{cat}'(x) \ \& \ R(x, \text{Mary}, e)]$.

The representational system assumed for intensional predicates will assume existing theories of intensionality (based specifically on Hintikka's 1967 analysis), as noted above; we simply substitute R where other analyses have posited the have-relation, from which certain new results follow. In these cases the proposal will not be integrated into an event-based semantics.

Since the only really novel part of the proposal here is the use of a free variable over relations in lexical decomposition, the same ideas could potentially be implemented in other approaches to meaning, eg Lexical Conceptual Structure (see Jackendoff, 1987, 1990, Levin and Rappaport, 1986, Hale and Keyser, 1986a, 1986b, Zubizarreta, 1987; Ritter and Rosen's 1993 unspecified analysis of have is stated in this framework). The reason I use a truth-conditional semantics is that it gives us a way of representing explicitly the interaction between these verbs and the property or relation denoted by N in their NP arguments; the importance of this is that it allows us, correctly, to derive the equivalent of the R-Theta possessive reading with these verbs, as least as the R-theta construals are stated above. I believe that it would be straightforward to reformulate the proposal above in terms of Parsons' (1990) analysis of event-structure.

3. How Are These Logical Forms Interpreted?

For the rest of this chapter, I will clarify general issues in how the logical forms derived under the above proposal will be interpreted, and outline various assumptions that need to be made explicit in order to work out exactly what this proposal will predict.

3.1 Fixing a Value for R: Options and Constraints

The first issue that arises is the following. We are going to generate, as illustrated, logical forms containing a free-variable over relations; this variable must receive a value, so how is that value determined?

Previous consideration of how R is interpreted has show that there are two general options:

- (6) (i) An R-Non-Theta construal of the value for R (R fixed by context)
- (ii) An R-Theta construal.

The idea to be explored here is simply that, just as the possessive relation itself has the same semantic content consistently, so just the same two options remain consistently available for determining the value for the underspecified relation, and under the same conditions. If this is right, then the same two options as in possessive DPs are predicted to be consistently available also with possessive verbs, and under the same conditions.²

Let us then consider how the general conditions on possessive interpretations will constrain the interpretations of possessive verbs. The R-Non-Theta option for the

² Recall that, descriptively, an R-theta construal for the possessive relation is equivalent to this:

- a) Where we derive: noun'(x,y) & R(x,Mary)
- b) This can be read as: noun'(x,Mary)

possessive verbs is not predicted to be subject to any constraints, other than the requirement that context furnish some value; the R-Non-Theta construal should then always be an option with all of the verbs treated as possessives under the proposal. On the other hand, R-Theta readings with possessive verbs will, if they arise, be predicted to be possible under certain conditions, ie. those outlined in the last chapters. There are three basic considerations. First, as we saw earlier:

- (7) The possessive relation must be conjoined in logical form with an element denoting a relation, for the R-theta construal of the possessive.

For example, in Mary had a man the proposal will derive (setting aside event-variables for the moment) $(\exists x)[\text{man}'(x) \ \& \ R(x, \text{Mary})]$. But because man does not denote a relation, no R-theta reading will be possible, only a reading where context furnishes a value for R. On the other hand, for Mary had a husband, the proposal will derive $(\exists x)[(\exists y)[\text{husband}'(x, y) \ \& \ R(x, \text{Mary})]$; here, because husband does denote a relation, an R-theta reading is predicted to be possible; in fact it is, though we have some other constraints to consider too.

The next constraint is that the possessed element, ie. the element which supposes the relation for R-Theta readings, must be the head, and cannot be a modifier on the head (see the Head Constraint on R-theta Possessives noted in the last chapter). Then, for example, in Mary had a married man, we predict the logical form $(\exists x)[\text{man}'(x) \ \& \ (\exists y)[\text{married}'(x, y)] \ \& \ R(x, \text{Mary})]$, but do not predict an R-theta construal, where married furnishes a value for R.

Thirdly, recall that there is also another constraint on the R-Theta option: that the possessive relation and relation denoted by the noun furnishing a value for R must

describe the same eventuality for the R-theta construal. This was also shown in the last chapter. Since the proposal here is that R is always interpreted in the same way (choosing an R-Non-Theta or an R-Theta construal), it follows that to get the equivalent of an R-Theta reading with these verbs, we will also have to have identification between the event-structure of the verb and the possessed element. That is: event-identification with the possessed element is a necessary condition for an R-Theta construal. Let me give an example of what this third point will entail. Suppose we take the verb have, as analyzed under the proposal here. Minimally, an R-Theta reading would require the possessed element to be relational, so let us take the relational complement husband. Now, we must first of all, under the proposal here, construe both the possessive relation (as above) as an eventuality, and also the husband-relation; see discussion of these assumptions in the previous chapter. Now, suppose that the eventuality described by husband is not identified with the eventuality described by have, as in the logical form in (8); then an R-theta construal will not be possible, because the events are distinct.

(8) R-Theta Reading Not Possible, If Events Not Identical

$$(\exists e_1)(\exists e_2)[(\exists y)[\text{husband}'(x,y,e_1) \ \& \ R(x,\text{Mary},e_2)]$$

Given a relation between the verb and the noun husband as in (8), only an R-non-Theta construal for R will be possible, ie. where some contextually defined relation supplies the value for R (he was a husband to someone, and Mary had a contextually defined relationship with him). On the other hand, if the events are identical, ie. understood to be the same event, as in (9), then an R-Theta construal is predicted to be possible.

(9) R-Theta Option is Available, If Events Identical

(a) $(\exists e)[(\exists y)[\text{husband}'(x,y,e) \ \& \ R(x,Mary,e)]$

Can Be Construed Then as:

(b) $(\exists e)[\text{husband}'(x,Mary,e)]$

To summarize: only if the event described by the relational noun is identified with the eventuality described by R, in the derived logical form, is it predicted that an R-theta reading be possible; if they are read as two different eventualities, an R-theta construal will be impossible. Note that this sets up event-identification as a necessary condition, but not a sufficient condition for R-theta readings; in fact, we will see some cases where we do very plausibly have event-identification, but still the R-Theta option is not taken. But the reverse, that identification crucially depends on event-identification, will always hold, and a number of consequences will follow from this.

3.2 Assumptions about When And Whether Identification is Allowed at All

Now, the last point of the discussion above, that R-theta construals for possessives will require a certain kind of event-identification, does not in itself tell us when, and whether, such identification is allowed. Is event-identification between the verb and its DP-arguments (or adjuncts in the sentence) actually ever allowed? And if so (so that, then R-theta readings are really possible), then under what conditions? A general consideration, with respect to all predicates, of this issue is outside the scope of this dissertation; however, what I will do here is to clarify the exact assumptions, with respect to this identification, which will be relevant to the analysis here. The remainder of this chapter briefly outlines these assumptions. The upshot of this discussion is: (a)

that identification of the nominal event with the event-structure of the verb is not in general forced, but also (b) that such identification is allowed at least in some cases, though apparently subject to certain constraints.

Looking now in some detail at that issue, let's first ask whether identification between the event-structure of the verb and its DP arguments is ever forced. The assumption here is that the answer is no, identification is not, in general forced, for referential DPs.

(10) The Nominal Event-Independence Hypothesis

Event-Identification between a verb and its referential DP-arguments may be allowed, under certain conditions, but it is never forced, except by pragmatic considerations.

This assumption is motivated not just because non-identified readings arise consistently (as we will see shortly) for possessive verbs; the same is true for many other, non-possessive verbs, as well. The potential temporal independence of DP arguments is discussed also in the literature on the temporal relations between verbs and relative clauses; see eg Zagana (1989) and Stowell (1993). Consideration of DPs even without relatives suggests that nominal independence must be right, in general (in English), even for non-possessive verbs. For example, consider sentences with non-possessive verbs, like Mary kissed a cook, or also Mary kissed a President. Is his/her being a cook, or his/her being a President, co-temporaneous with and part of Mary's kissing him? It may be pragmatically natural to read the sentences in this way; but it is clearly not necessary. For example, consider (11) and (12):

- (11) **Mary did kissed a cook, once, but that was many years ago, before the guy was ever a cook.**
- (12) **Mary did kiss a President, once, but that was many years ago, before the guy was ever President.**

Here, the event of her kissing him, and the situation of his being a cook/President, must be understood to be separate; if we forced event-identification, as a general rule, between nominals and verbs, (11) would be a contradiction; for, it would assert that he was President in a certain event, but then also that he was not. The sentences are not contradictory, and therefore forcing identification would be quite problematic. We must therefore allow event-structure representations for sentences, in general, where the eventuality described by a noun in a referential DP is at least potentially separate from the event described by the verb, as in the example in (13) (for Mary kissed a President).

$$(13) \quad (\exists e_v)(\exists e_n)[\text{President}'(x, e_n) \ \& \ \text{kiss}'(\text{Mary}, x, e_v)]$$

We will show that this prediction is right for a number of other predicates, including but not limited to possessive verbs, in the discussion below. It appears that cases where predicates seem to force identification with referential DP-arguments do so mainly because that is the most pragmatically plausible construal of the temporal relation between the eventualities. Landman (1992) makes basically this suggestion, in passing, in noting that the construal of the temporal connection between $N(x)$ and the event(s) described by the verb is essentially governed only by pragmatic considerations (though Landman is not explicitly treating nouns as taking event-arguments, hence not concerned

with the representational issue).³ Compositionally, since I am assuming existential closure over events, I assume that assignment of the same index to both events will generate the identified reading, and different indexes will generate non-identified readings; since indexing is arbitrary, both patterns fall out as an automatic consequence. Plausibly, we could instead posit theta-identification between event-variables (Higginbotham 1987, Hegarty, 1991) to derive the identified readings. If there are cases where a verb forces event-identification between its event-structure and that of the noun heading its DP-complement, these cases must, under the assumptions here, be understood as at least a marked option for referential DP-arguments, not one which follows from any general principle of the grammar.

Notice that, in this respect, nominals in referential DPs are exactly the opposite of event-related adjuncts: event-related adjuncts, eg. spatio-temporal modifiers, absolutely must identify with an event-variable associated with the predicate (the predicate heading the extended projection they adjoin to), as discussed for example in Hegarty (1991). Thus, for example, if Mary kissed Bill for twenty minutes, it is absolutely impossible to suppose that twenty minutes might describe some event other than the kissing. This fact, that in direct contrast to nouns in argument DPs, event-related adjuncts must identify, will also become important at various points in the discussion.

³ Verbs with non-referential DP-complements do force event-identification, as shown for existential constructions in Higginbotham (1987), and this appears to be true also for predicate-nominals; however, note that (9) refers to non-referential arguments. The difference may be made to follow from the fact that the predicates with non-referential complements inherit of are functions over the semantic content of their DP-complements (eg, be is a function over properties, as proposed in Williams, 1983), though I will not explore this here.

The discussion so far has not ruled out the possibility of identification between the event described by a noun and the event-structure of a verb. In fact, we will want to allow this, at least under certain conditions: possessive verbs, I think ultimately very clearly, show evidence that we must allow (though not force) certain patterns of identification between the event-structure of the verb and its DP-complement. They show this, precisely in that R-Theta readings arise with them, and these depend, as discussed, on event-identification, and the correlation between this identification and interaction with temporal modifiers correctly predicts a number of effects, discussed below. I believe that creation verbs, as I will also note below, are another very plausible case where such identification is allowed (though still, I believe, not forced). In general, my assumption is that an identified reading is a possible construal, i.e. reading a verb and one of its DP-arguments as describing a single event. I do, however, introduce constraints on when identification of this kind is allowed, and these are summarized in (14):

(14) Constraints on Event-Identification

- (a) No event-related element may be identified with the initial sub-event in an accomplishment.**
- (b) Only one event-related element may be identified with the result-state of a predicate.**
- (c) Only elements under the VP-projection at D-Structure may be identified with the result-state of a predicate.**

Each of these constraints has independent motivation. Regarding (14a), it appears that there are no temporal modifiers which simply bound the initial activity in an

accomplishment, alone; this follows, if we assume that no event-related elements can identify with the initial activity in a neo-Davidsonian system (see Pustejovsky, 1988, 1992); the importance of (14a) to the analysis below is that we will see that the nominal-event never associates with this initial activity (alone) as well, which follows, for whatever reason such identification is impossible with other elements. Regarding (14b), independent motivation comes from consideration of resultative-adjuncts, which describe the result of an action; congruent with (14b), only one appears to be grammatical (see Neeleman, 1994); eg: *Mary hammered the metal flat soft. The importance of this, is that we will see that the nominal eventuality is blocked from identifying with the result-state, just in case other resultative adjuncts are present. Both (14a) and (14b) must follow from some deeper explanation, perhaps simply a pragmatic explanation, but I do not pursue this. (14c) (elements outside VP cannot event-identify with the result-state) is related to suggestions in both Grimshaw (1990) and Diesing (1992), though not identical to either. The main independent motivation for it is really simply that there are no verbs where the subject-DP describes the result of the action; where-as there are a number of verbs, ie. all creation verbs, where the DP-object describes what results. In addition, we may see the fact that resultatives, which describe the resulting eventuality, are also necessarily VP-internal. There are certainly other factors which influence or constrain identified readings, but a full survey of these is largely outside the scope of this dissertation, though see some further discussion in Chapter 6, below. Here, I have mainly tried just to be explicit about what assumptions the analysis in the next chapters makes about these matters.

4. Summary

The rest of the dissertation will look at the predictions made by the central proposal outlined here, in interaction with the independently motivated principles governing the interpretation of possessives, outlined in Chapter 1, and the proposal presented here about the interaction between the eventualities described by a verb and its DP-arguments. Below, I give a summary of the various principles introduced so far, which will interact with the semantic analysis to derive various interpretations for the possessive verbs, as shown in detail in the following chapters.

I. Possessive Interpretations

(15) The R-Theta readings Option for possessive interpretations:

If (a) is possible, and noun' denotes a relation, then (b) is systematically an available interpretation as well.

(a) noun'(x,y) & R(x,Mary)

(b) noun'(x,Mary)

And similarly, where any other individual-denoting element substitutes consistently for Mary.

(16) The Event-Identification Constraint:

In (15a) above, the event described by the noun and the event described by R must be identical; if they are distinct events, (15b) is not an option.

(17) The Head Constraint: The possessor cannot be theta-related (read as an argument of) of a modifier on the possessed noun, and not as an argument of the head noun itself.

II. Assumptions about Event-Identification

- (18) Nouns in referential-DPs never must be read as identified with the event-structure of the verb.
- (19) Nouns in referential-DPs may, optionally, be read as identified with the event-structure of the verb. However,
 - (i) Nothing may identify with the initial activity in an accomplishment, and
 - (ii) Only objects (elements under VP at D-structure) can identify with the result-state, and
 - (iii) Only one element may identify with the result-state of an accomplishment.
- (20) Event-related adjuncts on projections of V must be read as identified with the event-structure of the verb.

Chapter 3

Possessive Accomplishments: Get, Find, and Choose-verbs

0. Introduction

This chapter looks at a number of empirical predictions which can be derived by treating, as under the proposal above, the verbs get, find, choose, and some related synonyms, as incorporating a possessive relation in their lexical semantic structure; specifically, by treating these verbs as accomplishments where the result-state of the accomplishment is a possessive relation. We will proceed here in the following way. First, I will discuss an empirical property of these verbs, then show how it follows as a consequence of the proposal; then I will present another empirical property, show how it follows, and so on, for a total of six issues.

1. Issue One: The Two Ways to Get/Choose/Find a Secretary

1.1 The Two Ways Described

As was noted briefly in the preface, the verbs get, find, choose, and various synonyms to choose, are all systematically ambiguous between two distinctly different readings. Which reading is available in a particular sentence depends in large part on choice of

NP-complement; to start with, we will use just the NP-object a secretary, which happens to allow the ambiguity with all these verbs. First, let us consider this sentence: Mary got a secretary. There are two quite different possible senses of get a secretary in this sentence, and these two meanings are distinguished by the paraphrases in (1) and (2), below.

- (1) **Reading One** As a result of the action, someone took on a secretarial position, ie. became a secretary to Mary.
- (2) **Reading Two**: There was an existing secretary, and it was this person, a person who was already working as a secretary, that Mary got for some other (non-clerical) purpose. For example: Yesterday at the office Christmas party, each of the women was assigned a dance-partner by drawing lots. Sue got an executive, June got one of the mail-boys, and Mary got a secretary.

Let us call Reading One, above, a Thematic Resultative reading: as a result, the affected individual is a secretary, and Mary controls the theme-argument of secretary (ie., it is Mary who the person is the secretary of/to¹). And let us call Reading Two, where the person is a secretary (to someone) independently of Mary's action, the Independent Reading. The availability in principle of two exactly parallel readings holds also for choose, and all synonyms for choose. For example, consider the sentences in (3).

¹ Note that I assume that secretary is, at least potentially, two-place, and that the employer in the secretary of/to Mary relations corresponds to the internal argument or theme of secretary. See syntactic justification for this in Chapter 6, below.

- (3) (a) Mary chose a secretary.
 (b) Mary selected a secretary.
 (c) Mary picked a secretary.
 (d) Mary picked out a secretary.

The two readings for each sentence in (3) are distinguished by these paraphrases.

- (4) **Thematic Resultative Reading:** Mary has been needing someone to do her filing, typing, etc., for ages, but she could never decide which of the applicants to hire—they were all so inexperienced. But she finally chose a secretary (from among the inexperienced applicants).
 (5) **Independent Reading:** Mary, the director, always gets ordinary people off the street to work as extras in her movies. Today, a lot of local office workers were standing around watching the filming, and for the extra in the big explosion scene ... Mary chose a secretary (as the extra).

And, finally, the possessive verb find, as in Mary found a secretary is also sharply ambiguous in a parallel fashion.

- (6) **Thematic Resultative Reading:** Mary needed someone to do her filing, typing, etc. Finally, she found someone to take on this role, so she found a secretary.
 (7) **Independent Reading:** One of the secretaries was missing. Mary, a private detective, tracked her down, hence found a secretary.

The first issue we will address here is simply: why are there two readings for get/choose/find a secretary? The cases with choose-verbs show that it is no accident that the two readings happen to be available, at least with those verbs: any verb with a

meaning like choose appears to be ambiguous in this way, suggesting that the ambiguity should follow predictably from what these verbs mean; simply positing lexical ambiguities is in itself insufficient, at least for that class of verbs. For now, we set aside other complements, which we return to shortly.

1.2 Solution: The Two Ways of Getting/Choosing/Finding a Secretary Derived

The existence of the two readings for each of these verbs turns out to be an automatic, and non-accidental, consequence of the proposal here. First of all, following the proposal outlined in the last chapter, I posit the specific lexical representations for get, find, and choose as shown in (8), ie. making the result-state of the accomplishments a possessive relation.

- (8) (a) $\lambda x \lambda y [\text{get}'(x, y, e_1) \ \& \ R(y, x, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]$
 (b) $\lambda x \lambda y [\text{find}'(x, y, e_1) \ \& \ R(y, x, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]$
 (c) $\lambda x \lambda y [\text{choose}'(x, y, e_1) \ \& \ R(y, x, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]$

The nature of the initial activity is apparently subtly different in each case, but I do not attempt to say how this is so, merely representing the initial activities differently. Note that this treats the predicates as taking individual-denoting arguments. These representations attempt to only handle only those cases where these verbs take DP-complements, and, for now, only the agentive version of get (I return to the experiencer version, below). Now let's look at the range of readings these predict for Mary got/found/chose a secretary. Let's start with Mary got a secretary.

Under the proposal, there are two choice-points in interpreting the sentences. The first choice-point is a choice with any verb: is the eventuality described by the

noun identified with one of the verb's event-arguments, or is it not? Reading them as separate is always an option; suppose we choose that, then. This predicts, given the lexical representation in (10a), this representation of the meaning:²

$$(9) \quad \left[\begin{array}{ccc} e_1 & \text{CAUSE} & e_2 \end{array} \right] \quad e_n$$

$$\quad \quad \quad \left| \quad \quad \quad \left| \quad \quad \quad \left| \right. \right.$$

$$\quad \quad \quad \text{get' (Mary, x)} \quad \& \quad \text{R(x, Mary)} \quad \& \quad (\exists y)[\text{secretary' (x, y)}]$$

The second choice-point in interpreting comes in fixing the value for the free-variable R; but the first choice has now limited our options: we cannot get the equivalent of an R-Theta reading (where secretary would furnish the value for R), because the situation of the person's being a secretary is independent of her standing in this relation with Mary. Since secretary cannot furnish a value for R, under this construal, the only possibility is to turn to context, or by imagining a suitable context, for the value. Thus, the sentence is predicted to have this meaning: there was a secretary, and Mary entered into some contextually defined relationship with this individual. That is what was called the independent reading for Mary got a secretary, identified above.

Now, how does the other reading for Mary got a secretary follow? First, let's go back to the choice of how we read the relation between the N-eventuality and the V-eventuality. The system sometimes allows that we can read the situation described by

² This is an abbreviated version of what the lexical representation actually derives, under the assumptions, which is this:

$$(\exists x)(\exists e_1)(\exists e_2)(\exists e_n)[\text{act' (Mary, x, e}_1) \& \text{R(x, Mary, e}_2) \& (\exists y)[\text{secretary' (x, y, e}_n) \& \text{CAUSE(e}_1, e_2)]]$$

Tense should also give T(e1) < now, but I simply note that, and set it aside.

the noun as co-temporaneous and identical to a situation described by the verb. It happens that here, the conditions for identifying the object-DP with the result-state of the verb are met: this DP is the object, and identification with the result-state is allowed. Thus, the nominal-eventuality, ie. the person's being a secretary, can be read as identified with the result of the action. By making the choice of reading them as identified, we then derive this:³

$$(10) \quad \begin{array}{ccccc} [& e_1 & & \text{CAUSE} & & e_2] \\ & | & & & & \\ & \text{get}'(\text{Mary}, x) & & & & \end{array}$$

$$(\exists y)[\text{secretary}'(x, y)] \ \& \ R(x, \text{Mary})$$

Now, having made that choice, we consider the choices for determining the value for R. And here, we have an option that we did not have in (9), above: by identifying $\text{secretary}'(x, y)$ with the result-state of get, we have derived precisely the logical form in which an R-Theta reading is possible. Taking the R-theta option gives us this:⁴

$$(11) \quad \begin{array}{ccccc} [& e_1 & & \text{CAUSE} & & e_2] \\ & | & & & & | \\ & \text{get}'(\text{Mary}, x) & & & & \text{secretary}'(x, \text{Mary}) \end{array}$$

Under the proposal given in Chapter 1 about how this reading is derived without

³ The full logical form predicted is:

$$(\exists x)(\exists e_1)(\exists e_2)[\text{act}'(\text{Mary}, x, e_1) \ \& \ R(x, \text{Mary}, e_2) \ \& \ (\exists y)[\text{secretary}'(x, y, e_2)] \ \& \ (T(e_1) > \text{now}) \ \& \ \text{CAUSE}(e_1, e_2)]$$

⁴ Cf.: $(\exists x)(\exists e_1)(\exists e_2)[\text{act}'(\text{Mary}, x, e_1) \ \& \ \text{secretary}'(x, m, e_2) \ \& \ (T(e_1) > T(e_2)) \ \& \ (T(e_1) < \text{now})]$

stipulation, this would follow by allowing the relation denoted by secretary (someone being a secretary to someone) to furnish the value for R, deriving a formula logically equivalent to (11). But however we derive R-Theta readings in general, taking that option, as in (11), gives us the thematic resultative reading noted above for the sentence; ie., it predicts a reading for Mary got a secretary equivalent to this: someone entered into a secretary-of relationship to Mary, ie. someone became Mary's secretary. This is the other reading, as identified above. Though the independent and thematic resultative readings are distinctly different, both follow, under the assumptions here, from the same lexical representation; they follow from the different choices we can make, among the elements that the lexical representations themselves leave underspecified.

Under the proposal, the relation between the reading for the temporal connection between N and V and the R-Theta reading for the possessive is this: event-identification is a necessary, but not a sufficient condition, for the R-Theta reading. That is, the R-Theta reading depends on that construal of the temporal connection, but is not simply a product of that temporal construal. Even with the right temporal construal of the connection between the verb and its object, ie. as in (10), the R-theta reading as in (11) is still not absolutely forced. The proposal therefore predicts that another kind of resultative interpretation for the object-DP should be possible, one which is not an R-Theta reading; that is the reading represented in (10), with event-identification, but not an R-Theta reading for R. This non-thematic but resultative reading, though we did not note it in looking at the ambiguities (it is fairly subtle) actually turns out to exist; in fact, there are a number of cases where it becomes important to distinguish the R-Theta

reading from simply allowing the NP to specify the result of the action. But for now I set that aside, and note only that the proposal has correctly derived the two different readings for Mary got a secretary that we outlined above.

By exactly parallel reasoning, we derive two parallel readings for Mary chose a secretary. (12) shows the predicted representation corresponding to the independent reading: There was a secretary (independently of Mary's action), and Mary chose her for some contextually defined purpose or role (as her dance partner, as her assistant, as her boyfriend, etc.)

(12) Predicted Independent Reading for Mary chose a secretary

$$\begin{array}{ccccc} [e_1 & \text{CAUSE} & e_2] & & e_n \\ | & & | & & | \\ \text{choose}'(\text{Mary}, x) & \& \text{R}(x, \text{Mary}) & \& (\exists y)[\text{secretary}'(x, y)] \end{array}$$

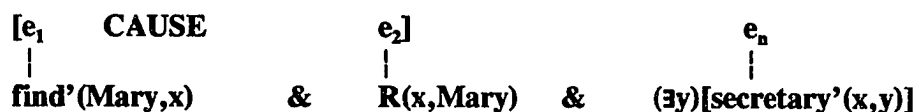
And (13), below, shows the predicted representation corresponding to the thematic resultative reading: Mary's action resulted in someone being Mary's secretary:

(13) Predicted Thematic-Resultative Reading for Mary chose a secretary

$$\begin{array}{ccc} e_1 & \text{CAUSE} & e_2 \\ | & & | \\ \text{choose}'(\text{Mary}, x) & \& \text{secretary}'(x, m) \end{array}$$

Assuming that verbs like choose, eg. pick, select, pick out, decide on, all share in common in addition the creation of a possessive relation (it is a possessive relation that results from the choices), we derive the same result for all these other choose-verbs. Similarly, for Mary found a secretary, two representations are predicted, corresponding to thematic resultative and independent readings:

(14) Predicted Independent Reading for Mary found a secretary



(15) Predicted Thematic Result. Reading for Mary found a secretary



The thematic resultative reading for find a secretary correlates well with the predicted representation in (15). It would appear that, although a distinctly different independent reading is clearly also plausible with find, (14) is perhaps not exactly capturing our intuitions about it; the independent reading for find a secretary seems to correspond not to "they entered into some relationship", but to "Mary located this person". However, the independent reading where she locates the individual, not predicted under the proposal, appears to be the result of a real accidental lexical ambiguity--there is, in addition to possessive find, a meaning for find which is simply "fix the location of the individual". Moltmann (1995), in noting the two readings for these accomplishments in general, also posits this version of find. Judgements about the independent reading predicted in (14), where Mary entered into some contextually defined relation with the patient, who happened to be a secretary, are difficult; I believe it is possible to get such a reading, but that the other version of find strongly interferes. Thus, the thematic resultative reading follows, and an independent reading is correctly predicted, though this other independent factor also becomes relevant in this last case.

2. Issue Two: When is Which Reading Available for Get, Find, Choose?

2.1 The Availability-of-Readings Issued Described

It was noted in the last section that get, choose, and find, are not always ambiguous in this way: which reading is available depends crucially on which NP-object is present. The second issue, following on the first, is to look at when which of the readings is possible, with respect to varying the object-NP, and to explain this. I start by quickly outlining the empirical facts.

First, let's look at the wider range of cases where get, choose, and find are consistently ambiguous, as above. The ambiguous cases include all kinship-noun complements, and complements describing other social relationships, as in these examples.

(16) **Further Examples of Social-Relation N Complements to Poss. V's:**
Ambiguous

- (a) Mary got a husband. (c) Mary got a boyfriend.
- (b) Mary got a partner. (d) Mary got a lover.
- (e) Mary chose/found a husband/boyfriend/partner/lover.

With Mary got a husband, a thematic resultative reading (as a result, he became a husband to her) is so strong that the independent reading will not be at all obvious; it may be helpful, then to consider this dialogue (from Let's Fall in Love, MGM, 1941):

She's respectable now: she's got a husband'

'Oh Really? And whose husband has she got?'

The joke in this dialogue is playing on precisely the resultative vs. independent ambiguity in She has got a husband: (i) that someone has become her husband, vs. (ii) she was involved in some unspecified way with someone who was independently a husband (to someone). The other examples are ambiguous in a parallel way, as the reader can verify by imagining various contexts in which Mary may be understood to enter into some contextually defined relationship with an existing boyfriend, etc. With some kinship-noun complements pragmatic considerations may interfere with the resultative readings (as in Mary got a father), though the resultative reading is actually always available in adoption contexts. A second set of NP-objects which allow the ambiguity are NPs which describe positions of employment or temporary roles. Get, find, and choose are also consistently ambiguous with these complements, which was why a secretary was used as the complement in the last section. Some more ambiguous examples are shown below.

(17) Further Examples of Employment-Noun Complements to Poss. V's:

Ambiguous

- | | |
|--|----------------------------|
| (a) Mary got a teaching assistant. | (b) Mary got a babysitter. |
| (c) Mary got a servant. | (d) Mary got a helper. |
| (e) Mary chose a teaching-assistant/a helper/a babysitter/a servant. | |
| (f) Mary found a teaching-assistant/a helper/a babysitter/a servant. | |

To see for example the two readings for Mary got a teaching assistant, it might be helpful to compare these two scenarios. First that Mary is a teacher, and the department hires someone to work for her (someone is assigned to be her teaching assistant=resultative reading). Second, now suppose that Mary is a student who has

been looking for a date, and she decides her math tutor is suitable (someone who is independently a teaching-assistant becomes her date=independent reading, he was not a teaching assistant as a result of the action). The other examples are ambiguous in a parallel way, as the reader may wish to verify. Body part NP-complements are also ambiguous, though here pragmatics must be manipulated quite carefully; for example, Peter got smaller thighs, or Peter got a new nose are also ambiguous.

However, in addition to those ambiguous cases, there are also a number of sentences with get, find, and choose, which are not ambiguous; the ambiguity noted in the examples above is systematically lost with a wide range of other complements. First, this is always the case with proper names and pronouns as the direct object. So, for example, Mary got Doug and Mary got him are grammatical, but do not seem to be ambiguous between two readings; certainly they do not allow resultative and non-resultative readings (he cannot have taken on the position of being Doug/him as a result).

More generally, the resultative reading is also impossible or extremely marginal with all common noun NP-complements except those describing (as discussed above) employment positions, social relations, or body parts. So, for example, Mary got an idiot is a grammatical sentence; but it is apparently unambiguous, and certainly not ambiguous between a resultative and a non-resultative readings. The only plausible reading is that the person was an idiot independently of Mary's action, not that he took on the position of being an idiot (to her) as a result. It is actually just very marginally possible to get a resultative reading for that sentence; but to get it, we need to construe being an idiot as a changeable property that one can be assigned or take on as a result

of someone's action, as perhaps in the context of a play; only with such a (very marked) construal for idiot is a resultative reading possible. Some more cases of NP-objects where the resultative reading is very marginal are shown in (12); there is no related ambiguity in these sentences, except on a very marked construal of the NP-objects.

(18) Further Egs. of Common Nouns Where the Independent Reading is Strongly Preferred

- (a) Mary got a Bulgarian/a transvestite/an idiot/a man/a man with a job/a bachelor.
- (b) Mary chose a Bulgarian/a transvestite/an idiot/a man/a man with a job/a bachelor.
- (c) Mary picked a Bulgarian/a transvestite/an idiot/a man/a man with a job/a bachelor.
- (d) Mary found a Bulgarian/a transvestite/an idiot/a man/a man with a job/a bachelor.

This is the second issue: why does the noted ambiguity with get, find, and the choose-verbs correlate with choice of NP-object in this way? That is, why are the verbs sometimes ambiguous, but sometimes not?

2.2 Deriving the Range of Readings with Various Complements

Now let's look at how this issue is addressed under the proposal, ie. what the predicted readings are, for the various kinds of NP-objects.

2.2.1 Predictions for Kinship and Social Relation Nouns

First, the fact that kinship and social relation complements should be ambiguous in the way that they are, barring some pragmatic interference, is exactly as predicted. This is because these nouns are all two-place, ie. relational nouns (see Wall, 1972, Stockwell, Schachter, Partee, 1973, Anderson, 1983-84, among others). Given this, by exactly the same steps as we took with the two-place noun secretary, above, two readings will be available for Mary got/chose/found a husband, and all other social-relation complements, as I now show.

Let us look at the thematic-resultative readings first. These are derived first by taking the option of reading the N-eventuality (his being a husband, to someone) as co-temporaneous with the result-state of get/find/choose, giving us (19).

$$(19) \quad \begin{array}{ccccc} [& e_1 & \text{CAUSE} & & e_2] \\ & | & & & \\ & \text{get/choose/find}'(\text{Mary}, x) & \& & \\ & & (\exists y)[\text{husband}'(x, y)] & \& & R(x, \text{Mary}) \end{array}$$

Now, having made that choice, we consider the choices for determining the value for R, a necessary part of the interpretation. Given (19), the R-Theta construal of the possessive relation is an option (again, it is not forced, even with the alignment in (19), so that (19) should be a possible reading too; I return to that, below). Taking the available R-theta option gives (20).

$$(20) \quad \begin{array}{ccccc} [& e_1 & \text{CAUSE} & & e_2] \\ & | & & & | \\ & \text{get/choose/find}'(\text{Mary}, x) & \& & \text{husband}'(x, \text{Mary}) \end{array}$$

By (20), the system has predicted a reading corresponding to: as a result of the action, someone took on the position of being Mary's husband. So, exactly as with secretary above, this predicts the salient thematic resultative reading for Mary got/chose/found a husband. Now let's look at how the other reading is predicted, here. Since, under the proposal, identification between the N-eventuality and the event-structure of the verb is never forced, we also predict for Mary got/chose/found a husband a reading as in (21), below.

$$(21) \quad [\quad e_1 \quad \quad \text{CAUSE} \quad \quad e_2 \quad] \quad \quad e_n \\
\quad \quad | \quad \quad \quad | \quad \quad \quad | \\
\quad \quad \text{get' (Mary, x)} \quad \& \quad \quad \text{R(x, Mary)} \quad \& \quad \quad (\exists y)[\text{husband' (x, y)}]$$

This representation predicts a reading where the person is a husband (to someone) independently of Mary's getting/choosing/finding them; ie., she didn't marry anyone, but rather entered into a contextually defined relationship with an existing husband. This is the independent reading, as identified above (I comment shortly, below, on why it is hard to get out of context). Thus, the proposal predicts the two possible readings for Mary got/chose/found a husband. By exactly analogous reasoning, two parallel readings are predicted with all social-relationship complements, eg. Mary got/chose/found a wife/brother/father/lover/partner/friend, and so on. As noted above, in some cases pragmatic considerations make the thematic resultative reading odd. For example, for Mary got a father, the predicted thematic resultative reading, equivalent to "Someone became the father of Mary" is pragmatically odd. The proposal cannot say when or why creation of odd any particular relation should be pragmatically odd; the proposal only predicts that in contexts where people can be understood to become

fathers, a thematic-resultative reading should be available. This is correct, since in adoption contexts that reading is available.⁵

There are a number of employment nouns which, like secretary, have a two-place argument-structure. These include: assistant, helper, employee, teacher, tutor, and advisor (see arguments for this point in Chapter 6, below). For those employment nouns which are two-place, the proposal predicts (at least) two readings by reasoning exactly analogous to Mary got/found/chose a secretary: an independent reading, and a Thematic Resultative reading. This correctly captures the ambiguities noted above with these nouns. I will not go through the derivations, which are exactly as with secretary, above. By the same reasoning, we can derive thematic resultative readings, and ambiguities, with other sorts of two-place nouns, as eg. in Bulgaria got many new citizens (cf. citizens of Bulgaria, showing that citizen is a two-place noun; and here, we do get a resultative reading). The only two-place nouns for which this approach raises a question are representational nouns. These are clearly sometimes two-place, ie. relational, nouns, yet Mary got a new picture or Mary chose a new picture do not seem to allow a thematic-resultative reading (though additional material will make it more plausible with get, eg. Mary got a picture in the paper). Possibly this follows from the fact that the nature of the activity here is essentially something that creates a relationship, and the creation of a picture requires a physical act, rather than just a re-

⁵ The R-theta reading is clearly strongly preferred with certain nouns, including husband. The reasons for this are the same as the reasons the R-theta reading is strongly preferred with these same nouns in possessive DPs like Mary's husband, ie. (i) the R-Non-theta Construal, as in (21), depends on a contextually defined relation, and (ii) nouns like husband are somewhat marked without overt specification of a value for their internal arguments, and the R-Non-theta reading does not specify this value directly.

arrangement of relations (though creation of a citizen, or husband, can be done only be re-arranging relations); this issue remains an open question here. (On event-nominals like destruction, see comments in Section 7, below.)

2.2.2 Readings Predicted With Individual-Denoting Objects

Now let's look at what the proposal predicts for cases where the NP-complement to get/find/choose is a proper name or a pronoun. Under the assumptions here, proper names and pronouns do not assert that any property holds of an individual; they simply denote individuals. From this, it follows that get, find, and choose will be interpretable with proper name and pronoun complements, but only in one way. For example, Mary got Doug is predicted to allow only one reading, the reading shown in (22).⁶

$$(22) \quad \begin{array}{ccc} e_1 & \text{CAUSE} & e_2 \\ | & & | \\ \text{get}'(\text{Mary}, \text{Doug}) & \& & \text{R}(\text{Doug}, \text{Mary}) \end{array}$$

(22) predicts the context-dependent reading: Mary and Doug entered into some contextually defined relationship. This is what the sentence means. It is also the only available reading, for the sentence, as noted above, and this is also predicted. That follows because, since Doug denotes an individual, we do not have the option here of associating a formula like Doug'(x) with the result state; Doug does not denote an eventuality. The reasoning for get with pronominal NP-objects, as in Mary got him is

⁶ This abbreviates:

$(\exists e_1)(\exists e_2)[\text{get}'(\text{Mary}, \text{Doug}, e_1) \& \text{R}(\text{Doug}, \text{Mary}, e_2) \& \text{CAUSE}(e_1, e_2)]$

exactly analagous: it is predicted to mean "Mary entered into some contextually defined relation with the individual", and only this, which is correct.

By exactly analagous reasoning, the proposal derives for Mary chose Doug, and Mary found Doug, only the interpretations shown below, ie. independent readings where the two of them enter into a contextually defined relationship:

(23)
$$\begin{array}{ccccc} e_1 & & \text{CAUSE} & & e_2 \\ | & & & & | \\ \text{choose}'(\text{Mary}, \text{Doug}) & & \& & \text{R}(\text{Doug}, \text{Mary}) \end{array}$$

(24)
$$\begin{array}{ccccc} e_1 & & \text{CAUSE} & & e_2 \\ | & & & & | \\ \text{find}'(\text{Mary}, \text{Doug}) & & \& & \text{R}(\text{Doug}, \text{Mary}) \end{array}$$

This seems to be correct, insofar as only non-resultative readings are possible.

For (24), with find, it is actually hard to get exactly this reading, using the Relationship version of find (Mary entered into some contextually defined relationship with him); I believe that with sufficient context it is possible, but that the "locate in space" reading (which, note, does not depend on any contextual value for R, hence is easier to get) strongly interferes.⁷

Note that one of the useful things about the lexical representations proposed here is that they can correctly handle individual-denoting complements to these verbs, using the same lexical representation which derives the R-theta readings with relational noun

⁷ Suppose for example that we know that each woman is looking desperately for a secretary (not locating one in space, but trying to hire one). Then, if we say "Mary was so lucky to find Doug!", we may read it as meaning: Mary was so lucky that she entered into this secretary-employer relationship with him.

complements. Given that it is no accident that we always get these two readings with all choose-verbs, this is preferable to positing two lexical entries to derive the different sorts of readings associated with each verb.

2.2.4 Predictions for NP-Objects Headed by One-Place Nouns

Now let's look at the predictions that this proposal makes for the interpretations of get, choose, and find with NP-objects headed by one-place nouns. Here, the predictions need to be separated into two parts: the predictions with respect to R-Theta readings, and predictions with respect to whether the nominal event can identify with the result-state.

(i) First, with respect to R-theta readings, the prediction is that this is absolutely impossible with one-place complements; an R-Theta reading is a contradiction in terms if there is no internal argument associated with the noun.

(ii) However, with respect to identification of the nominal-event with the result-state, the prediction made by the proposal is that this may, in principle, be possible, even if the NP-object is headed by a one-place noun. This is because the resultative alignment is a necessary, but not a sufficient condition for R-Theta readings: the resultative alignment itself neither forces nor depends on an R-Theta interpretation of the possessive relation.

By (ii), it follows that even where the complement is headed by a one-place noun, the sentence could be ambiguous between an independent vs. a resultative reading, though neither will allow an R-theta reading. It turns out that there are both sorts of cases, with common-noun complement; with many DP-complements (eg an idiot), a resultative

reading is impossible or very marginal, apparently for independent pragmatic reasons; but there are some cases where the resultative reading is fairly plausible, even though the DP-complement is headed by a non-relational noun. We will look at examples of both.

Let us start by looking at some cases with one-place complements to the possessive accomplishments where a resultative reading is impossible, or extremely marginal. These cases are all cases where the noun heading the NP-complement names a non-changeable or inherent property, ie. an individual-level property (see Milsark, 1974; Carlson, 1977; Kratzer, 1989). For example, let's consider the NP an idiot, used as a complement to a possessive verbs, as eg. in Mary got an idiot. The proposal here straightforwardly predicts a reading where the person is an idiot independently of what Mary does, so that the two of them enter into a contextually defined relationship. This reading corresponds to the predicted interpretation shown here:

$$(25) \quad \left[\begin{array}{ccc} e_1 & \text{CAUSE} & e_2 \end{array} \right] \quad e_n$$

$$\begin{array}{ccc} | & & | \\ \text{get}'(\text{Mary}, x) \ \& & \text{R}(x, \text{Mary}) \ \& \quad [\text{idiot}'(x)] \end{array}$$

That is what the sentence means. However, in addition, the lexical representation for get combined with the general constraints assumed here on N/V eventuality-interactions here will also in principle allow a reading corresponding to (26).

$$\begin{array}{ccccc}
 (26) & [& e_1 & \text{CAUSE} & e_2] \\
 & | & & & \\
 & \text{get}'(\text{Mary}, x) & & \& & \\
 & & & & \text{idiot}'(x) \& R(x, \text{Mary})
 \end{array}$$

(26) predicts the reading: Mary entered into a relationship with an individual and, at the same time, he became an idiot. This reading is not obviously possible, but I would suggest that we do not need to rule it out grammatically, since there are simple pragmatic reasons why it cannot arise: in practice, people do not become idiots, and certainly not as a result of entering into a relationship. It is, I suggest, simply for this practical reason that the resultative reading is blocked. The basic proposal itself here does not tell us that idiothood is pragmatically unchangeable; but that would appear to be a reasonable explanation for why (26) is not available as a reading in practice, and I will assume it. This same explanation will rule out resultative readings for get, find, and choose with all nominal complements describing inherent or unchangeable properties; and we looked above at a number of examples, all of which are generally judged unambiguous. Eg., Mary got a man/woman/idiot/transvestite/Bulgarian etc., are all grammatical, but only on an independent reading. So, summarizing: the system itself will generate a representation where the person becomes an idiot, a man and etc. as a result; but for the practical reason that people cannot become these things, or at least not simply as a result of being gotten, chosen, etc. those readings are simply not plausible. There is no reason that the same considerations, ie. that the nominal-property is not plausibly changeable, could not make a resultative reading implausible also with relational complements; in fact, it can, as noted earlier for egs. like Mary got a

father, or Mary chose a father, where the resultative (and hence, R-theta) readings depend on special pragmatics, and are impossible on certain senses of father.

I note that this blocking of the resultative reading would follow directly from the representations if we were to apply Kratzer's (1989) account of the stage vs. individual level distinction also to nominal properties: if idiot, and other individual-level nouns lacked an event-variable, there could be no identification with the result-state; if there is no eventuality associated with the noun, there is nothing to identify. Such an account is perfectly consistent with the ideas of the proposal here.

Now, if it is only the fact that the property is unchangeable that interferes with a resultative construal in those cases, then a resultative reading for get, find, and choose should be available with at least some one-place nouns, though of course, an R-theta reading will necessarily be ruled out. This is apparently so: when the noun describes, or can be read as, a temporary role or position, the kind of position that an individual can take on (or lose) as a result of social actions like getting, finding, and choosing, then we do get a kind of ambiguity, even with one-place nouns. For example, consider: Mary got a portrait-painter. Portrait-painter is apparently a one-place noun (eg., it will not license a complement⁸); yet, many informants do find that two readings are possible for Mary got a portrait-painter:

- (i) A resultative reading, where the person is put into the position of being a portrait-painter; and

⁸ Eg. *A portrait-painter of Mary. (Note that post-nominal possessives, eg. A portrait painter of Mary's are grammatical with sufficient context, but these have a different distribution, and are not a test for relational nouns.)

- (ii) An independent reading, where the person is a portrait-painter independently of what Mary does.

The latter, the reading where the person is a painter already or independently, and Mary enters into a relationship with them, follows straightforwardly under the proposal, and I set its derivation aside. The resultative readings here also follows, corresponding to the representation shown below, which predict the meanings: as a result of the action, the patient was a portrait-painter. The assumption is simply that it is more pragmatically plausible in this case, since people can be understood to become portrait-painters as a result of an action which creates a relationship.

$$\begin{array}{lcl}
 (27) & [e_1 & \text{CAUSE} & e_2] \\
 & | & & \\
 & \text{get}'(\text{Mary}, x) & \& & \\
 & & & & [\text{portrait-painter}'(x)] \& R(x, \text{Mary})
 \end{array}$$

Note that here, the predicted meaning is: the person both becomes a portrait painter and enters into some contextually defined relationship with Mary. No R-Theta reading is possible here, so R must still get a value from context, in this case most plausibly by understanding it as an employment position. Exactly the same resultative reading appears to be possible with any kind of noun which describes a role, as eg a role in a play, such that Mary can be understood to give this temporary role to the person. In fact, with that temporary role construal, a resultative reading becomes possible with any nominal complement, even in eg, Mary got a Bulgarian, so long as we do read Bulgarian as a temporary role. Such a resultative reading is also possible even with a

3. Issue Three: The Husbands vs. Married Men Paradoxes

3.1 The Issue Described

This section looks at the Husbands vs. Married Men Paradoxes with choose, get, and find noted in the preface. First, I review the issue, in a little more detail. Consider the syllogism in (29).

(29) (a) All husbands are married men.

(b) Mary chose a husband.

(c) \therefore Mary chose a married man. (Invalid)

The premise in (29a) is a tautology: husbands are always married men. Yet, (29) is not a valid argument: choosing a husband does not entail choosing a married man. We can see that this argument is invalid from the fact that a statement like (30) below, accepting the premises and denying the consequent, is perfectly consistent; (31) makes the same general point.

(30) Mary chose a husband, and it's a good thing she didn't choose a married man this time.

(31) If you are choosing a husband, make sure you don't choose a married man!

There must be something special about the verb choose (and other possessive verbs; see below) in this regard; for, the pattern of the argument in (29) normally does constitute

a valid argument, when we substitute (other) extensional verbs. For example, consider the verbs kiss, kill, and hit. These are non-possessive verbs, and in an exactly parallel syllogism, we do get valid arguments with these non-possessive verbs: kissing a husband always entails kissing a married man, and so forth:

- (32) (!)Mary kissed/killed/hit a husband, and it's a good thing she didn't kiss/kill/hit a married man this time.
- (33) (!)Mary kissed/killed/hit a husband; it's a good thing he wasn't a married man.
- (34) (!)If you are kissing/killing/hitting a husband, make sure you don't kiss/kill/hit a married man!

Now, the problem here is with choose, and not with kiss, kill and hit; the entailments we get with non-possessive verbs like kill etc. are just what we expect: treating these non-possessive verbs as two place relations between individuals, as is standard, will predict the validity of the arguments with these verbs, under any extensional of the truth-conditional theories mapping syntax into predicate logic; hence the nonsensical nature of (32)-(34). The real problem is that to choose a husband does not entail to choose a married man: if choose were also a two-place extensional relation between individuals, then (29) should be just as valid as the other arguments. Since, after all, it is individuals that choose and are chosen, is choose not a two-place relation between individuals? More generally, what went wrong in (1), such that Mary's choosing a husband did not mean that she chose a married man?⁹

⁹ Moltmann (1995) suggests for somewhat different reasons that verbs like get, find, and choose (and also hire) are actually a kind of intensional predicate, though I have not followed this approach here. A kind of intensional analysis may well be correct, but it is unclear to me how this will resolve this exact issue.

The issue about choose a husband not entailing choose a married man generalizes to various other pairs of NP-complements which describe identical sets of individuals, (eg., wives vs. married women; employees vs. people with jobs); however, there is also a twist: with some pairs of similarly related NP-complements, ie. NPs which describe identical sets in all possible worlds, choose very often patterns normally with respect to entailment relations, and not unexpectedly as in (29). For example, consider now this pair: bachelors vs. unmarried men. Like husbands and married men, the sets of bachelors and unmarried men are also always identical. But now, observe that choosing a bachelor does entail choosing an unmarried man; in this case, choose behaves like other extensional predicates.

(35) (a) All bachelors are unmarried men.

(b) Mary chose a bachelor.

(c) Mary chose an unmarried man. (Valid)

Confirming the validity of (35), observe for example, that this is nonsense:

(36) (!)Mary chose a bachelor, and it's a good thing she didn't choose an unmarried man this time.

Summarizing, then, we have two issues here. First, why is choose different from kiss and kill, with respect to husbands and married men? And second, why is choose not different in this respect for bachelors and unmarried men? Exactly parallels issues arise with get and find. For example, (37) and (38) are invalid arguments.

- (37) (a) All husbands are married men.
 (b) Mary got a husband.
-
- (c) \therefore Mary got a married man. (Invalid)
- (38) (a) All husbands are married men.
 (b) Mary found a husband.
-
- (c) \therefore Mary found a married man. (Invalid)

The invalidity of these arguments is confirmed by the following statements, each describing quite a plausible situation in which the premises are true, and the consequent false (again, compare the parallel statements with kiss, kill, and hit, above, which are absurd).

- (39) Mary just got a husband, and it's a good thing he wasn't a married man!
- (40) If you are getting a husband, make sure he isn't a married man this time!
- (41) When she went to Tulsa, Mary didn't find a single married man there--
 but she did find a husband!

Yet, if Mary got a bachelor, or Mary found a bachelor, then Mary necessarily did get/find an unmarried man; it is impossible, for example, to imagine: "Mary got a bachelor, but she didn't get an unmarried man". Thus, get and find raise exactly the same issue as choose.

3.2 How the Husbands vs. Married Men Paradoxes Follow, Under the Proposal

The seemingly paradoxical pattern above with get, find, and choose, follows under the

proposal here, in this way: though we have a single uniform lexical entry for each verb, each entry nevertheless derives two distinct patterns of interpretation, depending on choice of complement-NP. These two interpretations turn out to be truth-conditionally distinct, and the apparent paradoxes above are resolved.

First, consider Mary chose a husband. As we already saw, the salient interpretation for this sentence, predicted under the proposal here, is as in (42).

$$(42) \quad \begin{array}{ccc} [e_1] & \text{CAUSE} & [e_2] \\ | & & | \\ \text{choose}'(\text{Mary}, x) & & \text{husband}'(x, m) \end{array}$$

Now we compare Mary chose a married man. Informants consistently judge that the salient reading for this is that the person is a married man independently, as in (43); this reading is also predicted under the proposal here, but it corresponds to this:

$$(43) \quad \begin{array}{ccccccc} [& e_1 & \text{CAUSE} & e_2 &] & e_n & \\ & | & & | & & & \\ \text{choose}'(\text{Mary}, x) & & \& & \text{R}(x, \text{Mary}) & & \text{man}'(x) \& (\exists y)[\text{married}'(x, y)] \end{array}$$

Now, despite the fact that husbands are always married men, and vice versa, the representations in (42) and (43) are truth conditionally distinct: Mary can marry (as in (42)), without entering into a relationship with an independently married man (as in (43)); and conversely she can enter into a relationship with an independently married man (as in (43)), without marrying (as in (42)). Because the proposal here predicts that these two truth-conditionally distinct readings are available (though derived from a single lexical entry) the seemingly paradoxical entailments are resolved. Exactly parallel considerations resolve this issue with get, and find, under the proposal here, and I will

now consider the pair get a bachelor, vs. get an unmarried man. With this pair, both objects are headed by one-place nouns, ie. nouns for which an R-Theta reading is not possible. Adopting the natural independent readings for these sentences, Mary's getting a bachelor does entail her getting an unmarried man: if Mary enters into a relationship with a bachelor, she necessarily enters at the same time into this relationship with an unmarried man. Since no R-theta reading is possible in either case, we do not have the same way of escaping the entailment. With pairs of one-place nouns, the only way to get readings which do not entail each other is to adopt a non-thematic resultative reading for one, eg. where the person takes on the role of bachelor in a play, but not for the other of the pair; at least in this case the resultative reading is marked for both NP-objects, apparently for independent pragmatic reasons, hence not a plausible reading, hence the entailment stands.

Finally on this point, I comment briefly on what might be an apparent alternative to the analysis here. Specifically, I note that if we rejected the lexical decomposition proposed here, and tried to derive difference between get a husband and get a married man only by marking control relations between the subject of eg choose and the internal argument of a two-place argument, we could not resolve the paradoxes. The idea, which I am rejecting, would be to try and say that in Mary got a husband, Mary controls the internal argument of husband, and this would be all we would need to say to resolve the paradoxes. This will not work. If Mary got a husband, she would still, then, get a married man, regardless of whether we link Mary to the internal argument of husband in the semantic representation. That is, $\text{husband}'(x, \text{Mary}) \ \& \ \text{get}'(\text{Mary}, x)$ will still entail $\text{married}'(x) \ \& \ \text{man}'(x) \ \& \ \text{get}'(\text{Mary}, x)$; so the solution is not simply

marking that association. This link will, though, would resolve apparent paradoxes running in the opposite direction, eg the fact that Mary got a married man does not entail that she got a husband; but for the reason noted, it is not the whole solution.

4. Issue Four: The Creation Switch Effect

4.1 The Creation Switch Described

Another empirical generalization which correlates with the resultative/independent reading is an effect which I will call in the Introduction above the Creation Switch, which I will outline in this section. Again, I begin by outlining this effect here in some more detail. Summarizing, the issue is this:

- (45) (i) First, that get, find, and choose verbs can be creation verbs; but
- (ii) Second, that these verbs are only *sometimes* creation verbs.

In other words, unlike true creation verbs (eg. build or make) which are always creation verbs, and unlike non-creation verbs (eg burn, destroy), which are never creation verbs, possessive verbs switch back and forth between being one kind of verb and the other. The resultative/independent ambiguities again underlie this effect.

I start by noting a well-known fact about creation verbs like build or make, which is that the NP-complements to these verbs have a special referential status: in the imperfective, the object of creation verbs need not exist (see Dowty, 1979, Vlach, 1981, Landman, 1992, among others). So, for example, compare (46a), with a creation verbs, with (46b), with non-creation verbs.

- (46) (a) There are no carts, but John is building/making one right now.
- (b) (!)There are no carts, but John is pushing/breaking one right now.

(46a) is consistent, precisely because if you are building a cart there need not be any carts in existence at that time; but (46b) is inconsistent, because if you are pushing or breaking a cart, there must be one to push or break.

Now, looking at the referential status of possessive verbs, we find that in many cases, possessive verbs pattern just like creation verbs in this respect; the thing named by the object-NP need not exist in the imperfective. For example, these are all consistent statements:

- (47) (a) There are no secretaries, but Mary is choosing one right now.
 (b) There are no secretaries, but Mary is picking one right now.
 (c) There are no secretaries, but Mary is finding (us) one right now.
 (d) There are no secretaries, but Mary is getting (us) one right now.
 (e) There are no husbands (in the world), but Eve is choosing one right now.
 (f) There are no advisors (in the world), but Eve is finding one right now.
 (g) There are no friends (in the world), but Eve is picking one right now.

Compare various verbs outside the possessive class with the same NP-objects, which are very odd if the object-NP names something non-existent:

- (48) (a) ??There are no secretaries, but Mary is kissing one right now.
 (b) ??There are no secretaries, but Mary is killing one right now.
 (c) ??There are no secretaries, but Mary is annoying one right now.
 (d) ??There are no secretaries, but Mary is dating one right now.
 (e) ??There are no advisors (in the world), but Mary is married to one right now.

As (48) shows, the felicity of (47) is quite specific to these possessive verbs (and other creation verbs); consequently, it cannot be a future-reading for the progressive in (47) which makes the examples good; if that were all that was going on, (48) should be just as good.

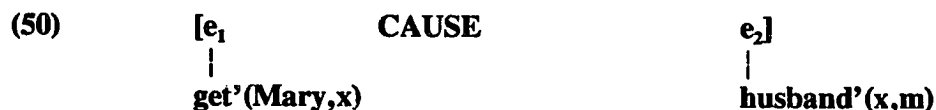
However, what makes the issue more interesting, possessive verbs do not always pattern, at least in this respect, as creation verbs: with other NP-complements, the existence of the NP-object is presupposed, and if the NP-object names something non-existent the sentences are non-sensical. For example:

- (49) (a) ?There are no idiots, but Mary is picking/finding/choosing one right now.
 (b) ?There are no Bulgarians, but Mary is picking/finding/choosing one right now.
 (c) ?There are no transvestites, but Mary is picking/finding/choosing one right now.
 (d) ?There are no married men, but Mary is picking/finding/choosing one right now.

Why are verbs like choose, get, find, sometimes creation verbs, and sometimes not?

4.2 How the Creation Switch Follows, Under the Proposal

The patterning of get, find, choose, as sometime creation verbs follows from the existence of the thematic-resultative reading as shown above. For example, consider again the predicted Thematic Resultative meaning for Mary got a husband, corresponding to the representation below.



On this reading, the person's being a husband is the result of the action; since it results in the person's being a husband, it creates a husband, hence it is a creation reading. Note that it does not create a whole new individual, but still a new individual in that class (he might have been a husband already, if he is a bigamist; but he certainly need not be). The fact that get, with this complement, will pattern as a creation verb with respect to the imperfective paradox is then just as expected: it is a creation verb. This does not require us to say anything new about the semantics of the imperfective paradox itself, other than what existing analyses say, ie. that it puts the result-state of an accomplishment into an intensional context (see in particular Landman, 1992, and the other references cited above). The same considerations apply with all those NP-complements to get where, as we have already seen, a Thematic Resultative reading is available, eg. get a secretary, get a wife, etc. And similarly, we derive the same prediction for find, and choose, as shown above. Note that the claim is not that anything special happens to the semantics of these verbs in the progressive, eg the meaning of find itself is the same in both the past tense and the progressive; it is rather because the meaning of each verb is (consistently, in all tenses) a kind of creation reading, and the imperfective isolates a particular property of creation verbs, that we get this effect. I note that this will also predict a creation-verb patterning for the resultative non-thematic cases identified earlier, as in Mary found a portrait-painter; this appears to be correct, eg There is no portrait-painter, but Mary is finding one right now seems

to be consistent.

At the same time, because the proposal also derives (from the same lexical entry) independent, non-resultative readings, associated with each verb, we also predict that there should be in effect a non-creation reading for each verb as well. For the cases where the noun names an individual-level property, this will necessarily be the case; eg, for Mary got an idiot (except construing idiot as some kind of changeable role) only the following reading will be available:

$$(51) \quad \left[\begin{array}{ccc} e_1 & \text{CAUSE} & e_2 \end{array} \right] \quad e_n$$

$$\quad \quad \quad \left| \quad \quad \quad \left| \quad \quad \quad \left| \right. \right.$$

$$\quad \quad \quad \text{get}'(\text{Mary}, x) \quad \& \quad \text{R}(x, \text{Mary}) \quad \text{idiot}'(x)$$

Here, get still does in a sense create something, ie. it creates a relationship between Mary and the person; but no idiot is created, because the idiot exists (the person is an idiot) independently of the result. Consequently, continuing to assume that the imperfective puts the result-state of verbs in an intensional context, the pattern in (51) will not show the same imperfective paradox effects: the imperfective will put the relationship with Mary in an intensional context, but not the person's being an idiot. By the same reasoning, if we do adopt the independent reading for get a secretary, where the person is a secretary independently of the action, on this reading the imperfective paradox effect should not arise; this appears to be correct, eg. if we say "There is no secretary, but Mary is finding one right now", this is acceptable only on the sense that Mary is acting to make someone a secretary, not that she is locating or entering into a relationship with someone who is a secretary independently.

5. Issue Five: Interaction with Temporal Modifiers

5.1 The Temporal-Modifier Issue Described

Another issue raised by possessive verbs has to do with their interaction with temporal modifiers. The issue, which was not noted in the preface but which I now outline, is this: temporal modifiers on VP or IP will sometimes, with possessive verbs, bound the temporal extent of the NP-object. The examples in (52) illustrate this.

- (52) (a) Mary got a helper, but for just two days.
 (b) Mary got a lover, but for just two days.
 (c) Mary got a partner, but for just two days.
 (d) Mary got a boyfriend, but for just two days.

Here, on the (very natural) resultative readings, it appears that for just two days necessarily bounds the period of time the person was a helper, lover, partner, and boyfriend. For example, if Mary got a boyfriend for just two days, then he was a (her) boyfriend for just that period. Now, this is not an entailment that we get with all verbs: temporal modifiers outside of DP do not normally bound the period of time the object-NP is what it is (though see remarks below regarding non-referential NPs). Compare (52) above with different (non-possessive) verbs and the same NP-objects:

- (53) (a) Mary kissed a boyfriend, but for just two days.
 (b) Mary buried a boyfriend, but for just two days.
 (c) Mary annoyed a boyfriend, but for just two days.
 (d) Mary painted a boyfriend blue, but for just two days.

Here, the temporal modifiers tell us only how long the action(s) described by the verb lasted; they tell us nothing about how long the person was a boyfriend for.

In addition, at the same time, if we switch to other sorts of complement-NPs, even with possessive verbs, we lose this effect; for example, Mary chose a complete idiot, but for just two days is grammatical (though it requires context, to tell us what she chose him as); but here for just two days cannot seem to tell us how long he was an idiot for. Why do we sometimes, but not always, get this pattern of interaction between possessive verbs and the temporal interpretation of the DP-object?

5.2 How the Issue is Resolved, Under the Proposal

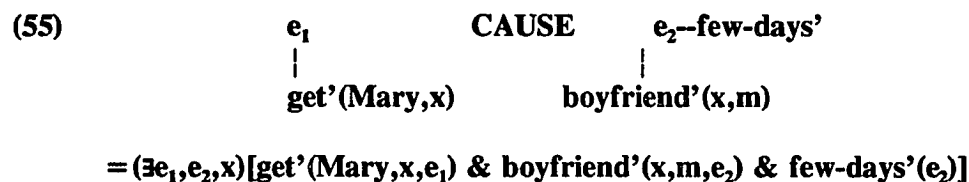
The reason for the particular pattern of interaction with temporal modifiers shown in (52), above, is predicted under the proposal here in the following way. We have already observed that on the Thematic Resultative reading for a sentence like Mary got a boyfriend, the person's being a boyfriend (etc.) is the result of the action; and similarly, all the cases in (52) are cases where the Thematic Resultative reading is available, in fact strongly salient. Now, it is a general fact that temporal modifiers on VP and IP can bound the result-state of an accomplishment, as shown for all accomplishments in Pustejovsky, 1988.¹⁰ In these cases only the result-state is available

¹⁰ As Pustejovsky discusses, in many cases, the for-phrase is odd because the result is understood normally to be permanent or unchangeable; eg, John built a house for twenty minutes is odd (at least reading the modifier as describing how long this result lasted), because the result (existence of a house) is not normally something so temporary; cf., though, John built a consensus (at the meeting) for twenty minutes (the latter eg. pointed out to me by K. Safir).

to the for-phrase. Now, since, on the thematic resultative reading, the NP-object of a possessive accomplishment is (necessarily) identified with the result state, the effect simply follows: boyfriend'(x,y) is the result-state, and the for-phrase bounds that result state. Since the result-state and the boyfriend-eventuality are the same, the effect follows. For example, consider the resultative-thematic reading for Mary got a boyfriend, which is shown in (54).



For-phrases, since they are event-related adjuncts, must bound some situation described by the predicate (see, eg, Hegarty, 1991), and in this case must bound the result-state, e_2 .¹¹ But by bounding the result state, the for-phrase must bound the period of time the person is a secretary; that *is* the result-state; the only possible interpretation is therefore (55).



It follows, then, that, if we take the resultative-thematic reading, the only possible

¹¹ When the verb is read as describing a habitual action, the for-phrase may bound an encompassing "mother event", which consists of a transition from e_1 to e_2 , as eg. in "Mary got boyfriends (over and over) for years"; such readings raise further issues, but since they are independently ruled out in the examples here, requiring this habitual reading, I set them aside.

reading is for the temporal modifier to bound the nominal situation; this is because the temporal modifier must describe the result-state, but the result-state simply is the existence of the secretary relation.

On the other hand, if boyfriend is not identified with the result-state, that is if we choose the context-dependent reading, no temporal interaction is predicted: now the for-phrase, though it is itself interpreted in the same way, now in fact cannot bound the extent of the person's being a boyfriend. What we will derive, for the same sentence on the context-dependent reading, is this.

$$\begin{aligned}
 (56) \quad & [\quad e_1 \quad \text{CAUSE} \quad e_2 \text{--few-days}' \quad] \quad e_n \\
 & \quad | \quad \quad | \quad \quad | \\
 & \text{get}'(\text{Mary}, x) \quad R(x, m) \quad (\exists y)[\text{secretary}'(x, y)] \\
 \\
 & = (\exists e_1, e_2, e_n, x) [\text{get}'(\text{Mary}, x, e_1) \quad \& \quad R(x, m, e_2) \quad \& \quad \text{few-days}'(e_2) \quad \& \\
 & \quad (\exists y)[\text{secretary}'(x, y) \quad \& \quad \text{CAUSE}(e_1, e_2)]
 \end{aligned}$$

Note here that the temporal modifier for a few days is still doing the same thing it did before, ie. bounding the result-state; the difference is that a boyfriend is now not read in the same way, ie. it is read as independent of that result-state. Similarly, where the resultative reading is not allowed, or marginal, as in Mary got Doug/a Bulgarian, temporal adjuncts on projections of V will not be predicted to bound the period of time that the individual was Doug, or a Bulgarian, which is correct. And finally, for other verbs, the prediction is that this pattern of interaction between temporal modifiers on VP/IP and the nominal should arise only in case the nominal is identified with an eventuality described by the verb. With creation verbs, we do get this effect, as discussed separately in Chapter 6, below; with most other verbs, we do not, because the nominal cannot be read as linked in the same way to a situation described by the

verb (again, see discussion in Chapter 6). There are at least some other cases, besides creation verbs, where the same effect arises, and this includes existential constructions; there, as argued in Higginbotham (1987), identification between the nominal and verbal eventualities is forced, hence this is expected; so, for example in For twenty minutes, there was a storm, the modifier twenty minutes certainly bounds the period of time the storm-situation existed. The same effect appears to arise in predicate-nominal constructions, eg Bill was a boyfriend for two weeks; this presumably follows from the fact that the tensed predicate in this case inherits its denotation from the nominal, ie. be is a function which takes a property-denoting complement (as shown in Williams, 1983) and inherits the predicative denotation of the noun. See some further discussion of these issues in Chapter 6.

6. Issue Six: Object-Modifying As-Phrases

6.1 The As-Phrase Issue Described

Another set of issues raised by possessive verbs has to do with the interaction between these verbs and as-phrase modifiers. There are two things to observe here:

- (i) As-phrases used as object-modifiers are much more felicitous with possessive verbs than with most other transitive predicates. However, there are also restrictions on the NP-complement to as in these constructions; eg., as a husband is good; as a married man is very marked, on the relevant reading.
- (ii) The presence of an (object-modifying) as-phrase crucially affects the interpretation of a possessive verb, disambiguating and forcing an independent reading for the verb.

The first point, that object-modifying as-phrases are generally much more felicitous with possessive verbs is illustrated by the following two data sets. First, with possessive verbs, as-phrases modifying the object are fine:

- (57) (a) Mary hired Doug as a/her secretary.
 (b) Mary chose Doug as a/her secretary.
 (c) Mary got Doug as a/her secretary.
 (d) Mary selected Doug as a/her secretary.
 (e) Mary appointed Doug as a/her secretary.

In contrast, the same as-phrases are extremely marginal with most non-possessive verbs:

- (58) (a) ??Mary kissed Doug as a/her secretary.
 (b) ??Mary touched Doug as a/her secretary.
 (c) ??Mary annoyed Doug as a/her secretary.
 (d) ??Mary killed Doug as a/her secretary.¹²

But now, turning to the second point noted above, observe that not all object-modifying as-phrases are compatible even with possessive verbs; whether as-NP is felicitous as an object-modifying adjunct or not even with possessive verbs depends crucially on which NP is in the as-phrase. Compare, for example, (59) and (60), where we consistently use the same verbs (choose, get, and synonyms for choose).

- (59) (a) Mary chose Doug as a husband/lover/partner/friend.
 (b) Mary picked Doug as a husband/lover/partner/friend.

¹² This may be good on a somewhat different reading, ie. Mary killed Doug insofar as he was her secretary, ie. destroyed him as an individual in that capacity. I will suggest later that this is a different use for as, and I set that usage aside for now.

- (c) Mary got Doug as a husband/lover/partner/friend.
- (60) (a) ??Mary chose Doug as a Bulgarian/idiot/transvestite.
- (b) ??Mary picked Doug as a Bulgarian/idiot/transvestite.
- (c) ??Mary got Doug as a Bulgarian/idiot/transvestite.

The generalization is this: only NPs which allow a resultative reading as direct object can occur in the as-phrase adjuncts. For example, a husband allows a resultative reading as a direct-object, and can occur also in the as-phrase; where-as Bulgarian, though it is good as a direct-object to these verbs, does not allow a resultative reading, and concomitantly is odd in an as-phrase.

The contrasts noted so far suggest, then, that the as-phrases are licensed by whatever it is about the verbs that licenses the resultative reading in the first place. Correlating with this is the other point noted in the summary above: that object-modifying as-phrases are parasitic on the resultative reading for a NP-object which otherwise could have a resultative reading. For example, compare (61a) and (61b).

- (61) (a) Mary got a husband.
- (b) Mary got a husband as her bridge-partner.

(61a), as is now familiar, very naturally allows a Thematic Resultative reading for a husband, one on which someone becomes a husband (to Mary). But in (61b), the adjunct as-phrase seems cancels out this resultative reading for husband: now what the person becomes is a bridge-partner, and he seems to have to be understood to have the property of being a husband independently of Mary's action; the reading where Mary

got married is lost, or very marginal.¹³

6.2 The Interpretation of As-Phrases and the Proposal

To look at these effects in terms of the general proposal here, we need to start with a specific proposal with respect to as-phrases themselves. The treatment I will assume here is summarized in (62).

- (62) (a) As-phrases may be read as secondary-predicates on the object-NP.
- (b) When as has an NP-complement (as a secretary, as a man, etc.), what it predicates on another NP is the property denoted by its complement NP.

As itself will be treated here as making no semantic contribution: as simply directly inherits the property-denotation of its complement, and predicates it of another argument in the sentence. Thus, the semantic denotation of as President is treated as simply the same as President, ie. $\lambda x[\text{President}'(x)]$, and so on for all other nouns.¹⁴ Under this conception, this version of as has only a syntactic function, namely as a syntactic licenser for NPs as secondary predicates (and deriving a PP; presumably, NPs alone

¹³ Though I will not be discussing purpose clauses here, purpose clauses have the same disambiguating effect, eg. Mary chose a husband to be her tennis partner; purpose clauses also have a very limited distribution, but are licensed by possessive verbs. The remarks below about how as-phrases are licensed partly mirror an analysis of choose in Bach (1982), where it is argued that purpose-clauses are a kind of semantic argument of choose, so that choose semantically is a three-place predicate, relating two individuals and a role or purpose, with this third argument-position licensing the purpose-clause.

¹⁴ Note, then, that this treats the NP-complement to as as non-referential. The fact that we can say as President at all actually supports this: President can lack a determiner only in non-referential NPs.

cannot be used as secondary-predicates without a case-assigning preposition; as's role is to be that case-assigner).¹⁵

In treating as-phrases as secondary predicates, we will also require an explicit syntax and semantics of secondary-predication. I assume here the general model argued for in Neeleman (1994), which is as follows: secondary-predicates are base-generated as sisters to V, and then (in English) rightward moved for case reasons; semantically, the a-structures of the V and the secondary-predicate compose via theta-identification. Put together with the claim that [as a President] denotes $\lambda x[\text{President}'(x)]$, this model of secondary-predication allows us to derive denotations for the V+as-phrase complex in this way (for a transitive V):

(63)

- (a) [V [as a President]] = $\lambda y \lambda x [V'(x,y) \ \& \ \text{President}'(y)]$
 (b) [V [as a husband]] = $\lambda y \lambda x [V'(x,y) \ \& \ (\exists z)[\text{husband}'(y,z)]]$

A pattern of identification allowing theta-identification with the subject is also possible, though this pattern will not be important in the relevant examples; see Neeleman (1994) for general constraints on how the a-structures can compose. The semantic composition system would have to be adjusted if we wanted to base-generate the as-phrases in a

¹⁵ Comparative as obviously has a different semantics, and as with CP or IP complements presumably does as well. Landman (1990), looking at cases of subject-oriented as-phrases with NP-complements, argues that the denotation of as NP is not simply $\lambda x[N(x)]$, as proposed here, but rather a function over the basic property, which picks out a "slice" of an individual, something like "insofar as x is an N". This function, though clearly right for certain subject-oriented as-phrases, unfortunately predicts the wrong interpretation for the relevant cases, eg. Mary got Doug as a husband does not plausibly mean Mary got him insofar as he was a husband, or the "slice" of the Doug-individual that was a husband; it means that she became his wife.

right-adjoined position, but the same pattern of identification between the a-structures could still be derived, and I use this approach mainly for concreteness.

Now let's look at the predictions these general assumptions about secondary-predication, combined with the specific proposal explored here, predict about the interpretation of a sentence like (64).

(64) Mary got Doug as a husband.

By the assumptions about secondary predication, we allow that Doug may be an argument simultaneously of both get and of the secondary-predicate as a husband.¹⁶ By the general assumptions about semantic composition in secondary-predication structures just outlined, and setting aside momentarily situation-structure, we derive for (64) the representation in (65).

(65) $\text{get}'(\text{Mary}, \text{Doug}) \ \& \ R(\text{Doug}, \text{Mary}) \ \& \ (\exists y)[\text{husband}'(\text{Doug}, y)]$

In other words: Mary got Doug, and Doug was a husband (to someone). Now, this gives us three eventualities: Mary's action of getting, their resulting relationship, and Doug's being a husband (to someone). A look at the constraints on how events can be identified shows that we do not have the same freedom with as a husband that we had with a husband as a direct object: because as a husband is an adjunct, the situation it describes must be identified with a situation described by the predicate. There's only

¹⁶ In many cases a subject-oriented reading (here, where with a husband a secondary predicate on Mary) is possible, in most of these examples giving pragmatically odd readings; but I simply set those readings aside from the discussion. The subject-oriented *as*-phrases can appear in higher syntactic positions, adjoined to IP, where-as the object-oriented examples here are in a position where they c-command the direct object, something we would expect under general constraints on predication as outlined in Williams (1994); see Burton (1992) for discussion.

one situation that as a husband can identify with in this case, namely the result-state of the accomplishment; and that alignment gives us (66).¹⁷

$$\begin{array}{ccccc}
 (66) & [e_1 & & \text{CAUSE} & e_2] \\
 & | & & & \\
 & \text{get}'(\text{Mary}, \text{Doug}) & & & \\
 & & & (\exists y)\text{husband}'(\text{Doug}, y) \ \& \ R(\text{Doug}, m)
 \end{array}$$

Now, in (66), it turns out that we have again derived the conditions for an R-Theta reading: though the external argument of husband is here assigned to a constant (Doug), rather than to a variable, we can still do the same thing, ie. allow husband to furnish the value for R, and collapse the relations by logical equivalence. This predicts (67) as a possible, in fact preferable (because the R-Theta is strongly preferred, where possible, with husband) reading for Mary got Doug as a husband.¹⁸

$$\begin{array}{ccccc}
 (67) & [e_1 & & \text{CAUSE} & e_2] \\
 & | & & & | \\
 & \text{get}'(\text{Mary}, \text{Doug}) & & & \text{husband}'(\text{Doug}, \text{Mary})
 \end{array}$$

In other words, as a result of Mary's action, Doug became her husband. This certainly seems to get us the correct interpretation. The only issue is whether it is over-generating, by predicting that a non-collapsed reading (the reading in (66)) should, in principle, be available. With husband, it is very hard to show this, because, as noted,

¹⁷ Or: $(\exists e_1)(\exists e_2)[\text{act}'(\text{Mary}, \text{Doug}, e_1) \ \& \ R(\text{Doug}, \text{Mary}, e_2) \ \& \ (\exists y)[\text{husband}'(\text{Doug}, y, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]$

¹⁸ $(\exists e_1)(\exists e_2)[\text{act}'(\text{Mary}, \text{Doug}, e_1) \ \& \ \text{husband}'(\text{Doug}, \text{Mary}, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]$

the R-theta reading is so strongly preferred with this noun (for example, try to get a non-thematic reading for Mary's husband); but careful manipulation of context may allow us to get this reading in some cases, as discussed further below.

Now let's consider a sentence where we have both a relational-noun complement to a Relationship verb and a relational-noun in the as-phrase, as in (67).

(67) Mary got a husband as a lover.

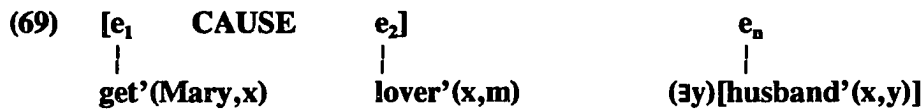
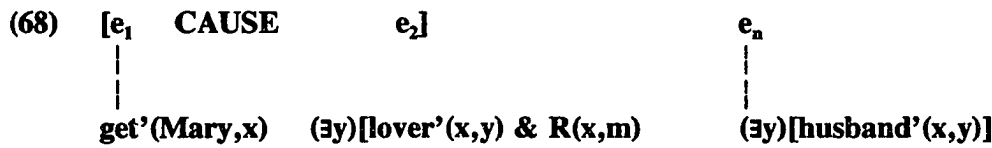
As noted above, here the interpretation of a husband seems to shift from its interpretation without the as-phrase, as in Mary got a husband. In (67), it seems to be much harder to get the reading where Mary got married to someone. This result follows, given the proposal, in the following way. (67) describes four different situations: (i) Mary's action, (ii) a resulting relationship, (iii) the patient's being a husband, and (iv) the same person's being a lover. Lover, since introduced in an event-related adjunct, is forced to identify with the result-state, and husband need not. Since there can only be one result, under the assumptions, we have no choice: husband loses, and must be read as independent of the result of the action. Aligning husband independently, we derive (68), which then allows an R-Theta reading, giving (69).¹⁹

¹⁹ (68) is an abbreviated version of:

$(\exists e_1)(\exists e_2)(\exists e_n)(\exists x)[\text{act}'(\text{Mary}, x, e_1) \ \& \ R(x, \text{Mary}, e_2) \ \& \ (\exists y)[\text{husband}'(x, y, e_n) \ \& \ (\exists y)[\text{lover}'(x, y, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]]$

And (69) of:

$(\exists e_1)(\exists e_2)(\exists e_n)(\exists x)[\text{act}'(\text{Mary}, x, e_1) \ \& \ R(x, \text{Mary}, e_2) \ \& \ (\exists y)[\text{husband}'(x, y, e_n) \ \& \ (\exists y)[\text{lover}'(x, y, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]]$



(69) predicts the reading: Mary entered into a love-relationship with someone who was, independently, a husband. This is the preferred reading for the sentence. Why is it preferred to (68), without the Relational Collapse? One reason is the same reason the thematic reading is preferred for Mary's lover: the non-thematic reading depends on context. Further, (68) would have to mean that Mary got someone to be a lover and in a (contextually specified) relationship with her at the same time; that is possible, if Mary was a director getting someone to be a lover in her play (just as with Mary, the director, finally got a lover), but depends on that context.

Now, let us look at the fact that the following sentences, as noted above, are odd.

- (70)
- (a) ??Mary got Doug as a Bulgarian.
 - (b) ??Mary got Doug as an idiot.
 - (c) ??Mary got Doug as a transvestite.
 - (d) ??Mary got Doug as an alcoholic.

Why are these sentences odd? The proposal itself does not say why they should be odd, but it does say what they should mean: since the as-phrases must link to the result-state,

the affected individual's being a Bulgarian etc. must be the output of Mary's action. Now, this predicts a correlation: exactly those NPs which resist the the resultative reading as direct-objects should be odd as the complements to object-modifying as-phrases with these verbs. We cannot say why a particular NP is stage or individual level (assuming this is the factor which determines whether it can enter allow the resultative reading). But we can say: insofar as Mary got a Bulgarian, though good on a non-resultative reading, is very marginal on a resultative reading, then ??Mary got Doug as a Bulgarian should be necessarily marginal to exactly the same extent, correctly predicting the correlation between NPs which allow a resultative reading as direct-object with these verbs, and NPs which are licit in the as-phrase adjuncts. Conversely, Non-relational nouns which are acceptable on a resultative reading as NP-objects should be good in as-phrases, and they are:

- (71) (a) Mary got Doug as an extra.
- (b) Mary got Doug as a juggler.
- (c) Mary got Doug as a portrait-painter.

Similarly, even Bulgarian, when we construe it as a changeable property, should be acceptable in an as-phrase, which it is in the right context:

- (72) Mary got Doug as a Bulgarian (for her movie).

And even proper-names should be okay in as-phrases, so long as we construe the name as a changeable property, as in (73):

- (73) Mary got Doug as Scarlett.

I believe it is in these same contexts that the non-R-theta readings for Mary got Doug as a lover noted above may become possible, eg. if Mary hires Doug to portray a lover

in her movie.

Because choose and find have the same result-state as get, the proposal predicts the same licensing of object-oriented as-phrases with these verbs, under the same conditions. This is correct with choose (eg., Mary chose Doug as a lover/husband, and ?Mary chose Doug as a Bulgarian/idiot). Find also allows these resultative object-oriented as-phrases, though for reasons unclear to me they are better if the person is a husband (etc.) for a benefactor, rather than the subject (Mary found Doug as a husband for her sister)); I am setting aside the treatment of benefactives until Chapter 6 however.

7. Two Final Notes and a Conclusion

Before concluding, I make two final notes. First, I note that I have discussed here only agentive versions of get. There is also an experiencer version, so that in eg Mary got a secretary, it may very plausibly be someone else's action that causes the result. It appears that this experiencer version of get also has an unspecified result-state; eg, Mary got a husband will not entail Mary got a married man on the experiencer version either, Mary got a secretary is ambiguous on the experiencer version also, and so forth. Thus, both the agentive and experiencer versions of get should be treated as having a possessive result-state; the lexical representations (if not derivable from one basic entry) will differ only with respect to the nature of the initial activity.

Second, I note that event-nominals do not appear to allow resultative readings, eg *Mary/the city got a destruction. This is because accomplishments are all verbs which describe a transition from an initial activity to a resulting state; it would appear

that a complex event nominal cannot provide the content of a state, hence ruling out these examples, in contrast to grammatical examples in possessive DPs like Mary's/the city's destruction. (see Vendler, 1967, Dowty, 1979, and Smith, 1992 on the claim that accomplishments result only in states),

This then concludes the survey of how a range of interpretations, and various factors which correlate with these interpretations, arise under the proposal here for get, find, choose, and, by extension, various synonyms to choose.

Chapter 4

The Aspectually Simple Possessive Verb: Have

0. Introduction

If we assume that verbs can incorporate a possessive relation in their lexical semantic structure, and further that possessives correspond to a free variable over relations, there is only one possible aspectually simple verb of this kind. This corresponds to the semantic representation in (1):

$$(1) \quad \lambda y \lambda x [R(x, y, e)]$$

Unlike with accomplishments, where we can have various different kinds of initial activities which lead to the result R(x,y,e), we do not have the same room to manoeuvre with aspectually simple possessive verbs; if the relationship is a free variable, the only possible structure is (1). I propose, following a closely related suggestion in Ritter and Rosen (1993) (based on Cowper, 1989), that many languages, including English, do have exactly one verb which corresponds to this structure: this is the lexical structure of (one version of) main-verb have.¹ This chapter looks at some new predictions derived through this treatment.

¹ Ritter and Rosen's proposal does not include this decomposition, but they specifically suggest that have can describe an unspecified relation between individuals. See further comments below comparing the treatment here with their more general treatment of have.

Given the aspectual properties of this version of have, it will be necessary to specify, as I hereby stipulate, that this is a stative relationship. I leave open the possibility of unspecified relations taking different sorts of arguments, eg an unspecified relation between an individual and an event. In fact, Ritter and Rosen, though noting have as an unspecified relation between individuals, also show good reasons for treating have specifically as a relation between an individual and an event; however, I have taken the somewhat conservative path of not trying to generalize (1) to cover those readings (see discussion below on some problems which taking that step will involve for English; note also that it cannot be right for Dutch, German, and French version of have, which are also very plausibly unspecified relations between individuals; that raises serious questions about whether an unspecified semantics automatically covers cases of both individual and event complements.) Ritter and Rosen are clearly right that have can take event-denoting complements in English; but for now I treat that version of have as a different lexical item.

1. Issue One: Have With Relational-Noun Complements: the Inverse of Be Readings, and an Ambiguity

1.1 The Issue Described

Have with relational-noun complements can be read as simply asserting the existence of an individual in this relation to the subject. For example, Mary had a husband can be read as meaning that there was a husband of Mary; Mary had an assistant, or Mary had a secretary, can be read as meaning that there was an assistant/secretary to Mary, and so forth. In terms of predicate decomposition:

- (2) (a) **Mary had a husband** = $(\exists x)[\text{husband}'(x, \text{Mary})]$
 (b) **Mary had a secretary** = $(\exists x)[\text{secretary}'(x, \text{Mary})]$

On this reading, have is the inverse of be, with the same complement NP:²

- (3) (a) **Kim was a husband** = $(\exists x)[\text{husband}'(\text{Kim}, x)]$
 (b) **Kim had a husband** = $(\exists x)[\text{husband}'(x, \text{Kim})]$

Now, though this inverse-of-be reading for have is always available with relational-noun complements, careful consideration reveals that, in context, the same sentences actually can be read in a different way. For example, take again Mary had a secretary. This can also be read to mean, not that someone was a secretary to Mary, but rather that Mary stood in some contextually defined relationship to someone who was, independently, a secretary. I illustrate with the context in (4).

- (4) **Mary, the bank-robber, has been cornered by the FBI, but she has taken hostages and holed up behind the teller windows. There are lots of hostages, actually. She has the bank president, three tellers, and she also has a secretary.**

A sexual reading is also always an alternative for English have with animate arguments; but I treat the sexual reading here simply as an accidental lexical ambiguity. It is the context-dependent reading, in (4), where the subject stands in a contextually defined mapping relation with the object, that I wish to point out, and which I will suggest is not an accidental alternative. This contextually-defined relation is available with any

² I will not attempt to justify or derive the representation for predicative be; see Williams (1983) for discussion showing that the complement to be is a property, based on which we may assume that Kim was a husband is derived through be directly inheriting this property-denotation.

relational noun complement, though with certain examples like Mary had a husband it is not salient. The independent reading always requires imagination of a context, indicating the nature of their relationship; with Mary had a husband, this independent reading becomes possible if we know that Mary is a marriage counsellor, and she counsels various spouses each day. By considering such contexts, have can be shown to be ambiguous in exactly this way with any relational noun complement.

So the first issue we will look at is: how do we get the inverse-of-be reading, and how, at the same time, does this other, contextually-defined relation, reading arise?

1.2 How these Readings Follow, Under the Proposal

The proposal here predicts precisely the two readings identified above, whenever have has a relational noun complement, and it predicts their distribution, and it predicts them as an automatic consequence of the meaning of have. For example, consider Mary had a secretary. The nominal situation here, $(\exists y)[\text{secretary}'(x,y)]$, describes a state, and by general principles this state can align or not with the state described by have (object-NPs can in principle always do this, or not). The two choices for how the eventualities are read as related derive representations corresponding to (5) and (6), respectively.³

$$(5) \quad \begin{array}{cc} e_1 & e_n \\ | & | \\ R(x, \text{Mary}) & (\exists y)[\text{secretary}'(x,y)] \end{array}$$

³ Putting in the quantifiers over events, this corresponds to:

$$(4) = (\exists x)(\exists e_1)(\exists e_n)[R(x, \text{Mary}, e_1) \ \& \ (\exists y)[\text{secretary}'(x,y,e_n)]]$$

$$(5) = (\exists x)(\exists e_1)[R'(x, \text{Mary}, e_1) \ \& \ (\exists y)[\text{secretary}'(x,y,e_1)]]$$

(6) e_1

$R(x, \text{Mary}) \ \& \ (\exists y)[\text{secretary}'(x, y)]$

Now, in (6), since the situations are identified, we have the conditions for an R-Theta reading. Adopting it, gives (7).

(7)
$$\begin{array}{c} e \\ | \\ (\exists x)[\text{secretary}'(x, \text{Mary})] \end{array}$$

Of these three readings, (7) is very obvious: ie., that someone was a secretary to Mary (for some period); (7) is the inverse-of-be reading noted above. The reading corresponding to the representation predicted in (6) is this: Mary stood in some contextually defined relationship with someone who was, independently of their relationship, a secretary. This requires, and is predicted to require, a certain context, namely one which makes a relationship between individuals salient; but in a context which furnishes a value for R, ie. one making a mapping relation between individuals salient, this reading arises, as noted above in (4). Similarly, absolutely any contextually defined relationship can substitute for this, so long as it describes a state: the person Mary loves, the person Mary feeds, the person Mary is dating, etc. Thus, the available readings for the sentence Mary had a secretary noted above are predicted.

The predicted reading in (6), where the events are identified but the R-Theta option is not used, is not obvious, or not obviously distinct from the non-R-Theta reading in (5). Some other considerations suggest why it is very hard to distinguish just that reading. First, as usual, when the R-theta reading is possible, it is hard to avoid

out of context, exactly as in Mary's secretary. Second, the pragmatics for the reading in (6) are difficult, even when a value for the relation is furnished in context: it would have to mean the person was a secretary to someone for exactly the same period of time that she stood in the contextually-defined relationship. A play-context might allow it: *Mary is the director of a play, and she has hired someone to play a secretary*; the relationship is not that the person is a secretary to Mary, but rather that she works for Mary, portraying a secretary (to someone).

This proposal predicts exactly parallel readings for have with a broad range of relational-noun complements. This includes Mary had a husband, and also these sentences:

- (8) (a) Mary had a friend.
 (b) Mary had a sister.
 (c) Mary had a teacher.
 (d) Mary had an assistant.
 (e) Mary had a lover.
 (f) Mary had a boyfriend.
 (g) Mary had an advisor.

In each case, the prediction is that a reading should be available associating Mary with the internal argument of the relationship denoted by the complement noun, and asserting: someone was an N to Mary, as in (9).

- (9)
$$\begin{array}{c} e_1 \\ | \\ (\exists x)[\text{friend}'(x, \text{Mary})] \end{array}$$

Such inverse-of-be readings are clearly available, for all the examples in (8). But the proposal also predicts, in each of the cases in (8), a distinctly different reading: that Mary stood in a contextually defined relationship with someone who was (independently of that relationship) a friend, etc., as in (10).

$$(10) \quad \begin{array}{cc} e_1 & e_n \\ | & | \\ R(x, \text{Mary}) & (\exists y)[\text{friend}'(x, y)] \end{array}$$

Again, by setting up the context right, we can get exactly those readings. Eg., suppose we know that each woman had a different teacher. We ask: who was Mary in a teacher-pupil relationship with? We can answer: Mary had a friend. Here, the person is a friend independently of that relationship; he can even be (and most plausibly is read as) Mary's friend, but still the sentence is not asserting the existence of a friend, but rather describing the existence of a teacher-pupil relationship with a friend. It continues to be hard to get the independent-reading with certain nouns, eg. husband, because the R-theta reading is so strongly preferred with these nouns, for reasons outlined in Chapters 1 and 3 above; I believe it is possible, however, just as in the teacher-pupil context above.

So far as I have been able to determine, it is possible to construct parallel examples with all relational nouns (except for representational nouns: see below), including eg. Bulgaria has many citizens, France has a new King, Peter has muscular thighs, and so forth, so long as the readings derived grammatically are pragmatically plausible things to describe. Event-nominals do not participate (eg., *This road had a construction); but this is ruled out, though somewhat stipulatively here, because have

is specified as a stative. See Belvin, 1993 for an alternative, where have inherits the aspectual properties of its complement; I am uncertain, however, how we would rule out the relevant examples, under that approach. The class of nouns describing representations, eg. picture, portrait, etc., do not seem to allow the inverse-of-be reading felicitously, either, unless some other material is present. Eg, The queen has a (new) portrait does not seem to felicitously allow the predicted reading of "There is a new portrait of the queen" (some informants do get that reading, however). The queen has a new portrait in the gallery is much better, on a reading asserting the existence of the portrait. I am uncertain why the inverse-of-be readings do not arise with representational nouns, for all informants at least, when it is so clearly salient with all other kinds of stative relational-nouns complements.

2. Issue Two: Have with Non-Relational Complements: The Unspecified Relation Reading

2.1 The Issue Described

Now we look at cases where have has proper-name, pronominal, or other one-place noun complements. In these cases, the interpretations for the sentences always involve the assertion of an underspecified relation between individuals.

For example, consider the sentence Mary had Doug. Out of context, many informants find the sentence uninterpretable, or interpretable only on the sexual version of have; however, if mapping relations between individuals are salient in the discourse, the sentence is absolutely fine, and interpretable with respect to that relation. So, for example, in a context where we know that each woman was assigned a different dance-

partner, then Mary had Doug is fine, and means: Doug was her dance-partner.

Sentences with pronominal objects (Mary had him) are interpreted in an exactly parallel fashion. For one-place common-noun objects, basically the same thing holds. For example, Mary had a Bulgarian is odd out of context; but if we are discussing which woman had which kind of teacher, it is fine, and read to mean: Mary's teacher was a Bulgarian. Ownership readings are also possible, of course, when have has inanimate complements and an animate subject (cf. Belvin's 1993 discussion of animacy and have).

2.2 How the Readings Follow Under the Proposal

These readings for have with non-relational complements are what the proposal predicts, since it treats have as denoting an underspecified relation between individuals. Though we have exactly the same have here as we had in Mary had a husband, the difference with the non-relational complements is simply that an R-Theta reading is not possible for the possessive relation with a pronominal or one-place nominal complement. One advantage of this approach is that it is not an accidental ambiguity, that Mary had a husband describes a marriage relation, while Mary had Doug describes an unspecified relation; it is a necessary consequence that these two apparently different readings for have should surface. Derivations of some examples with the underspecified reading are shown below.

First, let's consider the sentence Mary had Doug. The system predicts the reading below as the only possible reading; ie., that Doug and Mary had a contextually defined relationship:

$$(11) \quad \begin{array}{c} e_1 \\ | \\ R(\text{Doug}, \text{Mary}) \end{array}$$

Here, a contextually defined relation must furnish a value for R, which, as we noted in the discussion, corresponds exactly to the conditions under which Mary had Doug is acceptable (setting aside the sexual reading). And the prediction is also that any other (stative) relationship could furnish a value for R, which is true: Doug might be read as the person Mary was on a date with, the person she loved, the person she was operating on, and etc.

Now let's consider have with non-relational common-noun objects, eg Mary had a Bulgarian. The proposal actually allows, at least in principle, two distinct readings; however, neither of these readings will allow an R-Theta reading, and both will correspond to "unspecified relation" readings. Specifically, the proposal predicts these two readings.⁴

$$(12) \quad \begin{array}{cc} e_1 & e_n \\ | & | \\ R(x, \text{Mary}) & \text{Bulgarian}'(x) \end{array}$$

$$(13) \quad \begin{array}{c} e_1 \\ | \\ R(x, \text{Mary}) \ \& \ \text{Bulgarian}'(x) \end{array}$$

⁴ (11), non-abbreviated, is:
 $(\exists x)(\exists e_1)(\exists e_n)[R(x, \text{Mary}, e_1) \ \& \ \text{Bulgarian}'(x, e_n)]$

And (12) is:
 $(\exists x)(\exists e_1)[R(x, \text{Mary}, e_1) \ \& \ \text{Bulgarian}'(x, e_1)]$

Note that in (12), there is no temporal connection between their relationship and his being a Bulgarian, they are simply two separate eventualities, where-as in (13) the relationship and his being Bulgarian are treated as aspects of the same eventuality; but neither can be an R-theta reading. (12) is clearly an available reading: that Mary stood in a contextually defined relationship with someone who was (independently of their relationship) a Bulgarian. (13), if it is available, describes a somewhat implausible situation: that he was a Bulgarian exactly for the same period that he and Mary were involved with each other (so that past tense entails that his being a Bulgarian is also over, when their relationship is over). Again, it is presumably because Bulgarians stay Bulgarians quite consistently, throughout the various relationships they enter into, that this reading is not available, though the proposal itself does not predict this. For a noun describing a transitory property, such as the nominal version of extra, this link becomes more plausible, eg Mary had an extra or Mary had some extras; then it is quite plausible that they should have that property for exactly the same period of time Mary was related to them (in this case, most plausibly, employed them for a movie). Note that if we treated Bulgarian as lacking an event-argument, ie. as stage-level in Kratzer's (1989) approach, (13) would be blocked, which is not an undesirable result here. The theory treats other one-place complements to have, eg Mary had an idiot, Mary had a transvestite, Mary had a genius, etc., in exactly the same way.

With all those nouns that describe plausibly owned individuals, eg. Mary had a car, the most salient reading with have is one of ownership (x is owned by Mary). The theory does not attempt to capture an ownership value for the relation explicitly; it simply derives, as with Bulgarian, representations saying that an unspecified relationship

holds, as in (14).⁵

$$(14) \quad \begin{array}{ccc} e_1 & & e_n \\ | & & | \\ R(x, \text{Mary}) & & \text{car}'(x) \end{array}$$

(And again, allowing a possible interpretation where it was a car for exactly the period of time Mary had it, but not forcing this.) Now, though (14) does not refer to ownership, we know independently that an ownership reading is easily read as the value for a free variable over relations whenever that is pragmatically plausible: this is exactly what we find in possessive DPs, eg. Mary's car, Mary's house, Mary's cat, etc. Presumably, whatever happens in possessive DPs, happens with have, ie. an ownership reading is simply one way of construing R, perhaps as a specified default. Just as in possessive DPs, it would be problematic to posit any necessary connection between have and ownership, since that would make it impossible to derive all the readings where the value is not read as ownership, as isolated above. Note, crucially supporting the claim that have at least allows an unspecified-relation reading as in (14), that ownership is only one of an indefinite number of values for the relationship; in contexts furnishing plausible values for a relationship between a woman and a car, Mary had a car can mean any of an indefinite number of things: she has been assigned to draw a car, she is reporting on a car, she is drawing a picture of a car, etc. Note that the prediction is

⁵ Ritter and Rosen's (1993) discussion notes readings for have as an unspecified relation specifically for cases like these; though their lexical semantic representations are different, and not explicitly connected to the semantics of possessive DPs, they say basically the same things as what I am saying here. Cases with animate NP complements, the main focus of the discussion above, are not addressed in R&Rs paper.

that these must all be stative relationships, which seems to be the case. Thus, the only difference between Mary had a car and Mary had a Bulgarian or Mary had a transvestite is that the latter two will not allow ownership readings as a way of construing the value for R; this is pragmatically because Bulgarians and transvestites are not plausibly owned, hence those sentences crucially depend on contextually furnished relations.

3. Issue Three: Having a Husband vs. Having a Married Man

3.1 The Issue

A close equivalent of the Husbands vs. Married Men paradoxes, noted above arises also with have. For example, consider the following syllogism:

- (15) (a) All married men are husbands.
 (b) Mary had a married man.

 (c) Mary had a husband. (Invalid)

That (15) is invalid is supported by the fact that (16), denying the consequent but affirming the second premises (the first premise being a tautology) is felicitous:

- (16) Mary has had many married men, but she has never had a husband.

Here, if Mary had a married man seems difficult to interpret, bear in mind what we have just discussed: that its interpretation depends on context, eg. knowing that each woman had a different sort of teacher, etc.; the argument is invalid also using the sexual reading for have.

The argument also fails in the opposite direction, as in (17).

(17) (a) All husbands are married men.

(b) Mary had a husband.

(c) Mary had a married man.

This is also invalid, but because (17c) is so hard to interpret, we need to set up a context to show this. Suppose, for example, that we know that each woman has a different teacher each year; Mary, who is married herself, only likes single men as her teachers. Then Mary can say: "Well, I have never had a married man". This means, in that context: she has never had a married man as a teacher; but, because she is married, in the same context she has a husband; so we have a situation where (17a) and (17b) are true, but (17c) is false, and the argument is invalid. Why do we get these effects?

3.2 How The Solution Follows, Under the Proposal

Although the interpretations of both Mary have a husband and Mary had a married man are derived here from the same meaning for have, they have, or allow for, truth-conditionally distinct readings; this is so, even though it is true that husbands are necessarily married men, and vice versa. The salient interpretations for each sentence, as predicted under the proposal, are shown below.

(18)

e_1

$(\exists x)[\text{husband}'(x, \text{Mary})]$

- (19) e_1 e_n
 $(\exists x)[R(x, \text{Mary})$ &
 $(\exists y)[\text{married}'(x, y)] \ \& \ \text{man}'(x)]$

These two formulas are not truth-conditionally related. Note that in (19), married, though relational, cannot furnish a value for R, by general principles governing R-Theta readings. Note also that, though in (19) I have treated the verb and NP as describing distinct eventualities, this is not actually crucial: even if we did identify married'(x,y) & man'(x) with the other eventuality, still we could not get an R-theta possessive reading, since man is the head, and it is non-relational (see Chapter 1, above). There is, as we noted above, a somewhat marginal and heavily context-dependent reading for Mary had a husband which is different from the salient reading in (18); there is a truth-conditional connection between that reading and (19), but because (18) is available, the apparent paradoxes are resolved. By parallel reasoning, we can account for the invalidity of a range of arguments like the following:

- (20) (a) All psychiatrists are husbands.
 (c) Mary has a psychiatrist.
-
- (d) Mary has a husband.
- (21) (a) All wives are good psychiatrists.
 (b) John has a wife.
-
- (c) John has a good psychiatrist.

And so on. I will not give derivations for these examples, but the explanation is exactly parallel. The important general point is: by treating have as an unspecified relation, as above, and also as in Ritter and Rosen (1993), we turn out to automatically account for these apparent truth-conditional paradoxes when we contrast relational and non-relational noun complements.

4. Issue Five: Temporal Modifiers and Have

4.1 The Issue Described

For certain uses of have, temporal modifiers on VP/IP will necessarily interact with the temporal interpretation of the NP-object in a certain way, saying how long the individual was an "N" for. For example, take the salient reading for Mary had an assistant for two weeks, the reading where it is saying: there was someone in this position, being an assistant to Mary. On this reading, the person is an assistant for the same time that Mary "has" her. This parallels an observation made earlier about get, find, and choose: the modifier delimits the NP-object. As noted earlier, this is not a general pattern of temporal interaction between NPs and modifiers on VP/IP; for example, with a non-possessive stative, eg. Mary sat with an assistant for two weeks, the for-phrase does not bound the period of time the person was an assistant for.

With other readings for have noted, we do not have this same temporal interaction. For example, if we take the other reading for Mary had an assistant for two weeks, ie. the contextually-defined-relation reading where the person is something like Mary's dance-partner, the interpretation of the modifier is different. On this reading, Mary had an assistant for two weeks does not seem to necessarily entail that the person

was an assistant for just this period. And certainly, for Mary had a Bulgarian for two weeks, it is not entailed that the person was a Bulgarian for exactly the period Mary had him/her. So the question is: why do we get this similar pattern, where temporal modifiers sometimes, but not always, bound the DP-object of have?

4.2 How this is Derived, Under the Proposal

Given the predicted representation corresponding to the salient inverse-of-be reading for Mary had an assistant, the noted interaction with temporal modifiers is a necessary consequence. First, consider again the predicted inverse-of-be reading, shown in (22).⁶

$$(22) \quad \begin{array}{c} e_1 \\ | \\ (\exists x)[\text{assistant}'(x, \text{Mary})] \end{array}$$

The distinguishing fact about this reading is precisely the fact that, through the R-Theta possessive reading for the possessive relation (R), assistant has provided the content of the relation described by have. Now, by general principles, a for-phrase modifying the verb must bound the eventuality described by that verb. But if "have an assistant" corresponds to the reading shown above, then "have an assistant for two weeks" must then correspond to the representation in (23):⁷

⁶ $(\exists x)(\exists e_1)[R(x, \text{Mary}, e_1) \ \& \ (\exists y)[\text{assistant}'(x, y, e_1)]]$

⁷ $(\exists x)(\exists e_1)[R(x, \text{Mary}, e_1) \ \& \ (\exists y)[\text{assistant}'(x, y, e_1) \ \& \ \text{two-weeks}'(e_1)]]$

$$\begin{array}{c}
 (23) \quad e_1\text{--two-weeks}' \\
 | \\
 (\exists x)[\text{assistant}'(x, \text{Mary})]
 \end{array}$$

(23) predicts that "for two weeks" is bounding the eventuality of the person being an assistant (to Mary); this is what we observed above. A parallel prediction is made, I believe correctly, for all inverse-of-be readings for have.

On the other hand, if we read the sentence as meaning that the person was a secretary independently of their relationship, as in (24), or if that aligned reading is pragmatically unnatural, as in Mary had a Bulgarian, shown in (25), then the temporal modifier will tell us nothing about how long the person was a secretary/Bulgarian for.

$$\begin{array}{cc}
 (24) & \begin{array}{c} e_1\text{--two-weeks}' \\ | \\ R(x, \text{Mary}) \end{array} & \begin{array}{c} e_n \\ | \\ (\exists y)[\text{assistant}'(x, y)] \end{array}
 \end{array}$$

$$\begin{array}{cc}
 (25) & \begin{array}{c} e_1\text{--two-weeks}' \\ | \\ R(x, \text{Mary}) \end{array} & \begin{array}{c} e_n \\ | \\ \text{Bulgarian}'(x) \end{array}
 \end{array}$$

Now, given these representations, it is correctly predicted that there is no entailment from the temporal modifier to how long the patient was an assistant, or a Bulgarian. Note that in all cases, the for-phrase itself does exactly the same thing, ie. bounds the event described by have; the difference comes from the difference in how have is related to its NP object, following in turn from the presence, or not, of an R-theta reading.

5. Issue Five: Have and As-Phrases

5.1 The Issue Described

Like get, find, and choose, as discussed in the last chapter, have also allows as-phrase modifiers as secondary-predicates on the object-NP, as in (26).

- (26) (a) Mary had Doug as a teacher.
 (b) Mary had Doug as a boyfriend.
 (c) Mary had Doug as a friend.
 (d) Mary had Doug as an advisor.

At the same time, only certain nouns are felicitous in these modifiers; compare (26) with (27):

- (27) (a) ??Mary had Doug as a Bulgarian.
 (b) ??Mary had Doug as a transvestite.
 (c) ??Mary had Doug as an idiot.

Why is this so?

5.2 Deriving these Effects Under the Proposal

Under the treatment of as-phrases outlined in Chapter 3, for a sentence like Mary had Doug as an assistant semantic composition gives (28). Note that there is no other option, since the event described by an adjunct must identify with a situation described by the verb.⁸

⁸ = $(\exists e)[R(\text{Mary}, \text{Doug}, e) \ \& \ R(\text{Doug}, \text{Mary}, e)]$

(28) e_1

R(Doug,Mary) & (3y)[assistant'(Doug,y)

(28) derives the conditions for an R-Theta Possessive reading. Applying it gives (29).⁹

(29) e_1
|
assistant'(Doug,Mary)

(29) predicts the interpretation: Doug was (for a certain period) Mary's assistant. That is clearly the most salient reading for the sentence, ie. that there was a period of time when they stood in this relationship.

Since the system is not set up to force R-theta readings, it is again predicted that (28) itself should also be a possible interpretation, ie.: Mary and Doug stood in some relationship while Doug was an assistant (to someone). This would minimally depend on a context, one furnishing an alternative value for their relationship; and it would also depend on Doug being an assistant co-temporaneously with that relationship. I believe this reading is available, though very hard to get because of these conditions, and because the R-Theta reading is always preferred when possible. Suppose Doug has had a lot of different jobs, and different people have been his girlfriend with each job. Then we can say: well, Sue had Doug as a plumber, but Mary had Doug as an assistant, so that R is read as a boyfriend-relation; however, it is not a very salient reading.

Following the same steps, the proposal will correctly predict a parallel (Doug

⁹ = (3e)[assistant'(Doug,Mary,e)]

was Mary's N) reading for a wide range of relational NP-complements to *as*, as in (30).

- (30) (a) Mary had Doug as a friend.
 (b) Mary had Doug as a husband.
 (c) Mary had Doug as a lover.
 (d) Mary had Doug as a secretary.
 (e) Mary had Doug as an advisor.
 (f) Mary had Doug as an employee.

Exactly the same considerations apply in all these cases as in Mary had Doug as an assistant.¹⁰

For *as*-phrases where the NP complement to *as* is headed by a one-place common-noun, the proposal predicts that in principle a reading will be available; however, it is a very different reading, and in most cases is marginal, apparently for pragmatic reasons. For example, for ?Mary had Doug as a Bulgarian, the proposal will generate one interpretation (on the object-oriented reading), as in (31).

¹⁰ There are two other ways of construing Mary had Doug as an assistant, and the other sentences, though both alternative readings are implausible for pragmatic reasons. We can safely set these very marginal readings aside from the discussion, but, strictly as an aside, I note these readings, and how they arise.

(i) First, as an assistant may be construed as subject-oriented, a secondary predicate on Mary; this follows simply by general constraints on secondary-predication. This will turn out not to derive the conditions for an R-Theta reading, however (it gives $(\exists y)\text{assistant}'(\text{Mary}, y)$ & $R(\text{Mary}, \text{Doug})$).

(ii) Second [Doug as an assistant] may be read as a small-clause constituent, where Mary is the causer, eg. "Mary (the director in a play?) caused Doug to be an assistant"; this follows under Ritter and Rosen's (1993) analysis of *have* as a relation between an individual and an event, which I accept, but which I have not tried to collapse under the same lexical entry here.

(31)

 e_1 **Bulgarian'(Doug) & R(Doug,Mary)**

This reading will be available, just in case it is possible to construe Doug's being Bulgarian in a way co-temporaneous with his (context-specified) relationship with Mary. This does not seem to be possible, unless we construe Doug's being Bulgarian in a certain way, as in a role in a play; then we can read Doug as being a Bulgarian just while he was working for Mary in that capacity. Similar considerations apply for ?Mary had Doug as an alcoholic, ?Mary had Doug as a transvestite, ?Mary had Doug as an idiot, and etc. When we do switch to a transitory, temporally changeable role in the as-phrase, as in Mary had Doug as an extra, the sentences sound much better, presumably because the necessary alignment between his being an extra and her being related to him is possible in this case. But in any case, the interpretation will be very different with all one-place nouns, because an R-Theta reading is ruled out.

6. What is Not Predicted: Creation Switch, and Mary had a party

Before concluding this chapter, I will note two things which are not predicted by this proposal. Notice first that, unlike with get, choose, and find, no creation-readings are predicted for have, under this proposal, regardless of alignment and R-Theta readings. This is because, even given and the Relational Collapse, have is still not predicted to describe the creation of a relationship, only assert its existence. Thus, have is not predicted to show a creation-switch effect; and it does not, eg have in Mary had a husband is not a creation verb (unlike get in Mary got a husband).

I note also that there are a set readings for have with DP complements which cannot be derived under the lexical representation for have exactly as proposed here. Consider for example (32).

(32) Mary had a baby.

Because baby is a one-place noun, the proposal here predicts the following reading: Mary stood in a contextually defined relationship with a baby (under either alignment, we get this). This predicts that various contextually-defined readings for this relation should be possible (eg, Mary was assigned to look after a baby, Mary was drawing a baby, Mary was holding a baby hostage, etc.); and those are, indeed, possible readings. But, because I have treated the relationship denoted by have here as specifically stative, what should not be allowed as a construal is a relationship describing an activity, or an accomplishment. And that means that the proposal does not predict one very salient reading for Mary had a baby: that Mary gave birth. Similar considerations arise with the examples below in (33), on the readings where Mary caused the party, consumed the tea, or underwent the shower; the specific proposal here cannot handle these readings.

- (33) (a) Mary had a party.
 (b) Mary had a cup of tea.
 (c) Mary had a shower.

Now, it may be possible to revise the lexical representation of have above to accommodate these examples, and Ritter and Rosen (1993)'s discussion suggests that these readings follow from an unspecified meaning for have. Technically, however, they do not follow from the lexical representation posited specifically in (1), above,

however, and I have not attempted to make them. I assume, provisionally at least, that these examples are at best derived by a different lexical entry for have (perhaps the one proposed in Ritter and Rosen, 1993, where have is argued to describe an unspecified relation between an individual and an event); or, at worst, these are idiomatic constructions. There are two reasons I do not attempt to collapse them. First, while it might be wrong to distinguish the version of have proposed here from the version that allows the "give birth" reading for English, but it is certainly right to do so for French and Dutch: French and Dutch, as discussed in Dechaine, Hoekstra, and Rooryck (1995), allow all of the readings with have discussed in this chapter up to the cases here; but these languages do not allow the "gave birth" reading for Mary had a baby, nor the relevant readings for the sentences in (33). All we get in those languages is the reading where Mary stood in some relationship to things that were, independently, those things, ie. the reading that is predicted under the proposal here. Now, the availability of the various other readings in Dutch and French (I believe also in German, and other languages with an equivalent of have), argues for an underspecified semantic representation of have in those languages. But if those languages do not allow the readings as in (32) and (33), then it cannot be an automatic consequence of an unspecified meaning for the verb that we get the readings in (32) and (33). In addition, some potentially problematic issues arise in English, from simply allowing any meaning to be associated with have; eg., why then is ??The city had a destruction, or ??The road had a construction, or ??Picasso had a painting (on a creation reading) not possible? Those are ruled out under the proposal here, by treating have as specifically stative. In fact, it may well be (though not necessarily is it so) a desirable goal to

collapse all possible readings for have, any attempt to remove the stative stipulation here must also, then, address explicitly why not all relations can be the value for have, and in particular not all of those which are possible values for the underspecified possessive relation in DPs. This issue remains an open matter, here.

7. Conclusion

This chapter has outlined how a certain range of interpretations, though seemingly very different and provably truth-conditionally distinct, nevertheless follow as a direct consequence from one lexical entry, ie. the construal of have as a contentless (stative) relation between individuals.

Chapter 5

Verbs of Hiring as Verbs of Possession

0. Introduction

The verb hire is treated here in almost exact parallel to get, find, and choose-verbs; ie., like those verbs, it is an accomplishment, and it will be treated as also having a possessive relation as its result-state. There is only one difference, shown in (1):

- (1) The resulting relationship with hire must be a paid relationship.

Close synonyms to hire can be treated in the same way, eg employ, retain, and etc.. The value of this is that, in this way, we explain the fact that a set of exactly parallel effects arise with hire-verbs as with the verbs addressed in the last chapters, except that with hire-verbs these will arise with a more restricted set of NP-complements. The only new issue is how, or whether, to build (1) into the lexical representations. I will actually not build it in, so that the lexical representations for these verbs are as in (2), marking different initial activities but the same result-state as get, find, and choose.

- (2) (a) $\lambda x \lambda y [\text{hire}'(x, y, e_1) \ \& \ R(y, x, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]$
 (b) $\lambda x \lambda y [\text{retain}'(x, y, e_1) \ \& \ R(y, x, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]$
 (c) $\lambda x \lambda y [\text{employ}'(x, y, e_1) \ \& \ R(y, x, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]$

The fact that the resulting relationship must be a paid relationship could be stipulated in the lexical entry itself, but it is simpler to see it as a selectional restriction on R: that

the value for R must be a paid relationship. This approach predicts that hire, and various synonyms, will show a significant number of the phenomena we looked at already, which is correct, though that they will show it with a more restricted range of NP-objects. This chapter looks at these predictions.

1. The Readings for NP-Complements

This approach predicts two possible alignments for secretary in Mary hired a secretary, in exactly the same way as in the last chapter. First, if we take the non-resultative alignment, we predict this representation for the sentence.

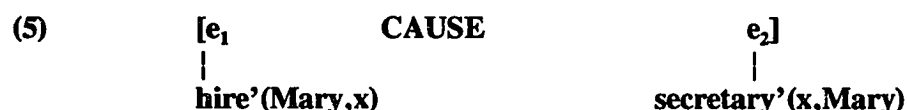
$$(3) \quad \begin{array}{ccccc} [e_1 & & \text{CAUSE} & & e_2] & & e_n \\ | & & & & | & & | \\ \text{hire}'(\text{Mary}, x) & & & & \text{R}(x, \text{Mary}) & & (\exists y)[\text{secretary}'(x, y)] \end{array}$$

(3) predicts a context-dependent reading, where Mary hires someone who is a secretary independently of what she does. This reading is in fact available, though as usual with readings where R has to be furnished a value by context, it does depend on context. In a context such as this, it is quite a salient reading: Mary needs someone to wash her car; she likes to hire local office workers to do that for her; today, she hired a secretary.

Now, the proposal also predicts a distinctly different reading for the sentence. Let's choose the other alignment, where secretary is read as linked to the result-state of hire. This gives (4).

$$(4) \quad \begin{array}{ccc} [e_1 & & \text{CAUSE} & & e_2] \\ | & & & & \\ \text{hire}'(\text{Mary}, x) & & & & \\ & & & & (\exists y)[\text{secretary}'(x, y) \ \& \ \text{R}(x, \text{Mary})] \end{array}$$

And, as with get a secretary, (4) collapses, by R-Theta, into (5).¹



Note that secretary is suitable as the value for R, because being a secretary is a (potentially) paid relationship. (5) is a possible, in fact the most salient, reading for the sentence. Note also that, as before, this reading for hire a secretary is again a kind or creation reading: as a result of the action, a secretary (though not a whole new individual) is created. Thus, it is predicted that hire with this complement should participate pattern as a creation verb with respect to the imperfective paradox, which it does:

- (6) **There are no secretaries (in the world), but Mary is hiring one right now.**

Given the lexical representations above, two exactly parallel readings are predicted for Mary retained a secretary, and Mary employed a secretary. Similarly, the proposal predicts two parallel readings arise for a wide range of relational-noun complements, as in these examples:

- (7) (a) **Mary hired an assistant.**
 (b) **Mary hired a tutor.**
 (c) **Mary hired an instructor.**
 (d) **Mary hired an advisor.**

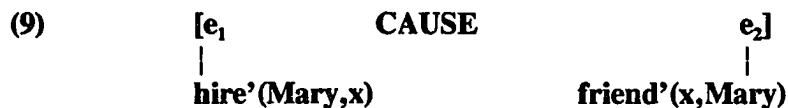
¹ If we had an extra conjunct, something like & paid'(x) in the result-state, the Relational Collapse would still be possible, under the conception of this process outlined in Chapter 1, ie., secretary can furnish the value for R.

It appears that this is correct, ie. that each example is ambiguous between readings where the person becomes an assistant (to Mary), and a reading where Mary hires someone who happens to be an assistant, etc., independently of what she does.

The issue of representations where we have a resultative alignment, but no R-Theta reading (corresponding to (4)), above) remains. It is not an obvious reading (Mary hired x, and as a result she became a secretary to someone else); but I offer the same explanation: when the Relational Collapse is possible, we prefer it, (a) because it does not depend on context, (b) because it specifies the internal argument of the relational noun, and (c) because it is harder to understand how Mary could make someone a secretary and enter into a relationship with her at the same time. This reading may also be relevant in accounting for benefactives; see discussion in the next chapter.

The only real difference between hire-verbs and verbs like get, find, and choose, under the proposal, is that hire-verbs will not allow the same two readings with the same range of nominal complements. This is because the selectional restriction on the created relationship limits the range of readings for which an R-Theta interpretation will be possible. For example, let's take Mary hired a friend. By the same steps as with hire a secretary outlined above, the system here will allow us to derive, for Mary hired a friend, two readings, as in (8) and (9).





(8) is clearly an available reading: Mary hired someone who was, independently, a friend (of someone, probably read as Mary herself), to enter into some paid relationship with her. (9) is less obvious: it means that Mary's act of hiring made someone her friend. (8) is certainly odd, but in fact it is possible: just so long as we understand friendship as a relationship that you can be paid to be in. How odd the thematic resultative reading is depends only on that, exactly as predicted by treating the preference for the non-resultative reading as a selectional restriction on the R-variable. Similar considerations apply with Mary hired/retained/employed a husband/boyfriend/lover, and etc.

Sentences where hire-verbs take individual-denoting proper names or pronouns as objects, eg. Mary hired Doug, are predicted to be grammatical, but to allow only the context-dependent reading shown in (10), which is correct, ie. such sentences mean that Mary entered into a (paid) relationship with Doug.



It is not always so obvious that with hire this sentence depends on context, but it does: if we know that Mary runs a store, it is fine, because we can understand what kind of paid relationship she might enter into with him (store-owner and store-worker); but if we are not aware of what Mary might hire Doug to do, the sentence is actually very

hard to interpret; imagine, for example, that Mary and Doug are just two graduate students; Mary can hire Doug to do things, but if you just hear Mary hired Doug, you will want to know: as what? Exactly the same considerations as in the last chapter apply with non-relational common nouns heading the complements, eg Mary hired a Bulgarian, and etc., so I do not repeat this discussion. On readings where Mary hired Doug, to mean that Mary was a personnel officer and Doug was to be paid by someone else, the assumption here is that this is a form of benefactive, where a benefactor controls the relevant argument of the R-relation; see discussion in the next chapter.

2. The Assistant Paradoxes

The two ways in which hire can compose with its complement-DP, as outlined above, turn out to be truth-conditionally distinct; and because of this, the equivalent of the Married Man paradoxes with hire-verbs is predicted. Although we do not get the paradoxical effects with all the same complement-DPs, we do get it with employment-complements. For example, (11) is an invalid argument.

- (11) (a) All assistants have jobs.
 (b) Mary hired an assistant.
-
- (c) Mary hired someone with a job. (Invalid)

This follows, because assistant allows an R-Theta reading, where-as, even with the same situation-alignment someone with a job does not. The predicted readings are shown in (12) and (13) (it is almost certainly more natural to read hire someone with a job without this alignment; but it doesn't matter because neither alignment for someone

with a job allows an R-Theta reading, the head noun being one-place).

- (12) e_1 e_2
 |
 choose'(Mary,x)
 person'(x) & with-job'(x) & R(x,m)
- (13) e_1 e_2
 | |
 choose'(Mary,x) assistant'(x,m)

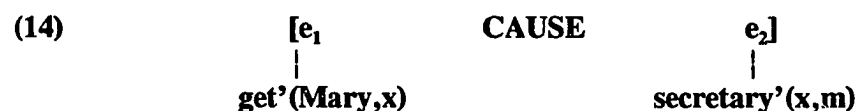
Even assuming that at all times, assistants have jobs, there is no truth-conditional connection between (12) and (13). Mary can enter into a contextually defined relationship with someone, and give them a job, without making them an assistant; and conversely, Mary can get someone as an assistant, as in (13), without entering into whatever contextually defined relationship substitutes for R in (12). Since retain and employ are exactly parallel, except for perhaps describing a somewhat different initial activity, the same result is predicted, with these verbs, which appears to be correct; substituting those verbs for hire in (11) demonstrates that.

The only real predicted difference for hire-verbs, as opposed to the accomplishments choose, get, and find, is that we do not expect exactly the same range of complements to show the effect. Eg., Mary hired a husband is only plausible on the context-dependent (non-collapsed) reading, due to the selectional restriction on the relationship variable. Because of this, there is not the same sharp meaning distinction between Mary hired a husband and Mary hired a married man; the truth-conditional conflicts are only noticeable with employment-noun complements, those being for selectional reasons the

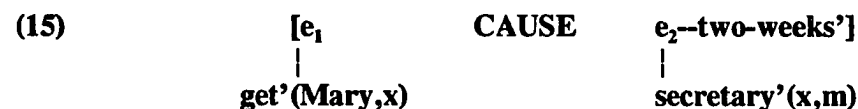
only circumstances in which the R-theta readings are plausible.

3. Temporal Modifiers and Hire-Verbs

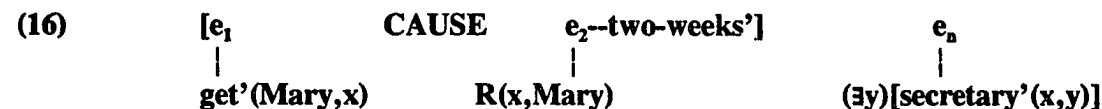
Parallel interactions are predicted under this proposal for temporal modifiers attached to projections of hire-verbs as with the other verbs outlined above. This is correct. For example, in Mary hired a secretary for the next two weeks, on the Thematic Resultative reading the temporal modifier bounds the period of the person's is a secretary; and this also follows, in fact is forced, as before. The thematic resultative reading for Mary hired a secretary is repeated in (14).



If an adjunct attaches to VP, it must associate with one of the situations described by the verb; since the initial activity is not accessible here, the only possible attachment is as in (15), where it must bound the period of time the person is a secretary.



On the context-dependent reading, the same for-phrase cannot bound the period of time the person is a secretary; the same association for the for-phrase gives (16), and we derive the independence of secretary from the for-phrase, on this reading, for Mary quickly hired a secretary for two weeks.



For Mary hired a Bulgarian for two weeks, only an independent reading, as in (16), will be pragmatically plausible, and we derive the same result.

4. Hire-Verbs and As-Phrases

By treating hire, retain, and employ as accomplishments with a possessive result-state, we predict patterns of interaction between these predicates and as-phrases which mirror those of the other possessive verbs outlined above; the only difference is that a somewhat more restricted set of nouns are licit as the NP-complement to the adjunct as-phrase.

For example, for the sentence Mary hired Doug as a secretary, the proposal predicts the following representation, by exactly the same steps as in Mary got Doug as a secretary in the last chapter.

$$(17) \quad \begin{array}{cc} e_1 & e_2 \\ | & | \\ \text{hire}'(\text{Mary}, \text{Doug}) & \text{secretary}'(\text{Doug}, \text{Mary}) \end{array}$$

And this predicts correctly the interpretation of various similar sentences, eg Mary hired Doug as a tutor, Mary hired Doug as an instructor, and etc. ?Mary hired Doug as a friend, though, is predicted to be plausible only if their friend-relation is a paid position, for reasons noted above, hence the sentence is not as felicitous as Mary got Doug as a friend. The system also predicts that for Mary hired an assistant as a secretary, the person must be read as becoming a secretary, but need not be read as becoming an assistant (even though for Mary hired an assistant alone, that reading is preferred). Since secretary must align with the result-state, but assistant need not do so, and both

cannot, we predict the reading (18) as the only available reading, which is correct.

$$(18) \quad \begin{array}{ccc} e_1 & & e_2 \\ | & & | \\ \text{hire}'(\text{Mary}, x) & \text{secretary}'(x, m) & (\exists y)[\text{assistant}'(x, y)] \end{array}$$

Again, the only predicted difference here is that the NPs which can occur as complements to as in hire as... constructions should be limited to paid relations; thus, ??Mary hired Doug as a friend is infelicitous, unless he is paid to be her friend.

Since the R-Theta construal of the possessive is only optional, the proposal continues to predict that a non-collapsed version should also be possible, as in (19), too.

$$(19) \quad \begin{array}{ccc} & e_1 & \\ & | & \\ \text{hire}'(\text{Mary}, \text{Doug}) & & e_2 \\ & & (\exists y)[\text{secretary}'(\text{Doug}, y)] \ \& \ R(x, \text{Mary}) \end{array}$$

That reading would depend on a very specific context, where Mary could make someone a secretary (to someone) at the same time as she entered into a relationship with them. As with Mary's secretary (where the R-theta reading is also in principle optional), this non-R-Theta reading is not obvious; perhaps if Mary is the boss of a company, and she is hiring a secretary for each manager, this is the reading we get--she becomes the boss to the person, and he becomes the secretary to someone else.

5. Conclusion

This chapter has shown that, having introduced a selectional restriction on R, all the effects outlined with choose, find, and get, are correctly predicted to reproduce with hire-verbs; the only difference is that we have a somewhat more limited range of complements that allow the R-Theta reading.

Chapter 6

Further Issues

0. Introduction

In this chapter, we will look at certain further empirical facts about possessive verbs, and how these relate to what has been said so far. I will not attempt to explain all of the issues I will outline here, though I will outline how they relate to the analysis above, and the implications they have for this analysis. In addition to noting several further interesting empirical properties of the possessive class, I also include sections comparing possessive verbs with other classes of verbs, and looking at the implications of this. I note here also some of the issues raised by the assumptions above about the treatment of relational nouns.

1. Further Issues with Possessive Verbs

1.1 Control of Implicit Arguments: The Multiple Husbands Effect

One further issue worth noting here is an empirical effect which I will call the Multiple Husbands effect.

Consider first the examples in (1), where in each case we have a non-possessive verb (the temporal adjuncts are not crucial, but control for something; I return to why they are there below).

- (1) (a) Mary just touched a husband this morning.
 (b) Mary just killed a husband this morning.
 (c) Mary just dated a husband last night.
 (d) Mary just kissed a husband this morning.
 (e) Mary just painted a husband blue last night.

Let us consider this question: in (1), is the person Mary kissed her own husband, or is someone else's husband? The answer is this: it can be Mary's own husband, but only if Mary has multiple husbands. Unless that is so, Mary cannot, apparently, be read as identified with the internal argument of husband. This is what I am calling the multiple husbands effect. That is, control by the subject of the internal argument noun depends on the object-DP being understood as non-unique (understanding by "control" simply that the subject is read as identical to this a-position). It is only when we consider nouns like husband or wife, which are pragmatically unique, that the effect noted above becomes noticeable, but it appears that the same facts actually hold for control of the implicit argument of any relational-noun complement. For example, I believe that in Mary kissed a friend, kiss being a non-possessive verb, we get a similar implication of non-uniqueness, ie. that she had more than one friend; but there is no oddity to the control relation in Mary kissed a friend, since a person can naturally have multiple friends. To clarify a parenthetical remark above: the examples in (1) and (2) were deliberately constructed with "just" and "this morning", because by restricting the action to a narrow range of time, we make it less possible to construe Mary as having repeatedly married, then divorced, etc.; this is not crucial, but it is just that a broader range of time makes multiple husbands more plausible, and the effect with respect to

control less striking.

Now, how is this relevant to possessive verbs? It is relevant, in that, once we recognize the existence of this effect, what distinguishes the possessive verbs in this regard is that possessive verbs do not show the multiple husbands effect. For example, in (2), where we have all possessive verbs, if we ask the same question as before, ie. is it Mary's own husband, "yes" is clearly a perfectly plausible answer; there is no implication that she ever had more than one of them.

- (2) (a) Mary just found a husband this morning.
- (b) Mary just got a husband this morning.
- (c) Mary just chose a husband this morning.

More subtly, it appears that it is only on the resultative reading that Mary can find (etc.) a husband, without her having more than one of them; if she finds a husband in the sense of locating one that is missing, the multiple husbands effect seems to hold.

Suppose, though setting aside the reason, that the multiple husbands effect is a general constraint on this kind of control relation. This is consistent with the proposal here, in that with possessive verbs, and the facts noted above, because under the proposal we get the equivalent of that link for possessive verbs without directly allowing the subject to control the theme of the complement; we get this link, rather, precisely by using the R-Theta path. This then explains why we don't get the same effect, because the identification is derived in a completely different way, ie. not by the general (constrained) process of control by the subject of the internal argument. For example, take Mary had a husband. Suppose the multiple husbands effect governs direct control by Mary of the internal argument of husband; still, even without making that link, we

will derive, as above (setting aside event-structure, which is not crucial now): $(\exists x)[(\exists y)[\text{husband}'(x,y) \ \& \ R(x,\text{Mary})]]$. Now, Mary is not linked by control to husband at all (which would be subject to the multiple husbands effect); but Mary is still linked to R. Now, on the R-Theta reading, husband furnishes the value for R, giving this: $(\exists y)[\text{husband}'(x,y) \ \& \ \text{husband}'(x,\text{Mary})]$, which is equivalent to this: $(\exists x)[\text{husband}'(x,\text{Mary})]$. We have now gotten Mary linked to the internal argument of the complement, but without ever assuming any direct pattern of control. The link drawn, rather, is between the semantic content of husband and the relational demonstrative R. On the other hand, with a non-possessive verb, we can only get a link to the internal argument of the complement by assuming direct control, since non-possessive verbs cannot allow R-theta readings. For example, in Mary is staying with a husband, we will derive a logical form like this: $(\exists x)[(\exists y)[\text{husband}'(x,y)] \ \& \ \text{stay-with}'(\text{Mary},x)]$. Now, we may construe a link between Mary and the internal argument of husband only by directly allowing the subject to control that argument; we have no indirect route to the reading, hence the multiple husbands effect, which I assume constrains that reading, will arise.

Of course, this leaves open the question of why the multiple husbands effect arises in the first place, as a constraint on control. I will not attempt to say why it does arise, here; I simply note that we have made progress, insofar as we can now systematically control for the special behaviour of possessive verbs, in looking at when and why this effect arises.

1.2 Control Again: Benefactives and Possessive Verbs

There are certain constructions with possessive verbs which, it would appear, require a certain revision to the proposal as outlined above. These are constructions where a benefactive argument is present. I will say what needs to be done, and sketch a proposal, for handling these cases; but because I will not try to develop a theory of the licensing of benefactives in general, which would be required for a full account, the issues remain largely open here.

Some relevant examples are illustrated in (3).

- (3) (a) Mary got a husband for Sue.
- (b) Mary found a husband for Sue.
- (c) Mary got Sue a husband.
- (d) Mary found Sue a husband.

In these cases, the proposal as outlined above will not work, because it has no way to accommodate the presence of the benefactive, Sue, and the fact that this argument, rather than the subject, is the argument linked by R-theta construal to the internal argument of the complement-DP. To handle these cases, it would appear that we can maintain almost exactly the lexical entries as given above, except for one thing: rather than mark the relation between the subject and the possessive relation directly, we posit instead an obligatory thematic control relation; specifically, the nearest c-commanding argument of the verb will be identified with, ie. control, the internal argument of R. That is, where before we had (4a), which specifically links the subject to the possessive relation R, we now posit (4b), and add a specification of control. The control relation refers to the "possessor" argument; this is defined as the variable z in the possessive

relation $R(x,z)$.

(4) (a) As above:

$\lambda x \lambda y [\text{get}'(x,y,e_1) \ \& \ R(y,x,e_2) \ \& \ T(e_1) > T(e_2)]$

(b) Revised, With Thematic Control Specification:

(i) $\lambda x \lambda y [\text{get}'(x,y,e_1) \ \& \ R(y,z,e_2) \ \& \ T(e_1) > T(e_2)]$

(ii) The possessor argument is controlled by the nearest c-commanding argument of the verb

On other uses of the idea of control-relations between arguments in lexical entries, see Williams (1985) and Jackendoff (1987). Another way to try and derive this would be to generate the possessor argument as a null pronominal in syntactic structure, and though this is very plausible, given the similarity here to control verbs like promise and ask, I do not pursue a syntactic implementation along these lines in detail here, simply noting the option and stipulating control as above. Semantically, control of an implicit argument is assumed to correspond to identification, ie. the controller provides the semantic value of the controlled element. Now let's look at what this predicts.

The revised representation in (ii) will still allow that the subject argument with a possessive verb is the default possessor (as in DP, the possessor is the individual in the unspecified relation to the theme); that means that the default is really equivalent to (4a), in any case. Then, for example, in a sentence like (5), we get under the revised proposal exactly the same result as under the original proposal:¹

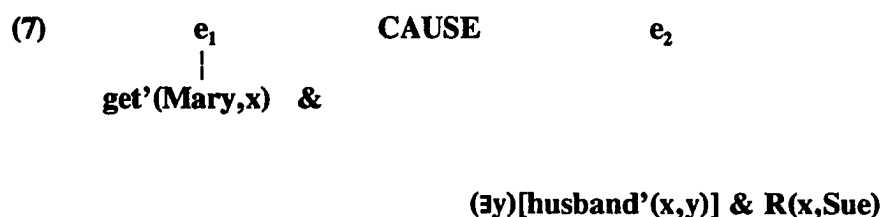
¹ Note that this will not conflict with the multiple-husbands effect: Mary is still not directly controlling the internal argument of a husband, but rather the internal argument of R, the possessor relation.

(5) Mary got a husband.

Under the revised proposal, Mary will not be stipulated as being the internal argument of **R**, but will control it, giving again the same result, ie. **R(x,Mary)** as the result-state of get. All the discussion above then goes through as before. But, under this revised proposal, we now also capture examples as in (6).

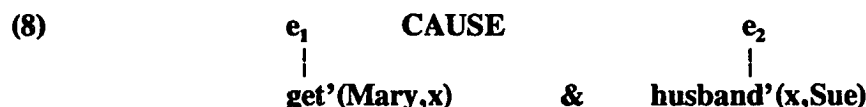
(6) Mary got Sue a husband.

In (6), since the benefactive argument is syntactically closer in each case, by the revised proposal this benefactive, when present, will control the possessor argument.² By allowing the benefactive argument, here, Sue, to thematically control the possessor variable in **R**, we will derive the representation as in (7). I have not attempted to represent the benefactive argument as playing any part in the interpretation other than controlling the possessive relation; it may do so, but it remains unclear what else it does, and conceivably it is precisely because the possessive relation is present that the benefactive is licensed.



² See various arguments in Barss and Lasnik (1986) and Larson (1988) regarding the c-command relations between benefactives and the direct-object.

And (7) collapses, by the R-Theta construal, into (8).



This is a reasonable approximation of the meaning, ie. the sentence does mean: as a result of the action Sue had a husband. By the same reasoning, we will derive appropriate readings for Mary got Sue a friend, Mary got Sue a partner, and so forth.

Conceivably the same general approach can be used to handle the interpretations of benefactives with all the possessive verbs; however, I do not pretend that this addresses all of the issues raised by these benefactives. First, I simply do not attempt to explore more generally the idea that we can stipulate control relations in this way. Second, I set aside also the issue of how and why optional benefactive arguments are licensed in the first place. The fact that we have identified a creation-aspect to these verbs fits with the optional presence of a benefactive; creation verbs in general optionally license benefactives. But why that should be so remains unclear, I believe, in the literature as a whole.

1.3 Definiteness

Moltmann (1995), in her discussion of the resultative readings, notes that the resultative reading with (what I am calling) possessive verbs is much more plausible with a weak determiner (on weak vs. strong, see Milsark, 1974, Barwise and Cooper, 1981, de Hoop, 1992, etc.). For example, there seems to be a contrast between the examples in (9) and those in (10).

- (9) (a) Mary got a boyfriend.
- (b) Mary got some boyfriends.
- (c) Mary got many boyfriends.
- (10) (a) Mary got that boyfriend.
- (b) Mary got each boyfriend.
- (c) Mary got most boyfriends.

In (10), it seems to be much harder to get a resultative reading. This may suggest an approach which is quite different from the one pursued above: namely, to suppose that on the resultative reading, *get* (etc.) take non-referential complements (presumably, then the verbs would take a relation-denoting, or property-denoting, complement; the assumption would be that strong determiners are incompatible with that denotation). There are two reasons I have not pursued this approach here. First, it would apparently require two lexical entries for each possessive verb, one s-selecting for a relation, the other s-selecting for an individual (to get the non-resultative readings). Second, there is an empirical problem. While Strong determiners definitely do interfere with the resultative readings, the effect is not as strong as such an account would predict (and not at all comparable to the blocking of definites in existential constructions). For example, resultative readings do seem to be at least marginally possible with strong determiners on the complement, in at least some cases. For example, these sentences do seem to allow a resultative reading (11).

- (11) (a) Mary got each boyfriend by putting lonely-hearts ads in the newspaper.
- (b) Mary got most boyfriends by putting lonely-hearts ads in the newspaper.
- (c) Mary got every boyfriend by putting lonely-hearts ads in the newspaper.

(d) Mary got that boyfriend by putting a lonely-hearts ad in the newspaper. Many informants find the resultative readings in (11) not implausible, even though the determiners are strong. Given (11), I think the effect of strength of the determiner is not good evidence that a non-referential interpretation for the DP correlates with the resultative reading (or, we would have to posit that the additional material makes definites non-referential; but then this should work also in existential constructions, which it does not). Still, the choice of determiner does make a difference. I believe the effect of choice of determiner may be understood to follow, however, from the fact that strong determiners presuppose the presence in the discourse of the object-DP (see Diesing, 1992, and see also Partee, 1988), and that it is this presupposition which indirectly interferes with the resultative or R-theta readings. For example, suppose we are discussing a husband-individual, and it is already presupposed in the discourse that he is a husband; then, if we say Mary got the husband, we cannot, pragmatically, read that as meaning that she got married, ie. the equivalent of the R-theta reading--it is already presupposed that he is a husband. I will not attempt to resolve the whole issue here, but simply note that the definiteness effect here, though real, is first not empirically absolutely clear-cut, and second may be explained on other grounds.

1.4 Infinitival Relatives

A final fact I will note here about possessive verbs is that they are much more compatible with NP-objects containing infinitival relatives than most other verbs. For example, compare the data in (12) and (13). (I use conjunction with a second NP to force a relative reading for the infinitival, rather than a purpose-clause interpretation;

see discussion of the difference in Faraci, 1974, and Jones, 1991.)

- (12) (a) Mary chose a woman to dance with and a bridge-partner.
- (b) Mary picked a woman to dance with and a bridge-partner.
- (c) Mary found a woman to dance with and a bridge-partner.
- (d) Mary got a woman to dance with and a bridge-partner.
- (e) Mary hired a woman to answer the phones and a janitor.
- (13) (a) ??Mary kissed a woman to dance with and a bridge-partner.
- (b) ??Mary killed a woman to dance with and a bridge-partner.
- (c) ??Mary touched a woman to dance with and a bridge-partner.
- (d) ??Mary painted a woman to dance with and a bridge-partner blue.
- (e) ??Mary annoyed a woman to dance with and a bridge-partner.

Here I will simply note that the contrast shown is one other feature of the possessive verbs. Ultimately, the fact that IRs are licensed here plausibly follows from some of the discussion noted above, that possessive verbs allow a particular pattern of temporal interaction, where the object-DP is identified with the event-structure of the verb. Plausibly, infinitivals necessarily require precisely that pattern of identification. This would fit with the fact that creation verbs also allow IRs in their objects, as for example Mary made something to eat; as discussed further below, creation verbs also allow a reading where the object-DP is linked to the result-state of the accomplishment. It would also predict that the presence of an IR would be incompatible with non-identification, ie. with the independent reading; this appears to be correct, eg. Mary found a woman to dance with is very marginal, on a reading where there was a woman to dance with (missing), and Mary located this person. I will not pursue this issue,

though it would be interesting to compare the noted facts to theories of the range of possible temporal connections between verbs and their arguments, on which see recent work by Zagana (1989), Uribe-Etxebarria (1993), and Stowell (1993).

2. Comparisons with Other Classes of Predicates

The next section compares the interpretive properties of possessive verbs, as outlined above, with various other kinds of predicates, and looks at the how the properties of these other predicates fit with the claims of the proposal.

2.1 Intensional Predicates: Need, Want, Desire

2.1.1 An Observation: The Married Man Paradoxes Again

There is another class of verbs which also regularly shows the equivalent of the Husbands vs. Married Man paradoxes, and this is a set of intensional predicates describing needs, desires, and acts of seeking. For example, observe that the following arguments are invalid:

(14) (a) All husbands are married men.

(b) Mary wants a husband.

(c) Mary wants a married man. (Invalid)

(15) (a) All secretaries are people with jobs.

(b) Mary desires a secretary.

(c) Mary desires a person with a job. (Invalid)

That these are invalid is illustrated by the fact that the premises can be true, when the consequents are false, so that for example the following situations are perfectly sensible:

(16) Mary wants a husband, and she certainly doesn't want a(nother) married man.

(17) Mary desires a secretary, and she doesn't desire someone with a job.

At first glance it might appear that the solution to these cases is simple: intensional predicates are always ambiguous between de dicto and de re readings, and those readings for each verb are truth-conditionally distinct in any case. It might seem that it is simply by switching between these two readings that we allow (16) and (17) to describe sensible situations. However, that is not all that is going on: the arguments shown above are invalid even when we control for that ambiguity. For example, the context in (18a), below, forces a narrow-scope reading for the object in each sentence; still, an argument parallel to that shown in (14) above is invalid in this context.

(18) Since that last guy turned out to be a bigamist, Eve has been very worried that it would happen again. She doesn't want any particular guy, but she does want a husband, and she quite specifically does not want a(nother) married man.

So the question is: if arguments like those in (14) and (15) are invalid, even on a forced narrow-scope interpretation for a husband and a married man, why should this be? In all possible worlds, the two sets are identical, so shouldn't looking for, needing, wanting, desiring, etc. the one entail needing, wanting, desiring, etc., the other?

2.1.2 This Effect Derived

Some existing analyses of predicates like need, want, and desire treat these predicates

as decomposing into a relation containing the predicate have (see, in particular McCawley, 1974). Now, from the lexical analysis of have shown above, such a treatment will turn out to directly predict the effect shown above. To show this, I will adopt the Hintikka/Montague approach to the analysis of intensional predicates (Hintikka, 1975, Montague, 1970). Under this approach, the truth-conditions for an intensional construction like Mary needs a husband, on the narrow-scope reading, are as follows: in every possible world in which Mary's needs are satisfied, there is an X, such that Mary has X. This can be represented (showing first an approach where have is treated as a primitive) as in (19).

$$(19) \quad \text{need}'(\text{Mary}, \wedge(\exists x)[(\exists y)[\text{husband}'(x,y) \ \& \ \text{have}'(\text{Mary},x)])$$

But now, when we replace a primitive have with have as an unspecified relation between individuals, as under the proposal here (and also as under Ritter and Rosen, 1993, though their representations do not explicitly take the free-variable approach, as discussed above), (19) translates into (20).³

$$(20) \quad \text{need}'(\text{Mary}, \wedge(\exists x)[(\exists y)[\text{husband}'(x,y) \ \& \ R(x,\text{Mary})])$$

Now, in (20), we have derived a logical form which, following the general assumptions here, allows an R-Theta reading. Taking that option gives us (21), as a narrow scope reading for Mary needs a husband.

$$(21) \quad \text{need}'(\text{Mary}, \wedge(\exists x)[\text{husband}'(x,\text{Mary})])$$

(21) will be true under the following conditions: if, in all those circumstances in which

³ I have not tried to look at intensional predicates in terms of neo-Davidsonian event-variables; the assumption will have to be that the situations described by "R" and "husband" in the set of possible worlds can be identified.

Mary's needs are satisfied, there is someone who is a husband to her. That is the salient reading for the sentence (on the narrow-scope construal). But now compare Mary needs a married man. Again treating the have-element in the existing models of decomposition as an unspecified relation, we derive, for the narrow-scope reading for that sentence, (22).

(22) $\text{need}'(\text{Mary}, \wedge(\exists x)[(\exists y)[\text{married}'(x,y) \ \& \ \text{man}'(x) \ \& \ R(x,\text{Mary})])$

Now, by general constraints on R-Theta readings, (22) cannot be read as an R-theta relation. (21) and (22), though derived from the same lexical entry with the same narrow-scope construal, are truth-conditionally distinct. By the same reasoning we correctly predict (even controlling for de dicto vs. de re ambiguities) the same effect with the other intensional predicates for which a "need/desire to have" decomposition has been proposed.

So, to sum up: some, though not all, intensional predicates are plausibly also possessive verbs, which follows directly from an integration of the treatment here of have and some existing decompositions of those predicates.

2.2 Anti-Possessive (Possessive Destruction) Predicates?

There is a set of predicates which may be construed as also involving possessive relations in their lexical-semantic structures, but in a negative way: they assert the lack of an unspecified relation, or the destruction of it. Here, I can only sketch how a possessive analysis might be applied to these predicates, and some of the issues raised by them.

Some verbs for which an Anti-Possessive analysis might be plausible are the

verbs shown in (23).

- (23) (a) Mary lacked a husband.
 (b) Mary lost a husband.
 (c) Mary fired a secretary.

Lack, as in (23a), appears to be a negative version of have with the same complement, ie. as asserting: $\sim (\exists x)[\text{husband}'(x, \text{Mary})]$. Given the analysis of have above, then, it may be plausible to construe lack as asserting that an unspecified relation does not exist, and allowing the DP-complement to furnish the value for this relation. One difference is that lack does not seem to allow non-relational complements at all, eg. ??Mary lacked Doug; if that is truly uninterpretable even in context (which I believe is so), then that will suggest that lack is actually a light-verb over relations, which must inherit a relational-denotation from its complement. Then, composition with lack is somewhat different, ie. lack s-selects for a relation, as in $\lambda R \lambda x [\sim (\exists y)(R(y, x))]$; that means lack does not give us the same option, deriving a free-variable over relations in logical forms, as with have.

Lose appears to be more directly related to the possessive class, in that it might well be analyzed simply as the negative version of get; ie. as asserting that as a result of an activity an unspecified relation was cancelled, but allowing, as with get, for the object-DP to optionally furnish the value for this relation. That is, we can treat it in this way:

$$(24) \quad \lambda y \lambda x [\text{act}'(x, e_1) \ \& \ \sim R(x, y, e_2) \ \& \ \text{CAUSE}(e_1, e_2)]$$

The only difference here is that the result-state is the cancellation of the possessive relation. Then, Mary lost a husband would be predicted, correctly, to allow this

meaning: as a result of the action, it was not the case that the affected individual was the husband of Mary. This will follow, by exactly the same steps as with get above, except that we have the negation of the relation in the result-state, ie. an R-theta construal of the unspecified relation will give as the result: $\sim \text{husband}'(x, \text{Mary})$. Lose will then also be predicted to ambiguously allow not only that reading, but also an R-non-theta reading, equivalent to this: Mary had some unspecified relation with an individual who was, independently, a husband, and this unspecified relation was cancelled. This would appear also to be a possible reading for Mary lost a husband, as for example if Mary is a marriage counsellor, and one of the husbands she has been cancelling quits, ie. cancels that relationship. Lose would then also be predicted to allow as-phrases to specify the nature of the relation that is cancelled; and this is also so, as in: Mary lost Doug as a husband. Thirdly, Mary lost Doug or Mary lost you are predicted to be grammatical, but unambiguous, allowing this reading: some contextually defined relation between Mary and Doug, or Mary and you, has been cancelled. I believe that is a possible reading, as well, though, unexpectedly, it seems that a "misplace" reading for lose is also possible, in addition to the "cancel relation between" reading. Note that one effect we will not get with lose is the creation switch effect: the relationship is cancelled, in this case, rather than created, hence we will not predict a creation reading, which seems to be correct.

Fire can also be treated as an anti-possessive verb, in this case the opposite of hire: ie., fire also results in cancellation of a relationship, but in this case one with the selection requirement that it be a paid relationship. This may then be used to predict interpretation of sentences like Mary fired Doug. It is not obvious whether Mary fired

a secretary is ambiguous between two readings, but I believe it in fact is; but the independent readings depends on the very odd situation where the secretary has another job, and Mary fires her from that job.

I will not explore the analysis of these plausibly anti-possessive verbs in further detail, but simply note that they may well be analyzable in this way, ie. as negations of unspecified relations.

2.3 General Comparison with Other Aspectually Simple Predicates

In the discussion of have, it was noted that there can be only one aspectually simple verb which describes an unspecified relation between individuals: since the relation has no inherent semantic content, any other verb simply describing an unspecified relation would mean the same thing, ie. mean have. All aspectually simple verbs with other meanings must describe either specified relations, or be light verbs over some non-relational types (eg., predicative be is presumably a light-verb inheriting a property-denotation from its DP complement, as discussed in Williams 1983, among others). This means that have should be the only aspectually simple verb which shows the truth-conditional pattern outlined above, eg deriving radically different interpretations via R-theta vs. R-non-theta readings for the complements husband vs. married man. This seems to be correct: the husbands vs. married men paradoxes do not arise with other aspectually simple predicates; eg. to love a husband entails to love a married man, to admire a husband entails to admire a married man, and so on, to be a husband entails to be a married man, and so forth.

The switch shown for possessive verbs between creation and non-creation

readings is not expected with any aspectually simple predicates at all, including have, for the reasons noted above in Chapter 4, ie. there is no result-state at all, and even an R-theta construal does not lead to a creation reading, which appears to be empirically correct.

The effects noted above with respect to the temporal modifiers on VP/IP and temporal boundedness of the DP-complement are predicted for some, but not all, other aspectually simple predicates. Specifically, these temporal interactions are predicted with other predicates that, like have, potentially inherits the semantic denotation of the DP- or NP-complement, but not with any verb with inherent semantic content. Thus, we do predict, and get, as noted above, an exactly parallel pattern with predicative be, as in Peter was a husband for two years; here, since the state described by the verb be is the state of being a husband, ie. be inherits its denotation from its complement (see comments above), then for two years will temporally bound the object-DP, ie. assert how long husband'(x,y) held. But for any aspectually simple verbs other than such a light verbs, and other than have, we do not expect this effect, since the state or activity described by the verb is not inherited from the DP complement, but specified separately. This seems to be correct, so that for example in Peter admired a husband for two years, for two years describes only the period of time the admiration lasted, not the period of time the admired individual was a husband. Now let's consider as-phrase modifiers with non-possessive, aspectually simple, verbs. In general, object-modifying as-phrases are infelicitous with other aspectually simple predicates, as eg.: ??Mary sat with Doug as her husband, ??Mary was an idiot as her husband, etc. This may be seen as a result of the fact that, as under the proposal, the as-phrase must be licensed by associating with the

state described by the verb, but this state cannot be specified twice. As-Phrase modifiers are sometimes possible with certain aspectually simple predicates. First, various psych-predicates allow them, as eg. Mary hated/loved Doug as Hamlet. I do not attempt to address the semantics of this construction; it would appear to raise various interesting questions, but the assumption I make is simply that it is a different pattern, perhaps a small-clause construction. Regarding subject-modifying as-phrases, which I am assuming here to have a different semantics, see Landman (1988).

Regarding the ambiguities in construal of the event-relations in the sentence, the proposal here will allow, with stative predicates, that the nominal event may be read as identified, and that it need not be. This will be so for any predicate. So, for example, in Mary knew/loved a President, the proposal predicts that the theme may be construed as President for the same period as Mary's admiration, but that s/he need not be. This does seem to be correct. Certainly, it is easy to see readings where s/he was president at the same time as the verbal event, but it is also possible to construe the person's being President as completely independent. For example, as was noted earlier, we may say "Mary knew a President, but that was many years ago, before he was ever President". Because there is no possibility of an R-Theta reading with verbs other than have, however, regardless of how we construe the event-relations, the consequences of this difference in construal of event-structure relations are not the same. Here, I will simply note that the proposal predicts either possibility, and I will not look for further empirical consequences of the two readings with the non-possessive, aspectually simple verbs.

2.4 Comparison with Verbs Creating New Individuals

Let us look now at how the proposal outlined here interacts with the interpretive properties of verbs like create, build, or make, which describe the creation of new individuals.

The part of the proposal having to do with positing a possessive relation in the decompositional structure of certain predicates obviously will not require us to posit a possessive relation for these, or any other verbs, except as motivated. Here, I believe there is no reason to posit such a relation in the decomposed structure. But with respect to the other aspect of the proposal, namely that regarding the interaction between the eventualities described by the verb and the noun, some comments are in order. First, with verbs describing the creation of new individuals, eg. build, make, etc., the norm appears to be that the eventuality named by the object-NP is the result of the action. For example, consider the sentences in (25).

- (25) (a) The Romans built this church.
- (b) The Romans made this church.
- (c) The Romans created this church.

Here, the patient's being a church is clearly read as the result, in fact the direct result, of the action: it is the church-individual itself that the Romans created. In itself, that is congruent with the proposal above, since we want to allow exactly this resultative pattern of association with all the possessive verbs, as well. But the question that arises is as follows. The proposal so far never actually forces, for any predicate, an association between the result-state of the predicate and the nominal situation; ie., it allows, in principle, that the thing's being a church could be independent of the

building. We need that possibility, to account for the non-resultative readings for hire a secretary, get a husband, etc. Now, is the equivalent of such a non-resultative reading ever possible with verbs like build, make, and etc.? And if not, why not? I cannot resolve this question here, but I will try and quickly note the possible directions we can take in addressing it.

First, I note that pragmatic considerations alone will rule out most cases of non-resultative readings for verbs like create. The reason is that with these verbs (and unlike with possessive verbs) the created individual does not have any existence prior to the act: that is, the patient only comes to be, as a unique individual, as a result. Because of this, it is impossible to read the theme of the verb in (25) as having been a church independently prior to the culmination of the act of creation; it didn't exist, before they built it, hence could not have had any properties at all. Consequently, any kind of independent reading where it was a church (etc.) independently before, or throughout, being built makes no sense. This is different from get, hire, and other possessive verbs. As discussed above, the individual corresponding to the patient of these possessive verbs may plausibly be understood to exist before, or throughout, the action, and this is the normal way of getting the independent reading equivalent to "There was a husband, and Mary got him"; unlike with verbs like create, this is not a conflict, because the action does not create the individual itself, only re-arranges the relationships this individual is in. That is an important feature distinguishing possessive verbs from true creation verbs: with the latter, we cannot get an independent reading for pragmatic reasons, because a 'beforehand' , or even a 'during' reading for the nominal eventuality (church'(x,e), etc.) described by the object-DP is impossible. This may explain why

non-resultative readings are not at all plausible in sentences like (25).

As an alternative to, or in addition to, that pragmatic explanation, we could also presumably try to stipulate out an independent reading for creation verbs in the lexical entry itself; ie., mark that with these verbs, the eventuality of N(x) must be associated with the result-state of the predicate. Though specifying the relation of the DP to the event-structure of these verbs lexically may be right, I note also that there are some problematic cases for that approach; these cases tend to support the idea that only the practical fact that the individual cannot have existed beforehand interferes with an 'independent' reading for these verbs. These cases involve a special context, in which we can understand that the individual, after being created, later underwent a series of changes in its properties--changes that were independent of the creative action itself. For example, consider now:

- (26) (a) The Romans built these ancient ruins.
 (b) The Romans made these ancient ruins.
 (c) The Romans created these ancient temples.

The point of the examples in (26) is that, though the Romans created individuals, in each case, they also did not plausibly give these individuals the property named by the N in the object NP; nor could they have made them ancient in a genuine way. In contexts where some time is understood to have passed after the culmination of the creative act, the nominal eventuality may indeed be read as independent of the action of building, making, and creating. This suggests that we had better not force identification between the nominal eventuality and the event-structure of the verb, with these verbs: N(x) is not always the result. Perhaps, then, the right answer is to assume that the pragmatic

facts noted simply make an 'independent' reading for creation verbs unnatural; unless we have this special situation where we can understand that a long period of time has passed, after the creation of the theme, we will prefer to read the nominal eventuality as the direct result. Since full and detailed consideration of these issues is outside the scope of this dissertation, I will leave the matter at that, ie. simply noting the positions and issues raised by them.

Apart from the issue of whether non-resultative, independent, readings are really possible with create-verbs, the rest of the properties of create-verbs fit straightforwardly with the proposal. First, no equivalent of the married man paradoxes appears to arise, but that it is unproblematic: I do not posit a possessive relation as the result-state of these predicates, and that relation is key to deriving the truth-conditional differences, as we saw. Second, create-verbs tend consistently not to entail the existence of the DP-object in the imperfective, as is well-known. This is because, as just noted, the existence of the DP-object is normally read as a result of the action. Third, again consistent with this, temporal modifiers may bound the period of existence of the DP-object; a permanence effect interferes with this, as discussed in Pustejovsky (1988) and noted also above, but with impermanent objects temporal modifiers on create-verbs pattern as with the resultative readings for possessive verbs. Eg. in Mary build a consensus/alliance for twenty minutes, twenty minutes is bounding the period of the existence of the theme, because the existence of the consensus/alliance is the result of the action.

Finally, create-verbs do allow object-modifying as-phrases, as eg. Mary built this

as a summer home for Sue. We could plausibly treat these as-phrases in the same way, as outlined above, ie. as adjuncts which link to the result-state of the accomplishment, though which approach we take here will partly depend on the solution to the general issues in the event-structure relations between creation-verbs and their DP-complements outlined above.

2.5 Comparisons with Other Extensional Accomplishments

Finally, let's compare the treatment of possessive verbs here with other extensional accomplishments.

Again, there is no reason, under the proposal, to suppose that all accomplishment or achievement predicates have an underspecified result-state. So for example, we may follow existing analyses, as in Dowty (1979) and Pustejovsky (1988), where the result-state of kill is the patient's being dead (not alive), the result-state of open is the affected object being open, etc. However these result-states are specified, and insofar as the verbs do have specified result-states, the equivalent of an R-theta reading will be ruled out; the R-theta construal depends crucially on having an unspecified relation between individuals. Thus, assuming that kill has a specific kind of result, to kill a husband (unlike to get a husband) cannot allow an R-theta reading, and hence will be truth-conditionally parallel to kill a married man, which is correct, as shown in various examples introducing the married man paradoxes above.

Now, though R-theta readings are strictly restricted to possessive verbs, the predictions regarding event-identification possibilities are not, under the proposal as it stands. However, it would appear that it is difficult or impossible ever to get a

resultative reading with many accomplishments, including verbs like kill and open; although a few cases, eg. The Psycho killed another victim, might be construed as a kind of a resultative, it is not clear whether, or if, resultative readings are really possible with most other extensional verbs. As with the creation verbs (where we had the opposite effect, the independent reading being unexpectedly absent), there are two ways to approach this issue. First, we may assume that it is pragmatics that interferes with the resultative reading. This must certainly be at least a contributing factor with at least some verbs: for example, if you kill someone, there are practical reasons why you cannot make them a secretary in so doing, which will block any kind of a resultative reading for Mary killed a secretary. It may simply happen, then, that the possessive verbs, pragmatically, describe actions for which the resultative reading is plausible with a particularly wide range of complement-DPs (though, as discussed above, pragmatics blocks the resultative reading in many cases even with possessive verbs). The other possibility is that we should specifically block a resultative event-identification with the lexical entry itself, with certain verbs, ie. specify semantically that the verb is incompatible with identification between the result-state of the verb and the DP-object. I will not try here to decide between the approaches, and will simply note how each will interact with the proposal. First, if we adopt a purely pragmatic explanation for blocking of the resultative reading, we don't need to say anything. But, on the other hand, if verbs like kill have a semantic structure which specifically blocks event-identification, which is certainly possible, then this will have implications for the proposal here; what we will need to assume is this: that the grammar itself does not absolutely block, or force, event-identification with the object, but only specific semantic

features of certain predicates. I believe the data with possessive verbs shows clearly the latter point, but how exactly, then, to introduce such specific blocking mechanisms, if they are necessary, for verbs like kill, I will not address. The material here has helped to determine some of the empirical range of the interactions, and I will leave it at that. Note that, however we block the resultative reading, where it is not available, we will not predict any creation-switch effect, nor the same interactions with temporal modifiers, nor the same interactions with as-phrases, congruent with the various contrasts noted between possessive verbs and other extensional accomplishments.

3. Relational Nouns

In this last section, I will make some comments about the assumptions introduced above regarding the treatment of relational nouns. Since the specific treatment of relational nouns has not introduced any new idea, all I will try and do is comment a little more explicitly on the assumptions, and the implications for the proposal if we want to treat these nouns in somewhat different ways. There are two issues that require comment: (i) the treatment of the internal argument of the nouns when it is not syntactically realized, and (ii) the two-place analysis of certain employment nouns.

3.1 Treatment of the Syntactically Optional Internal Argument

In the analysis above, I have assumed a lexical process of relation reduction, following similar proposals for treating implicit arguments in Thomason (1976), Back (1980), Dowty, Wall, and Peters (1981), and Dowty (1982). The general issue of how to treat optional arguments syntactically and semantically is beyond the scope of this

dissertation, but there are several alternatives we could assume. I note these, and their implications for the analysis above.

First, we might consider, rather than introducing an existential operator closing the variable associated with the internal argument by lexical rule, allowing existential closure, based on Heim (1982), to do so. This would not in any way affect the proposal here; we derive exactly the same logical forms, and R-theta readings and etc. apply. However, I note that revising Heim's system so as to allow this is actually problematic, and this is why I have not taken this approach. The problem is that if existential closure applied to eg. the internal (theme) argument of a relational noun like mother, under a revision of the system in Heim (1982: Chapter 2), we would derive incorrect predictions about discourse anaphora. Specifically, if indexes associated with both arguments of mother percolated to the existential operator adjoined to the text node, it appears that both the individual who is a mother (=external argument of mother) and the individual they are the mother of (=internal argument, ie. the child) should license discourse anaphors. But this seems to be incorrect. Certainly the referential index, the person who is a mother, can license a discourse anaphor, as in (27a); but the child is very much less felicitous, as in (27b), the judgements there linking him/it to the implicit child.

(27) (a) A mother came in. She was very pretty.

(b) A mother came in. ??It/he was very pretty.

A second possible approach to the implicit argument is simply to leave the variable associated with the internal argument free in logical form, ie in effect to assign a pronominal denotation to this argument. Again, this approach would not seem to

conflict with the basic ideas of the analysis, though it will require a slight reformulation of R-theta readings, if we stipulate this (simply omitting the existential operator binding the internal argument); the assumption that the relational denoted by the noun makes that relation salient, and allows it to furnish a value for the relational demonstrative R, does not need to be revised at all, under this approach. Whether relation reduction or this approach is ultimately correct depends on considerations outside the scope of this dissertation, and it is only for concreteness that I have taken the relation reduction approach.

A third approach is to assume that the implicit argument, if not present syntactically, is not present at all in logical form. Under this approach, for example, husband would lack an internal argument entirely, on uses where it is not directly assigned to a syntactic argument (via function application). This approach will be the most problematic under the approach here, because we will need to allow that nouns which have a relational alternative lexical entry introduce relations into the discourse, or allow R-theta readings, even on uses where the nouns themselves denote one-place properties with no internal argument at all. If this is really the right analysis of nouns like husband, ie. that they lack an implicit argument when none is syntactically present, and basically denote simple properties, it is somewhat surprising that they pattern so differently from "true" one-place nouns, like idiot, in the respects noted above.

3.2 The Two-Place Analysis Itself

In the discussion above, I have not attempted to justify the general claim that nouns like husband, wife, etc. do denote relations, and have a two-place argument structure, simply

following existing analyses, for various of the nouns, as in Chomsky (1970), Stockwell, Schachter, and Partee (1973), Jackendoff (1977), Anderson (1983-84), Higginbotham (1983), Emonds (1986), Abney (1987), Williams (1985, 1987, 1994), among others. The point is not absolutely uncontroversial, in particular in light of the fact that what are then treated as the internal arguments of certain nouns are optional; see Grimshaw (1990) for an alternative position, where only complex-event nominals take true internal arguments. What I take to be the main justification assuming, contra for example Grimshaw 1990, that even aspectually simple nouns, like all of the nouns treated as two-place in the analysis above, truly take internal arguments, is based on syntactic evidence: the element, when realized syntactically, (eg. of Sue in husband of Sue) can appear under the N'-projection (Jackendoff, 1977), and patterns as a theta-marked element with respect to extraction phenomena (see Pustejovsky, 1980, Safir, 1983). I will not review this evidence for any of the nouns which have been argued already to be two-place; however, it is worth reviewing for some of the examples above, specifically certain employment nouns, which are the only examples for which the two-place treatment has not, so far as I am aware, been specifically argued. Consider, then, the following extraction contrasts with. In the examples in (28), the hypothesized internal argument is extracted, which is quite felicitous; this contrasts sharply with the extraction of the extraction of clearly adjunctive elements in NP.

- (28) (a) John was an employee of Sue.
 Who was John an employee of?
- (b) John was the partner of Sue.
 Who was John the partner of?

- (c) John was an assistant to the President.
Which President was John an assistant to?
- (d) John was a secretary to the President.
Which President was John a secretary to?
- (29) (a) John was an idiot from Toledo.
?*Which city was John an idiot from?
- (b) John was a bigot with red hair.
?*Which color hair was John a bigot with?
- (c) John was the assistant with red hair.
?*Which color hair was John the assistant with?

If the extracted NPs (28) were adjuncts, we would not expect these contrasts. On the other hand, assuming that the extracted elements in (28) are selected, we can explain the contrast in the following way: NPs are islands with respect to extraction, ie. extraction leads to a subjacency violation (Ross, 1967, Chomsky, 1981, 1986); but selected elements escape from these islands better than non-selected elements (Huang, 1982, Chomsky, 1986). This then supports the claim that the extracted elements are arguments; and if they are arguments, it is most plausible to suppose that they are arguments of the head-noun, and if that is so, then the head nouns in the examples must at least potentially license internal arguments.

4. Conclusion

This chapter has first of all pointed out a few further facts about possessive verbs, matters which do not directly follow from the proposal, but which are related to it, or

require further comment. Secondly, it has compared possessive verbs with other verbs, and seen how the proposal fares with respect to the non-possessive verbs. And finally, it has further discussed some of the assumptions about relational nouns, and their treatment.

With this, I conclude this general exploration of the interpretive properties of the various verbs discussed above, and their analysis in terms of incorporation of a possessive relation in semantic structures.

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