Possession and the double object construction*

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This paper argues that double-object verbs decompose into two heads, an external-argument-selecting CAUSE predicate (v_{CAUSE}) and a prepositional element, P_{HAVE}. Two primary types of argument are presented. First, a consideration of the well-known Oerhle's generalization effects in English motivate such a decomposition, in combination with a consideration of idioms in ditransitive structures. These facts mitigate strongly against a Transform approach to the dative alternation, like that of Larson 1988, and point towards an Alternative Projection approach, similar in many respects to that of Pesetsky 1995. Second, the P_{HAVE} prepositional element is identified with the prepositional component of verbal *have*, treated in the literature by Benveniste 1966; Freeze 1992; Kayne 1993; Guéron 1995. Languages without P_{HAVE} do not allow possessors to c-command possessees, and show no evidence of a double-object construction, in which Goals c-command Themes. On the current account, these two facts receive the same explanation: P_{HAVE} does not form part of the inventory of morphosyntactic primitives of these languages.

1. Introduction

The locus classicus for syntactic treatments of the double object alternation in English is Larson (1988). Larson treats the well-known syntactic asymmetries of the dative alternation by positing a hierarchical structure for the VP, involving two VP-shells. In his analysis, the Theme is generated as the specifier of the lower VP, and the Goal (plus the preposition *to*) as its complement (1a). The dative shift alternation results when a passive-like operation applies to this lower VP, moving the Goal to the specifier position and generating the Theme in an adjunct position, analogous to the position of the by-phrase in a passive (1b). For Larson, then

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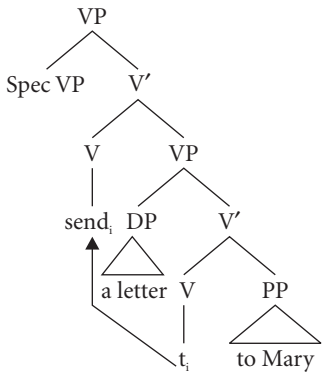
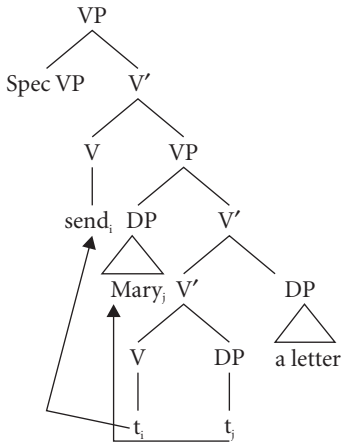
give a book to John is basic and *give John a book* is derived by a purely syntactic operation. I will term this general approach the 'transform' hypothesis.

(1) Larson (1988): 'Transform' approach

a. double complement (Larson's example 13)



b. double object structure (Larson's example 26)

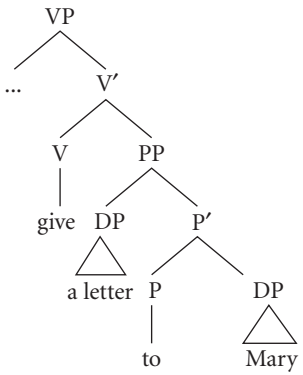


Pesetsky (1995) makes an important change to the analysis. While preserving the hierarchical structure that allows the capture of the syntactic asymmetries, he eschews the idea that the double object structure is a transform of the double complement structure. For Pesetsky, the complement of the V projected by *give* is a prepositional phrase. In the double complement structure, the PP is headed by *to* with the Theme in its specifier and the Goal in its complement (2a), and in the double object structure, the PP is headed by a null preposition, G, with the Theme in its complement and the Goal in its specifier (2b). G must raise by head-movement and affix to the V *give*. Essentially the two structures differ in

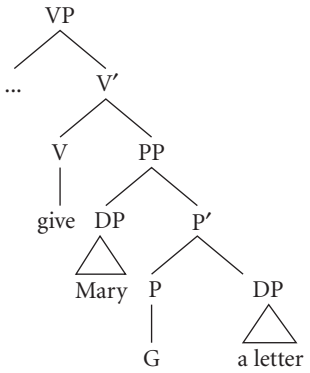
the selection of different prepositional complements by *give*.[1] This type of approach is termed by Larson (1990) "Alternative Projection".

(2) Pesetsky (1995): 'Alternative Projection' approach

a. double complement structure (Pesetsky's example 456)



b. double object structure (Pesetsky's example 511)



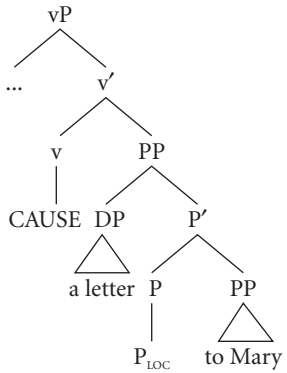
In this paper, I argue for a modified version of Pesetsky's approach, identifying his null preposition G with the preposition which in many recent analyses has been identified as encoding possession (Kayne (1993), Freeze (1992), Guéron (1995) and earlier, Benveniste (1966) make such proposals). Their claim is that the verb *have* consists of the verb *be* plus a prepositional element, which in some languages incorporates into *be* (giving *have*). I will call this preposition P_{HAVE}. In addition, I argue that *to* does not head the PP complement to V in the double complement structure, but rather that an abstract locative preposition, P_{LOC} does. This breakdown of the lexical semantics of double-object constructions in the syntax explains many puzzles: the hierarchical structure, and Oehrle's generalization effects. I go on to argue for a typological generalization

correlating the availability of *have* in a language with the availability of a double object construction in that language.

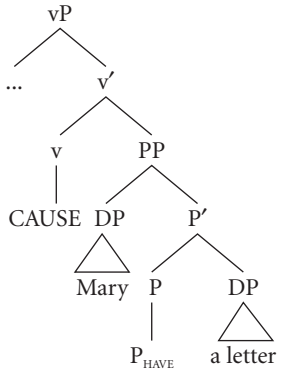
The final structures which will be proposed here are illustrated below:

(3) Alternative Projection: P_{HAVE}, P_{LOC}

a. double complement structure



b. double object structure



In adopting such an approach, the need for linking rules to lexical semantic structures noted for the transform hypothesis in Gropen, Pinker et al. (1989) is eliminated by the one-to-one mapping between syntactic position and semantic interpretation. Another type of problem is introduced, however: that of deriving the final form of the verb after combining the primitive morpho-syntactic predicates posited here. The solution to this problem resides in the adoption of a non-Lexicalist architecture (see, e.g. McCawley 1968), and it is suggested that a framework like that of Distributed Morphology (Halle and Marantz 1993, Halle and Marantz 1994) makes the correct division between non-linguistic and linguistic knowledge that enables the solution to work.

The article is structured as follows. In Section 2 I review many of the well-known arguments that the theta-roles involved in the double object and double complement structures are not identical, and draw attention to internal inconsistencies in Larson's appeal to the Uniformity of Theta Assignment Hypothesis (Baker 1988) to motivate the Transform hypothesis. In Section 3 I detail how the Alternative Projection hypothesis can account for these problems and still maintain the hierarchical structure which the binding facts motivate. I also contrast the present analysis with Pesetsky's, introducing the notion of prepositional HAVE. In Section 4 I lay out the cross-linguistic argument that the availability of prepositional HAVE correlates with the availability of a Goal-Theme hierarchical relation. In Section 5 I discuss the non-Lexicalist framework such an approach necessitates. Conclusions are in Section 6.

2. Different structure, different meaning

Larson's analysis involves an appeal to a version of the Uniformity of Theta Assignment Hypothesis of Baker (1988), according to which identical thematic relations are mapped onto identical syntactic positions across structures. Since the thematic relations assigned in the double complement and the double object structure are the same, he reasons, one structure must be 'basic' and conform to UTAH, and the other must be base-generated as a UTAH-conforming structure and then transformed via movement of the arguments into a non-conforming structure. In his treatment, the 'basic' structure is the double complement form. (As Larson notes, the reverse could also be true and UTAH would still be satisfied. He cites several analyses which derive the double complement form from a more basic double object form, including Bowers 1981; Johns 1984; Dryer 1987 and Aoun and Li 1989).

The relevant version of UTAH is articulated in Larson (1990):

(4) *Relativized UTAH*
Identical thematic relationships are represented by identical relative hierarchical relations between items at D-Structure.

In combination with the thematic hierarchy that Larson adopts, AGENT > THEME > GOAL > OBLIQUE, this entails that if the theta role of argument 1 is higher on the hierarchy than that of argument 2, argument 1 must c-command argument 2 at D-structure. In the case at hand, an examination of Larson's structures in (1a,b) will confirm that *at D-structure*, the Theme

c-commands the Goal in both cases. Note that this does not entail that Themes must always be projected in the same position at D-structure: in (1a), the Theme is in the specifier of the lower VP, while in (1b), it is an adjunct. However, the relative syntactic positions of the arguments are consistent with the theta-hierarchy in both cases, which satisfies Larson's UTAH. By the end of the derivation of the double object structure, the Goal will have moved into an S-structure position where it c-commands the theme, which permits a structural account of the binding asymmetries of Barss and Lasnik (1986).[2]

I will assume that a structural account of these asymmetries is desirable, as Larson articulates well in both Larson (1988) and Larson (1990), (cf. also Pesetsky 1995). The questionable aspect of the analysis is the derivational treatment of the double-complement/double-object relationship. The next subsections will be devoted to arguing against the idea that the thematic relationships involved in each are identical, and demonstrating that the assertion that one construction is derived makes a false prediction in a core area.

2.1 Oehrle's generalization

In fact, the template for the basic argument can be taken from Larson himself, in his discussion (Larson (1990)) of a problematic example raised by Jackendoff. Jackendoff (1990), in his example (54), points out that examples like (5) pose a problem for a derivational approach, since the appearance and disappearance of particular prepositions is difficult to treat in such an approach.

(5) a. John blamed the accident on Max.
b. John blamed Max for the accident.

Larson's counterproposal is that this type of alternation is not due to the application of his Dative-Shift operation, but rather, the two orders represent the base-generation of two different structures. In order for this to be true on Larson's analysis, the theta-roles borne by *the accident* and *Max* must be different in (5a) and (5b). He points to the existence of an animacy constraint on the direct object in (5b) that does not hold of the object of *on* in (5a). His examples and judgements which illustrate this contrast are given in (6):[3]

(6) a. John blamed his bad luck on the weather.
b. ??John blamed the weather for his bad luck.

Since the direct object in (5b) and (6b) must be animate, says Larson, it does not bear the same thematic relation as the object of *on* in (5a). Hence, UTAH

does not force these arguments to be base-generated in the same relative hierarchy, and they in fact have different D-structure representations (what Larson terms Alternative Projection).

The problem for Larson is that an essentially identical contrast holds in the double object/double complement structures which on his analysis crucially *do* involve the same thematic relations. This well-known contrast, noted by at least Green (1974) and Oehrle (1976), is illustrated in (7):

(7) a. The editor sent the article to Sue.
b. The editor sent the article to Philadelphia.
c. The editor sent Sue the article.
d. ??The editor sent Philadelphia the article.

The only grammatical reading which is available in (7d) is one in which *Philadelphia* is a stand-in for an organization or group of people; in a sense, where *Philadelphia* is animate.

This distinction has been widely attributed to a semantic criterion which applies to the double object but not the double complement structure. As described in Gropen, Pinker et al. (1989) "the referent of the first object [of a double object construction] must be the prospective possessor of the referent of the second object". Because alienable possessors must be animate, only animate referents may occur in the first DP position in the double object construction. In the double complement construction, it seems that the object of *to* is thematically a location, not necessarily a possessor, and a correspondingly wider range of arguments may appear there.

Jackendoff (1990) makes a similar observation. He points out that verbs which on Larson's analysis undergo Dative Shift may take a much broader range of Goal arguments in the double complement than in the double object construction. His examples are shown in (8), with their shifted counterparts:

(8) a. Susan sent Harry to Max/down the hall/to his room/away.
b. Susan sent Max/*the hall/*his room/*away Harry.
c. Susan kicked the ball to Max/down the hall/out the window/upward.
d. Susan kicked Max/*the hall/*upward/*the window the ball.

The 'possessor' account of the double object construction explains a wide range of contrasts. Larson (1988), fn. 44, citing Oehrle (1976), notes that there is a contrast in the implicatures of (9a) and (9b):

(9) a. John taught the students French
b. John taught French to the students

In (9a), there is a much stronger implication that the students actually learned some French. If in the double object construction, *the students* receive a Possessor role, while in the double complement version, they receive only a Location role, this contrast makes sense.

Similarly, in the same footnote, Larson mentions a contrast noted by Kayne (1975), illustrated in (10):

(10) a. I knitted this sweater for our baby.
b. I knitted our baby this sweater.

Kayne noted that in the *for*-benefactive in (10a), the female speaker may currently not have a child, but simply be pregnant or planning to be. In (10b), however, there is a strong implication that the baby exists. Again, if *the baby* must bear a Possessor role in (10b) by virtue of appearing in the double object construction, it must be animate (i.e. alive) and hence have been born already.[4]

Following Larson's own argument for the *blame* verbs, we may conclude that the direct object of the double object construction and the object of *to* in the double complement construction do **not** bear the same theta roles, and hence that the former is not derived from the latter. Rather, it must be the case that there are simply alternative projections available, which make alternative theta-grids available to the shifting verbs.

2.2 Idiom chunks and the Transform hypothesis

Some of Larson's initial evidence for an articulated VP-shell structure comes from the fact that a verb may form a "discontinuous idiom" with its outer arguments. He notes the existence of idioms of the following sort, where italics indicate the idiomatically interpreted constituents:

(11) a. Lasorda *sent* his starting pitcher *to the showers.*
("Lasorda took his starting pitcher out of the game")
b. Mary *took* Felix *to task.*
("Mary upbraided Felix").
c. Felix *threw* Oscar *to the wolves.*
("Felix sacrificed Oscar.")
d. Max *carries* such behavior *to extremes.*
("Max goes to the limits with such behavior.")

The possibility of such idioms is predicted by his structure in (1a), where the verb (e.g. *send*) forms a constituent with the indirect object *to the showers* at D-structure, to the exclusion of the direct object.

Larson seems to overlook a likely prediction of his analysis with respect to these examples. In the formative transformational literature, idiom chunks are a test for movement. In fact, it is exactly this aspect of the analysis of idioms that allows Larson to draw the conclusion that *send* has moved from its base position, next to *to the showers* in (11a), into a derived position to the left of *his starting pitcher*. Some classic examples of idiom chunks and the transformations which move them around are seen in (12):

(12) Idioms:
a. John let the cat out of the bag.
b. The experimenter stacked the deck against his hypothesis.
Passive:
c. The cat was let out of the bag.
d. The deck was stacked against the hypothesis.
Raising:
e. The cat seems to have been let out of the bag.
f. The deck seems to be stacked against the hypothesis.
*Control
g. *The cat wants to have been let out of the bag.

Larson's analysis, recall, entails that the double object structure is derived "via a passive-like operation" from the double complement structure. If this is so, we would expect at least some double complement idioms to freely shift (as is possible with Passive (12c,d)), retaining their idiomatic interpretation in the double object structure. None of Larson's idioms, nor any others we know of, permit such shifting:

(13) a. *Lasorda sent the showers his starting pitcher.
b. *Mary took task Felix.
c. *Felix threw the wolves Oscar.
d. *Max carries extremes things

Even when the idiomatic object of *to* is animate, and thus can potentially satisfy the Possessor role, it may not shift:

(14) a. I sent the salesman to the devil.
b. *I sent the devil the salesman.

From this evidence, it seems reasonable to conclude that since so-called "Dative Shift" fails a basic test for (passive-like) movement, it is not movement. (For further arguments from double object idioms, see Sections 3.2–3.4 below).

Taken together, the Possessor relation which is present in the double object structure but not in the double complement structure, and the unshiftability of the V-PP idioms indicate that a Transform approach to the double object alternation is untenable, particularly if motivated by UTAH-like considerations. In the next section, I lay out the Alternative Projection hypothesis, and show how it can cope with the interpretive facts just discussed.

3. Alternative Projection: *G* vs. CAUSE + P_{HAVE}

Let us reexamine the structures for double complement and double object sentences proposed by Pesetsky (1995) which were illustrated in (2).

Pesetsky is able to capture the attractive c-command effects of the hierarchical structure proposed by Larson ("rightward is downward") without proposing that one of the two structures is derived from the other.[5] On his account, *give* indirectly θ-selects the object of either the preposition *to* or the preposition *G,* and directly θ-selects the DP in the specifier of the preposition.[6] "Indirect" θ-selection is accomplished by the selection of a PP whose P head selects the appropriate theta-role. That is, because "to" selects Goal, the selection of a PP headed by *to* satisfies the need of *give* to itself select a Goal. The same process also applies when *give* selects a PP headed by G, which selects a Theme θ-role.

3.1 The semantics of *to*

For Pesetsky, the interpretive differences we have seen in Section 2 above result from differences in the semantics of the two prepositions. In particular, he suggests (p. 141) that the difference between a directly theta-selected Goal (in the double object construction) and an indirectly theta-selected Goal (in the double complement construction) lies in the semantics of the overt preposition *to*.

Pesetsky says (p. 141) that 'the semantics of *to*-objects seem to be a superset of the semantics of directly selected Goals'. That is, in the canonical examples which differentiate between the double object and double complement structures (*send a book to London/*send London a book*), anything that is a legitimate Goal in the double object construction is also legitimate in the double complement construction, as a Goal selected by *to*. If *to* contributes a Jackendoff-style PATH to the semantics of the sentence, for instance, then we can attribute the superset-subset relation that Pesetsky claims exists between double-complement Goals and double-object Goals to the selection of both Goals and PATH

endpoints by *to*. *Give* in the double object construction, without *to*, may only select 'true' Goals as arguments. When *give*'s Goal theta-selection is satisfied by a PP headed by *to*, the object of *to* may be anything which *to* allows. Since *to* selects endpoints to PATHs as well as 'true' Goals, the superset-subset relation springs into existence.

The present analysis adopts Pesetsky's central insight that the semantic distinctions observed between the two structures are caused by differences in the semantic contributions made by the two different P heads in the two structures. However, I claim that each head makes its own particular semantic contribution to the final interpretation. In particular, *G* is P_{HAVE}, and the argument occurring in its specifier is a Possessor. Clearly, incorporating P_{HAVE} into the theory, directly encoding a possession relation between the Goal and the Theme, will allow an account of all the contrasts we've just observed. Below, we argue that the differences in interpretation which are present in the two constructions cannot all be blamed on the semantics of *to*.

3.2 Non-alternating double object constructions

If the arguments selected by *to* are a superset of the Goals selected directly by *give*, then one might expect that any double-object structure should be able to alternate with a double-complement structure, although the reverse should not be true. (This is certainly the case in the *send a book to London* case which we've already seen.) However, there are examples which are legitimate in the double-object construction but not in the double-complement construction:

(15) a. Mary gave John a kick.
b. *Mary gave a kick to John.
c. Bill threw Mary a glance.
d. *Bill threw a glance to Mary.

Similarly, the original Oehrle's generalization facts occur in the double-object construction but not the double complement construction (examples taken from Pesetsky):

(16) a. The war years gave Mailer a book
b. *The war years gave a book to Mailer
c. The absence of competition guaranteed Scorsese the prize money.
d. *The absence of competition guaranteed the prize money to Scorsese.

In the same way, (17a) can express the notion that Mary was merely impregnated by John, while (17b) seems to entail that there is an existing child who was physically transferred:

(17) a. John gave Mary a child.
b. John gave a child to Mary.

If the null preposition *G* is in fact P_{HAVE} and contributes a possession relation to the semantics, this type of fact is expected: these examples of non-alternation involve cases where possession is necessary component of the relation between the Goal and the Theme arguments. On the other hand, if *to* can express all the same Goal relations as *give* alone, plus some, the lack of alternation here is puzzling. Certainly the superset relation does not exist.

Another distinction between the P_{HAVE} theory and *G* was seen in the example in (9) above. As noted above, the implication that the students actually learned some French is much stronger in (9a) than in (9b). Pesetsky's account, robust as it is, provides no explanation for this observation: on his account, any implication of (9a) should be available in (9b). On the P_{HAVE} story, however, the observation is expected: (9a) involves a possession relation in the form of P_{HAVE} while (9b) does not. In the next section, we return to the question of idioms, and show that Pesetsky's approach falls short in this regard. In order to preserve a principled treatment of discontinuous idioms, a second abstract preposition, P_{LOC} is introduced in the double complement structure, and more idioms which are only good in the double object structure (with P_{HAVE}) are exhibited.

3.3 Idioms revisited and the Alternative Projection approach

In Section 2.2, it was argued that one of the reasons to eschew a Transform approach to the dative alternation was that idioms in double complement constructions do not alternate — they don't have double object forms. On the other hand, although the hierarchical relations among arguments remains the same on Larson's and Pesetsky's approach, one of the attractive features of Larson's approach to idioms is not carried over in Pesetsky's treatment. Consider the bracketed structures which represent the initial double complement projections of each theory in (18):

(18) a. Larson:
$[_{VP}$ The coach $[_{V'}$ V_{empty} $[_{VP}$ Mary $[_{V'}$ sent $[_{PP}$ to the showers$]]]]]$
b. Pesetsky:
$[_{VP}$ The coach $[_{V'}$ sent $[_{PP}$ Mary $[_{P'}$ to $[_{DP}$ the showers$]]]]]$

In Pesetsky's approach, the verb *send* and the PP *to the showers* never form a constituent which does not contain the Theme argument. One of Larson's initial motivations for the VP-shell type theory was that idioms like *send X to the showers* were discontinuous. In order to receive an idiomatic interpretation, Larson argued, the verb and the PP must form a constituent at some level of structure, an attractive and constrained theory of idiom licensing. In fact, it makes the strong prediction that in the double complement construction, no Verb-Theme idioms should exist; more on that below.

It is less clear how idiom formation may be constrained in Pesetsky's approach. In the structure in (18b), the verb's sister is the entire PP [Mary to the showers]. Admittedly, the verb satisfies two theta-selection requirements at once here: it directly selects *Mary*, in the specifier of the PP, and selects the PP headed by *to*, which satisfies its need to select a Goal. It is ultimately *to* which selects the DP *the showers,* which gives the construction its idiomatic force. There is no local relation between the verb and its idiomatic goal. Pesetsky could stipulate that idiomatic force is specified for *send* when its mediated theta-selected Goal is the DP *the showers.* However, on such a theory, it would be equally easy to specify verb-Theme idioms in this structure. Anything the verb selected for could be idiomatically interpreted to the exclusion of anything else. Such a theory is considerably laxer than Larson's.

It might be the case that such a theory is necessary, however. Consider the idioms in (19), from Larson's example (11):

(19) a. Max *gave his all* to linguistics.
b. Alice *gives hell* to anyone who uses her training wheels.
c. Oscar will *give the boot* to any employee that shows up late.
d. The Count *gives the creeps* to everyone.
e. Phyllis should *show her cards* to other group participants.

These, if they are true idioms, would be counterexamples to Larson's strong claims that (a) the verb must form a constituent with the element that gives it its idiomatic interpretation and (b) that the double object form is derived from the double complement form, as nowhere in his derivation does the verb form a constituent with the Theme alone. Larson argues that they are not true idioms, pointing to examples like those below:

(20) a. Linguistics gets [my all]
b. I caught/got [hell] from Alice
c. Peter got [the boot]
d. Geez, you get [the creeps] just looking at him.

Because these DPs receive their idiomatic interpretation even when the verb *give* is not present, Larson argues, they are not idioms in combination with the verb, but rather independent, idiomatically interpreted opaque DPs.

If what Larson says about example (20) is correct, the existence of idioms like those in (19) cannot be taken as evidence for a Pesetsky-style theory, since they are not instances of the verb forming an idiom with the Theme. Richards (2001) has shown that Larson's account of (19) and (20) is not correct (see §3.4 below), but also that the approach necessitated by Pesetsky's structure is unecessarily unconstrained. In order to maintain Larson's restrictive theory of idioms-as-constituents, we will introduce a counterpart to P_{HAVE}, P_{LOC}, corresponding to Larson's lower VP-shell in the double complement structure.

3.4 Idioms as constituents and P_{LOC}

If P_{HAVE} is a separate predicate which raises to v_{CAUSE} and is ultimately spelled out as a double-object verb, there ought to be idioms in the double object construction where the Theme forms an idiom with P_{HAVE}, on either Larson's or Pesetsky's approach. Consider the structure for double object forms in (21):

(21) $[_{vP}$ Agent $[_{v'}$ CAUSE $[_{PP}$ Goal $[_{P'}$ P_{HAVE} $[_{DP}$ Theme$]]]]]$

P_{HAVE} will form a constituent with the Theme, and obviously will also select it. There definitely ought to be P_{HAVE}+Theme idioms. Fortunately for P_{HAVE}, there are examples of double object idioms in which the verb composes with the Theme:

(22) a. His advisor really gave John a kick in the pants.
b. *His advisor really gave a kick in the pants to John.
c. Susan gave Bill a piece of her mind.
d. ??Susan gave a piece of her mind to Bill.
e. Nancy showed Ronald the error of his ways.
f. ??Nancy showed the error of his ways to Ronald.

For these, then, we can maintain a Larson-style idioms-as-constituents approach. How can we do the same for Larson's original examples of double-complement idioms? If they are idioms, they should have the structure in (23):

(23) [vP Agent [v′ CAUSE [PP Theme [P′ P_{LOC} [PP to Goal]]]]]

If this is the correct structure, with an abstract locative preposition taking the place of Larson's lower V head, Larson's account of compositionality and idiom formation can be maintained. In an example like *The coach sent Mary to the*

showers, P_{LOC} will form a constituent with the Goal PP,[7] and the idiomatic force is established at the level of the P′ constituent. The failure of such idioms to shift is explained because the preposition which is present in double complement constructions is absent in double object constructions.

One problem remains. Let us reconsider Larson's examples of verb-Theme idioms in example (19) above. Larson presents them all as double-complement idioms, even though they are fine in the double-object structure:

(24) a. Max gave linguistics his all.
b. Alice gives everyone hell.
c. Oscar will give John the boot.
d. The Count gives everyone the creeps.
e. Phyllis should show everyone her cards.

Indeed, the examples in (24) are much more natural than the double-complement versions in (19). But on the Alternative Projection approach we would not expect them to shift at all, however, like the examples we saw in (22) above.

We suggest that the examples in (24) are true idioms with P_{HAVE} combining idiomatically with its DP complement. Larson's examples of these idioms in P_{LOC} constructions in (19) are suspicious in that the object of *to* in most cases is quite prosodically heavy. As these DPs become lighter, the double complement version becomes worse, as bad as the examples in (22b,d,f) above:

(25) a. ?*Max gave his all to it.
b. ??Alice gave hell to him.
c. ??Oscar gave the boot to Susan
d. ??*The Count gave the creeps to Joe.

Larson's examples are engineered to sound acceptable in the double complement structure with heavy Goal arguments. In fact, these are P_{HAVE} idioms.[8]

How, then, can we account for the carryover of their idiomatic status in the examples with the verb *get* in (20), cited by Larson as evidence that these are not true idioms? In fact, as shown by Richards (2001), this very acceptability constitutes support for the P_{HAVE}+Theme idiom proposal here.

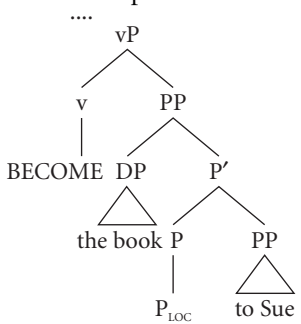
Larson asserts that the *get* examples demonstrate the independence of the DP from the verb *give*, and hence that any idiomatic force resides in the DP alone. As Richards points out, if Larson is correct, these DPs should appear freely anywhere that more pedestrian DPs can, in the same way that DPs like *the Big Apple*, *red tape* or *bubbly* are free to occur wherever *New York*, *administrative difficulties* or *champagne* can. This is not the case, however — sentences like *The boot upset Peter* cannot be interpreted idiomatically.

The answer comes from Pesetsky's observation (p. 124) concerning the semantics of *get*: it is subject to Oerhle's generalization (26) (Pesetsky's (341)):

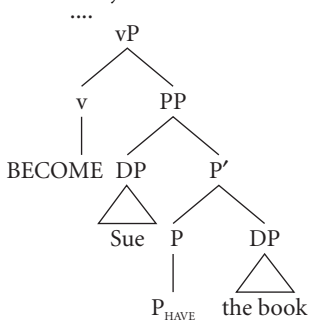
(26) a. The book got to Sue.
b. Sue got the book.
c. The book got to France.
d. *France got the book.

As Pesetsky notes, if *get*'s surface subject is an underlying object, as in (27),then *get* is just unaccusative *give*, with both its structural possibilities. On either structure, the highest DP argument moves to SpecTP[9] to check the EPP:

(27) a. double complement structure for *The book$_i$ got t$_i$ to Sue.*



b. double object structure for *Sue$_i$ got t$_i$ the book.*



This unaccusative analysis is supported by the fact that *get* can't passivize:

(28) a. *Sue was got to by the book.
b. *The book was got by Sue.

For Richards (2001), then, (27b) is the structure for *get* when the Theme is its direct object and *to* is not present. P_{HAVE} raises to the v_{BECOME} head and is realized as *get*. Any idiom which comprises the P′ headed by P_{HAVE} will be perfectly

legitimate in this structure, and hence Larson's counterexamples in (26) aren't. The poorness of the examples in (29), parallel to (25), supports this hypothesis:

(29) a. *His all got to linguistics.
b. *Hell got to me.
c. *The boot got to Peter.
d. *The creeps gets to you just looking at him.

We thus have a restrictive theory of discontinuous idioms in these constructions, much like Larson's, in which the verb plus its direct object (Theme on double complement structure, Goal on double object structure) never form a constituent by themselves, and hence do not form idioms. Larson's counterexamples are prosodically manipulated cases of well-behaved idioms. See Richards (2001) for further discussion.

3.5 Summary

Thus far, we have seen purely English-internal lexical semantic evidence for a distinction between the double object and double complement structures, and have motivated an Alternative Projection account of these structures on that basis. In order to capture these distinctions, we've replaced Larson's lower VP shells with P_{LOC} (in the double complement structure) and P_{HAVE} (in the double object structure), in a fashion similar to Pesetsky's proposal. On the basis of Richard's argument from idioms, however, we need to distinguish P_{LOC} from *to*, which is a departure from Pesetsky's approach. The contribution of the v head is either one of the change-of-state predicates CAUSE or BECOME, and the verb is created by combining these predicates with the semantic content of the P head. In the next section, we move to more purely syntactic considerations, and consider the existence and function of these prepositions cross-linguistically. We return to the question of lexical decompostion in Section 5.

4. Prepositional HAVE cross-linguistically

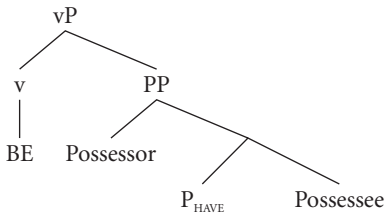
As we have seen, the current analysis suggests that on the double object use, the complement to vP is a PP headed by an abstract P denoting the relation HAVE, while on the double complement use, the complement to vP is headed by an abstract P denoting the LOC relation. In this section, we examine the relationships between the actual verb expressing possession in a language and the availability of a double-object type structure in that language. If simple possession

is expressed by the same P_{HAVE} as we have posited for the double object construction, we should expect to see a correlation between the existence of double object structures and possession structures in a given language.

There is nothing new about thinking about HAVE as a preposition, rather than a verb. As first noticed by Benveniste (1966), many languages represent the possessive as BE plus some spatial or locative preposition. Among others, Guéron (1995), Freeze (1992) and Kayne (1993) have proposed to encode this decomposition as part of UG. The claim is, essentially, that all languages represent *have* underlyingly as BE+Prep, and that languages with verbal *have* simply incorporate the P into the BE verb to produce *have*.

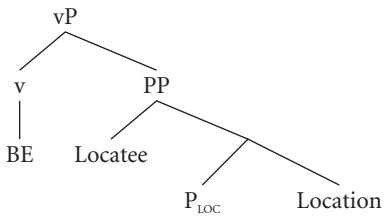
The works just cited make a typologically two-way distinction, between those languages that express possession with verbal *have,* combining the preposition with the copula, and those that express possession without such combination, realizing the preposition and a copula separately. I propose to argue here that in fact this typology is inadequate, and that a third type of language exists which does not possess the preposition necessary to encode the HAVE relation at all. That is, they lack P_{HAVE}. These languages represent possession with what is essentially a locative structure, using P_{LOC} rather than P_{HAVE}. The predication is that such languages will not have double object-type structures, in which the Goal c-commands the Theme. The proposed structures for possessive and locative structures are illustrated in (30):

(30) a. Possession (in English)



'Mary has a book.'

b. Location



'Mary is in the garden.'

The essential structural feature we use to test whether or not a language has P_{HAVE} is the same feature that distinguished the double object from the double complement structures for Larson. If a language has P_{HAVE}, the possessor in the specifier c-commands the possessee in the complement. More precisely, the tail of any chain involving the possessor will c-command the tail of any chain involving the possessee. If P_{HAVE} is not present in a given language, it will use P_{LOC} to express possession, and possessions will always c-command possessees. Irish and Diné (Navajo) are languages of this type, lacking P_{HAVE}, while Japanese, Hindi, Hebrew, and others, despite not conflating P_{HAVE} with BE, do use P_{HAVE}, as of course do languages with verbal *have*. We show that if the possessor c-commands the possessee in HAVE constructions, it also may do so in constructions with double object-type verbs like *give*, even in languages which do not obviously have a morphological double-object construction.

4.1 The decomposition of verbal *have*

Let us first consider one of the original HAVE-as-preposition proposals, Freeze (1992). Take Freeze's Hindi examples, in (31). Freeze's aim is to unite locatives, existentials and possessives in a single paradigm. He notes that for Hindi, and for many languages that express possession using a copula and prepositional element rather than a verbal *have*, locatives (31a) are remarkably similar to existentials (31b), with the difference that the location and locatee arguments are reversed. Possessives (31c) in these languages look like existentials, with the location/possessor c-commanding the locatee — essentially, he views possessives as existentials with a human location.

(31) HAVE as a preposition: Freeze 1992

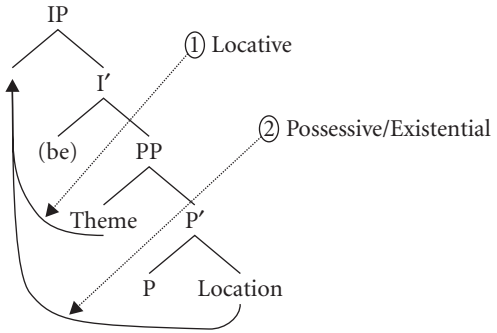
a. Locative
maɲiŋ hindustaan-meɲeŋ thaa
I India-in BE.SG.MSC.PST
Theme Location V
"I was in India"

b. Existential
kamree-meɲeŋ aadmii hai
room-in man BE.3SG.MSC.PRES
Location Theme V
"In the room is a man" ('There is a man in the room')

c. Possessive
larkee-kee paas kattaa hai
boy-OBL-GEN near dog BE.3SG.MSC.PRES
Location(Possessor) Theme V
"The boy has a dog. (Lit, "Near the boy is a dog").

Freeze proposes that the underlying structure in all three cases is the same, with the Theme (locatee) c-commanding the Location/Possessor. The difference between the location and existential/possession interpretations, on his analysis, results from differences in the derivation to Spell-Out, illustrated in (32). In locatives, the highest argument (the Theme) raises to subject position, while in existentials or possessives, the lower location/possessor element raises to subject position, skipping the intervening Theme.

(32) Freeze 1992: same structure, different derivations:



He suggests that the choice between the two derivations is motivated by the well-known Definiteness Effect, as it is manifested in existentials: the thing asserted to be existing (the Theme), cross-linguistically, must be indefinite. Indefinites must remain within the scope of the existential operator, and hence within in the VP, according to treatments like that of Diesing (1991), and Freeze hence argues that the only argument that can raise out of the PP in existentials is the location argument. Freeze does not address the theoretical apparatus necessary to allow Minimality-violating movement of this type, driven by the definiteness of an intervening DP, but presumably indefinite DPs would lack some feature relevant to the Attract operation of Chomksy (1995), hence they would not compete for checking privileges with the lower DP.

This approach to distinguishing between the two constructions has two drawbacks. Firstly, it raises questions about Freeze's unification of the existential and possessive constructions, as it is trivially obvious that in many languages of this type there are no definiteness restrictions on the Theme argument in possessives.[10] This can be seen for Hindi and Japanese in (33):

(33) a. *us-laṛkee-kee paas mera kutta hai*
that-boy-G near my dog is
"That boy has my dog."

b. *John-ga/ni zibun-no uti-ga aru*
John-N/D self-gen house-N exist
"John has his house"

The second problem arises in languages which show *no* variation in argument order between locatives, existentials, and possessives, such as Scots Gaelic (from Freeze) or Irish (which we will consider in detail below). It looks as if the derivation in these languages is always the same, with the Theme raising no matter whether the meaning is locative, possessive or existential.[11] Freeze proposes that these languages simply do not exhibit the semantic restriction on syntactic partition imposed by the definiteness effect.

While recognizing the fruitfulness of the decomposition approach, here we will pursue an alternative version that allows a non-stipulative approach to the lack of variation in word order in this type of language.

The alternative presented here is that locative and possessive constructions in languages like Hindi are derived from different underlying structures, with different prepositions, where the highest argument becomes the subject, as in the locative and possessive structures proposed in (30a) and (30b) above. In Hindi, however, P_{HAVE} does not incorporate into the verb BE in the possessive structure, resulting in the appearance of the copula. In English, P_{HAVE} does incorporate, producing *have*. The difference between Hindi and English-type languages on the one hand, where the possessor/location is the subject, and Scots Gaelic-type on the other hand, in which the possessee is the subject, is that the latter *lack* P_{HAVE} entirely. Separate arguments from psych predicates for Irish as a HAVEless language have been presented by Noonan (1993).

If there are languages which lack P_{HAVE} entirely, they should then also lack the double object structure in verbs like *give*. They should never generate a structure in which the Possessor or Goal c-commands the Theme. On the other hand, languages like Hindi which contain P_{HAVE} should allow the Possessor or Goal to c-command the Theme, even if the P_{HAVE} is not incorporated in the surface form. In the next two sections, we examine each type of language.

4.2 HAVE-not languages

Let's first consider Irish, which behaves for the purposes of Freeze's distinctions like Scots Gaelic, as you can see in (34) below; the locative, existential and possessive all involve the same ordering of theme and location arguments. In present terms, Irish does not have P_{HAVE}, which means that the location

(possessor) will not c-command the theme in possession structures. Note that the c-command relations that are suggested by linear order are confirmed by binding phenomena: quantified possessors cannot bind pronouns in their possessees (34d) (recall that Irish basic word order is VSO):

(34) a. Locative
Tá an mhin sa phota.
BE the (oat)meal in.the pot
V Theme Location
"The oatmeal is in the pot."

b. Existential
Tá min sa phota
BE oatmeal in.the pot
V Theme Location
"There is oatmeal in the pot"

c. Possessive
Tá an peann ag Máire
BE the pen at Mary
V Theme Location
"Mary has the pen"

d. Possessor cannot c-command possessee:
**Tá* a_i *pheann-fhéin ag chuile*$_i$ *bhuachaill*
is his pen-self at every boy
"Every boy has his pen"

Now, if Irish doesn't have P_{HAVE}, then its triadic verbs should always express Goal arguments as objects of prepositions, never allowing them to function as some kind of direct object, as in English double object constructions. This you can see in (35c). Further, and more crucially, the Goal argument should never be in a position to c-command the theme in Irish, which you can see is the case for binding phenomena in (35d).

(35) *Double object constructions in Irish:

a. *Thug Míleó caisearbhán do Bhinclí*
gave Milo dandelion to Binkley
"Milo gave a dandelion to Binkley"

b. **Thug Míleó do Bhinclí caisearbhán*
gave Milo to Binkely dandelion
"Milo gave to Binkley a dandelion"

c. **Thug Míleó caisearbhán Bhinclí*
gave Milo dandelion Binkley
**Thúg Míleó Bhinclí caisearbhán*
gave Milo Binkley dandelion
"Milo gave Binkley a dandelion"

d. Goal cannot c-command Theme.
Thug Míleó a_i pheann-fhéin do chuile$_i$ bhuachaill
gave Milo his pen-self to every boy
"Milo gave every boy his pen."

To summarize the Irish case: Irish lacks P_{HAVE}, using only P_{LOC}. Possession is expressed as a locative. Further, since the agentive verb *give* decomposes into a CAUSE morpheme plus a P_{LOC} morpheme, and has no available CAUSE+P_{HAVE} variant, there is nothing resembling a double object construction in Irish, where the Goal argument c-commands the Theme argument.[12]

Another language where the possessor c-commanding the possessee correlates with the lack of double object construction is Diné (Navajo). Rather than binding evidence, a language-internal inversion marker is the c-command test used here. Again, the data are clear: in possession sentences, a possessor does not c-command a possessee, and similarly, in triadic argument structures, Goals may not c-command Themes.

An instance of a typical possession sentence is seen in (36) below:

(36) Diné possessive:
Diné łíį́' *b-ee* *hóló́*
man horse he-with exists
"The man has a horse." (Lit. "The man, a horse is with him.")

In Diné, unmarked word order is SOV, which might seem to suggest that the possessor is the subject of (36). There is a wrinkle in the possessive construction in (36), however. The realization of the pronoun "he" in the oblique PP as *b-* indicates that *inversion* has taken place — that is, that the possessor-possessee ordering is derived, by (topicalizing) movement of the possessor over the possessee, rather than base-generation. Inversion in this construction is usual, forced by the animacy hierarchy of Diné: when an object outranks a subject on the hierarchy, (which it usually will, as possessors tend to outrank possessees) it must be fronted to sentence-initial position (Hale 1973). This is why the *man* DP precedes the *horse* DP. Crucially, the marker *y-*, which would indicate that the observed order is base-generated, can never appear in the possessive construction, no matter what the order of the arguments (37):

(37) a. **Diné łíį́'* *y-ee* *hóló́*
man horse he-with exists
"The man has a horse."

b. *łį́į́' *shi-zhé'é y-ee hólǫ́*
horse my-father he-with exists
"My father has a horse."

If (37a) were good, it would indicate that possessor-possessee was a possible base-generated order; i.e., that the possessor could c-command the possessee. The mandatory use of the *b-ee* construction indicates that the possessor object has moved over the possessee subject, that is, that inversion has taken place. Hence, the base configuration of possessives in Diné is the same as that in Irish.

Now, let's consider a construction with a triadic verb. The goal object, as seen in (38) appears in a prepositional phrase headed by a preposition corresponding to "to", as in the English double complement construction. Note that the PP in which the Goal argument marker *yi-* appears must always be linearly ordered after the theme. The theme, in direct object position, is marked on the verb with the yi- affix.

(38) *Shizhé'é sitsilí tłʔóół yi-chʔíʔ hada-y-íí-ł-déél*
my father my little brother rope him-to down-it-PERF-TR-handle
"My father tossed the rope to my little brother"

Inversion is optional here, as both the subject and the Goal are animate. When *my little brother* is inverted to the front of the clause, as in (39), the *b*-morpheme appears in the prepositional phrase.

(39) *Sitsilí shizhé'é tłʔóół bi-chʔíʔ hada-y-íí-ł-déél*
my little brother my father rope him-to down-it-PERF-TR-handle
"My father tossed the rope to my little brother"

A construction where the Goal behaves as a direct object of the verb is impossible — that is, where the agreement marker for the Goal argument shows up on the verb, like object agreement, rather than in a prepositional phrase as above (40):

(40) **Shizhé'é sitsilí tłʔóół hada-yi-y-íí-ł-déél*
my father my little brother rope down-him-it-PERF-TR-handle
"My father tossed my little brother the rope."

In recent work, Jelinek (1999) also argues that Diné lacks "Dative Movement"; she notes that all oblique arguments in Diné are marked with postpositions, and when these postpositional phrases are on occasion phonologically incorporated into the verb word, they remain distinct from (and outside) the incorporated subject and object pronouns. For our purposes, the lack of the double object construction in the language in combination with the possessee-possessor order

of argument base-generation demonstrates that Diné behaves as if no P_{HAVE} is available in the language.

4.3 HAVE languages

Let us move on to the more familiar languages which contain P_{HAVE}. There are two aspects of P_{HAVE} languages that require investigation on this account. First, languages that apparently have no verbal P_{HAVE} form but do have a double object form must be shown to in fact contain the preposition P_{HAVE}. In such languages, in copular expressions of possession, the (often quirky-case-marked or PP) possessor should c-command the possessee. Second, we must demonstrate the existence of a double-object like construction in languages where the case-marking or word order don't obviously suggest such a construction. As should be clear by now, the presence of a "double object" construction in a language is shown by demonstrating that the Goal can c-command the Theme, or, with caution, by demonstrating other direct object-like morphosyntactic properties.

English is of course our paradigm case, where the assumption that an alternation in word order represents a different syntactic configuration is borne out by changes in case-marking and binding possibilities between the Goal and the Theme object, as well as by the fact that either the Goal or the Theme can become the subject of the passive, depending on whether the passive is formed from the double object or double complement construction. This familiar data is repeated in (41)–(43) below:

(41) C-command in possessives:
  a. Every girl$_i$ has her$_i$ test paper.
  b. *Its$_i$ owner now has every dog$_i$.

(42) C-command in double object constructions:
  a. Susan sent every owner$_i$ his$_i$ dog.
  b. *Susan sent its$_i$ owner every dog$_i$.

(43) Movement to subject position in passive:
  a. Every owner was sent his dog.
  b. *Every dog was sent its owner.
  c. Every dog was sent to its owner.
  d. *To its owner was sent every dog.

4.4 A HAVE language without verbal have: Japanese

Let us now consider a slightly more difficult case, that of Japanese, which is a language without a verbal *have*, but which can be shown to have both a (null) P_{HAVE} and a double object construction.

A typical possession construction in Japanese is illustrated in (44), where the possessor can be marked nominative or dative and is followed by the theme, and the whole is completed with the existential verb *aru*. The theme, interestingly, takes the nominative case-marker *ga*.

(44) *John-ga/ni* *zibun-no uti-ga* *aru*
John-NOM/DAT self-GEN house-NOM exist
Possessor **Theme** **V**
"John has his house"

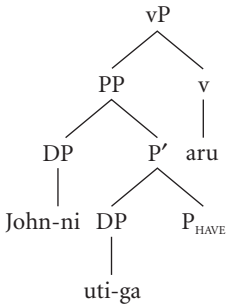
It might thus appear as if the Japanese case patterned with the HAVEless languages above, in that the Possessor argument appears to be prepostionally case-marked (at least when dative case appears), while the Locatee receives the nominative case associated with subjecthood. It could be argued that the word order resulted from scrambling the Possessor to the front of the sentence, as in Diné.

This analysis is not tenable for Japanese, however. Crucially, the dative-marked Possessor in these instances is clearly a subject, rather than a scrambled object (as argued extensively by Takezawa 1987). It can trigger subject-honorification (45a), and may antecede a reflexive in the Theme, and it cannot contain a reflexive bound by the Theme (45b). Ignoring case-marking for the moment, then, it is clear that the Possessor c-commands the Theme. The P_{HAVE} structure can be seen in (45c) (bear in mind that Japanese is a right-headed language). Crucially, P_{HAVE} does not incorporate into the copula present in the *v* head, and hence no verbal *have* exists in Japanese.

(45) a. Subject Honorification
Tanaka-sensei-ga/ni$_i$ *musume-san-ga*$_j$ *oarini*$_{i/*j}$ *naru*
T-Prof-NOM/DAT daughter-NOM exist-HON
"Professor Tanaka has his daughter"

b. Binding
**Zibun*$_i$*-no musume-ni Tanaka*$_i$*-sensei-ga aru*
self-GEN daughter Tanaka-Prof exist
"His daughter has Professor Tanaka"

c.



The subject's case is properly analyzed as quirky, assigned to it by the P_{HAVE}. The nominative object, despite its overt case, is in object position and receives structural case. See Schütze (1996), Ura (1996), or Harley (1995) for extensive discussion of mechanisms of case assignment in such instances.

Having shown that in Japanese, unlike Irish, the possessor c-commands the possessee, we can now move on to show that Japanese has both a double object and a double complement construction. Consider a clause whose verb is the typical double-object verb *give*, illustrated in (46). Both Goal-Theme and Theme-Goal orders are possible, with no obvious change in the observed morphological marking.

(46) a. *Bugs-ga Daffy-ni piza-o age-ta*
Bugs-NOM Daffy-DAT pizza-ACC give-PAST
"Bugs gave Daffy a pizza."

b. *Bugs-ga piza-o Daffy-ni age-ta*
Bugs-NOM pizza-ACC Daffy-DAT give-PAST
"Bugs gave a pizza to Daffy."

Here, of course, we need to demonstrate that one order is not derived from the other order. Japanese is well-known as a scrambling language, and the two orders indicated in (46a) and (46b) could conceivably be derived via scrambling of one argument across the other, rather than by base-generation in P_{HAVE} and P_{LOC} variations.

Miyagawa (1997) argues that in fact, scrambling is not employed to generate the two distinct orders illustrated above, and that each order is independently base-generated, as the present account predicts. Here we will consider just one of his arguments in support.

We can show that the two orders are not equivalent by closely examining the nature of the *ni*-marker in each case. The *ni*-marker (labeled DAT in the examples) is ambiguous between a preposition and a case-marker (argued

extensively in Sadakane and Koizumi 1995). If it can be shown that in one order, the *ni-* marker is a case-marker and in the other order it is a preposition, we have evidence that the two orders are not scrambled variants containing the same basic elements, but rather are structurally distinct at base-generation.

Numeral quantifiers associated with a *ni*-marked argument can appear "floated" to the right of their argument only when the *ni*-marker is a case-marker. A numeral quantifier to the right of a prepositional *ni,* on the other hand, downgrades the grammaticality of a sentence significantly. In the double object case (47a), where the dative argument precedes the accusative argument, floating of the quantifier is legitimate, suggesting that the *ni* in this case is a case-marker. In the double complement case, (47b), on the other hand, where the accusative argument precedes the dative argument, floating of the quantifier produces a marginal sentence, indicating that the *ni* is a preposition.

(47) a. *Bugs-ga tomodati-ni 2-ri piza-o age-ta*
Bugs-NOM friends-DAT 2-CL pizza-ACC give-PAST
"Bugs gave two friends pizza."

b. ??? *Bugs-ga piza-o tomodati-ni 2-ri age-ta*
Bugs-NOM pizza-ACC friends-PREP 2-CL give-PAST
"Bugs gave pizza to two friends"

This is in accordance with the predictions of the current account. Note that the word-order facts correlate with the English double-object construction word-order facts: when the Goal argument is introduced by a preposition, the Theme precedes the Goal. When the Goal argument is introduced by a case-marker, the Goal precedes the Theme. Analyses proposing to derive the above ordering alternations using optional scrambling cannot account for the difference in the status of *ni* between the two. Thus, we can conclude that Japanese is a language with P_{HAVE}, and hence has a double object construction, supporting our correlation.

Interestingly, some evidence from Japanese idioms is available which indicates the non-equivalence of the two orders as well, on a par with the evidence introduced for English in Sections 2.2 and 3.3 above. McGinnis (1998), notes the following contrast:

(48) a. *Taroo-ga hi-ni abura-o sosoida.*
Taroo-NOM fire-DAT oil-ACC poured
"Taroo made things worse"
(Lit. "Taroo poured oil on the fire.")

b. #*Taroo-ga abura-o hi-ni sosoida.*
Taroo-NOM oil-ACC fire-DAT poured
"Taroo made things worse."

The idiomatic reading of the phrase, "pour oil on the fire" meaning roughly "make the situtation worse", is only available in the DAT-ACC ordering, not in the ACC-DAT ordering, in much the same way that "give someone a piece of your mind" doesn't receive the idiomatic reading in the double complement ordering. While a scrambling account could no doubt provide an explanation of this contrast, some extra mechanism would be needed to explain the loss of idiomatic interpretation on the scrambled order. On the current account, however, this result follows naturally: different base-generated prepositions and hence different lexico-semantic content are present in the two orders, and the idiomatic reading is specified for only one of the prepositions.

4.5 A HAVE language without verbal have: Hiaki

Another case of a language with both a double object construction and a possessor-possessee structure in the possessive construction, yet lacking an explicit verbal form like *have* is Hiaki (also known as Yaqui and Yoeme), an Uto-Aztecan language. There are strong morphosyntactic and semantic indicators that its situation is like that of English.

Jelinek (1997) argues that possession in Hiaki is expressed not by incorporating the HAVE preposition into the verb, but rather by incorporating the entire possessed N head into the empty verbal position. A typical possessive sentence and (a simplified version of) the structure she assigns to it is illustrated in (49):

(49) a. *'aapo livrom-ek*
he book-PERF
"He has a book" (Lit: "He is booked")
b. $[_{IP}\ [_{DP}$ *'aapo*$]\ [_{I'}\ [_{VP}\ [_{DP}\ t_i]\ [_{V}$ *livrom*$_i]]]\ [_{I}$ *-ek*$]]$

Hiaki is also a right-headed language. In (49b), the possessee DP, which starts out in argument position as complement to V (in our terms, as complement to the P_{HAVE} head), incorporates into V, and receives the perfective marking-*ek* in Infl. This "bahuvrihi" possessive construction, notes Jelinek, is analogous to the English construction in (50) (only available for inalienably possessed things in English):

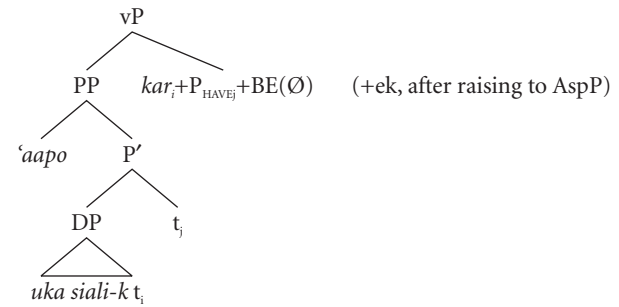
(50) a. He is long-haired/brown-eyed/warm-hearted.
b. She is talented/gifted/conceited.

The incorporation account receives support from facts like those in (51), where the moved noun leaves in its base position a definite determiner and adjective, both marked with accusative case.

(51) *'aapo* [$_{DP}$ *'uka* *siali-k* t_i] *kar$_i$-ek*
he DET.ACC green-ACC t_i house$_i$-PERF
"He has that green house"

Since incorporation, like all head-movement, must proceed stepwise upward in the tree, we can conclude that the possessee is in the complement position, and that Hiaki is a language with a possessor subject and a possessee object in possession constructions, and hence uses P_{HAVE}. In the current analysis, the essential structure of the sentence in (51) is indicated in (52):

(52)



The head N incorporates into P_{HAVE} and then the whole complex incorporates into the null copula.

Now, to turn to the double object/double complement construction, Jelinek (1999) shows the existence of both types of construction in Hiaki. Hiaki has ditransitives whose internal arguments are marked with accusative and dative case, but it also allows a small class of verbs to mark their internal arguments with two accusative cases. These are illustrated in (53):

(53) a. *'aapo Huan-tau 'uka* *vachi-ta* *maka-k*
he John-DAT DET.ACC corn-ACC give-PERF
"He gave the corn to John"
b. *'aapo Huan-ta* *'uka* *vachi-ta* *miika-k*
he John-ACC DET.ACC corn-ACC give(food)-PERF
"He gave John the corn."

What is particularly significant for our purposes is that when a verb selects two accusative-marked internal arguments, the Goal argument must be animate.

Jelinek notes that their Goal arguments must be interpreted as "strongly affected". Verbs which have double accusative marking include "teach", "borrow", and "take". She points out that this distinction between ACC/ACC and ACC/DAT verbs is similar to the interpretive differences between double complement and double object verbs in English which were discussed extensively above. In our terms, the ACC/ACC verbs are those which contain P_{HAVE}, while the ACC/DAT verbs contain P_{LOC}, and the difference in semantic interpretation results from the semantic contributions made by these two heads.

One final note on Hiaki: Hiaki is one of the languages which contains overt affixes that can realize the CAUSE head which projects the vP. One double object verb, meaning "show" is made up of such an overt affix plus the verb 'see', shown in (54a). (When this verb occurs with an ACC/DAT array, it means 'send', rather than 'show', as exemplified in (54b) below.)

(54) a. *'aapo 'uka kava'i-ta ho'ara-ta vit-tua-k*
he DET.ACC horse-ACC house-ACC see-CAUSE-PERF
"He showed the horse the house."

b. *'aapo 'uka kava'i-ta ho'ara-u vit-tua-k*
he DET.ACC horse-ACC house-DAT see-CAUSE-PERF
"He sent the horse to the house."

Hiaki, then, is well-behaved according to our prediction: possessors c-command possessees and Goals, when marked ACC, must be animate and affected, while DAT marked Goals show no such restriction. The correlation of the case marking evidence with semantic interpretation, as in English, is evidence that both the double object and double complement structures are licensed in the language.

4.6 HAVE languages without double object constructions: Romance

We have seen that morphological indicators are not necessarily the best clues available about the locus of base-generation of Goal and Theme arguments, as the Japanese evidence shows. It is worth considering, however, data from languages that trivially have P_{HAVE}, as they clearly have a verbal "have" form, but do not obviously have a double-object construction which is morphologically marked as such. Many Romance languages are of this type.

Consider Italian first. The Goal in Italian must always be marked with the prepositional marker *a*, suggesting perhaps that there is no double object construction in Italian. This is confirmed by the necessary word order of Theme followed by Goal. However, despite this apparent uniformity of status of the Goal argument,

binding of both objects is possible in either direction, as shown in Giorgi and Longibardi (1991) (example (55) below). In (55a), the Theme can bind into the Goal, and in (55b) the Goal can bind into the Theme. Note especially the contrast that these facts present with the Irish data, where the word order and case-marking facts are the same, but the binding facts are different.

(55) a. *Una lunga terapia psicoanalitica ha restituito Maria$_i$ a se stessa$_i$*
"A long psychoanalytic therapy restored Maria to herself"
b. Una lunga terapia psicoanalitica ha restituito se stessa$_i$ a Maria$_i$
"A long psychoanalytic therapy restored herself to Maria".

Similar data can be seen for French in (56) below.

(56) a. *Marie a donné son$_i$ crayon à chaque$_i$ garçon.*
"Mary gave every boy his pencil."
b. *Jean a présenté chaque$_i$ institutrice à ses$_i$ élèves.*
"Jean introduced every teacher to her students."

Miller (1992) has argued that the French *à* is in fact a case-marking element, rather than a true preposition, using evidence from conjunction and other constructions. Certainly, the binding evidence leads us to conclude that at some level of representation, the Goal argument may c-command the Theme argument in these languages. If this is so, we can maintain the hypothesis that the presence of P_{HAVE} results in the availability of a double-object-like construction.

4.7 Summary

In this section, we have provided evidence suggesting that the absence or presence of P_{HAVE} in a language correlates with the absence or presence of a ditransitive construction in which the Goal may c-command the Theme, that is, of a double object construction. Irish and Diné were given as examples of languages where P_{HAVE} is absent. In these languages, in simple expressions of possession, possessees c-command possessors, and in ditransitive constructions Themes always c-command Goals. English, Japanese and Hiaki were given as instances of languages where the presence of P_{HAVE} correlates with the existence of a double object construction. In Japanese P_{HAVE} does not incorporate with the v head, resulting in a copular expression of possession; nonetheless, the possessor c-commands the possessee. Japanese Goals and Themes may occur in either order; when the Goal appears in second position, however, its *ni*-marker is prepositional in nature. The different orders therefore represent different

base-generated argument structures, one with P_{HAVE} and one with P_{LOC}. In Hiaki, the head noun in the possessee DP in a possessive construction incorporates into P_{HAVE} and thence into the v head. This incorporation demonstrates that it is in a position lower than the possessor DP, which may not incorporate. Hiaki also shows both double object and double complement structures, with a concomitant semantic reflex in the form of an animacy requirement in the former. Finally, we looked at Romance languages in which the possessor c-commands the possessee (and which have a verbal *have*), but do not permit a morphosyntactically marked double object construction. However, the binding evidence between Goals and Themes in ditransitives in French and Italian indicates that a c-command relation can exist in which Goals are structurally higher than Themes. This contrasts strongly with the Irish case, and suggests that the current account can be maintained for such languages.

5. Late Lexical Insertion

At this point, we have arrived at a theory of double object/double complement alternations which accounts for the observed semantic differences between the two constructions in English, and makes interesting predictions about their occurence cross-linguistically. We have identified two prepositions, P_{HAVE} and P_{LOC}, which project structures containing two arguments, a Theme and another which has been called a Goal, Possessor or Location argument. P_{HAVE} contains the Location in its specifier and the Theme in its complement, and P_{LOC} places the Theme in its specifier and the Location in its complement.

Since these two structures are interpreted differently, differences in meaning arise when the double complement and double object version of the same verb are contrastive, giving rise to Oehrle's generalization. Further, we have shown that some languages lack the P_{HAVE} structure entirely, always projecting possessors/goals/locations in the complement position. In such languages, of course, possession interpretations as well as location interpretations are associated with the P_{LOC} structure.

These prepositions raise and adjoin to the v head which selects them, whether it is v_{BE} (*have*) or v_{CAUSE} (*give*) or v_{BECOME} (*get*); in that position, the complex head is spelled out as the final verb form. This entails a non-lexicalist view of syntactic atoms, and a Late Insertion approach to phonological realization. A recent, well-articulated framework espousing Late Insertion and compatible with Minimalist assumptions is Distributed Morphology Halle and

Marantz (1993), Halle and Marantz (1994), and Harley and Noyer (1999). Useful discussion of the type of problem treated here can be found in Marantz (1997), Harley and Noyer (1998).

Distributed Morphology is so called because it separates the functions of the Lexicon into several autonomous submodules, each of which interacts with a different portion of the Y-model. The primitives which serve as input to the syntax and are manipulated by it are not fully-formed phonological words, but morphosyntactic features and other primitive building blocks (such as P_{HAVE} and P_{LOC}, as well as the various flavors of v) which the syntax Merges and Moves, constrained as usual by feature checking. The terminal nodes created by these building blocks are spelled out in the mapping to PF with phonological information. Unlike Lexicalist versions of the Y-model, however, Spell-Out does not consist only of morphophonological readjustments (changing /haus/+/z/ to /hauzɨz/, for example) but rather first inserts phonological material, choosing between alternative realizations of any given node with compatible features.

In particular, choices within structural classes of nouns or verbs are free and determined by Encyclopedic knowledge (for instance, the knowledge that "cats" are felines, four-legged, catch and eat small animals, are playful, etc.). The choice between insertion of items like /kæt/ *cat* and /dɑg/ *dog* into otherwise equivalent terminal nodes is made at this point, for instance, as is the choice between insertion of *spray* and *load,* or *red* and *ecru.* The phonological form is termed a Vocabulary Item, and it is listed with a set of possible environments for insertion, essentially similar to the familiar notion of a subcategorization frame.

Consider the case of double-object/double-complement alternating verbs. This will be a class of verbs which has two sets of possible environments for insertion: at P_{HAVE} immediately c-commanded by v_{CAUSE}, or at P_{LOC} immediately c-commanded by v_{CAUSE}. These verbs must be associated with Encyclopedic knowledge which entails that their meaning is compatible with the basic semantic contribution made by the primitives CAUSE and HAVE or CAUSE and LOC; certain verbs will be so compatible and certain verbs will not. The Encyclopedia is the locus for what Pinker (1989) terms *narrow-range* conditions on the double object alternation. One could think of the narrow-range conditions (Latinate vs. Germanic root, instantaneous causation of ballistic motion, etc.) as diagnostics applied by the speaker to determine a new Vocabulary Item's probable insertion environments. Pinker's *broad-range* conditions, for instance the requirement that alternating verbs must involve causation of a change of possession, are those which are enforced by a particular Vocabulary Item's listed

insertion environments: anything inserted at P_{HAVE} in the environment of CAUSE, for instance, must involve the change-of-possession property.

Any Vocabulary Items whose environmental licensing requirements are compatible with the given structure may be inserted at the terminal nodes. In the sentence *Bill gave Mary the creeps, the creeps* is inserted at the lowest DP, *Mary* is inserted in SpecPP, *give* is inserted at P_{HAVE}, v_{CAUSE} is realized as Ø,[13] and Spec*v*P is realized as *Bill*. *Give* and *the creeps* are listed as an idiom in the Encyclopedia when they occur together in this structure (as sisters under P′), so that is the assigned interpretation.[14] The structure could just as easily have been realized as *John sent Susan a letter* or *Giovanni kicked Isabella the ball*, of course; as long as the Vocabulary Items have the appropriate licensing requirements, any may be inserted into any terminal node.

6. Conclusion

This paper has presented two types of argument that double-object verbs decompose into two heads, an external-argument-selecting CAUSE predicate (v_{CAUSE}) and a prepositional element, P_{HAVE} or P_{LOC}. First, a consideration of the well-known Oerhle's generalization effects in English motivate such a decomposition. These facts point towards an Alternative Projection approach, similar in many respects to that of Pesetsky (1995). Second, we identified the P_{HAVE} prepositional element with the prepositional component of verbal *have*, and argued for a typological distribution. Languages without P_{HAVE} do not allow possessors to c-command possessees, and show no evidence of a double-object construction, in which Goals c-command Themes. On the current account, these two facts receive the same explanation: P_{HAVE} does not form part of the inventory of morphosyntactic primitives of these languages.

Many questions still remain. The range of languages addressed in this study is quite limited; further in-depth exploration of a number of types of system is still necessary. In particular, languages like Russian, which allow scrambling and have overt case-marking of their DPs, will require a great deal of study; the Japanese case is similar on the surface but was shown by Miyagawa to be highly structured on closer scrutiny. The asymmetric and symmetric Bantu languages will also be a testing ground for the approach presented here. On the psycholinguistics front, the analysis here makes strong predictions about the relative order of mastery of double object constructions and possession constructions. Work by Snyder and Stromswold (1997) presents much relevant data and

analysis concerning the double object construction, but relevant investigations of possession constructions is still lacking. These and other issues remain to be investigated.

Notes

* This work has benefitted from the input of many people. The following is only a selection of the relevant names: Alec Marantz, Shigeru Miyagawa, David Pesetsky, Ken Hale, Jacqueline Guéron, Norvin Richards, Eloise Jelinek, Martha McGinnis, Andrew Carnie, Maíre Noonan, Elsi Kaiser, and audiences at WCCFL 18, the University of Pennsylvania, and the Paris Possession Group, 1996–1997. Any remaining wild implausibilities and/or errors are of course my responsibility. This work was supported in part by postdoctoral grant no. 756–95–0627 from the Social Sciences and Humanities Resource Council of Canada.

1. I am oversimplifying Pesetsky's treatment here somewhat. He does propose different base-generated structures involving selection of G or *to* by *give* (p. 223), but G is also present lower in the *to* structure, subsequently deleting. This permits him to account for the superset-subset relation he claims exists in the semantics of the Goals of the two structures. For arguments against the existence of a superset-subset relation, see Section 3.2.

2. Interestingly, it seems that Larson has to adopt a derivational account of the position of the by-phrase in a passive construction as well. At D-structure, according to standard analyses, the agent by-phrase is right-adjoined to VP. This is consistent with Larson's Relativized UTAH, as it will from there c-command the object at D-structure (assuming c-command out of PP). However, as can be seen in examples (a–c) below, according to Larson's binding tests, the agent by-phrase is c-commanded by an unmoved Goal argument at S-structure, and may not c-command it. Larson should be forced to adopt a Lowering analysis of the by-phrase.

a. A book was given to every boy by his mother.
a′. *A book was given to her son by every mother.
b. The answers were shown to no student by any teacher.
b′. *The answers were shown to any student by no teacher.
c. A book was given to each boy by the other.
d. *A book was given to the other by each boy.

3. In fact, in the opinion of many English speakers I have consulted, this judgement is considerably less robust than most of the Oehrle's generalization judgements we will see below.

4. For an alternative approach to the dative shift problem in general and these facts in particular, see Basilico (1998), who argues that it is the theticity properties of the two constructions which produce these effects.

5. See Phillips (1996), for a parsing-based account of how/why the "rightward is downward" clause structure arises.

6. Pesetsky points out (p. 189) that on his treatment the relationship between the V head and its directly theta-selected argument α in the specifier of PP is possible only because there is

no intervening argument category β which is c-commanded by V and which itself c-commands α (imagine, for instance, the specifier of a second PP2 occurring as the sister of the first P1: that specifier might be selected by P1, but it could not be selected by V, because the specifier of PP1 would intervene). In this respect, Pesetsky notes, his version of theta-selection attractively resembles Relativized Minimality-type restrictions on movement, which depend on there being no intervening argument of the appropriate category. On the current treatment, this notion will be irrelevant for the selection of the arguments of alternating verbs, but it is still probably necessary to describe the selection of arguments lower down in Pesetsky-style PP cascades.

7. The apparent "doubling" of prepositions, P_{LOC} + *to*, is necessary to maintain the account of idiomaticity presented here: if P_{LOC} does not exist, *sent* will never be in a local relation with *to the showers* and no structurally local definition of idiomaticity will be possible. The proposal is consistent with the behavior of *to* in combination with other, overt prepositions, however; consider pairs such as *on/onto* and *in/into. To* contributes a PATH to the preposition with which it combines (contrast *Mary fired a bullet in the building/into the building*); it is possible that it never occurs alone, but is always attached to a covert locative like P_{LOC}. This accounts for the dynamic, directional nature of the double complement structure.

8. Norvin Richards (p.c.) comments that the argument presented here that Larson's original versions of these idioms are instances of Heavy NP Shift implies quite a peculiar notion of Heavy NP Shift — for instance, that the switch to a double complement structure can occur late in the derivation on the PF side, when an NP is found to contain a lot of phonological material after Spell-Out. Jacqueline Guéron, however, notes that if the heaviness restriction is viewed as a PF constraint, then it's not so strange: Heavy NP Shift can be applied whenever, but if it turns out that the NP isn't heavy, the derivation crashes at PF. (The necessary insertion of *to*, however, remains mysterious). Note that the preservation of idiomatic force means that Heavy NP Shift behaves interpretively like a true movement operation.

9. Cf. McGinnis (1998) on locality and A-movement.

10. At the same time, there are some languages of this type where definiteness does seem to play a role in argument order in possessives, in, for example, Hungarian (Szabolcsi 1994). I will refrain from treating these languages here, although it seems possible to me that definiteness restrictions on Topics in such languages may be responsible.

11. McCloskey (1996) demonstrates for Modern Irish that the subject position is derived, not base-generated, so a no-movement approach to the Irish/Scots Gaelic data is not tenable.

12. It is natural to wonder what this entails for the semantics of Irish. Clearly Irish can express possesion using the locative structure, just as in English the double complement structure is for the most part semantically identical to the double object structure. One prediction pointed out by J. Guéron (p.c.) is that Irish should not show any Oerhle's generalization effects. One wonders if in Irish idiomatic/metaphoric expressions like *The war gave Mailer a book* are ill-formed; the current analysis seems to predict that they should be quite unnatural. Unfortunately my Irish consultants were unavailable during my revisions to this paper; it is definitely an important question for further research on the proposal, however.

13. The CAUSE affix is usually realized as the null affix Ø in English, although not always; consider *-ify*, *-ize* and *en-* in words like *liquefy, rubberize,* and *embitter*. Languages like

Japanese have a much more robust system of so-called 'lexical' causative affixes. Cf. also the Hiaki verb *vit-tua* meaning *send*, exemplified above in (54b).

14. Jacqueline Guéron quite rightly observes that if idiom interpretation occurs after vocabulary insertion, as it must in this framework, then it will occur at a point where P_{HAVE} and its complement no longer form a constituent, as it will have raised to adjoin to *v* before Spell-Out. This appears to be a problem for the idiom-as-constituent requirement that we made so much of in the first half of this paper. However, what it really means is that the idiom-as-constituent requirement is really a requirement on the *licensing conditions* for idiomatic interpretation of roots: in order for an idiomatic interpretation to be licensed for a root, that root must realize a chain whose tail forms a constituent with the remainder of the idiom. This is not just necessary on the present account; all other cases of idiomatic interpretation after movement (raising in *The cat seems to be out of the bag*, for instance) will have to be reinterpreted as insertion-licensing in the same fashion. For a more extensive discussion of licensing conditions on vocabulary insertion, see Harley and Noyer 2001.

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