Phasage: A Phase-Based Account of English Existential Constructions

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1.   Introduction

English existentials have received much attention in the generative literature as they exhibit certain properties that are difficult to capture under standard theoretical assumptions. The aim of this paper is to provide, in one fell swoop, an account of two pressing issues regarding English existentials: the non-canonical subject position, and their aspectual properties.

1.1 The non-canonical subject position

Existentials are often used as evidence for the vP-internal subject hypothesis (Koopman & Sportiche 1991), which claims that subjects are merged within the vP domain. Specifically, agentive subjects are merged in Spec-vP, whilst derived subjects are merged in object position, as complement to V°.

(1)
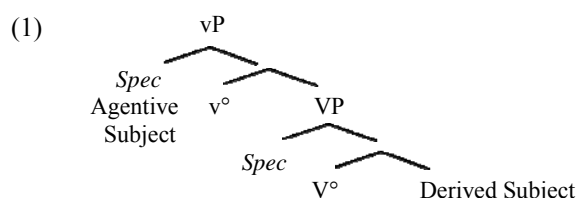
Agents are found as the subjects of unergative and transitive verbs (cf. (2)a,b) and derived subjects occur with passives and unaccusatives ((2)c,d).[1]

(2)   a.   <u>The boy</u> **was laughing**.   [Agent, unergative]

[1]   Agentive subjects also act as the subjects of ditransitive verbs, though due to limitations on space, and due to the fact that for the purposes of this story, they do not differ drastically from transitive verbs, I leave these constructions aside.

    b.   <u>The boy</u> **was writing** several letters.   [Agent, transitive]
    c.   <u>The letters</u> **were sent** in the mail.   [Derived, passive]
    d.   <u>Several letters</u> **have arrived** in the mail.   [Derived, unaccus.]

In all instances, the standard SV order is derived by the subject raising to the canonical subject position of Spec-TP to check the EPP on T°. Considering the existential counterparts to these sentences however, we see that the subjects do not surface in their canonical, sentence initial positions:

(3)   a.   There **was** <u>a boy</u> **laughing**.   [transitive]
    b.   There **was** <u>a boy</u> **writing** several letters.   [unergative]
    c.   There **were** <u>several letters</u> **sent** in the mail.   [passive]
    d.   There **have arrived** <u>several letters</u> in the mail.   [unaccusative]

Chomsky (1981), Burzio (1986), Akmajian & Wasow (1975), Emonds (1970), Milsark (1974) and Stowell (1978) have all claimed that in such sentences, the semantically vacuous expletive *there* is inserted into Spec-TP, satisfying the EPP on T°. The logical subject (i.e. 'associate' of *there*) now has no motivation to raise, and is spelt out in its base position. That is, agentive associates are spelt out in Spec-vP, crucially preceding the lexical verb, which surfaces on v° in English, but following all auxiliary verbs, which are merged above vP. This derives the correct AuxSV order for the unergative and transitive expletives in (3)a,b. Similarly, the derived associate in the unaccusative existential is spelt out in its base position as the V° complement, following the lexical verb and all auxiliaries. This derives the correct AuxVS order in (3)d. The traditional analysis runs into problems, however, when the passive existential in (3)c is considered. Here the associate is a derived subject, which is predicted to surface in its base position as a V° complement, following the lexical verb and all auxiliaries, parallel to the unaccusative. As (3)c shows however, this is not borne out as the associate in fact raises above the lexical verb. That is, passive existentials exhibit AuxSV order parallel to unergatives and transitives, as opposed to the predicted AuxVS order.[2] This intermediate position to which the derived associate seems to have risen has created a long-standing debate within the generative literature, one that I will attempt to solve.

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[2]   Note that the opposite orders do not hold:
    (i)   a. *   There **was laughing** <u>a boy</u>.
            b. *   There **was writing** <u>a boy</u> several letters.
            c. *   There **were sent** <u>several letters</u> in the mail.
            d. *   There **have** <u>several letters</u> **arrived** in the mail.

Careful consideration of existentials reveals that passive existentials are not the only environments in which the associate undergoes intermediate raising. Whilst the derived associate of perfective, non-finite or finite unaccusatives must appear in its base position, it raises to an intermediate pre-verbal position when the lexical verb bears progressive inflections:

(4)   a.   There **has** <*<u>a letter</u>> **arrived** <<u>a letter</u>> in the mail.
      b.   There **will** <*<u>a letter</u>> **arrive** <<u>a letter</u>> in the mail.
      c.   There <*<u>a letter</u>> **arrived** <<u>a letter</u>> in the mail.
      d.   There was <<u>a letter</u>> **arriving** <*<u>a letter</u>>.

Even agentive associates undergo intermediate raising, as they precede the copular auxiliary *being*.[3] If the agentive associate remained in its base, Spec-vP position, it should follow such auxiliaries, contrary to fact (cf. (5)a). Similarly, the derived associate of passive existentials must also precede passive auxiliary *be* when inflected for progressive morphology, cf. (5)b. Note, however, that the associate obligatorily follows auxiliary *be* when bearing perfective (*been*), non-finite (*be*) and finite (*were*) inflections ((6)):[4]

(5)   a.   There were <<u>several men</u>> **being** <*<u>several men</u>> rather loud.
      b.   There were <<u>some houses</u>> **being** <*<u>some houses</u>> destroyed.

(6)   a.   There <*<u>several people</u>> **were** <<u>several people</u>> laughing.
      b.   There will <*<u>many people</u>> **be** <<u>many people</u>> arrested.
      c.   There had <*<u>a man</u>> **been** <<u>a man</u>> in the garden.

Summing up, in the context of progressive or passive verbs, existentials exhibit AuxS(*being*)V order, in which the associate seems to have risen to an intermediate position outside of vP, which sits above the lexical verb and auxiliary *being*, but below all other auxiliaries. In the context of perfective, non-finite or finite lexical verbs however, existentials exhibit AuxVS order, in which the associate occupies its base position, foregoing intermediate raising. The questions which this paper will answer are: what is this intermediate projection that associates raise to, what motivates raising to this position, and why is this intermediate raising evident only in the context of progressive or passive morphology?

It turns out that this issue is closely tied to the next problem, namely the curious aspectual properties that English existentials demonstrate.

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[3]   See Harwood (to appear) for why copula *be* isn't a main verb, but an auxiliary.
[4]   I use 'auxiliary *be*' here as a cover term for progressive, passive and copular *be* as it makes little difference in terms of the ultimate surface position of *be*.

1.2 Aspectual properties

Unergative and transitive existentials can only occur with progressive aspect. Perfective, non-finite and finite forms, at the exclusion of progressive aspect, are illicit:[5]

(7)   a.   There was a boy **laughing**.   [unergative existential]
       b. * There has a boy **laughed**.
       c. * There will a boy **laugh**.
       d. * There **laughed** a boy.

(8)   a.   There was a boy **eating** an apple.   [transitive existential]
       b. * There has a boy **eaten** an apple.
       c. * There will a boy **eat** an apple.
       d. * There **ate** a boy an apple.

Unaccusatives existentials, however, can occur under all aspectual forms.

(9)   a.   There were many people **arriving**.
       b.   There have **arrived** many people.
       c.   There will **arrive** many people.
       d.   There **arrived** many people.

The second aim of this paper is to account for the relatively free aspectual properties of the unaccusative, in comparison to unergatives and transitives.[6]
    Thus, this paper aims to account for the intermediate raising of the

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5   Perfective, non-finite and finite forms are of course permitted in such existential constructions, but only alongside progressive aspect:

   (i)   a.   There could have been many boys laughing.
          b.   There could have been a boy eating an apple.

6   It should also be noted that transitive existentials may be passivised whereas unergatives and unaccusatives may not:

   (i)   a.   There were many apples eaten.
          b. *There was a boy laughed.
          c. *There were many people arrived.

   This is explained however by the requirement that, to be passivised, a sentence must contain both an internal and an external argument. This is the case with transitives, whereas unergatives and unaccusatives have only one or the other. The passivisation of existentials therefore reveals nothing new about the structure of existentials.

associate in certain environments, and the obligatoriness of progressive aspect in unergative and transitive existentials versus the much freer aspectual properties of unaccusatives. To account for these properties I argue that v° is not the exclusive head of the clause internal phase, and that instances of auxiliary *be* also head vPs which can extend the clause internal phase. Moreover, subject raising is argued to proceed via foot-driven movement, and expletive *there* is merged on the clause internal phase edge.

In the analysis that follows I treat passive existentials differently from their active transitive counterparts, partly for ease of explanation, and partly due to the significant differences in their underlying forms. Furthermore, when analyzing unergative and transitive existentials, I only provide an account for unergatives due to limitations on space, though my claims can be very easily transferred to transitives. I thus distinguish three basic categories of existentials: unergatives, passives and unaccusatives.

The next section provides the prerequisites for the analysis. Section 3 presents the analysis, dealing first with the aspectual properties, and then with the intermediate raising of the associate. Finally, section 4 concludes.

2.   Prerequisites

Before starting with an analysis of existentials, we must first consider the articulation of the TP and vP domains, the technicalities of verb raising and the notion of phases. We also explore the nature of subject raising via foot driven movement. I deal with each of these matters in turn. Though considered prerequisites, novel claims will still be made, in particular with regards to the size of the phasal domain.
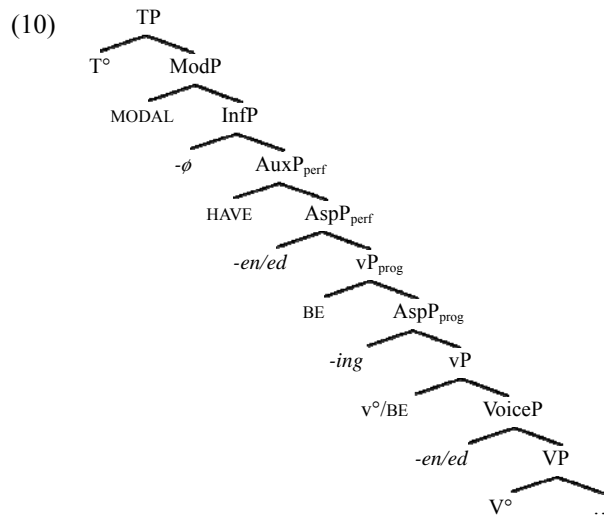
2.1 Articulation of the TP and vP layer

Beginning with the vP layer, I assume, following Legate (2003) and Bowers (2002), that both VP and vP always project (putting copular constructions aside). The lexical verb is merged on V°, with the internal argument as its complement. The external argument is merged on Spec-vP. I also assume, as per Bowers (2002), that either passive or copular *be* can be merged onto v°, and that only in their absence does the lexical verb raise to v°.

Moreover, following Bowers (2002), I assume that VoiceP is merged between vP and VP. This phrase dictates the active or passive nature of the sentence, and under passivisation hosts the passive *–en/ed* inflection that attaches onto the lexical verb. Crucially, this VoiceP always projects, except in the event of an unaccusative verb, where VoiceP is absent (Bowers 2002).

The next potential projection to be merged above vP is $AspP_{prog}$, which hosts the progressive *–ing* inflection, and above this is a further vP shell

labeled vP$_{prog}$, in the head of which the progressive auxiliary *be* is merged. Then we move into the TP layer, first demarcated by AspP$_{perf}$, hosting the perfective *–en/ed* inflection, and above this AuxP$_{perf}$ is merged, with perfective *have* generated in its head. InfP is next, hosting the *–ø* inflection associated with modals, which are merged above this position in the head of ModP. Finally, TP is merged.[7] This gives the following potential hierarchy:

(10)

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              TP
           ╱      ╲
         T°       ModP
               ╱       ╲
            MODAL      InfP
                    ╱       ╲
                  -ø      AuxP_perf
                        ╱        ╲
                     HAVE      AspP_perf
                            ╱        ╲
                        -en/ed     vP_prog
                                ╱        ╲
                              BE       AspP_prog
                                    ╱         ╲
                                  -ing        vP
                                          ╱       ╲
                                      v°/BE      VoiceP
                                              ╱        ╲
                                          -en/ed       VP
                                                    ╱      ╲
                                                  V°        …
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This order is motivated by the fact that auxiliaries rigidly occur in the order modal>perfective *have*>progressive *be*>copular/passive *be*>lexical verb:

(11)   He could have been being very loud/punished for his crimes.[8]

It should be noted that I do not assume, along the lines of the strict cartographic tradition (Cinque 1999, Rizzi 1997), that each of the projections in (10) are always present. Other than TP and vP (and VoiceP with the exception of unaccusatives), I take the above projections only to be present when their heads are overtly realized. For instance, if progressive *be* is absent from the derivation, then vP$_{prog}$ has not been merged into the underlying structure. This assumption will be crucial later on.

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[7]   There may very well be more than just these functional projections for modals and auxiliaries, but for the purposes of this paper I restrict myself to these.

[8]   Some English native speakers find sentences with four auxiliaries difficult to parse, i.e. *could have been being*, though such sentences are still considered grammatical.

Particular attention should also be paid to the labels of certain auxiliary verbs in (10). In particular, progressive *be* heads a vP shell, unlike perfective *have*. This is to reflect a claim that will be made later regarding the size of the phasal domain, namely that merger of progressive *be* extends the lower phase, whereas perfective *have* does not. Before embarking on a detour into phase theory however, we first deal with verb raising.

2.2 Verb raising

I take English auxiliaries and modal verbs to raise overtly to T° for tense inflections. I also take auxiliaries to raise for aspectual/infinitival inflections (Akmajian & Wasow 1975; Thoms 2010; Cinque 1999). For instance, if *have* or a form of *be* follows a modal, then *have* or *be* raises to Inf° to pick up the $-\phi$ inflection and surface as *be* or *have* (cf. (12)). If a form of *be* follows *have*, *be* raises to $Asp_{perf}°$ to receive the relevant *–en/ed* inflection and surface as *been* (cf. (13)). If passive or copular *be* follows progressive *be*, it raises to $Asp_{prog}°$ to receive the progressive *–ing* inflection and surface as *being* (cf. (14)). Finally, I assume that lexical verb raising in English is always overt to Voice° or v°, but covert beyond this position.

(12)   a.   I <u>could</u> **have** died.
       b.   We <u>could</u> **be** eating by now.

(13)   We <u>have</u> **been** defeated.

(14)   We <u>were</u> **being** rather loud.

Importantly, auxiliary *be* only raises as high as $Asp_{prog}°$ to surface as *being*, but raises beyond this position to appear as *be, been* or finite *be*. Recall that associates obligatorily precede *being*, but not *be, been* or tensed *be*. This implies they raise to a position between $Asp_{prog}°$ and $Asp_{perf}°$, i.e. either $Spec\text{-}vP_{prog}$ or $Spec\text{-}Asp_{prog}$. Section 3.2 details exactly which specifier the associate raises to and why, but first it is time for a brief foray into phases.

2.3 Phases

Since the inception of phases (Chomsky 2000, 2001), many aspects of the original proposal have come under intense speculation, in particular with respect to which part of the structure constitutes a phase. Originally it was proposed that only C° and v° constitute phase heads. Bowers (2010) however claims that phase should be a relative notion rather than absolute. That is, v° and C° are not necessarily the only heads which constitute a

phase head, nor are they guaranteed to always act as phase heads. Pursuing this notion further, Deal (2009) and Rocquet (2010) argue that various auxiliary projections may create phase heads under certain circumstances. Along those lines I claim that each vP shell constitutes a phase. Specifically, each subsequent $v°$ serves to extend the size of the clause internal phase. This does not mean that each vP shell is its own phase, rather, the size of the clause internal phase is extended upwards with each new merger of a vP shell. This implies that the clause internal phase is usually demarcated by $v°$, but can potentially be extended up to $v_{prog}°$, if progressive *be* is present. Recall, however, that auxiliary *have* does not head a vP shell, thus merger of *have* will not extend the clause internal phase further. Consequently, the clause internal phase can be extended as far as vP_{prog}, but no higher.

The claim that $v_{prog}°$ may act as a phase head is not unmotivated. Similar arguments are made by Aboh (2005, 2007, 2009) and Preminger & Coon (2011) based on independent grounds. Also in English there is empirical weight to this claim. Recall that auxiliary *being* only raises as far as $Asp_{prog}°$, crucially, below the extended phase head of $v_{prog}°$, whereas *be*, *been* and finite *be* all raise higher, beyond every vP shell and into the TP domain. In other words, *being* sits inside the clause internal phase, whilst all other forms of *be* sit outside of it. We thus predict behavioural differences between *being* and other forms of *be*. This prediction is borne out.

First, under VP ellipsis, *being* is obligatorily elided, unlike other forms of *be*. Under VP fronting, *being* is obligatorily fronted, while other forms of *be* are not. *Being* is the only auxiliary which remains in a reduced relative clause, and finally, it cannot be used in tag questions, unlike other forms of *be*.[9] Thus, *being* does indeed behave differently from other instances of auxiliary *be*. Although a full account of VP ellipsis, fronting, tag questions and reduced relative clauses is beyond the scope of this paper, it seems reasonable to suggest that this distinction is attributed to the claim that, whilst all other instances of *be* do raise outside of the clause internal phase, *being* does not. Stemming from my proposals on auxiliary raising, this implies that $v_{prog}°$ must act as the phase head when present in the derivation.

Further evidence for this claim stems from the constraints that certain aspectual forms exhibit. The proposal made above that the clause internal phase may extend to $v_{prog}°$ implies that progressive and passive inflections are merged inside the lower phase, whilst perfective inflections are not. This makes intuitive sense since progressive aspect and passivising properties are much more constrained by the type of the lexical verb than perfective aspect. Therefore it seems reasonable to assume that they are generated as part of

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9   For a more detailed discussion of the evidence in favour of $v_{prog}°$ acting as a phase head, see Harwood (to appear).

the same phase as the main verb whereas perfective aspect isn't. For instance, progressive inflections may appear on eventive verbs, but are illicit on statives (cf. (15)). Also, whilst transitives may passivise, unergatives and unaccusatives do not:

(15)   a.   I am speaking with the mayor.
           b. * This box is containing nuts.

(16)   a.   Many apples were eaten (by the rats).
           b. * A boy was laughed.
           c. * Many people were arrived.

Perfective aspect however, draws no distinction between the different types of verbs, and is free to occur with any lexical verb:

(17)   a.   I have spoken with the mayor.
           b.   This box has contained nuts.
           c.   The rats have eaten many apples.
           d.   A boy has laughed.
           e.   Many people have arrived.

Hence, there is ample evidence in support of the claim that each vP shell serves to extend the clause internal phase, ultimately to vP_{prog}, but no higher.
    We may now proceed with an overview of foot-driven movement.

2.4 Foot-driven movement

Movement is traditionally taken to be target-driven: a moving element never moves of its own accord. Instead it must wait for the final target of movement to be merged higher in the derivation. This target, a.k.a. probe, is merged with an uninterpretable feature to be checked, which motivates it to search its domain for an element with a corresponding interpretable feature. Once such an element is found, it raises to the specifier of the probe, where it checks the relevant uninterpretable feature through a Spec-head agreement relation. Thus, moving elements are pulled up by the target of movement.
    Since the introduction of phase theory (Chomsky 2000, 2001) however, this form of raising has run into problems in terms of look ahead. Crucially, if an item is merged in the lower phase that needs to check an uninterpretable feature in the higher phase, it must raise to the phase edge in order to escape spell-out of the lower phasal domain. This movement takes place before merger of the relevant uninterpretable feature in the higher phase. The problem is thus: what motivates this raising to the phase edge?

I follow Boskovic (2007) in claiming that rather than movement being target driven, it is foot driven. The moving element is merged with an uninterpretable feature, which causes the element to act as a probe itself, looking inside its own domain for a corresponding interpretable feature. Failing to find such a feature, the moving element raises to the next available position, and once again searches inside its domain for the relevant feature. It continues this process of raising and searching inside its domain until the correct interpretable feature is found and its own uninterpretable feature checked. This causes the moving element to begin raising as soon as it enters the structure. Therefore, it will proceed via successive cyclic movement through the phase edge if its feature remains unchecked, without having to wait for the final target of movement to be merged.

I argue subjects raise to check a [uCase] feature against an [iCase] feature on a case assigning head. This implies that we may dispense with the EPP on T° as the subject is able to raise of its own accord to Spec-TP to check its [uCase] feature with T°'s interpretable [NomCase] feature. A discussion of the intricacies of this proposal is beyond the scope of this paper (see Boskovic 2007). For now, it suffices to say that subject movement is driven by a [uCase] feature situated on the subject itself, and that this causes the subject to undergo successive cyclic raising as soon as it enters the structure, without having to wait for merger of T°.

We now have all we need to proceed with an analysis of the aspectual properties and non-canonical subject positions of existential constructions.
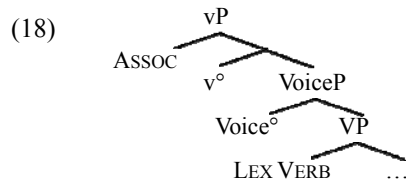
3.   Analysis

3.1 Aspectual properties

This section addresses the following issue: why do unergative (and transitive) existentials obligatory occur with progressive inflections, while unaccusative existentials exhibit much freer aspectual properties?

First, I follow Deal (2009), Bowers (2002), Richards (2007) and Richards&Biberauer (2005) who claim that expletive *there* is merged on the clause internal phase edge as opposed to on Spec-TP (Chomsky 1981; Burzio 1986; Akmajian and Wasow 1975; Emonds 1970; Milsark 1974; Stowell 1978), nor as part of a complex DP (Chomsky 1995; Frampton 1997; Boskovic 2007). This claim is partly motivated on theory internal grounds, and partly to tackle the 'too many *there*s' issue, but for reasons of space I cannot go into the arguments here. This claim, coupled with considerations of the structure of the phase, helps us to account for all the aspectual properties of existential constructions.
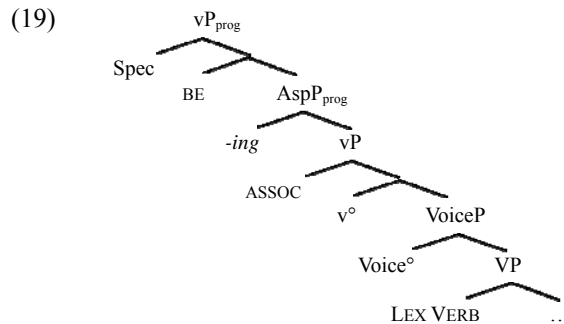
3.1.1 Unergative existentials

Consider unergatives first. Without progressive aspect, the composition of the clause internal phase of unergative existentials comes out as follows:

(18)

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              vP
            /    \
      ASSOC       \
              v°    VoiceP
                   /    \
              Voice°      VP
                        /    \
                  LEX VERB      …
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Without progressive aspect, our lower phase is headed by the original v°. In unergative existentials, the agentive associate is generated in Spec-vP, the clause internal phase edge. Recall however, that expletive *there* is also merged in this position. Deal (2009), Richards (2007) and Richards & Biberauer (2005) therefore claim that in such instances, expletive *there* is unable to be merged because the phase edge is already occupied by the agentive associate. If the unergative verb is finite, the phrase immediately above vP is TP. Since T° is not a phase head however, the specifier is unavailable for merger of expletive *there*. There is therefore no available position for the expletive so the relevant existential construction can never be formed. This correctly rules out sentences such as *There laughed a boy.

However, if progressive aspect were merged into the structure, the clause internal phase of the unergative existential would appear as such:

(19)

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              vP_prog
            /      \
       Spec         \
              BE      AspP_prog
                     /      \
                 -ing         vP
                            /    \
                       ASSOC      \
                               v°    VoiceP
                                    /    \
                                Voice°      VP
                                          /    \
                                    LEX VERB      …
```

Deal (2009) claims that in this case, the edge of the clause internal phase, Spec-vP$_{prog}$, is unoccupied, and is thus available for merger of expletive *there*, allowing the existential derivation to proceed accordingly. This correctly predicts why unergatives require progressive morphology, as in *There was a boy laughing*. However, under Deal's (2009) proposal, every

auxiliary projection constitutes a phase. This means that $Aux_{perf}°$ and Mod°, in which perfective *have* and modals are merged, could act as phase heads. In other words, their specifiers are potential phase edges and would therefore be available for expletive *there*. This incorrectly rules in sentences such as **There might a boy laugh* and **There has a boy laughed*. However, under my proposal, Mod° and $Aux_{perf}°$ are not phase heads, for the reasons outlined earlier. Therefore their specifiers are unavailable for expletive *there*, ruling out such sentences.

3.1.2   Unaccusative existentials

Let us now examine unaccusative existentials. Without progressive aspect, the clause internal phase of such derivations appears as follows:

(20)
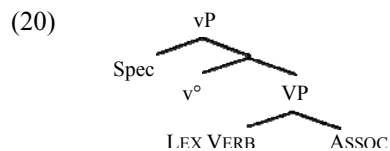
The derived associate of the unaccusative existential originates as complement of V°. According to Deal (2009), Richards (2007) and Richards & Biberauer (2005), the specifier of the v° phase head therefore remains empty, and so is available for expletive *there*, allowing the existential derivation to proceed as planned. Therefore, irrespective of what aspectual projections are merged above the vP, the expletive in unaccusative existentials will always have a position in which it can be merged, namely the specifier of the original vP. Expletive *there* in unaccusative existentials is thus not reliant upon any particular aspectual projections in order to be merged, therefore, unaccusative existentials are free to occur under any kind of tense or aspectual marking. This correctly rules in all the sentences in (9) (repeated as (21)).

(21)   a.   There were many people **arriving**.
        b.   There have **arrived** many people.
        c.   There will **arrive** many people.
        d.   There **arrived** many people.

The account for unaccusative existentials extends quite naturally to passive existentials. Recall that in such cases as well, the associate originates as complement of V°. The phase edge of Spec-vP is thus available for merger of expletive *there* and the existential derivation can proceed without having

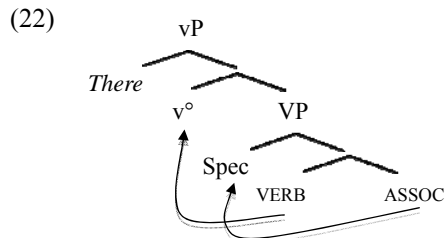to rely on any further aspectual projections providing another phase edge.

In sum, this successfully accounts for the aspectual properties of existentials in Standard English. Before we turn to the intermediate raising of the associate however, one issue should be raised. Although the expletive may be merged on the original Spec-vP in passive and unaccusative existentials, it must in fact be merged on the Spec-vP$_{prog}$ phase edge as opposed to on Spec-vP if vP$_{prog}$ is present in the derivation. That is, if progressive *be* is merged, vP$_{prog}$ will naturally enter into the derivation, extending the clause internal phase up to vP$_{prog}$, with v$_{prog}°$ acting as the phase head and Spec-vP$_{prog}$ the relevant phase edge. I claim that the original vP loses its original phasal properties in this case. Therefore Spec-vP is no longer available for expletive *there*, whereas Spec-vP$_{prog}$ is. This assumption will be crucial for deriving the correct word order in section 3.2.

3.2 Intermediate associate raising
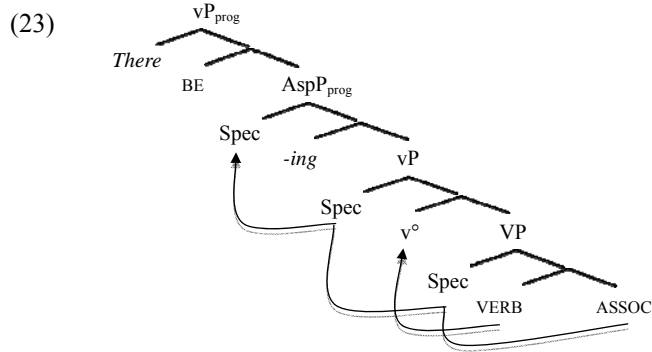
3.2.1   Unaccusative existentials

I first derive the VS order of non-progressive unaccusative existentials. In the absence of progressive aspect, the clause internal phase only stretches as far as the original vP, irrespective of what other aspectual projections are merged on top of it. This implies, as was stated in the previous section, that expletive *there* merges onto the Spec-vP phase edge. Now recall, under the earlier proposal on foot-driven movement, that the associate enters the derivation with a [uCase] feature. This feature can only be checked if an [iCase] feature sits within the search domain of the associate. Since the associate can find no such feature within its initial search domain, it must raise to the next available specifier and probe again. It continues to raise and probe until the necessary [iCase] feature is found and checks the [uCase] feature. This process causes the associate to begin raising successive-cyclically as soon as it enters the derivation, without having to wait for the final target of movement to be merged. Consequently, in the unaccusative existential, the associate will first raise out of its V° complement position and into Spec-VP to find a case assigner. There comes a twist however, as further raising is suddenly blocked by merger of expletive *there* in the next phrase, that is, the Spec-vP phase edge. In order for the associate to continue raising it would have to skip the specifier of vP which hosts *there*. This would constitute A-movement across an A-spec, a clear locality violation (Rizzi 1990), causing the derivation to crash. Instead, the associate freezes on Spec-VP. Next, the unaccusative verb, as is standardly assumed, raises to fill v°. Crucially, the verb raises over the associate in such instances, masking the associate's intermediate raising (making it appear as though the

associate still occupies its base position) and deriving the correct VS order of non-progressive unaccusative existentials.

(22)

```
                    vP
             ┌──────┴──────┐
         There
                 v°              VP
              ┌──┴──┐       ┌─────┴─────┐
              Spec      ┌───┴───┐
                    VERB      ASSOC
```
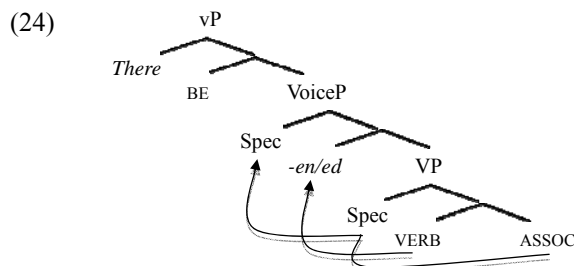
Two issues remain, however. First, foot-driven movement of the associate is ultimately in vain. The only place where the relevant Case assigner can be found is on T°: the associate should thus raise to Spec-TP to get Case, a position which it never actually reaches since it is blocked by expletive *there*. Hence, the associate's [uCase] feature cannot be satisfied. Unless it is checked via some other means, the derivation will crash. The question is how is the associate still able to have its [uCase] feature checked from its non-canonical position? The second issue is how the expletive raises from the phase edge to occupy Spec-TP. Since these issues exist for every existential, I leave them aside until the end of the analysis.

The next task is to derive the SV order of progressive unaccusatives. Recall that in such existential constructions, the size of the clause internal phase is somewhat larger, extending as far as vP_{prog}. The implication is that in this instance, expletive *there* is merged on Spec-vP_{prog}. This gives the associate a little more room to move before it is ultimately blocked by the expletive. Crucially, the associate can now to raise to Spec-$AspP_{prog}$ via foot-driven movement, above v°, the surface position of the unaccusative verb (recall that I assume lexical verb raising to be overt to v° but covert beyond this position). This derives the correct SV order of progressive unaccusative existentials, as shown in 0. Note also that in such instances, all potential auxiliary verbs would be correctly merged above the associate.

(23)

```
        vPprog
       /    \
  There      \
        /\    
      BE  AspPprog
          /     \
        Spec     \
        /\        
      -ing         vP
             /      \
           Spec      \
           /\   v°     VP
              /\      /  \
            Spec     /    \
            /\   VERB      ASSOC
```
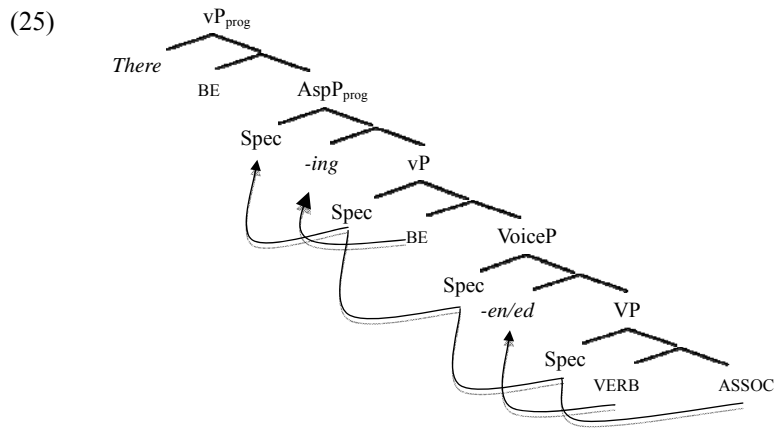
3.2.2 Passive existentials

I now turn to passive existentials, first focussing on the SV order of non-progressive passive existentials, before moving on to the more complex S*being*V order of progressive ones. The crucial difference between the clause internal phase of a passive and that of a non-progressive unaccusative, is the presence of VoiceP between vP and VP, and the realization of passive *be* on v°. This is all we need to derive the SV order of passives. Unlike non-progressive unaccusatives, the associate of a passive existential can raise beyond Spec-VP in its quest to check its [uCase] feature, namely Spec-VoiceP. There its progress is blocked by the expletive on Spec-vP. Furthermore, because v° is already occupied by passive *be*, the lexical verb cannot raise to this position, and instead proceeds overtly to Voice° to get its passive inflections, but no further. Crucially, this is below Spec-VoiceP on which the associate surfaces. This therefore derives the correct SV ordering of passive existentials. Note also that in such instances, all potential auxiliary verbs would be correctly merged above the associate.

(24)

```
          vP
        /    \
   There      \
         /\    
       BE  VoiceP
           /     \
         Spec     \
         /\        
      -en/ed        VP
              /      \
            Spec      \
            /\    VERB    ASSOC
```

Progressive passive existentials of the type S*being*V have a slightly different underlying structure, as once again the clause internal phase is extended as far as vP_prog, with expletive *there* being merged on the Spec-vP_prog phase

edge. The associate therefore moves all the way up to Spec-AspP$_{prog}$, driven by its [uCase] feature, before being blocked by the expletive. Crucially, this is above Asp$_{prog}$°, the landing site for passive auxiliary *being*, and is also above Voice°, where the lexical verb is spelt out. Importantly, the associate is also below the surface positions of all other auxiliary verbs, which are either merged above Spec-AspP$_{prog}$, or raise beyond it. This correctly derives the S*being*V order of progressive passive existentials.

(25)

vP$_{prog}$
There
BE   AspP$_{prog}$
Spec
-ing   vP
Spec
BE   VoiceP
Spec
-en/ed   VP
Spec
VERB   ASSOC

3.2.3 Unergative existentials

Finally, I derive the SV order of unergative existentials. Recall from the analysis of the aspectual properties of unergative existentials that such constructions are always merged with progressive aspect. Therefore, the clause internal phase of unergative existentials always extends as far as vP$_{prog}$, with expletive *there* merged on the Spec-vP$_{prog}$ phase edge, and the agentive associate on Spec-vP. The agentive associate, driven by its [uCase] feature, then raises to Spec-AspP$_{prog}$ before being blocked by the expletive. This is crucially above the lexical verb residing in v°, and below all potential auxiliary verbs, deriving the correct SV order.

(26)
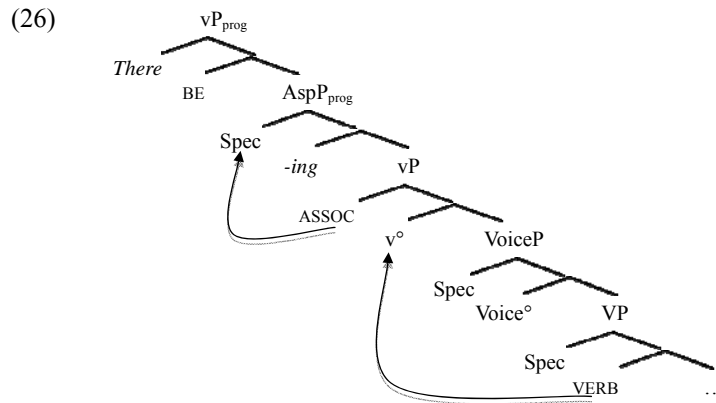
Note that we can also account for the S*being* order of copular existentials. Here as well, the associate raises to Spec-AspP$_{prog}$ before being blocked by the expletive on Spec-vP$_{prog}$. Parallel to passive *being*, copular *be* then raises to Asp$_{prog}$° to become *being*, which is crucially below the surface position of the associate. This derives the correct S*being* order.

3.2.4   Expletive raising and Case assignment

Having derived all the necessary word order patterns for English existentials, we can now return to the issues raised earlier, namely, how can the associate still check its [uCase] feature from its non-canonical position, and how is the expletive able to raise from the phase edge to occupy the canonical subject position of Spec-TP? I first deal with expletive raising.

First of all, I do not assume that movement of all DPs is driven by a [uCase] feature. Other uninterpretable features may play a role in foot-driven movement. This can differ from language to language and from item to item. For instance, Portuguese subjects appear in preverbal position if they are definite, and in postverbal position if they are indefinite:

(27) a. <u>BCE</u>   **aceita** dívida portuguesa com   ratin lixo
       <u>ECB</u>   **accepts** debt   Portuguese with   rating junk
       'The ECB accepts Portuguese debt in spite of its 'junk' rating.
    b. **Entrou** <u>um</u> <u>autocarro</u>   desgovernado
       Entered <u>a</u> <u>bus</u>   runaway
       'A runaway bus entered (the building)'

I assume that in such languages, subject raising to the preverbal position is not driven by a [uCase] feature, but rather by a definiteness ([uDef]) feature which can only be licensed in the preverbal position. This [uDef] feature would be present on definite subjects, but absent on indefinites. Case would obviously play a role at some point in the derivation, though in Portuguese the [uCase] feature may be checked lower than in English, such as in the intermediate position that the indefinite subject occupies in this language.

I propose that in English, indefinite subject raising to Spec-TP is driven by a [uCase] feature, but definite subject raising is driven by both a [uCase] feature and a [uDef] feature. The corresponding [iCase] and [iDef] features are both found on T°. Expletive *there* does not bear such a [uCase] feature (contra Boskovic 2007). I follow the standard assumption that *there* is devoid of all φ-features (Chomsky 1995), except for the aforementioned [uDef] feature. This feature causes the expletive to move of its own accord via successive cyclic raising to find the relevant [iDef] feature. The expletive thus raises to Spec-TP, at which point the [iDef] feature on T° can check the [uDef] feature. With the [uDef] feature satisfied, the expletive has no further features that require checking, and so becomes unavailable for further syntactic operations, freezing in Spec-TP. Consequently, T° fails to have its own [uφ] features satisfied via a Spec-head relation. It therefore probes inside its own search domain and agrees with the first element it encounters to bear the relevant [iφ] features: the associate. The associate checks T's [uφ] features via Agree.[10] Simultaneously, T° is able to check the associate's [uCase] feature by discharging its Nominative Case through the same Agree relation.

This proposal captures a third property of existentials, namely, the definiteness effect: the associate of an existential must always be indefinite.

(28)   a.   There is a man in the garden.
          b. * There is the man in the garden.

Under the above account, the fact that the expletive raises to Spec-TP in

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[10]   An issue arises as to how T° can see inside the lower phase. Since the associate sits in the lower phase and not on the phase edge, the associate is predicted, under the PIC (Chomsky 2000), to be unavailable for agreement with T°. A couple of solutions exist to this problem. Firstly, Boskovic (2007), Stjepanovic & Takahashi (2001), McGinnis (2004), Nevins (2004), Legate (2005) and Lee (2003) have all shown that Agree is not constrained by phase boundaries. The other alternative is to appeal to the second PIC (Chomsky 2001). I do not commit myself here to either solution, though both options remain distinct possibilities.

order to check its own definiteness feature implies that there are no means by which the definite associate's own [uDef] feature can be checked, therefore the derivation crashes. Indefinite associates however, have no such [uDef] feature which requires checking, therefore the existential derivation is free to proceed without being in danger of crashing.

4.   Conclusion

In sum, I have presented an analysis that in one fell swoop captures the intermediate raising of the associate, the curious aspectual properties, and the definiteness effect of English existentials. I claimed that the size of the clause internal phase may be extended as far as vP_{prog}; that subjects raise via foot-driven movement, either by means of a [uCase] feature or a [uDef] feature, or both; and finally, that expletive *there* must be merged on the clause internal phase edge in English. Though I have dealt here specifically with English existentials, this research will hopefully have further reaching consequences, helping to shed new light on the size of the phasal domain in general, the nature of argument raising and intermediate subject positions, and the specifics of auxiliary verb raising.

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