

The origin and content of expletives:
evidence from “selection”

Amy Rose Deal

Abstract. While expletive *there* has primarily been studied in the context of the existential construction, it has long been known that some but not all lexical verbs are compatible with *there*-insertion. This paper argues that *there*-insertion can be used to diagnose *v*Ps with no external argument, ruling out transitives, unergatives, and also inchoatives, which are argued to project an event argument on the edge of *v*P. Based on the tight link between *there*-insertion and low functional structure, I build a case for low *there*-insertion, where the expletive is first merged in the specifier of a verbalizing head *v*. The low merge position is motivated by a stringently local relation that holds between *there* and its associate DP; this relation plays a crucial role in the interaction of *there* with raising verbs, where local agreement rules out cases of “too many *theres*” such as **There seemed there to be a man in the room*. An account of these cases in terms of phase theory is explored, ultimately suggesting that *there* must be merged in a non-thematic phasal specifier position.

Keywords: *there*-insertion, inchoatives, economy, agreement, phase theory

1. Introduction

This paper is concerned with the English expletive *there*. The general subject of expletives needs no introduction; expletive constructions in the world’s languages have motivated an unusually rich and extensive literature throughout the history of generative syntax.¹ In the course of this history, substantial advances have been made in understanding what sorts of expletives are possible, and what expletives of particular types reveal about other features

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¹ For (standard) English especially, see the reference list provided by Levin (1993: 88), as well as Lasnik (1992, 1995), Williams (1994), Chomsky (1995, 2000, 2001), den Dikken (1995), Groat (1995), Rothstein (1995), Runner (1995: §8.2), Basilico (1997), Moro (1997), Frampton and Gutmann (1999), Law (1999), Richards (1999), Schütze (1999), Sabel (2000), Hale and Keyser (2000), Bobaljik (2002), Bošković (2002), Bowers (2002), Hazout (2004), Kuno and Takami (2004: ch 2), Sobin (2004), Richards and Biberauer (2005), Rezac (2006); on other languages and varieties of English see Thráinsson (1979), Platzack (1983), Travis (1984: ch. 5), Burzio (1986), Maling (1988), Demuth (1990), Vikner (1995), Bobaljik and Jonas (1996), Toribio (1996), Cardinaletti (1997), Moro (1997), Koster and Zwart (2000), Holmberg and Nikanne (2002), Taraldsen (2002), Vangsnes (2002), Sells (2005), Henry and Cottell (2007), among many many others.

of particular languages. The present work focuses on *there*, one expletive in one language, in the hopes of contributing a detailed case study to the general question of expletive typology in the framework of Principles and Parameters, presently instantiated as the Minimalist Program (Chomsky 1995 et seq.).

In the course of this investigation, I examine two questions central to the analysis of *there*. The first is the problem of ORIGIN: where does *there* come from? Where is *there* base-generated, or externally Merged? The second question is the problem of CONTENT: what is *there* made of? What features does it comprise? To probe these two crucial mysteries, we will focus on a contrast which has been largely overlooked in the recent literature on *there*-constructions: the apparent “selection” of *there* by various predicates, as exemplified in (1) and (2) (verb lists excerpted from Levin 1993).

- (1) a. There appeared a shadowy figure in the doorway.
 b. There arrived a train in the station.
 likewise: *accumulate, coexist, emerge, hover, live, lurk, predominate, sit, swing*
- (2) a. *There laughed a man in the hallway.
 b. *There melted a block of ice in the front yard.
 c. *There slowed a train on the eastbound track.
 likewise: *abate, break, collect, detonate, divide, level, redden, solidify, vaporize*

While this distinction between verb classes has been documented, e.g. in Levin’s work, it has not been satisfactorily explained.² I argue in the first part of this paper (sections 2-5) that *there*-insertion does not target predicates at random. Rather, it systematically separates out *v*Ps with external arguments in their specifier position from those whose specifier position may remain empty. I argue that this division concerns not only the distinction between unergatives and unaccusatives, but also the distinction between “change of state” unaccusatives and plain unaccusatives. I formalize the difference between the two classes of unaccusatives in terms of the presence or absence of a CAUSE head, whose semantics introduce a bi-eventive LF and whose syntax requires an event argument in Spec,*v*P. The sensitivity of *there*-insertion to this argument-structural distinction provides compelling evidence for a “low origin” account, where *there* is base-generated in the specifier of the verbalizing head *v*.

In the second half of the paper (sections 6-8), I turn to the question of why *there* should be inserted low, arguing that its low base position is motivated by very strong locality restrictions that hold between *there* and its “associate” nominal (*a shadowy figure* in (1a), *a train* in (1b)). This finding motivates a turn toward the problem of content; in particular, the locality required to hold between *there* and its associate suggests an Agree relation in terms of some feature(s) borne by *there*. The Agree relation is constrained by phase boundaries (Chomsky 2000, 2001), such that *there* must originate on the edge of a

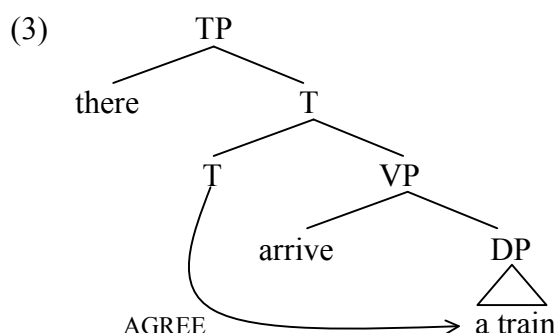
² Previous discussions include Burzio’s (1986: §2.7.3), which singled out the class of unaccusatives (ergatives in his terminology) as well as unergatives with heavy NP-shifted subjects; Freeze’s (1992), which required a subcategorized locative argument; Haegeman’s (1991) and Hale and Keyser’s (2000), which posited a link between *there*-insertion and causative alternations; and Kuno and Takami’s (2004), which posits a functionally-based filter on *there*-insertion. On the Haegeman/Hale and Keyser theory see section 3.3 and footnote 21. See also Szabolcsi (1986) on Hungarian verbs showing a definiteness effect, and Maling (1988) on related issues in Swedish.

phase in order to agree with a phase-internal associate. When the associate remains in its base position inside *vP*, *there* must originate on the edge of the *vP* phase. Should the associate move out of the *vP* phase, however, in particular due to (what has been termed) heavy NP shift, *there* may originate higher in the structure than *vP*, provided it finds an appropriate phase head in whose (non-thematic) specifier to lodge. A consideration of the consequences of this final type of construction for the grammar of expletives concludes our investigation.

2 The problem of origin

A long tradition in generative syntax has taken expletives to originate “upstairs”: the subject position, daughter to *S*, or *Spec,TP* (e.g. Emonds 1970, Milsark 1974, Stowell 1978, Burzio 1986, among many others). Other subjects were repositioned downstairs into *VP* (Koopman and Sportiche 1991, i.a.), then slightly up into a functional projection *VoiceP* or *vP* (Kratzer 1996), but expletives stayed upstairs in *Spec,TP*.³ This “high origin” account of expletives is continued in such work as Lasnik (1995) and Chomsky (1995, 2000, 2001), and remains the default assumption in Minimalist theory. In this section, I briefly review the issues for a theory of high origin, before turning to a discussion of factors constraining an alternative, low-origin account.

Chomsky’s (2000) analysis posits that *there* is freely Merged into *Spec,TP* in order to fulfill the requirement that this head have a specifier (an EPP feature). *There* is a nominal, but a deficient one; as a result of its deficiency, it does not participate in Case-checking relations. Thus, whenever *there* is inserted in *Spec,TP*, the nominative Case assigned by *T* (and accompanying agreement features) must target some other nominal in the clause. Chomsky posits that this Case is assigned by the operation *Agree* to the associate of *there*.

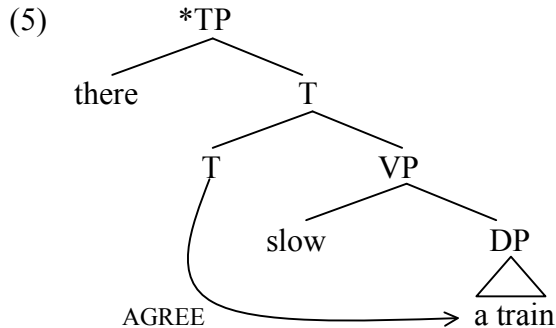


That the *Agree* relation must target some accessible nominal automatically rules out *there* with argumentless weather verbs like *rain*, as well as with prepositional-object verbs.

- (4) a. *There rained.
 b. *There fell down the stairs.

³ Exceptions include Moro (1997) (and previous versions circulating much earlier), Hoekstra and Mulder (1990), den Dikken (1995), Basilico (1997), Hale and Keyser (2000), Sabel (2000), Bowers (2002), Hazout (2004), Nomura (2004), Richards and Biberauer (2005), Richards (2007).

However, it is not at all clear how the theory rules out cases which seem to differ from (3) only with respect to the content of the V head, e.g. **There slowed a train (on the eastbound track)*, (5).

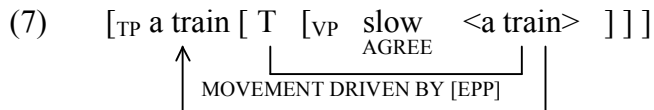


In essence, two factors must fall into line for *there*-insertion to occur in Chomsky's (2000) framework. First, T must have an EPP feature which (prior to *there*-insertion) is unchecked. Second, there must be a non-Case marked nominal within an appropriately local domain in order for T to discharge its Case feature via Agree. Thus, so long as a verb may combine with finite T and introduce a nominal which is not independently Case-marked, *there*-insertion is predicted to be possible. Verbal semantics plays no role; the functional heads in which verbs are (in some frameworks) encased play no role. In this way, the high origin account comes to massively overgenerate *there* clauses, as demonstrated by (5).⁴

It should be noted that these problems for the Chomsky (2000) theory are problems specifically for the high origin aspect of the proposal. Importantly, the overgeneration of cases like **There slowed a train* does not in itself show that the operation Agree should be discarded, or that Case should not be assigned to the associate. Rather, holding other assumptions constant, the grammaticality of simple cases like (6) shows that Agreement and Case-assignment must be possible in structures like (5).

(6) A train slowed (on the eastbound track).

Here, the Agree-based framework requires that T enters into a relationship with the DP *a train*. As a result of this relationship, *a train* receives nominative Case. Furthermore, to satisfy EPP on T, the Agree relation between T and *a train* forces the latter to move to Spec,TP.



⁴ The high origin account overgenerates even in cases where another Case-marker is available in the clause. In such circumstances, we predict transitive expletive constructions to be possible:

(i) [TP There \bar{I} [_{VP} *a man* \bar{v} [_{VP} eat *an apple*]]]

Here two Case-assigners, T and \bar{v} , are paired with two arguments, *a man* and *an apple*. See section 4 for a low-origin explanation of the restrictions on transitive expletives in English; see also note 35.

In terms of Case-assignment and Agreement, this example is exactly the same as the ungrammatical (5); only the problematic high expletive has been removed.

Turning away from the high origin proposal opens up the immediate question of exactly where *there* is base-generated. An appealingly simple position would be that *there* is selected for by particular V heads. However, there are several concerns raised by such an approach. First, such selection would have to be always merely optional, except perhaps in the case of the existential copula. Second is the issue of selecting an element which appears to be devoid of intrinsic meaning, as noted by Lasnik (1995). The third problem comes not from the apparent vacuity of *there*, but from the fact that it is an external argument, structurally speaking (i.e., it occupies the same position as external arguments). A line of research stemming from work by Marantz (1984) and Kratzer (1996) has suggested that selection for external arguments is in general problematic, as such arguments do not seem to be true arguments of the V head. A final problem is that some verbs allow *there*-insertion contingent on the position of the associate:

- (8) a. *Suddenly there walked a unicorn into the room.⁵ (Milsark 1974:246)
 b. Suddenly there walked into the room a unicorn.

On a selection account, such facts would force the selectional properties of the verb to be dependent on the surface syntactic position of its nominal argument, an unwelcome complication. (We return to these contrasts in section 8.)

If *there* is not freely merged in Spec,TP, and not selected by particular V heads, what controls its distribution? In the coming sections, I argue that it is the functional structure surrounding verb roots which controls the insertion of *there*. In particular, in standard cases, *there* can only be inserted on edge of a vP that lacks an external DP or event argument (i.e., into a non-thematic vP specifier position).

3 *There*-insertion and the structure of causatives

Levin (1993) presents a listing of verb classes that do and don't allow *there*-insertion. Among the verbs that do take *there*, we have seen *appear* and *arrive*; among those that don't take *there*, we have seen *laugh*, *melt* and *slow*. What is it about these verbs that determines their compatibility with *there*-insertion?

The literature widely acknowledges the incompatibility of *there*-insertion with transitives as well as unergatives, verb classes known to require external arguments of vP.⁶ This leaves only unaccusatives; however, as *melt* and *slow* show, not all unaccusatives are admissible with *there*-insertion. Rather, as Levin (1993) points out, only those unaccusatives which do not denote a "change of state" may appear with *there*. Integrating

⁵ Examples of this type are marked as grammatical in Hoekstra and Mulder (1990) and Belvin and den Dikken (1997). However, I have found no speaker who accepts them, and they are acknowledged to be ungrammatical by Milsark (1974), Lumsden (1988: 39) and others.

⁶ There are exceptions to the ban on *there*-insertion with unergatives; see Burzio (1986: 162), Kuno and Takami (2004: ch 2). *There*-sentences with unergative verbs are taken up below in the discussion of two factors that can license them: the progressive (section 5) and outside verbals (section 8).

Levin's generalization into the wider picture, we arrive at the generalization in (9), equivalently stated as in (9'):

- (9) *There*-insertion is incompatible with
- a. transitives
 - b. unergatives (Burzio 1986, §2.7.3; Haegeman 1991)
 - c. "change of state" verbs (Levin 1993)
- (9') *There*-insertion is compatible only with unaccusatives that are not "change of state" verbs

In order to formalize the generalization in (9'), a definition of the heretofore scare-quoted category of change of state verbs will be required. It is clear that the most intuitive classification will not be empirically adequate. On the one hand we find predicates like *disappear*, which do not seem to denote changes of state, and yet reject *there*-insertion;⁷ on the other we encounter verbs like *bloom*, which seem to fall into the change-of-state category and yet can allow *there*-insertion. Turning to formal properties, we learn from Jackendoff (1996), Hay, Kennedy and Levin (1999), Levin & Rappaport Hovav (2002) and others that the change of state class does not coincide with an aspectual category (e.g. achievements; cf. Dowty 1979). What then could be the defining property of the change of state verbs, the unaccusatives that do not allow *there*?

I argue that Levin's change of state verbs are those whose intransitive form occurs in vP with a causative head CAUSE. In accordance with (9'), verbal structures which contain this head do not support *there*-insertion. The causative hypothesis may be formulated as follows:

- (10) Causative hypothesis. The vP of an unaccusative verbal root may contain expletive *there* just in case it does not contain CAUSE.

The proper representation of change-of-state, inchoative or anticausative intransitive verbs has been the subject of a long debate in the literature to which I cannot do real justice here (see for instance Dowty 1979, Levin and Rappaport Hovav 1995, Pesetsky 1995, Wunderlich 1997, Piñón 2001, Reinhart 2002, Alexiadou and Anagnostopoulou 2004, Alexiadou et al. 2005, 2006, Kallulli 2006, Koontz-Garboden 2007). Nonetheless, certain aspects of the problem of *there*-insertion and the change-of-

⁷ This is not to deny that there are ever grammatical *there*-sentences with *disappear*; however, these are outside verbals, where the associate has left its base position:

- (i) Sometime during this last pluvial there disappeared from Africa the last manlike rivals of man as we know him. (<http://oneworldmagazine.org/focus/etiopia/lost1.html>)
- (ii) There disappeared from the safe two diamond rings that her ex-husband had given her (Kuno and Takami 2004: 55)

Outside verbals do not obey the definiteness restriction (Milsark 1974), and so the absence of definiteness effects in (iii), from Lumsden (1988: 237), may suggest that this case is an outside verbal, too (with the final PP extraposed from VP). See section 8 for an analysis.

- (iii) One by one during the day the vessels left until finally there disappeared our own ship over the horizon.

state generalization (9') shed light on some of the issues at stake, supporting the formalization at play in (10).

First, generalization (9') requires us to find some way to distinguish change-of-state unaccusatives from other unaccusatives. We cannot adopt any analysis according to which change-of-state verbs are formally identical to other unaccusatives (e.g. *arrive*, *hang*). The problem of *there*-insertion also places a requirement on how the differences among unaccusatives are to be encoded in the grammar. I take it that *there*-insertion is as good an example as any of a phenomenon that occurs in the syntax, not the lexicon; therefore, in order to allow generalizations about *there*-insertion to be stated in a way that avoids reference in the syntax to the internal structure of lexical items (i.e. preserving lexical integrity), we set aside views that posit a difference between change-of-state unaccusatives and unaccusatives like *arrive* and *hang* only in the lexicon or in “event structure” (e.g. Levin and Rappaport Hovav 1995, Wunderlich 1997, Koontz-Garboden 2007). Finally, my proposal can be contrasted with work that posits an operator in the syntax for change of state intransitives, but identifies this head not as CAUSE but as BECOME (e.g. Alexiadou and Anagnostopoulou 2004). The reasons for this will become clear as we discuss the diagnostics for causal semantics in intransitive verbs, which rely on a bi-eventive structure that is contributed by CAUSE but not by BECOME.⁸

As argued below, the motivations for CAUSE as an element of *v*P projection are unrelated to *there*-insertion, and thus the correlation between *there*-insertion and the diagnostics for CAUSE is particularly striking. On the proposal adopted here, what appears to be a lexical semantic distinction among verbs can be reduced to a syntactic distinction between different types of structures in which verbal roots can occur. It is this structural distinction to which *there*-insertion is sensitive.

The semantics of the CAUSE head can be given as follows, following Pylkkänen (2002), Kratzer (2005) (where *s* is the type of eventualities and *t* the type of propositions):

$$(11) \quad \text{CAUSE: } \lambda P_{\langle s, t \rangle} \lambda e \exists e' . P(e') \ \& \ \text{direct-cause}(e)(e')$$

Two aspects of this denotation are worth noting. First, the CAUSE head does not introduce a causer argument (an entity); rather, it introduces only a causing event.⁹ I will argue that the causing event is syntactically represented as an external argument of *v*P (correspondingly proposing a slight modification to (11)). Secondly, the relation of causation involved in the CAUSE head is crucially one of direct causation; the causal chain between the two events is constrained to rule out intervening causes (Kratzer

⁸ A bi-eventive BECOME operator is considered (but not adopted) by Parsons (1990: 119), and proposed by Piñón (2001). For Parsons the second event in addition to the resultant state is the change of state itself, whereas for Piñón this second event *e* is that which “an object *x* comes to be in a state ... by virtue of.” Piñón’s bi-eventive inchoative operator seems to me compatible with an analysis in terms of causation between the result state and *e*.

⁹ This conception of causation as relating pairs of events follows Parsons (1990), Piñón (2001), Pylkkänen (2002) and Kratzer (2005), and is “the standard view” among philosophers according to Schaffer (2007). It can be contrasted with views of causation that take it to be a relation between entities (individuals) and events (at least in cases where the subject is not overtly event-denoting), such as those advanced by Jackendoff (1976, 1983) and Wunderlich (1997), as well as with views that take causation to be a relation between events but include with the CAUSE head a necessary place for a causer argument, as in Levin and Rappaport Hovav (1995) and Pylkkänen (2002), the former generally and the latter only for English.

2005).¹⁰ In virtue of the directness of the causation, the CAUSE head in effect subsumes the effect sometimes attributed to a BECOME operator in inchoatives (e.g. by Dowty 1979 and works following), viz the change of state. A state that already holds (or an event that is already ongoing) cannot be caused; if snow is already in a melted state, for instance, one cannot cause it to melt.¹¹ Thus, given that the CAUSE head introduces an event *s'* that is the direct cause of the state/event *s* denoted by the verb root, it necessarily refers to the beginning of *s* and to the theme of *s* entering into *s*. This is the change of state meaning.

The following sections outline evidence from prepositional modifiers, eventive/stative contrasts and causative alternations in support of the Causative Hypothesis (10). In each case, those structures passing tests for the bi-eventive structure of the CAUSE head disallow *there*-insertion, while structures with *there*-insertion fail tests for the CAUSE head.

3.1 Prepositional modifiers

For the reasons outlined above, I take the hallmark of change-of-state verbs to be the inclusion of CAUSE in the verbal projection.¹² Because CAUSE contributes causative meaning by introducing a causing event, causative structures are bi-eventive. A major source of evidence for the presence of a bi-eventive structure in certain intransitive *v*Ps comes from PP modifiers which, in a number of languages, can specify the causing event. In English, German and Greek, for example, the causing event of inchoatives can be referenced by *by itself* or by a PP headed by a preposition like *from* (Chierchia 1989, DeLancey 1984, Levin and Rappaport Hovav 1995, Alexiadou et al. 2005, 2006):¹³

- (12)a. The window cracked from the pressure
 b. The window cracked by itself (without outside help)

- (13)a. Die Vase zerbrach durch ein Erdbeben German; Alexiadou et al. 2005
 The vase broke through an earthquake.

¹⁰ Alternative conceptions of direct causation are presented by Dowty (1979: 98), Lewis (1986: 184-188) and by Wunderlich (1997: 37). Of these, only Lewis' analysis is compatible with the view that causation holds between *events*, not individuals and events.

¹¹ It has been noted that inchoatives may be used in certain cases where the state does hold previously to any change; an object may redden even if it is already red. This is a problem for a strict Dowty-style treatment of BECOME (cf. Dowty 1979: 140), which allows BECOME *p* to be true at an interval *I* just in case *p* is not true at an interval *J* containing the initial bound of *I*. Dispensing with BECOME in favor of mere causation may save us some trouble here. If a particular eventuality *e* is caused by another event *e'*, *e* could not have held prior to *e'*, though what exactly was the case prior to *e'* is left open. Just because we are describing *e* as a state of redness, for instance, we need not conclude that *e* followed a state devoid of redness.

¹² I do not assume any necessary connection between inchoativity and participation in the causative alternation; see section 3.3.

¹³ There are well-known restrictions on the causal readings of *from*-PPs, most notably that they must name a causing event, not an agent or instrument (Alexiadou et al. 2005, 2006, Kallulli 2006). This translates into an animacy restriction, since events are never animate. It appears that there are other restrictions on causal *from* as well; while verbs like *crack* or *break* accept it, verbs like *disappear* do not, despite the independent evidence for a causal analysis of *disappear* (see below). The precise constraints on causal *from* call for further research. What appears clear at present is that structures allowing causal *from* pass other tests for CAUSE, such as the *by itself* test; thus, causal readings of *from* imply the presence of CAUSE, although the lack of such readings does not imply the absence of CAUSE.

- b. Die Vase zerbrach von selbst
The vase broke by itself
- (14)a. I porta espase apo to apotomo klisimo Greek; Alexiadou et al. 2005
The door broke by the abrupt closing
- b. I porta anikse apo moni tis
The door opened by alone-SG hers
 ‘The door opened by itself’

Of particular importance is the contrast with non-inchoative unaccusatives (i.e. unaccusatives without CAUSE) like *arrive*, a verb which readily allows *there*-insertion. When modifying *arrive*, *by itself* means only ‘alone’ and not ‘without outside help’; a *from*-PP, likewise, may only specify a source and not a cause.

- (15) The student arrived early by herself
 ✓ No one else arrived early. (‘alone’ reading)
 * Nothing caused the early arrival. (‘without outside help’ reading)
- (16) The plane arrived from Tokyo/*from the tailwind.

The modificational facts support the view that inchoative vPs introduce a causing event which non-inchoative unaccusative vPs are devoid of.¹⁴ The postulation of a CAUSE head allows us to capture this bi-eventive structure in a compositional way.

The contrast between inchoatives like *open* or *melt* and non-inchoative unaccusatives like *arrive* correlates as predicted with the possibility of *there*-insertion: inchoative vPs cannot take *there*, whereas non-inchoatives may. Rephrasing in terms of our CAUSE diagnostics, whenever *by itself* or *from* can refer to the causing event, *there*-insertion is unavailable. Some examples are given in (17) below for inchoatives and in (15-16) above and (18) below for non-inchoative unaccusatives.

- (17) Inchoatives; **there*-insertion
- a. *melt*
- i. The ice cream melted by itself
 ✓ alone reading
 ✓ without outside help reading
 - ii. The ice cream melted from the heat (cause)
 - iii. *There melted some ice cream in the heat
- b. *disappear*
- i. The wizard disappeared by himself¹⁵

¹⁴ The alternative to this view is to claim that *by itself* and *from*-PPs themselves introduce the causing event. There are two negative consequences of such a view. The first is that we must stipulate that causation-introducing modifiers cannot combine with certain verbs, e.g. *arrive* (though periphrastic expressions of causation with *due to* or *because of* are possible, showing the issue is not merely due to encyclopedic information about arrival). This makes it mysterious why only such verbs can take *there*. The second is that we must postulate two unrelated mechanisms for introducing causation: one for transitive clauses like *The pressure cracked the window*, and another for intransitives with PPs like *The window cracked from the pressure* (see Solstad 2006 for German *durch*).

- ✓ alone reading
- ✓ without outside help reading
- ii. The wizard disappeared from fear (cause)
- iii. *There disappeared a thief into the night

(18) Non-inchoative; *there*-insertion: *hang*

- i. The portrait hung on the wall by itself
 - ✓ alone reading
 - * without outside help reading
- ii. The portrait hung from the thumbtack/*the stapling (source, *cause)¹⁶
- iii. There hung a portrait on the wall

We see in these examples the negative correlation between *there*-insertion and causative semantics for an unaccusative verb.

3.2 Eventive/stative contrasts

Certain verbs, for instance *grow* and *bloom*, show both stative and change-of-state behavior. Thus a sentence like *The rosebush bloomed* can mean either that the plant was in a floral state, or that it entered that state. The Causative Hypothesis (10) allows us to capture this contrast in virtue of its reference to *structure*, not the *lexical content* of a verb (word).

Milsark (1974: 250) noted that verbs like *grow* have two readings, only one of which is compatible with *there*-insertion.¹⁷ On their stative readings, such verbs allow *there*-insertion, but their eventive readings are not possible with *there*.^{18 19}

- (19)a. There grew some corn in our garden last year. [stative; ✓*there*]
- b. *There grew some corn very slowly in Massachusetts. [eventive; **there*]

¹⁵ A reviewer suggests that the ‘without outside help’ reading of *by itself*, found with *disappear*, may extend to *appear*, a verb that allows *there*-insertion, for instance in the following context:

(i) Even though my grandmother used a walker, she still appeared at the police station by herself. I find *all by herself* necessary to obtain this reading, a modification that may bear on the *by itself* diagnostic and is not necessary with *disappear* in (17b).

¹⁶ The missing causative reading of the *from*-phrase can be found in *The portrait hung due to/because of the stapling*.

¹⁷ He also notes verbs like *follow*, which like *bloom* and *grow* vary in allowing *there*-insertion, but unlike them lack change-of-state readings:

- (i) a. A rainstorm followed. b. There followed a rainstorm.
- (ii) a. A taxicab followed slowly. b. *There followed a taxicab slowly.

Following Burzio (1986: 160) and Lumsden (1988: 37-38), I analyze this alternation in terms of unaccusativity: *follow* is unaccusative in (i) and unergative in (ii). (*Hide* may be analyzed similarly.) Accordingly, translations of the two *follows* use different auxiliaries in Italian, and agentive nominal *follower* is appropriate for a taxicab but not a rainstorm.

¹⁸ (19a) is from Milsark (1974: 250, ex 14), and (19b) is based on Milsark (250, ex 11a).

¹⁹ Levin and Rappaport Hovav (1995: 161) suggest on the basis of evidence from Dutch that non-change of state *bloom* is unergative. (20a) suggests that the Dutch analysis is not applicable; English stative *bloom* is indeed unaccusative, just like change-of-state *bloom*. They differ in the presence of a CAUSE head.

- (20)a. There bloomed a rosebush on the patio. [stative; ✓*there*]
 b. *There bloomed a rosebush very slowly on the patio. [eventive; **there*]

On the approach pursued here, we can make sense of this pattern in terms of the semantic contributions of verb root and CAUSE head. The verb root $\sqrt{\text{BLOOM}}$ denotes a stative eventuality, viz the state of having flowers. If a CAUSE head is added, the resulting vP has an eventive, change of state meaning. In accordance with the causative hypothesis, *there*-insertion is not sensitive to verb roots themselves; it is sensitive to the structures projected around them.²⁰ For this reason we should not assume that a particular (unaccusative) verb will always permit/bar *there*-insertion, unless it consistently forbids/requires a CAUSE head. If the root $\sqrt{\text{BLOOM}}$ can be used in the structure of the “pure unaccusative”, i.e. without CAUSE, *there*-insertion should be possible. It is also in this configuration that we predict the stative semantics of the root to remain visible. There is no CAUSE head to introduce an eventive eventuality, just as there is no CAUSE head to interfere with *there*-insertion. The major difference between intransitive *bloom* and an intransitive like *hang* seems to be that while both can appear in the pure unaccusative structure, wherein they remain stative and allow *there*-insertion, only *bloom* additionally allows the inchoative structure wherein CAUSE brings in both eventivity and a ban on *there*-insertion.

3.3 Causative alternations

On top of the evidence from causative-modifying *by itself* and *from*-PPs and eventive-stative contrasts, causative alternations present confirming data in support of the Causative Hypothesis (10): in large part, verbs which participate in causative alternations cannot undergo *there*-insertion.²¹

It is widely agreed that a causative transitive verb is one which contains both an agent and an encoding of causation, e.g. *break_{TR}* or *hang_{TR}* but not *greet* (agentive, but not causative) or *hear* (neither agentive nor causative). What is less widely agreed upon is the syntactic and semantic status of the intransitive forms of verbs like *break* and *hang*. The empirical sources of this disagreement become clear upon application of the CAUSE diagnostics given above to the set of intransitive verbs that have causative “alternants”. There is no unified class of anticausative verbs as defined by the causative alternation. Participation in the causative alternation is not entirely predictable from the structure of an intransitive form. Verbs like *hang* or *develop* are non-inchoative (i.e. lack CAUSE) in their intransitive form but have a causative alternant (i.e. a form with CAUSE and the agent-introducing head Voice), whereas *fall* is inchoative in its intransitive form but does not

²⁰ Cf Hoekstra and Mulder (1990: §3.2), who posit that “unergative verbs” can undergo *there*-insertion *just in case their syntax is actually unaccusative*.

²¹ A similar generalization is expressed by Haegeman (1991: 307-312) and Hale and Keyser (2000): *there*-insertion verbs cannot transitivize, in contrast to what Hale and Keyser call ‘pure’ unaccusatives and what Haegeman calls *ergatives* (in contrast to *unaccusatives*). Related analyses can be found in Levin and Rappaport Hovav (1995: ch 3). Incidentally, exactly the opposite generalization is proposed by Burzio (1986: 161) on the basis of unaccusatives like *assemble*, *circulate* and *roll* that allow *there*-insertion and have a transitive form; verbs like *start* are put aside (fn. 74). This kind of disagreement about the proper role of causative alternations in the analysis of *there*-insertion is to be expected so long as alternations remain the primary source of evidence for the presence of CAUSE in an intransitive form.

alternate. This difference between *hang* and *fall*, by comparison to alternating inchoatives like *break*, is reflected in the possible structures for each verb root:²²

(21)

	<i>intransitive structure(s)</i>	<i>transitive structure</i>
<i>break</i>	[CAUSE [√BREAK DP]]	[DP [Voice [CAUSE [√BREAK DP]]]]
<i>fall</i>	[CAUSE [√FALL DP]]	--
<i>hang</i>	[v [√HANG DP]]	[DP [Voice [CAUSE [√HANG DP]]]]
<i>grow</i>	[CAUSE [√GROW DP]] [v [√GROW DP]]	[DP [Voice [CAUSE [√GROW DP]]]]

We see in such data that so-called “causative-inchoative” alternations are in fact better labeled causative-unaccusative alternations, where the unaccusative form may be inchoative (*break*), non-inchoative (*hang*), or exist in both forms (*grow*). Given that the possibility of a transitive causative form does not strictly indicate the presence of a corresponding intransitive form with CAUSE, data from alternations should best be viewed only as a confirmation of the evidence from modifiers in determining which intransitive vPs contain CAUSE heads.

Keeping this variation in mind, we nonetheless find a pattern of some interest in the long-contested case of the verb *disappear*, which disallows *there*-insertion. We have seen above that evidence from modifiers supports an inchoative analysis of this verb; it appears that at least marginally, a causative alternant is also attested, (22a).²³ By contrast, the morphologically related *appear* allows *there*-insertion and absolutely cannot be causativized, (22b).

- (22)a. ?The magician disappeared a rabbit.
b. *The magician appeared a rabbit.

Here data from causative alternations dovetail with data from causation-modifiers and eventive-stative contrasts, as evidence converges on the Causative Hypothesis (10).

4 Contexts for *there*-insertion

We now have in hand a generalization about the verbs that do and don’t take expletive *there*. In this section, I develop an account of *there*-insertion that aims to explain the pattern we have seen in terms of *there*-insertion in non-thematic specifiers of vP. If an argument (nominal or eventive) must be projected in Spec,vP, *there* cannot be inserted; otherwise it is inserted freely into this position.

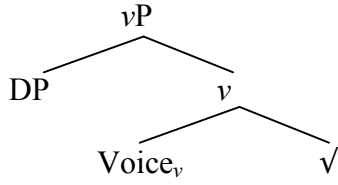
Following work by Marantz (1997) and others, I assume that verbal projections contain vPs whose heads are drawn from a closed class of “verbalizers”, one member of

²² I assume that paradigm gaps like the absence of transitive *fall* are encoded morphologically; see Harley and Noyer (2000). The underlying motivations for this morphological encoding may be related to conceptual issues of internal and external causation, as discussed by Levin and Rappaport Hovav (1995).

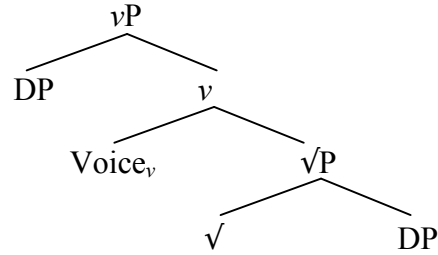
²³ The Oxford English Dictionary dates transitive *disappear* to 1897, providing the following attestation:
(i) We progressively disappear the faces of the dodecahedron. (*Chem. News* 19 Mar. 143)

which is Kratzer's (1996) agent-introducing Voice head, (24). Unergative and transitive verbs occur in structures as follows:²⁴

(23)a. Unergative



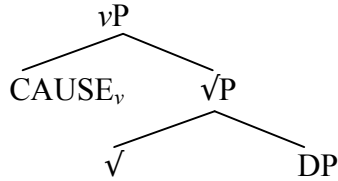
b. Transitive



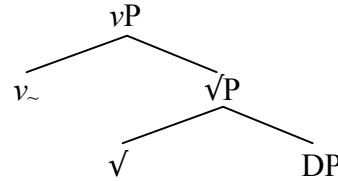
(24) Voice_v: $\lambda x \lambda e. \text{Agent}(x)(e)$

In both of these structures, the v head requires an argument in its specifier position; *there* cannot be inserted (see also Bowers 2002: 195). Turning to unaccusatives, CAUSE as well may be considered a verbalizer;²⁵ when CAUSE is not present in an unaccusative, a default verbalizer head v_{\sim} is used. This gives us the structures in (25) for inchoative and “pure” unaccusatives (e.g. *fall* and *arrive* respectively):

(25) a. Inchoative



b. Non-inchoative unaccusative



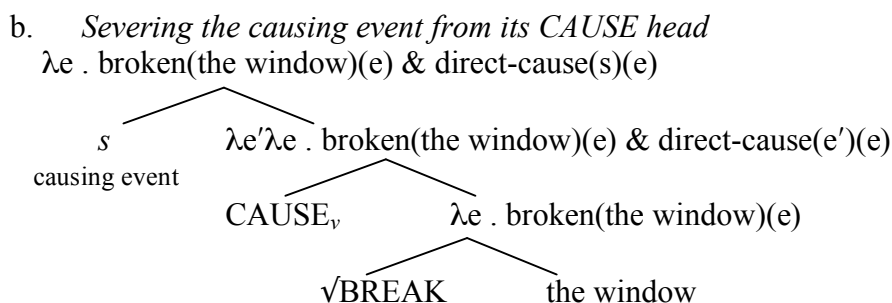
These four structures provide the distinctions crucial for the formalization of low *there*-insertion. In each case, if a verbalizing head requires an argument in its specifier position, *there* cannot be inserted. For structures containing Voice, the need for an argument is already encoded by the semantics in (24). We revise the denotation considered for CAUSE in (11) above to encode that with CAUSE as well as with Voice, an external argument in Spec,vP is required: in this case, the causing event. (26) gives the revised denotation for CAUSE, and (26b) exemplifies the proposed structure.²⁶

(26) a. $\lambda P \lambda e' \lambda e. P(e) \ \& \ \text{direct-cause}(e')(e)$

²⁴ Unergative structure (23a) contains an agentive Voice head, as defined in (24), and thus represents only agentive intransitives. A similar structure is proposed for intransitives with external arguments receiving theta-roles other than agent (e.g. for *cough*, *sleep*), making appropriate changes to the argument-introducing v head. Transitive structure (23b) does not contain CAUSE and thus represents only non-causative transitives, e.g. *meet*, *kiss*. Causative transitives such as *break*, *kill* and *open* are represented as [_{VoiceP} Voice [_{CauseP} CAUSE \check{v} P]], as in (21) (Alexiadou et al. 2005, 2006, Harley 2007). In both types of transitives, the argument of Voice (the agent) must appear in the thematic v P specifier position.

²⁵ See Koontz-Garboden (2005, 2007) on the link between change-of-state semantics and verbhood.

²⁶ Alternatively, we could retain the semantics for CAUSE given in (11) and place an event pronoun in the Spec, v P position if we could assume that the event pronoun would immediately be bound by lambda abstraction.



The reason why inchoative *v*Ps cannot host *there*-insertion is then the same as the reason why agentive *v*Ps cannot do so: for semantic reasons, the specifier of the verbalizer cannot remain empty.

For the final verbalizer, *v*~, no such considerations apply. Since the verbalizing head fails to introduce an argument of either an eventive or an entity type, its specifier is non-thematic, and entirely free to accommodate *there*. It is thus through a process of interpretive elimination that *there*-insertion comes to be possible only in the specifier of non-inchoative unaccusatives.

5 The special status of *there be*

The discussion to this point has focused entirely on *there*-insertion independent of the copula -- so-called “presentational *there*” (Milsark 1974, Aissen 1975, Burzio 1986, Ward and Birner 1996, i.a.).²⁷ Nevertheless, the framework laid out in the previous section gives us the tools necessary to account for why the copula in its many forms is invariably capable of bringing in *there*-insertion -- in passives (27), progressives (28),²⁸ and existentials (29).

- (27)a. There were several people arrested over the weekend.
 b. There are thousands of healthy animals euthanized every day.

- (28)a. There was a child loudly singing in the campground.
 b. There are fans gathering outside the stadium.

- (29)a. There will be a unicorn in the garden at 8 pm.

²⁷ This term is also sometimes used to describe cases of *there*-insertion with lexical verbs and V-PP-NP order, Milsark’s outside verbals (Safir 1982:211, Schütze 1999). On V-PP-nominal order, see section 8.

²⁸ Word order data indicates that examples like (27) and (28) are not fully accounted for under an alternative, reduced relative analysis. Reduced relatives must precede full relatives, as shown in (i); but as (ii) shows, no such restriction appears in the *there* + progressive case. (Thanks to Rajesh Bhatt for bringing these data to my attention.)

- (i) a. The teacher scolded [the student laughing in the hall who was wearing a Red Sox cap]
 b. *The teacher scolded [the student who was wearing a Red Sox cap laughing in the hall]
 (ii) a. There is a man laughing in the hall who’s wearing a Red Sox cap.
 b. There is a man who’s wearing a Red Sox cap laughing in the hall.

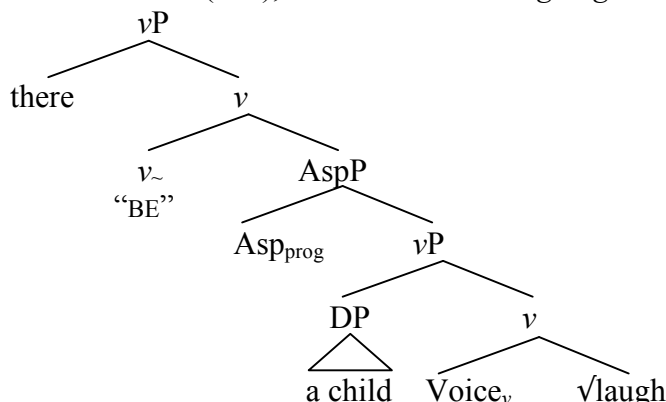
See Rezac (2006: 686, 692) for a summary of evidence that passive and progressive expletive constructions cannot be analyzed only as reduced relatives, *pace* Law (1999) and other work.

- b. There is a problem with the coffeemaker.

To account for these cases, we might view the copula (in its many forms) as comprised of the dummy verbalizer v_{\sim} , embedding functional structure such as an Asp(ectual)P or a small clause. The presence of the dummy verbalizer in the progressive accounts for the contrast in (30): *laugh* cannot permit *there*-insertion, but *be* can. Insertion of *there* targets the specifier of v_{\sim} , though this need not be the only verbalizer in the overall structure.

- (30)a. *There laughed a child in the hallway.
b. There is a child laughing in the hallway.

(31) A structure for (30b), *There is a child laughing*.



The same functional structure for the copula gives us existential sentences like (29). Here only one verbalizer is present, with its complement a small clause or a nominal; this sole verbalizer permits insertion of *there*.

6 Agreement and the content of *there*

Thus far I have argued for a low-generation solution to the problem of origin. This account makes sense of the distribution of *there* in terms of the heads that verbalize roots and structures of various sorts; only when a “pure” verbalizer is found in a syntactic structure will *there*-insertion be possible. The essence of this account is that *there* can be freely inserted in non-thematic Spec, v P positions. We turn now to the question of why it is Spec, v P in particular that is targeted by *there*. It is this question which provides our segue to the problem of content.

Up to this point we have treated *there* as an element essentially visible only to the EPP feature of T. Presumably this means assigning it only what Chomsky (1995) has called a “D feature”. In this section, I motivate a revision of the assumption that *there* is merely a D feature;²⁹ on top of the D feature, it must contain uninterpretable features which are checked against its associate. The checking relation with the associate must be

²⁹ Or merely a number feature, as in Chomsky (1981), or merely a case feature, as in Travis (1984), or merely a person feature, as in Chomsky (2000: 125; 2001), etc.

maximally local, and it is in order to satisfy this stringent locality that *there* can only be born in the specifier of a low phase head, Spec,vP.³⁰

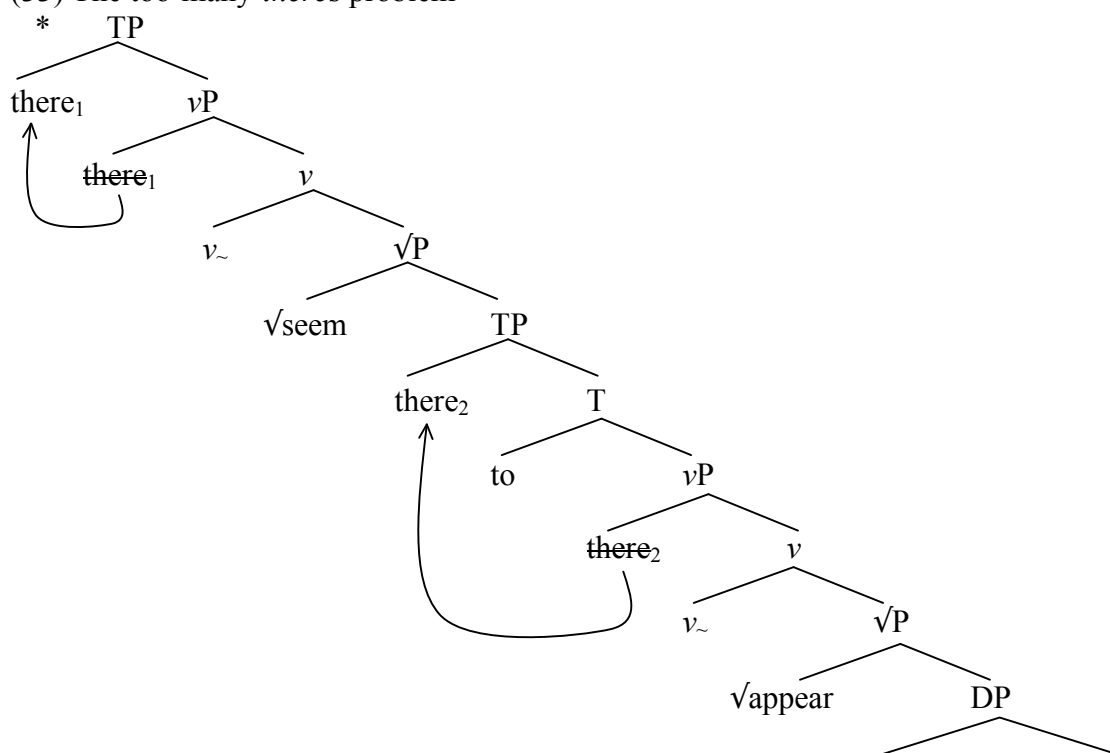
6.1 Too many *theres*

Empirical motivation for an agreement relation between *there* and its associate comes from what I call the “too many *theres*” problem, references to which are scattered through the literature. Examples like (32), with multiple instances of *there*, are sharply ungrammatical:

- (32)a. *There seemed there to be a man in the room.
b. *There seemed there to arrive a train in the station.

These examples are a problem for Chomsky’s (2000) high-generation-of-*there* account, which predicts free Merger of *there* in each Spec,TP. They are just as much of a problem on the low origin account outlined above, which at present predicts the possibility of merger in Spec,vP of *seem* as well as in Spec,vP of *be* or *arrive*.

(33) The too-many-*theres* problem



³⁰ If low origin is tightly linked to an agreement relationship with an associate, we might expect languages whose expletives are not generated low not to require any such relationship with a nominal. Icelandic *það* provides initial support for this hypothesis. Platzack (1983) and Maling (1988) have argued that expletives in Icelandic always occupy Spec,CP. In contrast to a low expletive like *there*, *það* is acceptable even with argument-less weather verbs, suggesting that no relationship with a DP is required.

(i) *það* *rignir*
EXPL *rains*

The function of *það*-insertion in Spec,CP may be to preserve V2 order (Haiman 1974, Breckenridge 1975, but cf. Sells 2005 and references there); agreement with an associate does not seem to be necessary.

a train in the station

The low origin account introduces a further puzzle of this type. Above, we saw that both unaccusatives and the progressive copula contain the v_{\sim} verbalizer in whose specifier *there* may originate. However, we cannot insert *there* in both Spec,vP positions, (34).

(34) *There is there arriving a train in the station.

The too-many-*theres* problem shows that free generation of *there* in any syntactic position (Spec,TP or Spec,vP) must be constrained. Such examples will pose a problem for any theory on which (a) *there* does not get Case, or (b) *there* does not enjoy a close relationship with its associate.

While the literature provides ample precedent for the claim that *there* is Case-marked (with or without the help of the associate; see Chomsky 1986b, Hoekstra and Mulder 1990, Lasnik 1992, 1995, Groat 1995, Hazout 2004; cf. Cardinaletti 1997), let us explore instead the mileage we can get from abandoning the claim that *there* bears no relation to its apparent associate. The empirically sound generalization is that *there*-clauses of all stripes require a DP associate. The too-many-*theres* problem shows that a close relationship between *there* and verbs and their argument heads does not yield this for free. Let us then supplement the theory of *there* with the proposal in (35).³¹

(35) Content

There has uninterpretable features which it checks against its associate.

This is implemented as a local Agree relationship.

The account explored here is couched in the phase-based theory of locality (Chomsky 2000, 2001). In this framework, certain heads are designated as “phase heads”; when one of these phase heads is merged with its sister, the sister becomes impenetrable to further operations (i.e. is “spelled out”). Only the phase head and its specifier remain visible, the latter serving as an “escape hatch” for material which would otherwise be petrified inside the completed lower phase (see Chomsky 2000, 2001). (In what follows I show phase boundaries as falling between the specifier position and the phase head; for our purposes here they could equally well be drawn between the phase head and its sister, demarcating “spell out domains”.) This framework thus derives two of the crucial properties of syntactic operations: locality and cyclicity.

A point of long-standing interest in generative work has been the exact definition of locality domains, which phases presently instantiate.³² Chomsky (2000) argued that the only phases are C and the head v (here Voice) found in transitive argument-structure

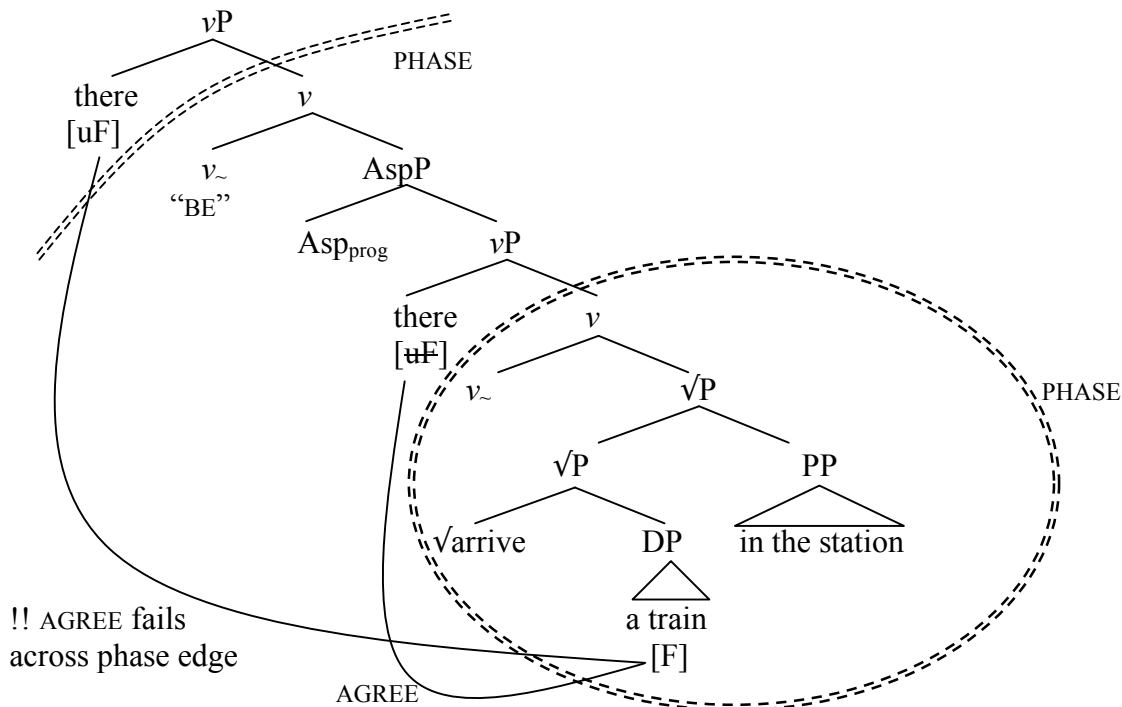
³¹ This proposal has empirical advantages over an alternative “big DP” account, according to which *there* and its associate originate within a single DP constituent from which *there* is subsequently extracted (Basilico 1997, Sabel 2000). While a big DP proposal can presumably account for the one-to-one relationship between *theres* and associates (assuming we can rule out “supersize DPs” containing a nominal and more than one *there*), it predicts that *there* should be compatible with all sorts of vP structures, contrary to fact.

³² See Boeckx and Grohmann (2007) for a catalogue of similarities between phases and their predecessors in the Barriers model of Chomsky (1986a). The reader is invited to insert an alternative term for locality domains in the place of *phase* in the text. What will be crucial is that both movement and agreement relations must respect such domains.

projections. However, work by Legate (2002) has suggested that all v heads, including those found with passive and unaccusative verbs, pass diagnostics for phase-hood; in particular, they seem to provide intermediate landing sites for successive cyclic movement. We will see shortly that *there*-insertion provides further evidence for the existence of locality domains defined over all v Ps, including those projected around unaccusatives.

To see this, let us first consider the case of (34), **There is there arriving a train in the station*. We predict that *there* can be generated in the projection of the progressive copula, as well as in the projection of the unaccusative verb. Since *there* is permitted with an unaccusative independently of the progressive higher up, in a bottom-up syntactic model we cannot block the unaccusative v_{\sim} from allowing *there* in this instance. Supposing that unaccusatives project impenetrable v P domains, let us suppose in addition that *there* must obey strict locality constraints in its agreement relation with its associate. In particular, the agreement relation is possible from the specifier of a phase-head into the sister of the phase-head, but it is not possible otherwise across phase boundaries. Then only the lower *there* in (36), which is generated in the specifier of the unaccusative v , will be sufficiently close to the associate to enter into an Agree relationship. The higher *there*, generated in the specifier of the progressive copula, will be too far away.³³

(36) Unaccusative: higher *there* is too far from associate

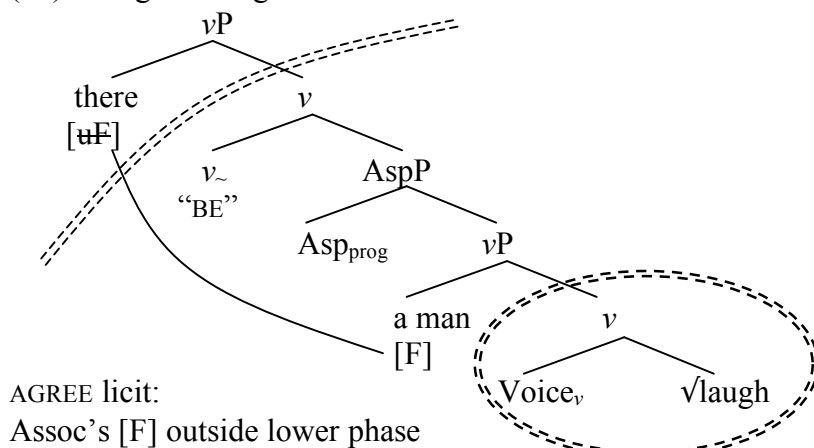


Thus, as a consequence of the structure of unaccusatives, *there* in *There is a train arriving* originates in the Spec, v P of *arrive* and not in the Spec, v P of the progressive *be*.

³³ Note that tree (36) shows only the standard head-initial treatment of the English verbal projection; something more must be said to derive the final DP-Participle order in progressives like *There is a train arriving* or passives like *There were four people arrested*. Recent work on this topic has adopted the label *Th/Ex* for this word order pattern (and its crucial pre-participle NP position), following Chomsky (2001). See Caponigro and Schütze (2003), Rezac (2006).

How, then, does the progressive allow *there* with unergative verbs? Given that the argument of an unergative is already projected in the specifier of the verbalizer Voice_v , a locality problem does not ensue when *there* begins in the specifier of the higher v head. Structure (37) exemplifies for *There is a man laughing*:

(37) Unergative: Agree is still local



As (37) shows, the locality account allows us to generate *there* in the specifier of the progressive copula with unergative verbs while avoiding the too-many-*theres* problem with progressive unaccusatives.³⁴

The second (and more famous) too-many-*theres* problem concerns raising verbs:

(38) *There seemed there to arrive a train in the station. (from 32b)

The locality account predicts that the trouble here stems from the higher *there* being too far away from the associate. There is indeed evidence that *there* in raising constructions must be generated downstairs: only when the embedded verb allows *there*, as in (39c,d), may *there* appear as subject of *seem*.³⁵

- (39)a. *There seemed to disappear a dagger from the armory.
- b. *There seemed to melt a lot of snow on the streets of Chicago.
- c. There seemed to appear a dagger in front of Macbeth.
- d. There seemed to arrive a train on track 3.

If *there* could just be generated in the specifier of the raising verb (as proposed by Bošković 2002, Boeckx and Grohmann 2007), this contrast remains unaccounted for. On

³⁴ Note that this account correctly predicts that “transitive expletives” should indeed be possible in English when it is the copula that permits generation of the expletive, as in (i).

(i) There is a man eating an apple.

So far as I am aware, these constructions are the only transitive expletive constructions in English apart from those found with a small set of verbs whose objects are essentially locative, e.g. *enter*, *reach*, *cross*, *hit*.

(ii) There crossed her mind a most horrible thought. (Kuno and Takami 2004: 49)

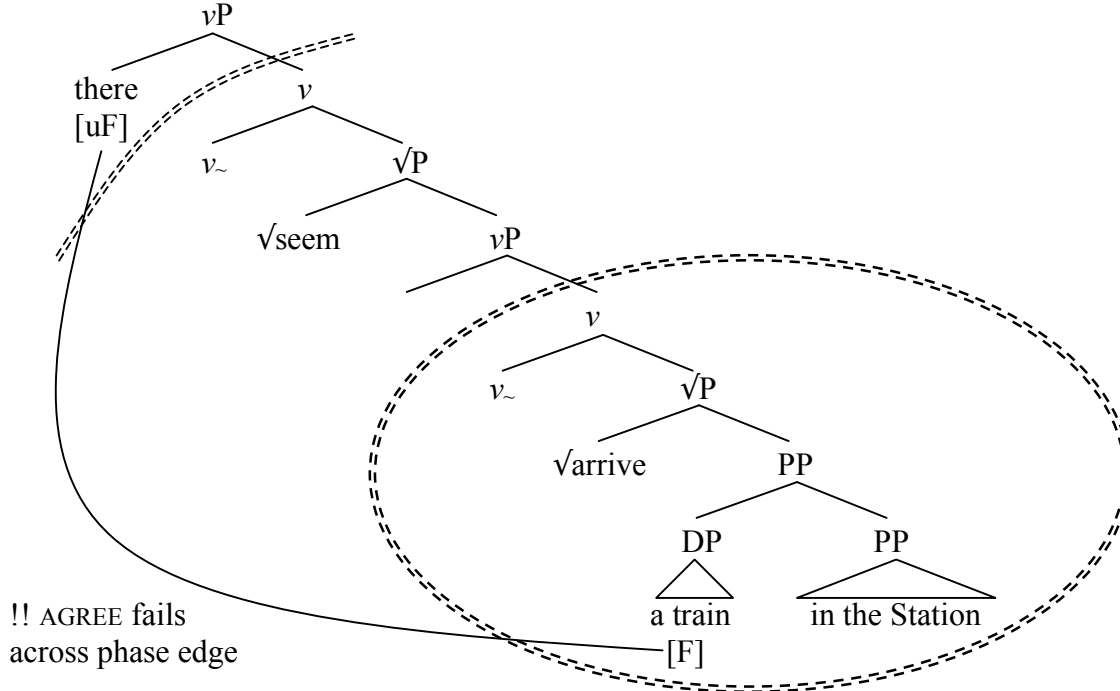
(iii) Suddenly there entered the hall an ugly old man. (Levin 1993: 90)

I leave the proper analysis of this latter set of examples for future research.

³⁵ Thanks to Rajesh Bhatt for bringing this pattern to my attention.

the other hand, the locality approach makes perfect sense of it. The phase geometry of (38) is exactly as in (36): the higher *there* is simply too many phases away from the associate it must agree with.

(40) Why high generation of *there* fails with raising verbs



Confirmation for this analysis comes from cases where normal raising predicates such as *seem* or *be likely* embed nominals. In this case, the specifier of *seem* or *be likely* is not too far away from the nominal associate, and we find that these predicates can indeed license *there*-insertion:

- (41)a. There is likely an error in line 3.
 b. There seemed nothing we could do for poor Kim.

These facts show quite clearly that the too-many-*theres* problem with raising verbs arises not because raising verbs do not license *there*, but because *there* must attain a local relationship with its associate. By building in such a relation, we have been able to solve both versions of the too-many-*theres* problem and explain why *there* with raising verbs must be generated downstairs (if there is a downstairs).³⁶ The phase-based approach also allows us to justify and broaden the generalization that *there* is inserted in Spec,vP: *there*-

³⁶ The phase-based approach also compares favorably an alternative locality approach based on the Minimal Link Condition (Chomsky 1995). On this approach, too-many-*theres* clauses would be ruled out by the lower *there* interfering in the relationship between the higher *there* and the associate. However, an MLC-based approach fails to predict that cases like (39a,b) should be ungrammatical; given that the higher *there* is inserted into a non-thematic Spec,vP and that there is no lower *there*, the example is wrongly predicted to be grammatical. The phase-based approach explains why raising verbs must raise *there*; an MLC approach does not correctly make this prediction.

insertion targets phasal specifiers which are not otherwise occupied by externally merged (i.e. thematic) elements.³⁷ Thus, *there*-insertion allows otherwise illicit feature transmission via Agree across a phase boundary.

6.2 Merge and Move

A final point on raising verbs, agreement and locality concerns the possible associates that *there* can agree with. Importantly, the associate of *there* cannot be a lower *there*:

$$(42) \quad *[\text{vP } there_1 \text{ v} \sim [\text{vP } \sqrt{\text{SEEM}} [\text{TP to } [\text{vP } there_2 \text{ v} \sim [\text{vP } \sqrt{\text{APPEAR}} [\text{DP a train }]]]]]]]]$$

└──────────────────┘
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AGREE
AGREE

It is possible for an expletive merged in the lower Spec,vP position (in (42) occupied by *there*₂) to agree with the associate and then raise; it is not possible for *there*₂ to agree with the associate, sharing its features, and then to agree *qua* associate with *there*₁, further passing on those features. In other words, the expletive in the lower clause can be a link in a chain formed by movement, but it cannot be a link in a chain formed by merge of independent elements. I suggest that what we are seeing here is a familiar preference for chains to be formed by movement, not merger of independent elements. We see independently that both A and A' chains are formed by movement whenever possible, with resumption only as a last resort; if Merge were simpler than Move (as famously suggested by Chomsky 1995; for critical discussion, see Castillo et al. 1999, Richards 1999, Shima 2000), we might expect chains of resumptive elements to be quite widespread in natural languages. Expletive constructions, then, are only one piece of evidence that economy constraints on derivations actually favor movement (work fewer resources harder) over merger (spend, spend, spend!).

In this connection, of course, something must be said about those cases that originally motivated the Merge over Move constraint. The empirical fact is a curious one: when a raising verb embeds a TP, high *there*-insertion is disallowed even if the associate raises within the lower clause. Movement of the associate fails to feed local agreement with *there*. Accordingly, (43) is barred.

(43) *There is likely a train to arrive in the station.

Given that *there* is local to its associate in this nevertheless ill-formed example, I suggest that the problem in such cases does not concern the *there*-associate link, but the position to which the associate has moved (as also claimed by Bošković 2002, Boeckx and Grohmann 2007). What is it about the non-finite Spec,TP position in a clause like (43) that could prohibit the associate from moving there? Perhaps it is that this position is not one in which nominals can be semantically interpreted. This helps us understand the paradigm of verbs Postal (1974, 1993) calls the “derived object control” (DOC) class:

(44)a. Stolen documents were alleged to be in the drawer. ✓PASSIVE OF ECM

³⁷ A similar view is advanced by Richards and Biberauer (2005) and Richards (2007), which came to my attention just prior to publication. Richards and Biberauer justify a phase-theoretic approach on largely theory-internal grounds and do not use it to constrain agreement relations.

- | | |
|---|-------------------|
| b. *John alleged stolen documents to be in the drawer. | *ACTIVE ECM OF NP |
| c. John alleged there to be stolen documents in the drawer. | ✓ECM OF EXPLETIVE |

Based on this DOC paradigm, Moulton (2007) observes that the Spec,TP position of non-control infinitives is a “lethal A-position”, semantically speaking. Terms can only move to such a position if they are prepared to be interpreted elsewhere.

Given the independent evidence that the lower Spec,TP position in (43) is semantically lethal, the problem in (43) is spurious movement. The associate DP has moved, but its movement is semantically nullified by the lethal A-position, which will mandate reconstruction. That there is something wrong with A-movement that stands no chance of making a difference semantically is also seen in (44b); it seems that if *stolen documents* is going to be strong-armed into reconstructing in its post-copular position, it cannot raise to Spec,TP at all. The only way it can get its syntactic features to that position, if semantic interpretation is impossible there, is by sending an expletive proxy in its place, (44c). This is plausibly what happens in *there*-constructions with raising verbs as well. If anything at all is to pass through the lower Spec,TP in *There is likely to arrive a train in the station*, it will have to be *there*, which piggybacks on its associate semantically. Alternatively, given that Spec,TP is *ex hypothesi* not a phase edge, it may be that nothing need pass through this position at all, as suggested by Bošković (2002) and Boeckx and Grohmann (2007).

7 Does *there* bear Case?

At the outset of the previous section, we saw that the too-many-*theres* problem would require abandoning either the view that *there* does not have Case or the view that there is no relationship between *there* and its associate. The second of these approaches, adopted here, has led to a number of empirical successes. Crucially, not only have we solved the too-many-*theres* problem, we have done so in a way that explains why *there* must be generated downstairs with raising verbs, even though such verbs are independently capable of introducing *there*. Although we could alternatively solve the too-many-*theres* problem by stipulating that *there* must bear Case (i.a. Lasnik 1995), the facts from raising verbs do not follow from Case alone. Therefore, considerations about the Case-marking of *there* must be argued independently from the matters of locality discussed above.

That said, it is entirely possible that the feature F in which *there* and its associate agree is a Case feature, or that the two share all features including Case and ϕ .³⁸ Assuming some version of Case-sharing allows us to account for the paradigm noted by Lumsden (1988: 44) for case-marking on *wh*-words. An associate *wh*-extracted from a matrix *there*-clause can only be nominative:

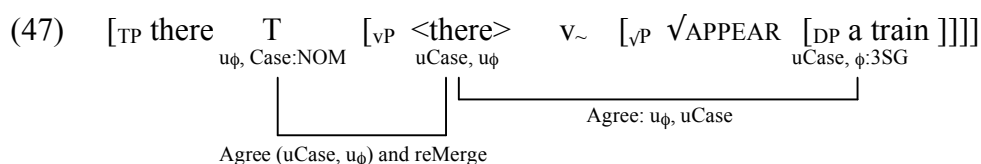
- (45) *Whom was there in the house?

³⁸ For discussion see Safir 1982, Chomsky 1986b, den Dikken 1995, Emonds 2000: §5.5.2, Hale and Keyser 2000, Hazout 2004.

This contrasts crucially with a case where accusative is expected to be transmitted to the associate, via *there*, in an ECM construction.³⁹

(46) Whom/who did Bill expect there to be in the house?

Assuming that *there* and its associate agree in Case/ ϕ also allows an important conceptual advantage: it allows us to establish a single unit of locality (viz the phase) over which all agreement relations are stated, including the relation between a Case-marker and a Case-marked item and the relationship between *there* and its associate. Let us see concretely how this might be accomplished. Supposing that both Case and ϕ are at stake, we can take *there* as entering a derivation with u(nvalued)Case and u(nvalued) ϕ features. Its u ϕ features act as a probe and Agree with the associate DP, unifying the u ϕ and uCase features of the associate with those of *there*. (In order for two elements to agree in a feature without valuing it, we will need to employ a distinction between valuation and interpretation along the lines of Pesetsky and Torrego 2004. I assume this distinction here.) Subsequently, u ϕ and Case on T⁰ probe *there*, Agree with it, and remerge it as specifier of T.⁴⁰ A monoclausal example like *There appeared a train* will be derived as follows:



Note that in this example and in any extension of it where *there* moves successive-cyclically between its base position and Spec,TP, no Agree relation will be required to cross more than one phase boundary. (In multiclausal examples we will need to motivate intermediate steps in successive movement; this is only part of the larger question of how

³⁹ Francez (2006) notes, however, that in matrix examples where case-marking is visible on a pronominal associate, it is in fact accusative, not nominative. This pattern is also attested in examples of Bolinger's.

(i) There were them and there was us. (Francez 2006; also attested online)
(ii) If there were only him, you'd be denying the essential goodness of human nature. (Bolinger 1977:116)
This accusative may be a default Case. Examples like these raise the question of whether nominative Case necessarily makes it to the associate in expletive constructions, suggesting that there may be variation in the degree to which ϕ /Case features are shared between expletive and associate; in clauses like *there was us*, neither person nor Case is transferred. Interestingly, (accusative) pronouns do not appear as associates of *there* with verbs other than the copula:

(iii) *There arrived us/them.

This may be related to the observation that verbs other than the copula do not allow singular agreement with a plural subject (Rochemont 1978:37, Schütze 1999):

(iv) So say there're/'s two problems.

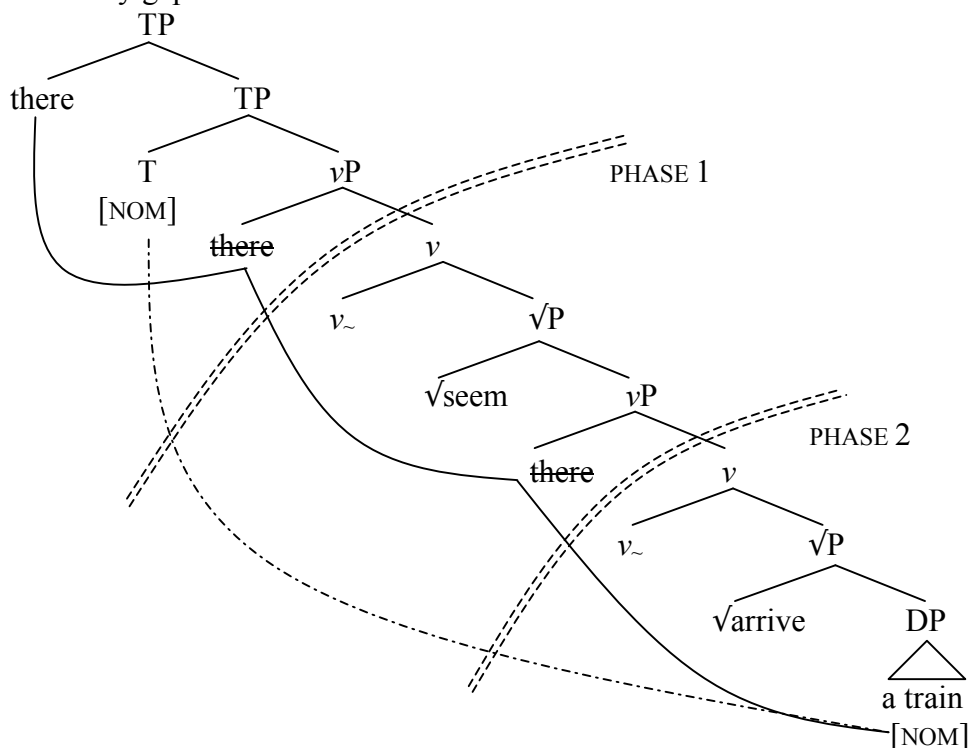
(v) So say there arise/*arises two problems.

⁴⁰ This form of "proxy" analysis of *there* for both Case and agreement finds a direct antecedent in Chomsky (1986b, §3.3.3.1): "The verb of the main clause agrees with its subject *there*, which in turn agrees with the [associate] to which it is linked". In keeping with technology available at the time, Chomsky went on to propose a movement-based "expletive replacement" analysis (Chomsky 1986b:179, 1991, 1993, 1995); see den Dikken (1995), Runner (1995: ch 8), Sabel (2000) and others for critique. See also Hoekstra and Mulder (1990: 38) for an alternative proxy analysis.

successive cyclic movement is linked to or motivated by feature checking, which I leave as an open question here.)

The approach to contrast with the analysis in (47) goes as follows (following Chomsky 1995, 2000; see Hazout 2004 for additional critique). If we were to assume that *there* does not bear Case and/or ϕ and that the associate checks its Case/ ϕ directly against finite T, then the Case/ ϕ -checking relationship between T and the associate will violate phase locality in multiclausal *there*-constructions. In (48), the relationship between T and the associate (shown by the dashed line) crosses multiple “weak” phases, even though we have seen that the *there*-associate relationship cannot cross phase boundaries in this way.

(48) A locality gap



The agreement relations shown in (48) require an apparently ad hoc distinction between those which must respect all phases, e.g. the relationship between *there* and its associate, and those which can seemingly ignore “weak” phases at will, as in the case of the T-DP relationship. Yet if, as suggested above, *there* first agrees in Case/ ϕ with its associate, and then is the target of Case assignment for its associate, the domains for Case-assignment and *there*-associate Agreement are the same. Both must be local to every vP, effectively obviating the need for a distinction between strong and weak phases, *pace* Chomsky (2001).

8 Why is there *there*?

A final concern to address in the study of *there* is the difficult question of why expletives like *there* should exist in natural languages, especially given that economy considerations

disfavor them. In this connection I want to suggest, as many have before, that the purpose of *there*-insertion is not entirely separate from the definiteness restriction that famously (sometimes) constrains it. *There*-insertion allows an indefinite argument to remain in an object position in the scope of VP-level existential closure (Diesing 1992, Groat 1995: fn 7). This advantage is lost on definite arguments, which are not subject to existential closure. However, as the definiteness restriction has been repeatedly proven less than absolutely universal (Milsark 1974, Bolinger 1977, Rando and Napoli 1978, Woisetschlaeger 1983, Lumsden 1988, Enç 1991, Ward and Birner 1995, 1996, McNally 1997), the entire explanation for *there*-insertion cannot be found here. I suggest that most generally, *there* is a means for circumventing the EPP requirement that otherwise forces English subjects to appear high and towards the beginning of the clause. This comes at the insistence of interface constraints connecting syntax to interpretation and to information structure; *there*-insertion allows indefinite subjects to remain structurally low, providing an unambiguously weak interpretation (and yielding a definiteness effect), and allows novel material to appear toward the end of the clause, in alignment with information-structural organization.

Beginning with cases that obey the definiteness effect, it has been noted by Enç (1991) and others that *there*-insertion associates are necessarily non-specific; non-specific nominals must be interpreted within VP, the domain of existential closure (Diesing 1992).⁴¹ ⁴² Movement of a non-specific nominal out of VP is only possible if the movement is semantically undone by reconstruction (interpretation of a lower copy). In this case it will be ambiguous whether the nominal is to be interpreted specifically or not. Given this, we might note that *there*-insertion seems to be the only way of producing unambiguously non-specific interpretations of subjects in English. (There are not, for instance, antonyms of *a certain N* that unambiguously reveal a semantically non-specific denotation. Even *an arbitrary N* has a specific reading; it is just not clear which specific object is being referenced.) Thus, forming a chain via merger of *there* gives an otherwise impossible unambiguous LF for a non-specific, VP internal associate.⁴³

Several classes of *there*-insertion have been identified that do not obey the definiteness restriction, however: listing or enumerative uses, and what have been called outside verbals, as in (49). These latter cases are clauses where the associate occurs to the right of VP (where VP is a cover term for various projections that may fall below *vP* in a verbal structure, including *√P* and any projections required to accommodate modifiers).

- (49) Suddenly there [_{VP} flew [_{PP} through the window]] [_{DP} that shoe on the table]
(Milsark 1974: 246)

Outside verbals require an associate that is both discourse-novel and prosodically heavy (Bolinger 1977, Ward and Birner 1996, McNally 1997). The newness condition is revealed

⁴¹ If we adopt a property-type or predicative denotation for weak or non-specific nominals (see Zimmermann 1992, van Geenhoven 1998, Dayal 2003, Chung and Ladusaw 2004), our semantics can dovetail with syntactic claims that the associate is a predicate (i.a. Williams 1994, Hazout 2004, Francez 2006).

⁴² In terms of the structures adopted here, I assume Diesing's VP may be taken to be *vP*. I retain her terminology temporarily for clarity.

⁴³ Forming a chain with two *theres* gives no such interpretive advantage, however.

by cases like (50) from Ward and Birner, where an otherwise acceptable outside verbal *there*-sentence is ruled out by a context in which the associate is not novel:

- (50) President Clinton appeared at the podium accompanied by three senators and the Vice President. #There stood behind him the Vice President.

The heaviness condition is shown in cases like the following, from Bolinger (1977: 117):

- (51) Behold! There stands before you *Christ/ the Son of God!

Outside verbals are characteristically diagnosed by (and have been named for) the presence of one or more constituents between the verb and the associate, e.g. *through the window* in (49). Here, however, I will use the term simply to refer to cases where the associate appears to the right of VP. This will be most easily visible in cases where VP-internal material intervenes between verb and associate, but is not restricted to such cases.⁴⁴

- (52) Towards the party of tourists there [XP [vP swam] [DP a man in a wetsuit carrying a harpoon]]

The outside verbals are revealing as to the etiology of *there*-insertion as they show an interesting cluster of differences from inside verbals (where the associate remains in its base position vP-internally) and copular *there*-sentences: unlike these more famous cases, outside verbals have no definiteness restriction or quantificational restriction, and in contrast to the stringent restrictions on the verbs that allow *there*-insertion as inside verbals, outside verbals allow “a bewildering variety of verbs” (Milsark 1974: 247). This includes both unergative verbs, (53), and verbs of change of state, (54):

- (53)a. Late at night, there crept into the small mountain village a silent band of soldiers. (Kuno and Takami 2004: 41)
b. Then there danced towards us a couple dressed like Napoleon and Josephine. (Kuno and Takami 2004: 35)
- (54)a. I was stationed at a window looking down upon them, when suddenly there opened on the opposite side of the quadrangle a folding door, with glass panels, that leads into a balcony.⁴⁵
b. Ronald Reagan had a neat, three-sided diagram of the future in his first election: to reduce inflation, re-establish U.S. defense and balance the budget. But the triangle would not join, and through the gap in its apex, there ballooned a budget deficit of terrifying dimensions.⁴⁶

⁴⁴ Cf. Kuno and Takami (2004: 45), from which the example is drawn. These authors analyze this and similar cases as inside verbals due to the absence of an XP between *swim* and *a man*.

⁴⁵ From ‘The Castle of Scharfenstein’, *The Novelist’s Magazine*, 1833, p. 559. Despite the intervening years the example remains grammatical for present speakers.

⁴⁶ From ‘The shaping of the presidency 1984’, *Time*, Nov. 19, 1984.

The position of the associate to the right of modifier PPs suggests that the associate is outside VP in the outside verbals. For unaccusative subjects, originating as sister to the verb root, this position may be derived either via right adjunction to VP or ν P, along the lines suggested by Guéron (1980), Lumsden (1988), Kuno and Takami (2004) and others, or by associate movement to the edge of ν P plus (remnant) movement of the VP.⁴⁷ On either analysis, the associate may be taken to have left the ν P phase and entered the next, higher phase. For unergative subjects, taken to originate on the edge of the ν P phase, similar proposals may be considered. For concreteness, I adopt here the VP-fronting analysis for both types of verbs.⁴⁸

We have seen above that *there* originates on the edge of the vP phase in inside verbals in order to agree locally with its vP-internal associate, ferrying the associate's features across a phase edge. In the outside verbals, however, the associate is already external to vP. *There*-insertion on the edge of the (lowest) vP is not needed to move the associate's features to a higher phase. Therefore, the lowest vP is not the locus of *there*-insertion in outside verbals; accordingly, those aspects of vP structure that inveigh against *there*-insertion with inchoative and agentive vPs in inside verbals are nullified in the derivation of outside verbals.

Where, then, is *there* merged in the derivation of outside verbals? It cannot be Spec,TP: this position is not on a phase edge, and moreover, cannot be filled directly by *there* even when its associate is outside the vP phase (e.g. as the subject of an unergative verb):

- (55) *_{[TP there [TP T [vP [DP that shoe] [vP Voice_v [vP flew through the window]]]]]}
 ||
 || phase

The crucial difference between this ungrammatical example and grammatical cases of outside verbal *there*-insertion with unergative verbs is that VP fronting has not occurred here. This recalls the previous case where we noted *there*-insertion with unergative verbs: the progressive, which we analyzed as accompanied by a v_{\sim} verbalizer creating a phase boundary on whose edge *there* could be generated. I suggest a similar analysis here: *there*-insertion is made possible by the generation of an intermediate phase between the associate and T. This phasal projection provides a landing site for VP fronting, and as no other element need be externally merged on its edge, *there* may originate there. VP-movement has the effect of placing the associate sentence-finally, in a position favored for novel information by interface constraints regarding information structure. In this position the associate is independent of VP prosodically, which may explain the weight restriction. What is the syntactic and semantic identity of the phase head that sets off this chain of events? I speculate that it is associated with givenness, and will call it G, perhaps suggestively. Example (49) has the structure in (56).⁴⁹

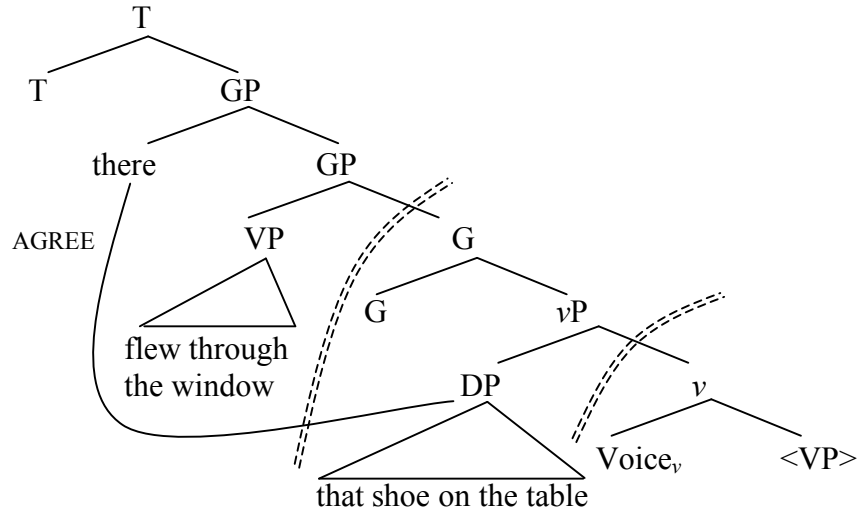
⁴⁷ This analysis is inspired by Larson's (1988) suggestion that "'heavy NP shift' is in reality a case of 'light predicate raising'" (p. 347).

⁴⁸ Facts from NPI licensing favor the VP fronting analysis. Right extraposition places the subject in a position from which it continues to c-command into VP, and so is expected to be able to license NPIs there. This prediction is falsified:

(i) *There walked into any classroom no one from my department.

⁴⁹ I have omitted for simplicity the trace of cyclic movement of VP through the specifier of the lower vP.

(56)



A similar, VP-fronting analysis may be adopted for locative inversion, which seems to make use of the same class of verbs as the outside verbals (Levin and Rappaport Hovav 1995: 220). The preposed PP is (comparatively) discourse-old (Ward and Birner 1996) and may be taken to occupy a Topic position in the left periphery. With the PP extracted, the fronted VP is no longer necessarily prosodically independent, and therefore locative inversion lacks the requirement that the associate be heavy (though it shares with *there*-insertion a requirement that the associate be (comparatively) discourse-new).

- (57) Through the window flew John.
(cf. *There flew through the window John)

Levin and Rappaport Hovav (1995: ch 6) argue that locative inversion requires a verb that is “informationally light” so as not to “detract from the newness of the information conveyed by the postverbal NP” (p. 230). This requirement seems to be shared by outside verbal *there*-insertion and may be analyzed in terms of a givenness requirement on the fronted VP, though I leave the full analysis for future research.

We may conclude from our investigation of the wider range of *there*-sentences that *there* is essentially an agreement mediator in both inside verbal and outside verbal *there*-sentences. We see that it can indeed ferry the associate’s features to a higher Spec,TP in an outside verbal, via raising:

- (58)a. There is believed to have sat next to Mary a stranger (Rochemont 1978: 55)
b. In these momentary vistas there seem to open before me bewildering avenues to all the wonders & lovelinesses I have ever sought.⁵⁰
c. There seemed to vanish from his mind any recollection that he had ever held any opinion other than the approved one.⁵¹

These examples suggest that the role of *there*-insertion in both inside and outside verbal constructions is to allow the associate’s grammatical features to migrate to a high position

⁵⁰ H.P. Lovecraft, quoted at <http://theteemingbrain.wordpress.com/category/quotations/>

⁵¹ <http://www.snyders.ws/alan/quotes/chambers.htm>

in the structure while allowing the associate itself to remain low. In terms of Case and agreement, the expletive is a proxy for its associate. Having such a proxy structure allows the associate nominal to divorce its grammatical position from its discourse status, receiving all the grammatical benefits of subject position (Case, agreement, &c) without adopting the information-structural and syntactic commitments of actually surfacing there.

9 Conclusion

This paper has been concerned with two properties of the expletive *there*. Based on evidence from apparent “selection”, I have argued that *there* must be generated low. In an inside verbal, the presence of a thematic element in Spec,vP preempts *there*; this includes both the nominal argument of a Voice head and the eventive argument of a CAUSE head. This suggests that *there* must be generated in the specifier of a verbalizer head *v* which is not occupied by some thematic element. In the inside verbals, this is the lowest Spec,vP. I have argued that this position is targeted because it is a phase edge. Higher functional structure may introduce additional phase edges which may also house *there*, enabling *there*-insertion with all sorts of verbs in the progressive and an intermediate range of verbs in the outside verbal construction. The wider range of verbs allowed in the former configuration may be due to the necessary backgrounding of the VP in the outside verbals.

The core locality fact explored here, that *there* is merged in the Spec,vP position because it must agree with its associate in a local fashion, moves us toward an understanding of the content of the expletive. *There* contains features which agree with those of its associate. The driving force behind *there*-insertion is the fact that *there* is an agreeer, not the fact that it is devoid of descriptive semantic content (as enshrined in the Extended Projection Principle of Chomsky 1981). If we can identify the features in which *there* and its associate agree as including a Case feature, we attain the desirable result that *all* agreement relations may be stated over the same domains, i.e. phases; we dispense with any need to partition phases into “strong” and “weak” categories.

The conception of *there* as a Case/agreement “ferry” has also allowed us to explore the reasons that expletives like *there* exist in natural language. We have seen that the agreement that *there* enters into allows its associate to remain low in the structure while at the same time sharing Case and agreement features with the vP-external subject position. This is advantageous either because the associate is a non-specific nominal which must undergo existential closure, or because it is novel to the discourse and optimally placed at the end of the clause. These two interface-driven considerations correspond to different syntactic solutions, the inside and outside verbal constructions, respectively. The findings overall suggest that English expletive constructions have much to offer for future research not merely on narrow syntax but also on the interfaces of the syntactic engine with semantic interpretation, information structural partitioning and what have been considered lexical aspects of the meanings of verbs.

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Department of Linguistics
University of Massachusetts Amherst
226 South College
Amherst MA 01003

amyrose@linguist.umass.edu