Lexical decomposition in modern syntactic theory

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In the past fifteen years, lexical decomposition has become an accepted fact among syntacticians and semanticists working in the Chomskyan framework, particularly among those studying verbal argument structure, and particularly with respect to change-of-state verbs. Many of the analyses of verbal syntax and semantics that are now accepted essentially without comment are essentially modernized versions of the long-discredited proposals of the Generative Semanticists.[1] For example, change-of-state verbs that exhibit the inchoative/causative alternation—*The screen cleared; John cleared the screen*—are now routinely treated as containing the equivalent of a formative BECOME in the intransitive version (roughly, [BECOME [THE SCREEN [CLEAR]]]) and am equivalent of CAUSE in their transitive version (roughly, [JOHN [CAUSE [THE SCREEN [CLEAR]]]]). English ditransitive verbs that occur in the double-object frame—*give John a book, pass Mary the salt*—are treated as syntactically complex, containing formatives CAUSE and HAVE in an embedding structure ([CAUSE [JOHN [HAVE [A BOOK]]]]). In some ways, then, the rather rapid transformation of the syntactic landscape has rolled back the clock. Progress is not retrograde, however: many of the most cogent empirical objections to the decompositional project have been answered, and there are at least some inklings of the explanations for others. The net result is that modern theories can capture many of the morphological, syntactic and semantic generalizations that motivated the original proposals in the first place, which were difficult to capture in the Lexicalist frameworks that dominated the field from the 1970s to the 1990s. The proposals also have serious scientific legs, in that they have made predictions and captured cross-linguistic generalizations that would have been impossible to contemplate without them. In this paper, I will first take some time to
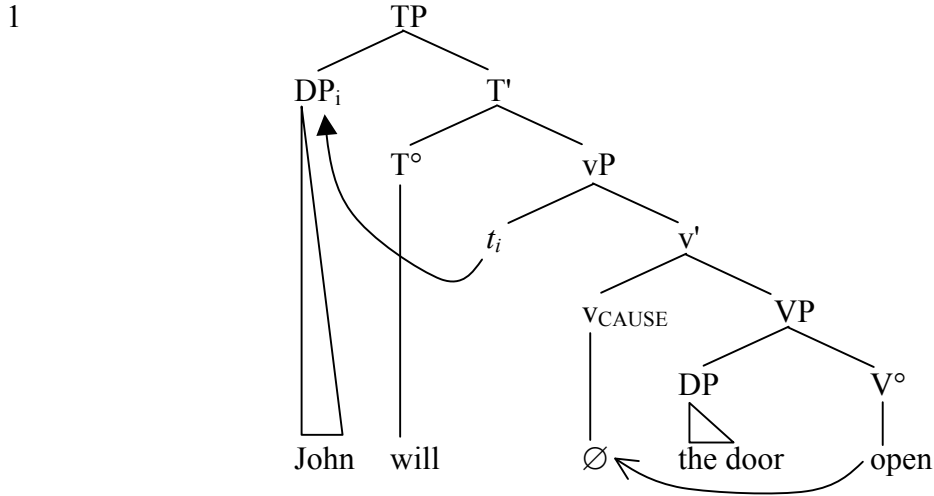
systematically address the status of some of the original empirical objections to the decompositional project, given a particular set of assumptions about how decomposition works in a modern framework. I will then quickly survey some decompositional proposals with an eye to conveying the breadth and depth that the approach has developed. I will focus primarily on English data, since that has been at the center of the debate for philosophers of language, but I will touch on some of the key points from unrelated languages which have particular relevance to the claims, from a linguists' point of view.

In the end, however, I feel that the central philosophical issues remain largely untouched by this revolution. Although it has become clear the notion of an atomic 'word' is misguided, where 'word' is understood to refer to linguistic entities of category N, V, A, and P, the problem is just one of granularity. The modern linguistically-motivated syntactic decomposition proposals just take the argument one level down: the problem of understanding the conceptual semantics of syntactically unanalyzable linguistic entities ('Roots') remains, and, in my opinion, the argumentation developed by Fodor against the conceptual decomposition of these true atoms remains unassailable.

1.   The basic picture

In this approach, the external argument of an agentive verb does not compose with the verb itself. Rather, it composes with an independent predicate (notated as $v°$) which relates the external argument to the verbal event. This independent predicate contributes the notion that the external argument is the Agent or Cause of the event. The verb composes directly only with its internal arguments. So, for example, the syntactic

structure of the sentence *John will open the door* would be roughly represented as follows (to be refined below):

1

```
                        TP
              DP_i              T'
                         T°           vP
                                 t_i        v'
                                      v_CAUSE      VP
                                               DP        V°
              John      will        ∅      the door      open
```

Here, the subject DP *John* has been base-generated as in the specifier of v_{CAUSE}, as an argument of the v_{CAUSE} head; it has moved to the specifier of TP to check its nominative case, leaving a trace or copy in spec-vP. The VP *the door open* is the complement of v_{CAUSE}; the V° head-moves up and incorporates into v°, to the left of *the door*. Since the portion of the phrase structure tree that is of interest to us here is the structure beginning at vP and below, I will leave out the functional projections above vP in diagrams below (unless relevant), and will not indicate subject movement; I assume throughout, however, that these projections are present and doing their usual syntactic and semantic jobs.

The CAUSE formative is not realized in this English case by a visible morpheme or independent verb; it is here represented by the usual symbol for a null morpheme, ∅. This null morpheme contributes the semantic content associated with v° in the same way that a null plural morpheme contributes the semantic content of PLURAL in a sentence like *The sheep are sick*. In many, probably in most, languages, the CAUSE formative

with lexical causatives such as this and/or its companion the BECOME formative in the intransitive counterpart are clearly associated with overt morphemic content (for examples, see section 4 below).[2]

In the semi-neo-Davidsonian semantics for such structures proposed in Kratzer (1994, 1996), both predicates denote a relationship between an individual and an eventuality, and a compositional operation of Event Identification applies to ensure that the two event variables are coindexed and bound by the same operator. At the vP boundary, an existential quantifier is introduced which binds the open event argument.

2        $\lambda e[\text{CAUSE}(\text{John}, e) \;\&\; \text{OPEN}(\text{the door}, e)]$

The Tense node contains an ordering predicate which encodes the temporal relationship between speech time and the timecourse of the event denoted by the vP, now modified by two predicates, along the lines proposed by Zagona (1995), among others.

The proposal captures the usual properties that motivated the adoption of its ancestors in the Generative semantics literature. The fact that *John opened the door* entails *The door opened* falls out for the same reasons that *Mary made John sick* entails *John got sick*; the same predicative subconstituent is present in both sentences, composing with the upstairs causative predicate and thus contributing its meaning compositionally to the meaning of the whole. The existence of repetitive and restitutive scopes for adverbials like *again* (3a), and the existence of high-scope and low-scope readings for temporal adverbials like *for five minutes* (3b) is due to the fact that both vP

and VP are legitimate adjunction sites for these adverbials. The high-scope reading in (3b) requires a certain amount of imagination to access, but it is certainly available:

3   a.   John opened the door again.

   **Restitutive:** The door had been open before, and John reopened it.
        Repetitive: John had opened the door before, and he did it again.

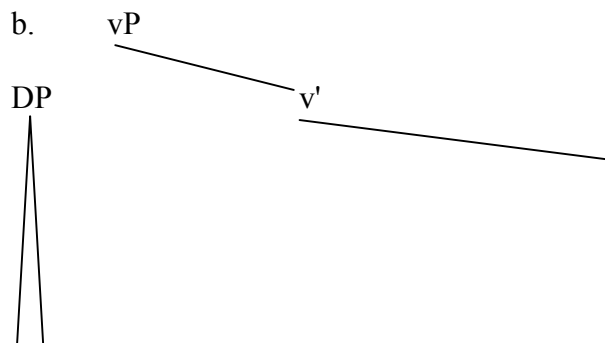   b.   John opened the door for five minutes.

        Low scope: The door spent a five-minute period being open.
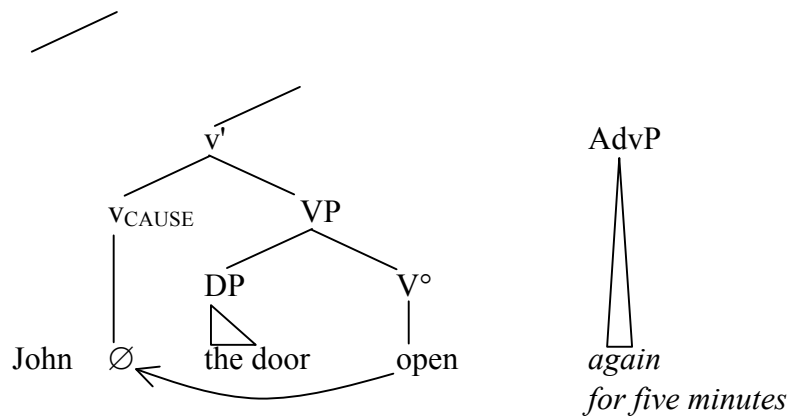   **High scope**: John spent a five-minute period in the act of opening the door.

These two readings correspond to the string-identical but structurally distinct syntactic representations below, where (4a) represents the structure which compositionally provides the lower scope reading and (4b) the higher scope reading:[3]

4   a.
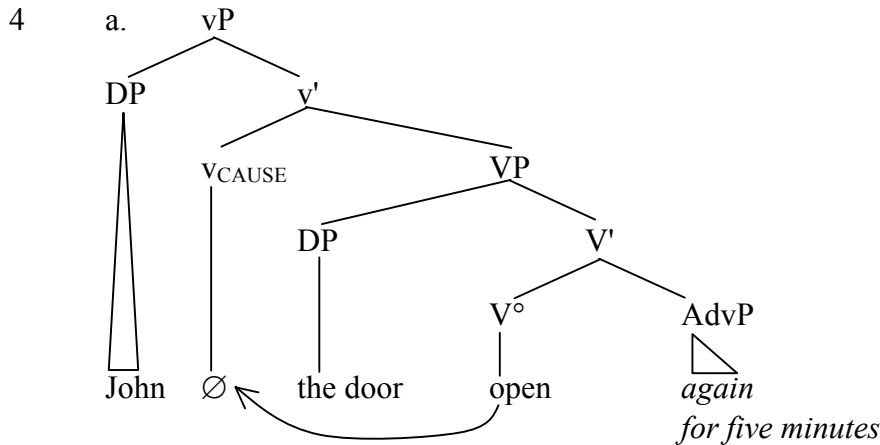
Reading: $\lambda e[$CAUSE(John, e) & OPEN-AGAIN(the door, e)$]$
            $\lambda e[$CAUSE(John, e) & OPEN-FOR-FIVE-MINUTES (the door, e)$]$

    b.

Reading: λe[CAUSE(John, e) & OPEN(the door, e) & AGAIN(e)]
          λe[CAUSE(John, e) & OPEN(the door, e) & FOR-FIVE-MINUTES(e)]

On this analysis, these ambiguities result from exactly the same structural options that produce the same ambiguities in the sentences *Mary made John sick again* and *Mary made John sick for five minutes* (note, again, that the high-scope reading requires some contextual coercion to be felicitous but that it is certainly available). Producing tree diagrams that reflect the two interpretations available for *Mary made John sick again* is an exercise for a Linguistics 101 class; no one contemplates anything other than a structural source for that ambiguity. The vP analysis of *John opened the door again* makes these two ambiguities essentially identical. Von Stechow (1995) argues that the typeshifting operations required to interpret *again* with two scopes in a model-theoretic semantics in which change-of-state verbs are *not* syntactically decomposed would complicate the interpretive system to an unacceptable degree; a system in which these distinct readings can be directly derived from their syntactic composition, then, is much to be desired from a purely theory-internal viewpoint.[4]

2. **The right way to analyze *kill* as *cause to die***

What of the empirical counterarguments against such an approach, perhaps most famously articulated in Fodor 1970? Let us consider the empirical arguments he presents

against decomposition of change-of-state verbs into a CAUSE predicate and an inchoative verbal predicate.[5]

First, the temporal locations of the causing eventuality and the door-open eventuality must be identical in *John opened the door*, but need not be identical in *John caused the door to open*, as illustrated by the fact that *on Saturday* and *on Sunday* may both occur in the latter but not the former:

5   a. *John caused the automatic door to open on Sunday by programming it on Saturday*
     b. *#John opened the automatic door on Sunday by programming it on Saturday.*

If the embedded and matrix events can be modified by independent temporal predicates (*on Sunday* for the embedded event and *on Saturday* for the matrix event) in the clausal paraphrase in (5a), then why can each subevent not be so modified in (5b)? The very natural answer lies in the fact that (5a) involves an embedding of an entire TP (itself containing its own vP and VP) under the matrix *cause* verb, which has its own independent T° head, while the causative structure in (5b) involves the embedding of only a VP under the causative v°.

In the periphrastic causative in (5a), each of the matrix and embedded events are related to separate Tense heads and each has its own independent existential closure operator, associated with the two separate vPs contained within the two separate clauses. The embedded (infinitival) Tense head (realized as *to* in *to open on Sunday*) expresses a relationship between the event denoted by the vP *open on Sunday* and some other event—one plausible analysis suggests that the infinitival T inherits a [+past] semantic value via sequence-of-tense from the matrix Tense head, thus locating the embedded

event at some time prior to the speech time. The matrix event is located by its own [+past] Tense head to some time prior to speech time. At no point do the two events undergo Event Identification, and consequently there is no semantic contradiction involved in asserting that the embedded event occupies a distinct temporal location from the matrix event, as long their respective temporal locations respect the semantics of causation, such that that effect follows cause.

In contrast, in (5b), the CAUSE event and the event denoted by the VP *have* been coindexed by Event Identification, *are* bound by the same existential operator. The single event which they both modify is ordered relative to speech time by a single Tense operator. Consequently the two eventualities may not occupy separate temporal locations without contradiction. Asserting that that a single event is temporally located both ON SUNDAY and ON SATURDAY poses the same problem that spatial modifiers which locate a single NP in two separate places pose, whatever that problem is—the ill-formedness of (5b) is analogous to the ill-formedness of the DP #*the big dog in the house on the lawn*, on the reading in which *on the lawn* and *in the house* are both understood to be predicated of the single dog (not the reading where *on the lawn* modifies *house*, rather than *dog*): a single spatially bounded entity cannot simultaneously occupy two locations. Similarly, a single temporally bounded event cannot occupy two temporal locations.[6]

The second argument adduced by Fodor against the decompositional analysis of causative verbs requires a bit more exposition, and a slight revision to the analysis outlined above. It relies on the observation that sentential subjects may control the null subjects of certain adjoined gerunds, but objects may not. In particular, *by*-phrases

containing a gerund are controlled by the agent argument, if there is one—even if that

agent argument is syntactically absent, as in the passive (6b)

6   a.   John$_i$ tested the milk by PRO$_i$ sniffing.
        b.   The milk$_j$ was tested by PRO$_{i/*j}$ sniffing.
                        ($_i$ coindexed with the unspecified Agent argument of *test*)

In (6a), the subject of *tested* controls the null subject of *sniffing*. In the passive (6b), the

controller of *sniffing* is still the understood agent argument of the main verb, not the

derived subject *milk*.

When there is no agent argument at all, however, as in the case of unaccusative

predicates (including inchoatives), then the derived subject argument can indeed control a

PRO in a *by*-phrase

7   a.   Bill$_i$ died by PRO$_i$ swallowing his tongue.
        b.   The milk$_i$ spoiled by PRO$_i$ sitting in the sun.

Now, compare the control possibilities in the unaccusative, the periphrasitic

causative and the lexical causative below:

8   a.   The milk$_i$ spoiled by PRO$_i$ sitting in the sun.   (=7b)
        b.   John$_i$ caused the milk$_j$ to spoil by PRO$_{i/j}$ sitting in the sun.
        c.   John$_i$ spoiled the milk$_j$ by PRO$_{i/*j}$ sitting in the sun.

The important datum here is (8c), which demonstrates that the object of a change-of-state

verb behaves like any object—it cannot control PRO in an adjoined gerund. If that object

were really the subject of an embedded verb *spoil,* under a null CAUSE predicate, it

should be able to control PRO, just as it does in (8a) and just as it can in (8b). In (8b), there are two potential subject controllers, and both readings are available: implausible though it is, on one reading, the matrix subject *John* could be sitting in the sun, and thereby cause the milk to spoil; on the other reading, the infinitival version of (8a) is embedded under *cause*, and the embedded subject *the milk* controls the PRO subject of *sitting*, just as it does in (8a).[7] The argument should be clear: if the derivation of (8c) involves embedding (8a) under a null CAUSE predicate, then why isn't the embedded subject of *spoil* able to control PRO, just as it is in (8b)?[8]

Fodor's examples with *kill* and *cause to die* illustrate the same phenomenon much more cleverly, involving a gerundive clause with very particular content:

9 a. Bill$_i$ died [by PRO$_i$ swallowing his tongue].
  b. John$_i$ caused Bill$_j$ to die [by PRO$_{\#i/j}$ swallowing his tongue]
  c. John$_i$ killed Bill$_j$ [by PRO$_{\#i/*j}$ swallowing his tongue]

Because tongues are inalienably possessed, and located in the mouth, the action *swallowing one's tongue* most naturally gets a reflexive reading, where the swallower and the tongue-owner are one and the same. In (9b), because there are two structural subjects, either John or Bill can, in principle, control PRO and be the agent of the swallowing action. If John is the controller of PRO, then the sentence is about John causing Bill to die by swallowing his own, John's, tongue, which is pretty difficult to imagine. If Bill is the controller, as he is in (9a), then the sentence is about John causing Bill to die from Bill swallowing Bill's tongue, which is much more sensible; (9b) therefore has a plausible reading as well as a very implausible one. In the sentence in (9c), however, because only structural subjects can be controllers, only John can be the agent of swallowing his

tongue, which means that (9c) only has the difficult-to-imagine reading in which John swallows John's tongue and as a result Bill dies, and thus rates a * from Fodor.[9] The plausible reading, where Bill is the controller of PRO and swallows his own tongue, is unavailable.

Thus, in (9c), *Bill* cannot control PRO. But if *kill* decomposes in such a way that it contains the predicate *die*, with *Bill* as its subject, then there should be no reason why Bill couldn't control PRO in (9c). Hence, Fodor concludes, analyses that treat *kill* as *cause to die* (or *spoil* as *cause to spoil*) make the incorrect predictions.

Consider, however, an alternative proposal concerning the lower portion of the decomposed verb phrase. Suppose the lower VP denotes a state, rather than an inchoative event. Causative verbs are crucially change-of-state verbs. Imagine, then, that the appropriate paraphrases simply embed a stative predication under the causative predicate, describing the resultant state that characterizes the event. An accurate paraphrase of such a caused-state structure would be *John made [Mary happy]*. On this approach, transitive *spoil* would decompose as *MAKE (something) SPOILT;* intransitive *spoil* would be *BECOME SPOILT*. Similarly, if *kill* decomposes, it would decompose as *MAKE (something) DEAD*, not *MAKE (something) DIE*.[10]

Interestingly, by assuming a cause-state decomposition, rather than cause-event, it turns out that the controlled gerund test makes the correct predictions in the paraphrases. Subjects of stative predicates can never be controllers of *by*-gerunds (or any adjoined gerunds, for that matter):


10   a.   *$Mary_i$ was happy by PRO_i singing.
        b. $John_i$ made [$Mary_j$ happy] by $PRO_{i/*j}$ singing.

c. *John_i was sick by PRO_i eating too much.
d. Mary_i made [John_j sick] by PRO_{i/*j} eating too much.

In (10a), we see that the subject of the stative predicate *(be) happy* cannot control an adjoined *by*-gerund; in (10b), the matrix subject of the verb *make* can control the gerund but the embedded subject of the stative small clause *Mary* still cannot. In (10c), although eating too much is a likely cause of sickness, we find that the stative subject *John* cannot control the gerund *by eating too much*; in (10d) we see a causative embedding the stative small clause [John sick], and again, despite the fact that it is the least plausible reading, we find that the only available controller for the *by*-gerund is the matrix subject of the causative verb *make*, i.e. *Mary*, not the embedded subject of the stative small clause.

Consequently, if the decomposed causative verbs involve a null CAUSE or MAKE predicate with a state-denoting small clause complement, the decompositional analysis makes the correct predictions concerning potential controllers of *by*-gerunds: Subjects of embedded stative predicates cannot control *by*-gerunds; *by*-gerunds must modify an eventive predicate.

Let us re-visit our structure from (1) for *John opened the door*, and also propose a structure for *The door opened*, treating the result of the causation as a state, rather than an event:

11   a.
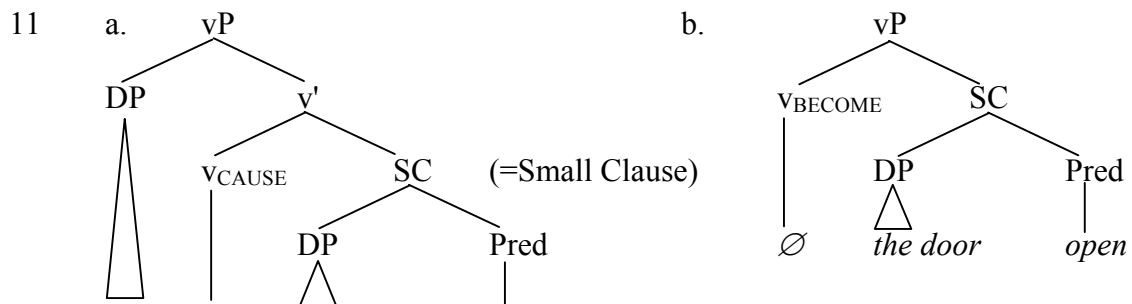
John   ∅   the door   open

The verb root, now treated as a stative predicate, will incorporate into v°, and the incorporated complex of *open-∅* is the transitive or inchoative verb *open*. Of course, the highest available DP moves to Spec-TP, resulting in the order *The door open(ed)* in (11b). The *by*-gerund adjoins to and modifies the vP, in each case; it may not modify the small clause. Consequently, in *John spoiled the milk by sitting in the sun*, the *by*-phrase may not attach to the small clause [MILK SPOILT] and have PRO controlled by MILK; rather, it may only attach to the vP, and be controlled by the c-commanding DP *John*.[11]

       Finally, let us consider Fodor's third argument, and see if it applies to our revised analysis, with a stative predicate rather than an inchoative predicate embedded under the causative predicate. Sentences containing the paraphrase *cause to die* provide an antecedent that licenses an elided VP referring back to the embedded *die* event (12a), while sentences containing *kill* do not (12b):

12   a.   John caused Mary to die, and it surprised me that she did so [=DIED].
         b.   *John killed Mary, and it surprised me that she did so [=DIED].

Of course, if *kill Mary* here is really CAUSE MARY TO DIE, containing a concealed predicate *DIE*, then it is surprising that the concealed VP may not antecede a *do-so* elision. Here, appealing to Event Identification will not help; the LF, roughly equivalent to *There was an event, which was caused by John, and which was an event of Mary dying,* could license the semantic reconstruction of an appropriate VP *Mary die* in the interpretation of *do so* (certainly the paraphrase of the LF given above could be continued

...and it surprised me that she did so). Consequently the ill-formedness of (12b) must have another source.[12]

The syntactic constraints on the licensing of verb-phrase are relevant. That is, *do-so* ellipsis is categorially restricted in English; its antecedent must be a whole vP. Stative small clauses do not license *do-so* ellipsis:

13   a.   *John made Mary$_i$ happy and it surprised me that she$_i$ did so.
        b.   *Mary made John$_i$ sick and it surprised me that he$_i$ did so.

Note that as soon as an explicit inchoative verb is included in the complement to *make,* the ellipsis is well-formed:

14   a.   John made Mary$_i$ become happy and it surprised me that she$_i$ did so.
        b.   Mary made John$_i$ get sick and it surprised me that he$_i$ did so.

We see, then, that treating causative change-of-state predicates as including only a causing event and a result state predicts that *do-so* ellipsis targeting the stative result component of the predicate should be ill-formed; treating causative change-of-state predicates as including a causative event and an inchoative (BECOME) event makes the incorrect prediction.[13]

Note that the proposed analysis position fits better with the key adverbial modification evidence presented in (3) above. Temporal modifiers like *again* and *for five minutes* can modify stative predicates:

15   a.   The door was open again.
   b.   The door was open for five minutes.

And these modifiers, on the low scope reading with causative predicates, modify the result state of the causative event. The low-scope interpretation of *John opened the door for five minutes* involves modification of the result state, not the duration of the inchoative event of the door opening.

To recap the three points in reverse order: Stative eventualities cannot antecede *do-so* ellipsis, and hence the stative eventuality subpart of causative change-of-state verbs cannot do so. Similarly, subjects of stative eventualities cannot control PRO in *by*-gerunds, and hence the object of a change-of-state verb (the subject of the embedded stative eventuality) cannot do so. Finally, Event Identification ensures that the stative eventuality and the causative eventuality are coindexed, each modifying the same single event argument, of which only a single temporal location can be predicated.

It is worth noticing that the proposed analysis accounts for one additional important fact concerning inchoative/transitive alternating verbs, namely, that they are morphologically related to each other. In most cases in English the relationship is one of zero-derivation, because the v° head is realized by a null morpheme (though not in cases like *realize*), but they are nonetheless related not just semantically but morphologically. The claim that they are derived from a common root with a core stative meaning explains the formal identity of the causative and inchoative form, and, in cases of deadjectival verbs like *open*, the state-denoting adjective.

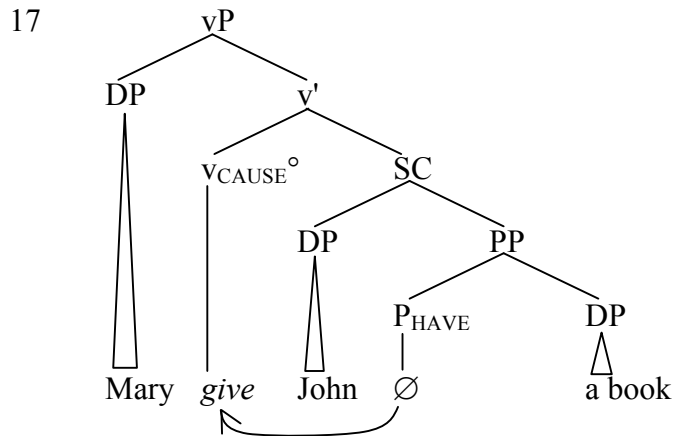## 3. Case studies in decomposition: *have, give, get, want*

One particularly fruitful line of analysis builds on the work of Freeze (1992) and Kayne (1994), which proposes to decompose the predicate *have* into a combination of the predication relation BE and with a relational function, which I will notate P$_{HAVE}$, which expresses a possession relation between two DPs, what Hale and Keyser (1993) term 'central coincidence' relation. That is, expressions like *John has a book* are derived from the following argument structure:

16
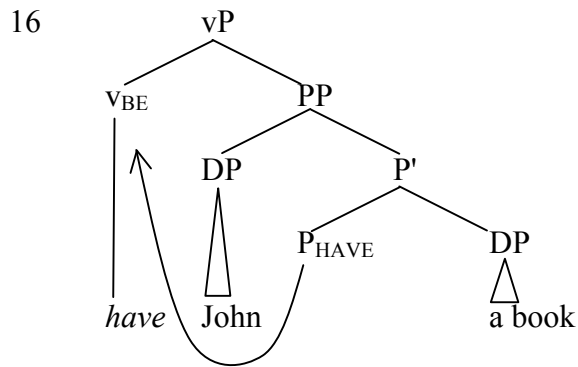
The verb *have* is the realization of the combination of the relational element P$_{HAVE}$ incorporated into the stative verbal head v$_{BE}$; as usual, the highest DP in the structure, in this case *John*, will move up to Spec-TP to check nominative case and become the subject of the sentence. The proposal accounts crosslinguistically for variation in the expression of possession relations; in many languages, *John has a book* is expressed via a structure with the copula and a preposition, along the lines of *a book is with/at/to John*.

Assuming the existence of such a relational function, it is natural to look for other constructions in which it plays a part. One obvious possibility is that this P$_{HAVE}$ relation is the nucleus of a small clause under v$_{CAUSE}$ in the representation of English double-object constructions, again reviving the essence of a Generative Semantics proposal according

to which *Mary gave John a book* is underlyingly *Mary CAUSE John HAVE a book*, with

the structure illustrated below:

17

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                    vP
              ┌──────┴──────┐
             DP             v'
              │        ┌─────┴─────┐
              │     vCAUSE°        SC
              │        │     ┌──────┴──────┐
              │        │    DP             PP
              │        │     │       ┌──────┴──────┐
              │        │     │     PHAVE          DP
              │        │     │       │             │
            Mary     give  John      ∅          a book
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There are several converging lines of evidence that suggest this analysis, which I

will briefly sketch; for a more detailed presentation of these and related arguments, see

Harley 1995, 2003.

Several subtle semantic constraints on verbal *have* also apply to the relationship

between the Goal and Theme objects of *give* in the double object structure (though not in

the *to*-dative structure), many of which were first noted by Oehrle 1976 and Greene 1974.

For example, the subject of *have* constructions must be animate when the possession

relation is alienable; *have* can only have an inanimate subject when the possession

relation is inalienable (see Belvin 1996 for a thorough discussion of this effect).

18   a.   John has a book.   (alienable possession, animate subject)
     b.   John has a big nose.   (inalienable possession, animate subject)
     c.   *The bookcase has a book.   (alienable possession, inanimate subject)
     d.   The bookcase has five shelves   (inalienable possession, inanimate subject)

The same effects are observed with double-object constructions—inanimate Goal objects cannot appear in the double-object structure unless the resulting possession relation is inalienable:

19 a.   *Mary gave the bookcase a book.
    b.   Mary gave the bookcase five shelves (e.g. while building or repairing it)

In double-object constructions, though not in *to*-dative constructions, a kind of possession entailment is present:

20 a.   Mary taught the students French.   (The students know some French)
    b.   Mary taught French to the students.   (The students may or may not)

It is worth noting that the possession entailment that follows from a double-object construction does not necessarily require physical possession. It has repeatedly been noted, for example, that double-object continuations like those in (21) are fine:

21 a.   Mary sent John a letter, but he never received it.
    b.   Mary baked John a cake, but it burned, so he never saw it.

If John never received the letter, or never saw the cake, it seems prima facie odd to say that he 'has' or 'had' them.

The key to reconciling this objection with the CAUSE-HAVE hypothesis is the observation that the possession relation does not necessarily entail enduring, physical, possession. If A wills a parcel of land or some deeds or a book to B, upon the death of A, B can be said to have the land, deed or book, even if he has never seen them or been

physically close to them. Similarly, after the event in the sentence *Mary sent John a letter*, the letter can clearly be designated as *John's letter*, even if he never received it. The same is true in (21b): the burned cake was John's cake, even though he never tasted a bite. Mary can report the event in (21b) as, "I burned John's cake!", even though John may not even know that the cake was designated as his. The relation P_{HAVE} expresses can be momentaneous, it need not endure—see the discussion of *give X the boot* and *want a kiss* below—but its existence is asserted by ditransitive verbs in the double-object frame.[14]

Further support for the *give* as CAUSE-HAVE hypothesis comes from the resultant-state modification possibilities with temporal adverbials, which are the same as observed above for transitive change of state verbs. Again, this effect was first remarked on in the Generative Semantics literature, but has recently received a detailed updated treatment in Beck and Johnson (2004). Adverbial *again* has a both repetitive and a restitutive reading, where what is restored in the restitutive reading is a previous state of the Goal having the Theme. Similarly, temporal adverbials like *for a week* are most naturally taken to modify the result state denoted by P_{HAVE}, not the event of giving:

22   a.   Mary gave John the car again
       Restitutive: *John had had the car before, and Mary caused him to have it again.*
       Repetitive: *Mary had given John the car before, and she did so again*

      b.   Mary gave John the car for a week.   => *John had the car for a week*

Again, these facts receive a natural explanation if the lower SC predicate is available as an adjunction site for these adverbials.

Finally, Richards 2001 advances a new argument in favor of decomposition of ditransitive double-object structures into something like CAUSE-HAVE: There are idiomatic expressions where the idiom consists of *give-Theme* whose idiomatic interpretation carries over to expressions with *have-Theme*, but is not present with other similar verbs like *own* or *possess* or *experience*.

23   a.   Mary gave me the creeps/willies.
        b.   (It's so spooky in here,) I have the creeps/the willies.
        c.   #I possess/own/am experiencing/feel the creeps/the willies.

This suggests that the constituent which receives the idiomatic interpretation is present in both the *give* cases and the *have* cases, namely, the P_{HAVE}+Theme constituent.

An interesting corollary emerges from this analysis. In the analysis of causative/inchoative alternating verbs above, we claimed that the change from causative to inchoative argument structure was accomplished by changing the matrix little v° from causative, eventive v_{CAUSE} to eventive but not causative v_{BECOME}. Here we have proposed a third v°, stative v_{BE}. The relational P_{HAVE} can compose with both v_{CAUSE} and v_{BE}; it also seems reasonable to think it should be able to compose with v_{BECOME}. Such a verb would lack an external Agent argument; it would rather mean something like COME to HAVE; in fact, it seems clear that the corresponding English verb is *get* with a Goal/Recipient argument in subject position—if this analysis is correct, a derived subject (see Pesetsky 1995 the first version of this proposal that I know of). The argument structure would be as follows:

24
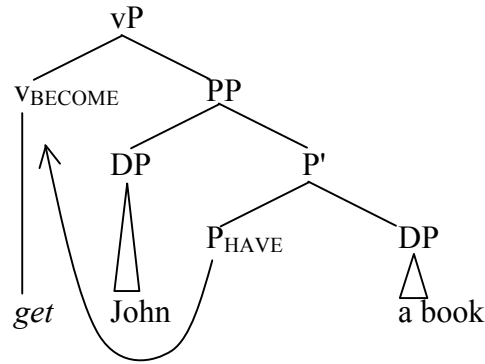
If this is correct, we should see animacy/alienability effects and result-state scope readings, as well as P_{HAVE} idioms, carrying over from *have* and *give*; in fact, we see all of these:

25   a.   Animacy/alienability effects:
        (i)   John got the book.
        (ii)   #Philadelphia got the book.[15]
        (iii)   Philadelphia got a new freeway.

    b.   Scope of adverbials only over P_{HAVE} state, not over *getting* event:
        (i)   John got his balance again

Restitutive reading: (i) can be true in a case where John never lost his balance before in his life, so he had never gotten his balance before, since he'd never lost it. In such a situation, (i) expresses the notion that what is happening again is the state of John having his balance, not that he is undergoing a second event of getting his balance.
        (ii)   John got the car for a week

Low-scope reading: What lasts a week is the state of John having the car, not the event of him getting it.
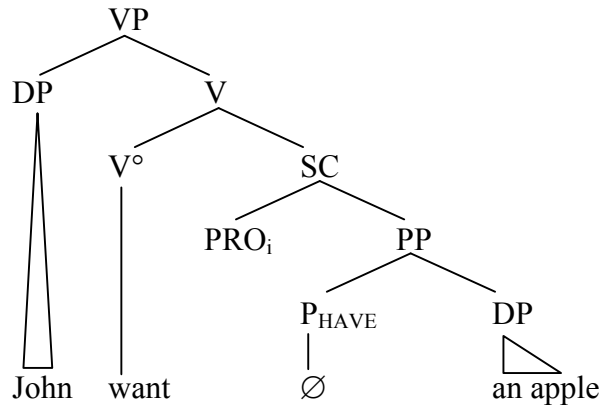
    c.   I got the creeps/willies

An interesting issue concerning some of the idioms cases discussed by Richards is that there are idioms which are acceptable with *give* and *get* but not with *have*, such as the following:

26   a.   Mary gave John the boot.
          b.   John got the boot.
          c.   #John has the boot.

Again, the problem has to do with duration entailments contributed to the *have* verb by the v_{BE} head which composes with the stative P_{HAVE} predicate. *Give* and *get* are punctual Achievements; the resultant state which they create can last (as in *Mary gave John the car for three weeks*) but need not. This is especially the case when the Theme denotes an event, rather than a thing, as in *Mary gave John a kiss* or *John got a kiss*; the kiss John got was John's kiss, all right, but one couldn't say at the end of the event that *John has a kiss*. The idiomatic referent of *the boot* in the idiom P_{HAVE} *the boot* is similarly an event; consequently the idiom can be used when P_{HAVE} *the boot* is embedded under eventive v° (producing *give* or *get*), but not when it's embedded under v_{BE}.[16]

       This effect, which appears when P_{HAVE} composes with an event-denoting DP, can also be seen in a third case in which a null 'have' relation seems to be well-motivated, namely, in cases where a verb like *want* or *need*, which usually takes some kind of propositional complement, composes with a theme DP. The idea is that *John wants an apple* contains a null semantic component roughly similar to *have*; it's equivalent to *John wants to have an apple*. In the present framework, as outlined in Harley 2004, the proposal would be that the complement to *want* in *John wants an apple* would be something like *PRO$_i$ P_{HAVE} DP*. (I remain agnostic here concerning the substructure within the verb *want* itself, notating it V, but I assume it decomposes into at least stative v_{BE} and a root, as usual[17]):

27

```
                    VP
              ┌──────┴──────┐
             DP             V
              │      ┌───────┴───────┐
              │     V°              SC
              │      │        ┌──────┴──────┐
              │      │      PRO_i           PP
              │      │               ┌───────┴───────┐
              │      │             P_HAVE           DP
              │      │               │               ╱╲
            John   want              ∅           an apple
```

This proposal has been advanced many times in the literature in one form or another,

including in Quine 1960, Bach 1968, McCawley 1974, Partee 1974, and Dowty 1979,

and more recently in Den Dikken et. al. 1997 and Fodor and Lepore 1998.[18] It accounts

for a wide range of facts about *want DP* constructions, of a familiar type. For example,

when *want DP* is modified by a temporal adverbial, a low-scope reading is available in

which the adverbial modifies the length of the desired possession state, rather than the

time that the wanting itself took; similarly, *again* can modify the having of the DP, rather

than the wanting:

28   a.   John wants the car again.   = *John wants to have the car again.*
      Low scope: John has had the car in the past—perhaps without ever wanting to
have it—and now he would like the state of him having the car to recur.
      b.   John wants the car for a week. = *John wants to have the car for a week.*
      Low scope: John wants his state of having a car to last a week.

Similarly, many subtly idiosyncratic interpretations available with *have DP* also surface

with *want DP*:

29   a.   John had Mary.   (can have a sexual interpretation)
      b.   John wants Mary.   (similarly can have a sexual interpretation)

c.	John has a car.	(he has permanent possession of a car)
d.	John wants a car.	(he wants permanent possession of a car)
e.	John has the car.	(he has temporary possession of the car)
f.	John wants the car.	(he wants temporary possession of the car)

So far we have not seen any reason why the complement to *want* couldn't simply be a covert verb *have*, rather than a covert P$_{HAVE}$. However, when the DP denotes a punctual event, like *a compliment*, or *a kiss*, paraphrases with *have* are infelicitous and paraphrases with *get* are much better:

30   a.   John wants a kiss.   *#John wants to have a kiss.*
                                       John wants to get a kiss.
      b.   John wants a compliment.   *#John wants to have a compliment.*
                                       John wants to get a compliment.

These facts indicate that the concealed complement to *want* cannot be the actual verb *have*. Nor can it be the actual verb *get*; sentences like *John wants Mary* are not appropriately paraphrased as *John wants to get Mary*.[19] The effect, in fact, is the same as we have seen above in the discussion of *get the boot*: event-denoting DPs are not comfortable with the verb *have*, but are fine with *give* and *get,* and, here, *want*. In the case of *give* and *get,* the P$_{HAVE}$ relation composes with an eventive v°; here it composes with *want*; taken together, I conclude that the concealed "have" relation in *want DP* structures is P$_{HAVE}$, rather than the actual verb *have*.[20,21]

4.   Morphology, syntax and compositionality

I have focused on English data so far, but it is worth briefly outlining the kinds of facts from other languages which have led to the widespread adoption of this kind of

decompositional analysis of verbs among linguists. Verbal structures quite broadly show

the kind of bipartite structure that the vP analysis makes possible—change-of-state verbs,

certainly, but also verbs of other event classes: activities and semelfactives.

For example, here are a few examples of Japanese and Hiaki (Yaqui) change-of-

state verbs which have a clear morphological structure that corresponds to their causative

or inchoative interpretation; assuming that the root remains constant, the changing

morphology is a visible reflex of the change from v_{CAUSE} to v_{BECOME} in the

causative/inchoative alternation. Both of these lists extend to include hundreds of verb

pairs (see Jacobsen 1981, Jelinek 1998); the pattern is very robust in these languages

31   Japanese inchoative/causative alternating morphology

Inchoative variant		*Causative variant*		
ag-**ar**-u	'rise'	ag-**e**-ru	'raise'	ag-
aratam-**ar**-u	'improve'	aratam-**e**-ru	'improve'	aratam-
ama-**r**-u	'remain'	ama-**s**-u	'remain	ama-
hita-**r**-u	'soak'	hita-**s**-u	'soak'	hita-
arawa-**re**-ru	'show'	arawa-**s**-u	'show'	arawa-
hana-**re**-ru	'separate'	hana-**s**-u	'separate from'	hana-
ka-**ri**-ru	'borrow'	ka-**s**-u	'lend'	ka-
ta-**ri**-ru	'suffice'	ta-**s**-u	'supplement'	ta-
bak-**e**-ru	'turn into'	bak-**as**-u	'turn into/bewitch'	bak-
bar-**e**-ru	'come to light'	bar-**as**-u	'bring to light'	bar-
ak-**i**-ru	'tire'	ak-**as**-u	'tire'	ak
dek-**i**-ru	'come into being	dek-**as**-u	'bring into being'	dek-
horob-**i**-ru	'fall to ruin'	horob-**os**-u	'ruin'	horob-
ok-**i**-ru	'get up'	ok-**os**-u	'get up'	ok-
...				

32   Hiaki (Yaqui) inchoative/causative alternating morphology

bwas**e**	"cook, ripen"	bwas**a**	"cook"	bwas-
chakuk**ta**	"bend"	chakuk**te**	"bend"	chakuk-
chak**te**	"leak"	chak**ta**	"drip"	chak-
chihak**te**	"shatter"	chihak**ta**	"smash"	chihak-
ham**te**	"break"	ham**ta**	"break"	ham-
heok**te**	"melt"	heok**ta**	"melt"	heok-
chu'ak**te**	"adhere"	chu'ak**ta**	"stick on"	chu'ak-
chuk**te**	"come loose"	chuk**ta**	"cut loose"	chuk-
chup**e**	"come to end"	chup**a**	"finish"	chup-
ko'ok**te**	"come undone"	ko'ok**ta**	"pull apart"	ko'ok-
kowiik**te**	"get crooked"	kowiik**ta**	"make crooked"	kowiik-
kitok**te**	"shrivel"	kitok**ta**	"deform"	kitok-
kot**te**	"break"	kot**ta**	"break"	kot-

...

Indeed, one can see from the fact that many of the English translation equivalents are also morphologically related (usually identical) that the pattern of morphological relatedness between causative/inchoative pairs of verbs is robust in English as well.

In Malagasy and Tagalog, the verbal alternation is also extremely general: essentially any verb with an Agent argument in its argument structure has a particular *pag-* prefix attached; the same verb, without the prefix, is not agentive. The Tagalog examples given here are from Travis 2000. Note the inchoative version of the verb root is divided into two by an irrelevant infix in the leftmost column; in fact, the verb roots are identical from column to column; the *pag*-prefix is the main difference between them:

33   Tagalog alternating verbs:

t-um-**umba**	fall down	m-<u>pag</u>-**tumba**	knock down
s-um-**abog**	explode	m-<u>pag</u>-**sabog**	scatter
l-um-**uwas**	go into the city	m-<u>pag</u>-**luwas**	take into the city
s-um-**abit**	be suspended	m-<u>pag</u>-**sabit**	hang
s-um-**ali**	join	m-<u>pag</u>-**sali**	include

In Tagalog and Malagasy, even non-alternating verbs with an Agent argument show the *pag* morpheme, illustrating the presence of v_{CAUSE} even in cases where alternation does not provide evidence of its independence; in such verbs v_{CAUSE} it is part of a fixed structure associated with that root. Travis (2000) gives the following Tagalog example; in (34a) although -*halo* is clearly the root component of the verb *mix (transitive)*, prefixed with *pag-*, which occupies v° and selects for the Agent argument, there is no corresponding inchoative form:

34   a.   m-<u>pag</u>-**halo'**   mix in (causative)
          b.   ***h**-um-**alo'**   *incorporate by itself, mix in by itself

The prevalence of morphological alternations of this type, crosslinguistically, suggests the universality of this bipartite structure for verbs; indeed, it is this type of evidence that initially motivates this type of analysis in Hale and Keyser (1993). It is important to recognize, however, that the fact that these morphemes are contained within a single phonological word has no relevance to the question of their independence or dependence on the verb root, or their compositional or non-compositional nature. Essentially the same phenomena are observed in languages like Persian, with one key difference: In Persian the element occupying the v° position and the contentful predicative element which it selects for are not morphologically dependent on each other; the v° is an independent phonological word from its complement. This is phenomenon referred to descriptively as 'complex predication', since the linguistic forms which are the translation equivalents of monomorphemic verbs in English are syntactically complex.

Persian has only about 80-100 monomorphemic verbs of the English type; all other verbs are syntactically complex, consisting of a lexically contentful nominal, verbal or adjectival element and one of ten or twelve light verbs, which FH&K argued were realizations of v°. Folli, Harley and Karimi (2005) give the following examples as some typical illustrations of the complex predicates which characterize the Persian verbal lexicon. First, some illustrations of the form that inchoative/causative alternating predicates take; notice that the verbal portion changes while the lexically contentful nonverbal component remains the same:

35   a.   sabok shodan   sabok kardan
                light becoming   light making
                'degrade (intr)'   'degrade (tr)'

        b.   pahn shodan   pahn kardan
                wide becoming   wide making
                'spread (intr)'   'spread (tr)

        c.   kotak xordan   zadan   kotak
                beating colliding   beating hitting
                'to get beaten'   'to beat'

        d.   xar shodan   xar kardan
                donkey becoming   donkey doing
                'to get fooled'   'to fool'

Non-alternating predicates are structurally complex in the same way, though the verb portion of the predicate in these cases is fixed:

36   a.   derâz keshidan
                long pulling
                'to nap, to lie down'

b. birun kardan
    out doing
    'to dismiss, to fire (someone)'

c. bâlâ keshidan
    up pulling
    'to steal'

d. be yâd dâshtan
    to memory have
    'to remember (stative)'

e. bejâ âvardan
    to.place bringing
    'to recognize'

These phrases are not distinguishable *prima facie* from idiomatically interpreted phrasal expressions; some are more compositional, some less, but all are clearly syntactically complex.

Although in most of the above I have focused on cases where semantic considerations clearly motivate decomposition, the claim that the erstwhile VP decomposes into a vP and a non-verbal root or lexical predicate complement extends even to cases where the independent semantic contributions of the two components out of which the verb is made are not independently obvious. Most √+v° combinations have an idiomatic interpretation; it's only in cases like *to open* where the semantic contributions of each subcomponent are clearly encapsulated and independently characterizable.[22] The likelihood that a given syntactically complex constituent is an idiom varies with the size of the component. Root morphemes (together with the first functional item with which they compose, see Arad 2005) are guaranteed to require a listed, 'idiomatic' interpretation, however, since they are the ultimate Saussurean sign.

Because the motivation for (morpho)syntactic decomposition stops at the level of the Root morpheme, however, the playing field for the central debate concerning lexical semantic decomposition remains essentially unchanged. Are the meanings contributed by Root morphemes atomistic? Or are they composed of more primitive lexical-semantic features? No answer to this issue will emerge from the kind of decomposition of word-sized items in the syntax advocated here. The evidence for a syntactically present CAUSE or BECOME or HAVE terminal node, sometimes realized by a null morpheme, sometimes by an overt morpheme or even an independent phonological word, does not prove anything one way or the other about the broader project of determining what meanings are—whether they are feature complexes or prototypes or meaning networks, or conceptual atoms. An atomist could perfectly seriously accept the conclusions of the present work and retain the atomistic position; just the assumption about the nature of the particular irreducible morphosyntactic unit which is attached to the conceptual atom would change. The various conceptual arguments advanced over many years, especially by Fodor and Lepore, against the notion that concepts are anything but atoms, are not called into question by the conclusions presented here. The present analysis only rebuts the specific claim that apparently monomorphemic verbs should never be analyzed as containing a null CAUSE or BECOME morpheme. It seems clear that they can contain such a morpheme, but this is no more a challenge to the atomistic position than the observation that there are words containing null PLURAL morphemes is (*The sheep-PL are restless*). There is a fact of the matter about the correct syntactic analysis of English verb phrases, but once it is determined, we will still need to know the nature of the

semantic content of the subconstituent terminals[23]. The decompositional buck will have to stop at the Root morphosyntactic terminal node.

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Endnotes:

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[1] For some comments from a related viewpoint on why the modern approach is distinct in important ways from the Generative Semantics approach, see Hale and Keyser (1992).

[2] Even in English, v_{CAUSE} and its relative v_{BECOME} are sometimes realized by overt morphology; in *clar-ify*, *caramel-ize* and *em-bitter,* for example, the morphemes *-ify*, *-ize*, and *em-* are plausibly realizations of the causative v° head.

[3] Assuming cyclic, bottom-up semantic composition, in the low-scope structure, the composition of the lower predicate *open* and *again* or *for five minutes* will happen before Event Identification identifies the event variable the lower VP with that of the upper vP. I assume that predicates like *again* have a higher type and compose with the unsaturated *OPEN* predicate via Function Application. I indicate the notion that Event Identification applies after the VP has already composed with its modifiers and arguments by using the hyphenation notation, *OPEN-AGAIN* (the door, e), for the predicate-of-events denoted by the VP. Event identification is triggered when the interpretation function reaches and integrates the v_{CAUSE} predicate; subsequent composition via function-application with other modifiers (as in the high-scope interpretation) will then necessarily modify the

entire predicate created by Event Identification. Consequently, subsequent modification

via adjunction to vP cannot target the CAUSE predicate alone; see also footnote 6.

[4] Jäger & Blutner (2000) have proposed alternatives to von Stechow's argument from an

anti-decompositional viewpoint; von Stechow has replied to the reply in von Stechow

(2003).

[5] The perspective on these data offered here is a more developed version of that offered in

Harley 1995:87-88; similar replies to Fodor's remarks have been outlined elsewhere

within other decompositional proposals; see, e.g. Pietroski (2003), Travis (2000), among

others.

[6] To present the argument in more detail: Suppose that ON-SUNDAY adjoins to VP and

composes with OPEN via function application, as AGAIN did in (4a). The denotation of

the VP will then be (i):

(i) $\lambda e[\text{OPEN-ON-SUNDAY}(\text{door}, e)]$

Upon the addition of the v_{CAUSE} head, $\lambda x \lambda e[\text{CAUSE}(x, e)]$, Event Identification will

apply to unify the functions denoted by the VP and the v° head by coindexing their event

variables, to give the denotation of the v' in (ii)

(ii) $\lambda x \lambda e[\text{CAUSE}(x, e) \ \& \ \text{OPEN-ON-SUNDAY}(\text{door}, e)]$

Imagine, then, that this predicate of entities and events is then modified by ON

SATURDAY, adjoined to v'. The result is that the single event is asserted to be both an

OPEN-ON-SUNDAY event and an ON-SATURDAY event, resulting in contradiction.

Note that it is impossible for the vP-adjoined ON-SATURDAY to compose solely

with the v_{CAUSE} head, since composition is cyclic and bottom-up; the v_{CAUSE} head will be

integrated into the interpretation via Event Identification before the ON-SATURDAY

predicate can apply. That is, the structure

(iii) [[v_{CAUSE} [the door [open on Sunday]]] on Saturday]

cannot be interpreted so that ON-SATURDAY modifies just the CAUSE predicate alone,

producing CAUSE-ON-SATURDAY, before Event Identification applies. In order for

that to happen, i.e. in order to arrive at the non-contradictory LF

(iv) $\lambda x\lambda e$[CAUSE-ON-SATURDAY(x, e) & OPEN-ON-SUNDAY(door, e)],

ON-SATURDAY would have to compose with v_{CAUSE} before v_{CAUSE} composed with the

VP. The structure for v' would have to be as follows:

(v) [[v_{CAUSE} [on Saturday]$_{ADVP}$]$_{v°}$ [the door [open on Sunday]]$_{VP}$]$_{v'}$

Standard structural assumptions bar phrases from adjoining directly to heads, however,

and so such a structure would be syntactically ill-formed and never reach LF.

[7] In the classic GB analysis, it receives accusative case via Exceptional Case Marking

from the matrix predicate here, hence behaving as a matrix object; in Minimalist

treatments it raises through Spec-TP to a case-assigning specifier position in the matrix

clause; as far as the central argument here goes, however, the main point is that it at some

point it occupies Spec-TP and hence is a structural subject and possible controller.

[8] Appealing to Event Identification will not help us here; nothing would prevent

modifying the event of the embedded VP with *by sitting in the sun* and subsequently

employing Event Identification to coindex that complex event with the event of

CAUSE(John, e)—indeed, this is precisely what happens with the low-scope

interpretation of *again* or *for five minutes*.

[9] It is important to recognize, however, that the problem here is pragmatic, not syntactic.

(9c) should receive a #, for semantic infelicity, rather than a *. Given the right peculiar

context—perhaps Bill has been shrunk, *Fantastic Voyage*-style, and is clinging to John's tongue, and is then killed when John swallows his own tongue—it's possible to interpret (9c) as written (or try, *Moby Dick$_i$ killed Ahab by swallowing his$_i$ tongue*). Alternatively, one could adopt an alienable-possession reading of *his*, and imagine a context in which John is a ghoul. Ghoul John attacks Bill and swallows Bill's tongue and thereby killing him, hence *John killed Bill$_i$ by swallowing his$_i$ tongue*.

[10] Technically, in order to maintain the notion that the lexical-semantic core of the root KILL is present in this representation, the result state should be actually a target-state semantic primitive such as KILLED; I use DEAD here instead for shorthand so as not to get into debates concerning the construction of participles and the semantics/morphology relationship in roots. See Mateu (2005) and Kayne (2008) for arguments that such target-state primitives are constructed from a null P and the root. Alternatively, see Harley (2005) for a Hale and Keyser-based approach to transitive verbs like *kill* or *push* which have a nominal event-denoting counterpart (*a kill, a push)* which takes the homophony between the verb and the noun seriously.

[11] In the inchoative variant, *The milk spoiled by sitting in the sun* attaches to the vP headed by BECOME, and *the milk*, a derived subject, can control PRO in the absence of any more local appropriate controller.

[12] In Fodor's judgment, the transitive variant of inchoative/causative alternators does allow an interpretation in which the antecedent for elided VP is the intransitive inchoative, rather than the transitive causative. It also licenses a pronominal referent:

(i)　　a. Floyd melted the glass, and it [=the fact that the glass melted] surprised me.

　　　 b. Floyd melted the glass, and I was surprised that he/it would do so.

Consequently, this example could be taken as an argument in *favor* of including the inchoative eventive verb in the decomposition of alternating verbs, at least, although it is a clear challenge to account for the contrast with *kill*; if we adopted this notion, however, it would be a puzzle how to cope with the *by*-gerund control facts. I tentatively suggest an appeal to the process of *Inchoative Coercion*; see discussion below. For evidence for the psychological reality of this process, see Brennan and Pylkkanen 2008.

[13] A reviewer notes that although the account outlines above does correctly capture the failure of *do-so* ellipsis in these contexts, the failure of adjectival predicate ellipsis under *be* then becomes a puzzle. One can say *John made Mary sick, and it surprised me that she was ____*, where the elided constituent is presumably *sick*, but it is decidedly off to say #*Mary killed John and it surprised me that he was ____,* with an understood 'dead' or 'killed' in the elided position. However, for deadjectival change-of-state verbs like *open*, the adjectival ellipsis is considerably better; *John opened the door at 2:00, (but I didn't know, so when I came in) it surprised me that it was ____*. This is presumably relevant to the question raised in fn. 10 concerning the actual identity of the downstairs root predicate which incorporates into *CAUSE* to create *kill* — it's probably in fact not DEAD, per se.

[14] A reviewer reminds me that there are ditransitive verbs which semantically encode the *negation* of possession, as in *John denied Mary her rights*. Presumably this would entail that the downstairs predicate is *NOT-HAVE*, rather than *HAVE*. It is possible that the negation is syntactically decomposed and heads its own projection within the structure, but it is equally possible that *NOT-HAVE* is a primitive counterpart to *HAVE*. An analysis which includes *NOT* independently in the syntactic projection should potentially entail

variable scope effects with negation and quantification, which seem not to be present. For example *John denied Mary every right she asked for*, if negation is decomposed, should have two readings analogous to those of *John caused Mary not to have every right she asked for*, which can be true if he refused just one of the rights she asked for but granted the others, as well as true in a situation where refused all the rights she asked for. However, with *deny*, only the wide-scope reading for the negative element is available— *John denied Mary every right she asked for* means that Mary received no rights—so it seems implausible that the *NOT* element is present in syntactically independent fashion.

[15] The intended context is one in which the book was sent in the mail to Philadelphia, where Philadelphia just refers to the city as a location. Famously, this improves if 'Philadelphia' is understood to refer to some animate/intentional collective entity, like the Philadelphia office of a corporation; the same effect is seen in #*John sent Philadelphia the book* vs. *John sent the book to Philadelphia*. Since freeways are inalienable subconstituents of a city, (iii) is fine.

[16] The P_{HAVE} is necessary for the phrase *the boot* to refer to the event of firing, however, so the idiom is still definitely P_{HAVE} *the boot*, not just a homosemous/metaphorical interpretation assigned to *the boot* in any old context. Compare *the Big Apple*, which can refer to New York no matter what verb it composes with; *the boot*, in contrast, needs *give* or *get*—*the boot* cannot refer to a firing event in something like *The boot has really depressed John,* which is not equivalent to *Getting the book has really depressed John*.

[17] Harley (1995: 208) proposes that in fact all psychological state roots are nominal in character and are related to their experiencer argument by (another) P_{HAVE} relation: *John fears dogs* is decomposed into [v$_{BE}$ [JOHN [HAS [√FEAR (of) DOGS]]]]; *John wants*

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apples presumably would work the same way: [v_{BE} [JOHN$_i$ [HAS [$\sqrt{}$WANT [PRO$_i$ [HAVE APPLES]]]]]]. The downstairs P$_{HAVE}$ is the one at issue here, though, rather than the one that composes with the root and v_{BE} to form the surface verb, so the lexical decomposition of *want* itself is left moot for now.

[18] The general picture has recently received some indirect support from Harves and Kayne (2008), who show in a survey of a large number of Indo-European languages, that languages with verbal *have* have a *need DP* construction, while languages without *have* do not allow a *need DP* construction.

[19] A reviewer rightly notes that an alternative to the P$_{HAVE}$ analysis would suggest that *want* might take a covert *have* complement in some cases, and a covert *get* complement in some other cases, depending on the semantic content of the DP; this possibility is rejected on conceptual grounds by Fodor and Lepore 1998 and the present argument is predicated on the necessity of that rejection. If one proposed a Pustejovsky (1995)-style approach where 'univocality' for a given lexical item is not a desideratum, then this alternative possibility could be entertained.

[20] This has the added benefit of meaning that we need not explain why *have* is unpronounced in *want DP* sequences; P$_{HAVE}$ is a null morpheme in all the English contexts in which we have seen it so far.

[21] Wechsler 2008 argues against this proposal on the grounds that the DP complement to *want* behaves like a standard accusative direct object of *want*, rather than like the object of a prepositional complement to *want*, with respect to all the usual tests which distinguish the two in English. Presumably the same objection could be raised with respect to *John gave Mary [$_{PP}$ $\varnothing$ the book]*, in which *the book* is the object a null

preposition but behaves like a direct object, and *Mary got [PP ∅ the book]*, with the same issues. I assume in all cases that P_{HAVE} incorporates into the verbal head which selects for it, so that in fact the element which is assigning case to the Theme object in all these cases is the $[v°+P_{HAVE}]$ complex (or in the case of *want*, the $[want+P_{HAVE}]$ complex); consequently we expect the usual Adjacency Condition on English accusative case assignment to hold between these complex elements and the DP which is receiving Case from them, and for these DPs to behave in all relevant respects like direct objects. The situation is analogous to verb-particle combinations, such as, e.g., *John uploaded the file*, which I assume is derived from *John loaded [PP up the file]*, with incorporation of *up* into *load*. The object *the file* is subject to the adjacency condition after P incorporation, so that it cannot be separated from the P+V complex by an adverbial, e.g.: **John uploaded quickly the file*.

[22] Importantly, however, the functional content, independent of the idiomatic component, which is contributed by the v° and the predicate in idioms and in the bipartite V, is always compositionally interpreted. McGinnis (2002) shows that the aspectual interpretation of a phrase, which is determined by the formal characteristics of its functional structure, remains consistent across literal and idiomatic interpretations. So, for example, *kick the bucket* is a punctual achievement predicate in both its literal and idiomatic interpretations.