A Minimalist Account of Conflation Processes: Parametric Variation at the Lexicon-Syntax Interface∗

1.   Introduction

The main purpose of this paper is to show that the 'conflation processes' involved in so-called 'lexicalization patterns' (see Talmy (1985)) can receive an adequate explanation when translated into syntactic terms. Quite importantly, we argue that an analysis of these conflation processes in purely semantic terms like that put forward by Talmy (1985) can be descriptively adequate but cannot be regarded as explanatory at all, since the 'parametric variation' to be found in such processes can be shown to crucially involve morphosyntax, not pure semantics (see Snyder (1995)).

First of all, it will be necessary to review some of the main insights of Talmy's work. As is well-known, this cognitive linguist claims that languages can be classified according to how semantic components like 'figure', 'motion', 'path', 'manner', or 'cause' are conflated into the verb. For example, conflation of motion with path is argued to be typical of Romances languages like Spanish (see (1)), whereas conflation of motion with manner is typical of English (see (2)). The examples in (1) and (2) are all drawn from Talmy (1985: 69f).

(1)   a.   La botella entró   a la cueva flotando.
                  the bottle went+*into* to the cave   floating

         b.   La botella salió   de la   cueva flotando.
                  the bottle   went+*out* of the cave   floating

         c.   El globo   subió   por   la chimenea flotando.
                  the balloon went+*up* through the chimney floating

         d.   El globo   bajó   por   la chimenea flotando.

the balloon went+*down*   through   the chimney   floating

  e.   La botella se alejó de la orilla flotando.

      the bottle went+*away* from the bank   floating

(2) a.   The bottle floated into the cave.

    b.   The bottle floated out of the cave.

    c.   The balloon floated up the chimney.

    d.   The balloon floated down the chimney.

    e.   The bottle floated away from the bank.

In fact, Spanish and English can be regarded as two poles of a typological dichotomy that Talmy (1991) characterized as 'verb-framed languages' versus 'satellite-framed languages'. Given this distinction, there are languages encoding the path element into the verb: for example, consider the Spanish paths verbs *entrar* 'go in(to)', *salir* 'go out', *subir* 'go up', etc. By contrast, other languages do not incorporate the path into the verb but leave it as a satellite around the verb. According to Talmy, the latter option is typically found in the majority of Indo-European languages (Romance being excluded). When the path remains as a satellite, one option becomes available: the manner component (for example, *floating* in the examples in (2)) can be encoded into the verb.

The well-known 'elasticity' of the verb meaning in English (cf. Rappaport Hovav & Levin (1998)) can be exemplified with data involving not only conflation of motion with manner (see (2)), but also conflation of causation with manner (see the examples in (3), drawn from Levin & Rapoport (1988:279)). The fact that the directionality or path component remains as a satellite in English allows the manner component (e.g., *brushing*) to be conflated into the causative verb in (3). As expected, the lexicalization pattern corresponding to the Romance languages (i.e., the path incorporates into the verb, saturating it lexically) prevents them from having the kind of verbal elasticity in (3), the manner component being then forced to be expressed as an adjunct: e.g., cf. Sp. *ella quitó las hilas con un cepillo/cepillando* (lit.: 'she took+*out* the lint with a brush/brushing').

(3) a.   She brushed the lint off.

    b.   She brushed the tangles out.

c.   She brushed the lint off the coat.

d.   She brushed the crumbs into the bowl.

e.   She brushed melted butter over the loaves.

f.   She brushed the coat clean.

g.   She brushed her way to healthy hair.

h.   She brushed a hole in her coat.

Notice that it is precisely the conflation of the motion or causation verb with manner what accounts for those cases where the construction rather than the verb has been argued to determine the argument structure (see Jackendoff (1990) or Goldberg (1995)). As shown in Jackendoff (1990), constructions like those in (4) through (6) have syntactic and semantic restrictions of their own and, in this sense, it is indisputable that each of them deserves the status of 'constructional idioms'. Moreover, Jackendoff (1997: 554f) noted that these constructions can be considered instances of a more general abstract construction, the 'verb subordination archi-construction' in (7).

(4)   'One's *way* construction':   He moaned his way out of the room.

   a.   [$_{VP}$ V [bound pronoun]'s way PP]

   b.   'go PP (by) V-ing

(5)   'Resultative construction':   He wiped the table clean.

   a.   [$_{VP}$ V NP {AP/PP}]

   b.   cause NP to become AP/go PP by V-ing (it)'

(6)   'Time-*away* construction':   She danced the night away.

   a.   [$_{VP}$ V NP away]

   b.   'waste [$_{Time}$ NP] V-ing'

(7)   'Verb Subordination Archi-construction'

   a.   [$_{VP}$ V . . .]

   b.   'act (by) V-ing'

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Although we do not have any problem in attributing the status of 'constructional idioms' to the constructions in (4)-(6) in the sense that each of them has its own set of syntactic and semantic peculiarities, we want to show that Jackendoff's (1997) 'Verb Subordination Archi-construction' in (7), as it stands, can be regarded as an epiphenomenon, once a principled account of the parametric variation in the lexicon-syntax interface is taken into account.[1]

Quite importantly, we claim that the relevant explanation of the parametric issue concerning the existence of (3)-(6) in English, but not in Romance, cannot be formulated in purely semantic or aspectual terms, since it can be argued to have nothing to do with the positive or negative application of some *ad hoc* operations over the 'Lexical Conceptual Structure' (LCS) (Levin & Rapoport (1988)), the 'Aspectual Structure' (Tenny (1994)), or the 'Event Structure' (Pustejovsky (1991)), but with one empirical fact: i.e., the syntactic properties associated with the lexical element encoding directionality are not the same in English as in Romance (cf. Snyder (1995) and Klipple (1997) for two proposals in tune with our syntactic account).

'Semanticocentric' analyses run into problems when language variation is taken into account, since no principled explanation can be given to why some languages (e.g., Romance) appear to lack the relevant LCS operation, the aspectual operation or the event-type shift strategy involved in the conflation processes in (2) and (3). Accordingly, we will take pains to show that the solution of such a problem cannot be stated in *purely* semantic or aspectual terms.

2.   On the distribution of semantic properties. A minimalist conception

Before presenting our syntactic analysis of conflation processes, it will be useful to provide a general picture concerning where semantic properties are to be distributed in the minimalist program we are assuming. Being inspired by Chomsky (1995, 1998), we propose that the

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[1]   We do not intend to reduce the importance of semantics by adopting a syntactic approach. Our syntactic account should not be regarded as incompatible with Jackendoff's (1990) or Goldberg's (1995) works on the semantic restrictions concerning constructional idioms. We have put them aside in the present paper, because what we are mostly concerned with here is how these constructions can be dealt with from a syntactic perspective.

semantic information to be located in the model depicted in (8) can be distributed in three different places. Firstly, there are certain semantic properties that can be argued to be optimally coded into lexical entries. Secondly, there are other semantic properties that can be seen as output conditions on LF. In particular, we will be dealing with an important set of them, those that form the Projection Principle conditions (Chomsky (1998: 27)). Finally, there are semantic properties belonging to systems of thought, which are to be located beyond the interface with LF.

(8)
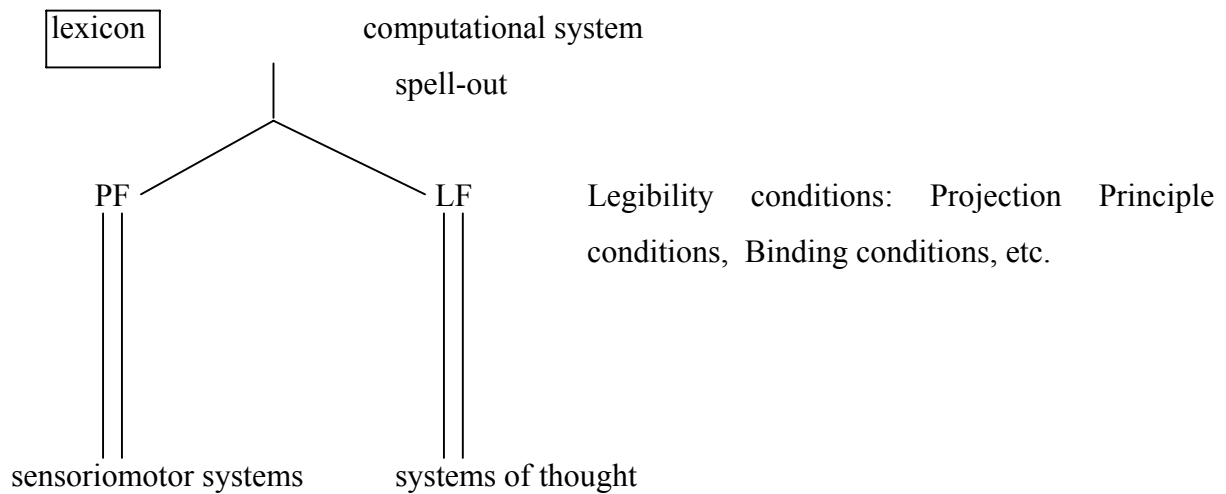
Let us begin with the semantic properties that must be optimally coded into the lexical entry. Following Chomsky, we posit that the semantic information to be located in the lexicon is the optimal information required by the 'computational system'. It is widely acknowledged that lexical entries include semantic features entailing their corresponding categorial features.[2] These lexically encoded semantic features will have to be interpreted at the interface level LF. Two classes of semantic features can be distinguished: *non-relational features* vs. *relational features*. The former entail the syntactic category Noun (N), whereas the latter entail the categories considered as syntactic predicates: Verb (V) and Particle (P).[3]

[2] Accordingly, we assume the epistemological priority of 'semantic selection' over 'categorial selection' (see Grimshaw (1979) and Chomsky (1995), among others).

[3] It is important to note that N, V, and P must be regarded as the syntactic categories derivable from their associated semantic features, not as their corresponding language specific morphosyntactic realizations (see Hale & Keyser (1997, 1998)).
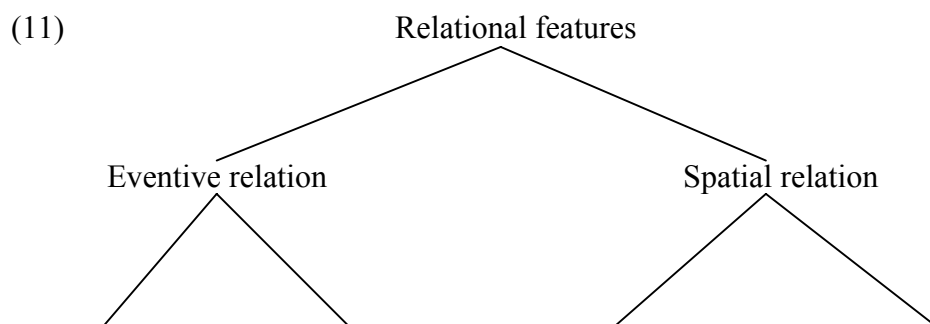
For our present purposes, P is to be regarded as a cover birelational term for Adposition, Adjective, and Adverb. So-called Adpositions are pure Particles, whereas Adjectives and Adverbs can be seen as complex Particles that incorporate a non-relational element. This proposal nicely captures the argument structure similarities of sentences like those in (9). All of them turn to share the same syntactic structure, that in (10) (where functional categories have been omitted).

(9)   a.   The cat is in the room.

         b.   The cat is happy.

         c.   The cat is here.

In is a simple Particle that selects a non-relational element as its complement (*room*), while both *happy* and *here* are complex Particles incorporating their non-relational complement.

(10)
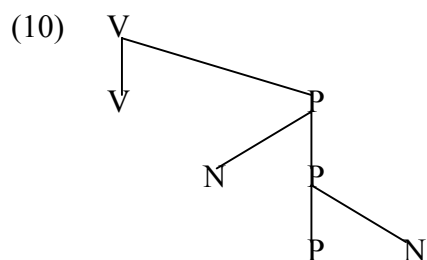
Relational features can be argued to be hierarchically organized, as shown in (11). We will be assuming that the coarse-grained organization of relational features depicted in (11) is sufficient for our present purposes, a more fine-grained analysis of them being irrelevant here.

(11)

Relational features

Eventive relation

Spatial relation

Causal relation	Transitional relation	Central coincidence	Terminal coincidence
Positive Negative	Positive Negative		Allative Elative
sing *know*	*go* *be*	*with*	*to* *from*
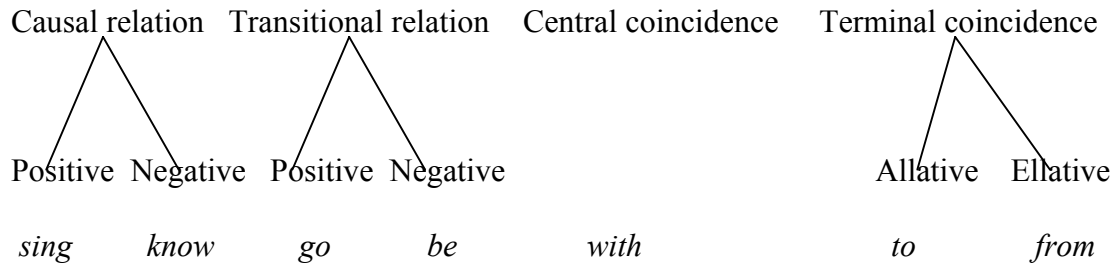
The eventive relation entails the syntactic category V, and the spatial relation entails the syntactic category P. Transitive verbs (unergatives included) are entailed by the causal relation feature, whereas unaccusative verbs are entailed by the transitional relation feature.

The relevant properties to be encoded into a lexical entry can be exemplified with those of the lexical entry corresponding to the unergative verb *dance* in (12).[4]

(12)   *dance*

    a.   ⌈ phonological matrix ⌉

    b. | V (< causal relation) |

    c.   ⌊ ᵥ [N V] ⌋

(12b) states that the categorial property V is entailed by the semantic feature, i.e., the causal relational feature. The fact that *dance* has tense and phi-features will not be indicated in the lexical entry, since that much is determined by its category V (presumably by UG), as noted by Chomsky (1995: 238). Finally, what is meant by (12c) is that a N is incorporated into the verb *dance* (see Hale & Keyser (1993, 1998)). This information is clearly idiosyncratic, and hence it must be encoded into the lexical entry. Note that this is coherent with Chomsky's (1998: 49) claim that it is possible "that an operation takes objects constructed in the lexicon to form from them a new object." As we shall see below, the information optimally encoded into lexical entries will be argued to be crucially relevant when dealing with the crosslinguistic variation involved in Talmy's conflation processes.

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[4]   According to Chomsky (1995: 238), "<the> lexical entry represents in the optimal way the instructions for the phonological component and for the interpretation of the LF representation: a phonological matrix, and some array of semantic properties. It must also contain whatever information is provided by the verb itself for the operations of C_{HL}(=

We can now concentrate on the semantic properties that must be located in the output conditions on LF, the interface linguistic level related to systems of thought. It is clear that LF has to meet certain 'legibility conditions' in order for systems of thought to access this interface level (Chomsky (1998: 7)). According to Chomsky (1998: 27f), bare output conditions on LF include Binding conditions, the Case Theory, the Chain condition, the Projection Principle, etc. The legibility conditions we are interested in at present are those concerning the Projection Principle. We will assume that the Projection Principle conditions govern the relation between the basic three syntactic objects depicted in (13) (where the *X* in (13a) is to be regarded as a variable: it is N in unergative structures, and P in transitive and unaccusative structures), and the syntax-semantics associations depicted in (14).[5] As a result, notice that there appears to be a strong 'homomorphism' between the syntax and semantics of argument structure at LF.[6]

(13)   a.   V   b.   P   c.   N
             V   X   N   P
                                              P   N
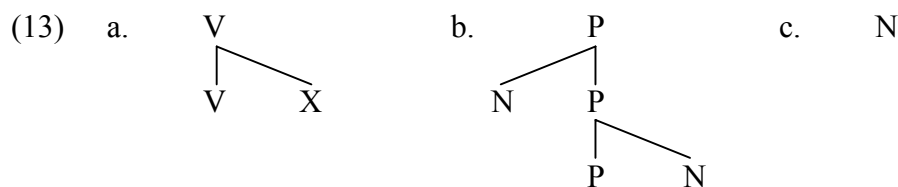
(14)   a.   V is to be associated to an *eventive relation*: if there is an external argument, it
            is interpreted as a *causal relation*; otherwise it is interpreted as a *transitional
            relation*.

       b.   P is to be associated to a *spatial relation*.

       c.   N is to be associated to a *non-relational element*.

According to (14a), the eventive relation associated to V can be instantiated as two different semantic relations: if there is an external argument in the specifier position of the relevant functional projection (e.g., *v* in Chomsky (1995) or *Voice* in Kratzer (1996)), the eventive relation will be instantiated as a causal relation, the external argument being

interpreted as *Originator* (see Borer (1994), and Mateu (1999)). If there is no external argument, the eventive relation will be instantiated as a transitional relation.[7]

Concerning the spatial relation in (14b), its specifier and complement are always interpreted as *Figure* and *Ground* respectively (these terms being adapted from Talmy (1985)):[8]

(15)   a.   Originator   ----   specifier of vP

     b.   Figure   ----   specifier of P

     c.   Ground   ----   complement of P

The output conditions on the interface linguistic level accessed by systems of thought can be regarded as instantiations of a general condition, the 'Full Interpretation Principle' (FIP). Beyond these conditions, we assume that there is a third set of general semantic instructions that will contribute to a representation of meaning more complete than that offered by grammar. This set of semantic instructions found between grammar and systems of thought can be argued to facilitate the access of the latter to the grammatical interface. What happens between LF and systems of thought is beyond our present concerns, but it is clear that there must be non-linguistic or encyclopedic information that 'enriches' the representation of meaning provided by grammar: see Chomsky (1975: 105f), Williams (1977), and Marantz (1997).

3.   A syntactic approach to 'conflation processes'

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[7]   In this sense, our proposal is similar to that developed by Harley (1995). The main difference is that, with Hale & Keyser (1993, 1998), we do not analyze the syntactic head associated to the eventive relation as a functional one. As shown in (13a), this is a lexical syntactic head.

[8]   Quite interestingly, notice that the 'linking' in (15) is fully compatible with Baker's (1997) assumption that there are only three 'proto-roles': agent/causer, theme/patient, and goal/path/location. With Baker (1997: 121), we assume that something like the strong version of the 'Uniformity of Theta Assignment Hypothesis' (UTAH) is "in the spirit of" the Minimalist Program, and that the UTAH is an important part of the theory of the interface between LF and systems of thought. This notwithstanding, we agree with Hale & Keyser's claim that the status of UTAH in linguistic theory can be argued to be derived, once a strictly configurational account of Baker's proto-roles is provided.

In this section, we provide a syntactic account of the crosslinguistic variation involved in the conflation processes in (1), (2), and (3). Firstly, we will deal with the lexicalization pattern corresponding to English (i.e., conflation of manner into the {motion/causation}verb). Secondly, we will show why this lexicalization pattern does not hold for Romance languages, where the relevant lexicalization pattern involves conflation of path into the verb.

Consider the examples in (16):

(16)   a.   Sue danced.

         b.   Sue danced into the room.

         c.   John danced Sue into the room.

It has often been noted in the literature that unergative verbs in English can be unaccusativized when a directional PP is added (see Hoekstra (1984), Levin & Rappaport Hovav (1995), and Ritter & Rosen (1998)), among others). One interesting question to be solved is why the so-called unaccusativization process involved in (16b) does not take place in some languages, e.g., in Spanish. As we shall see below, our proposal is that the solution is to be found in the different syntactic properties associated with the lexical element encoding directionality in English vs. Spanish.

In order to get the syntactic derivation involved in (16b), it is required that the lexical subarray contain the substantive categories in (17), where their lexical entries can contain the (at most) three kinds of information which we have exemplified with the unergative verb *dance* in (12). We put functional categories aside here.[9]

(17)

dance	***go***	*into*	*Sue*	*room*
phon. matrix V (<causal relation) $_V$[N V]	no phon. matrix V (<transitional relation)	phon. matrix P (<spatial relation) $_P$[P P]	phon. matrix N (<non-relational element)	phon. matrix N (<non-relational element)

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[9] Following Chomsky (1998: 13), we assume that "derivations make an one-time selection of a lexical array LA from the lexicon, then map LA to expressions, dispensing with further access to the lexicon".

We assume that the lexicon of satellite-framed languages like English has a phonologically null predicate expressing transition, besides its phonetically realized correspondent. We represent this empty unaccusative verb in bold type: **go**. By virtue of being a positive transition, this unaccusative verb subcategorizes for a PP denoting a directional spatial relation, which relates two non-relational elements: *Sue* (i.e., the Figure), and *room* (i.e., the Ground). The syntactic object in (18) is the result of merging **go** with the P headed by *into*:

(18)

```
          V
         /|
        / |
       V       P
             / |
     go   N    P
              /|\
         Sue P   N
            /|
           P P   room

           into
```
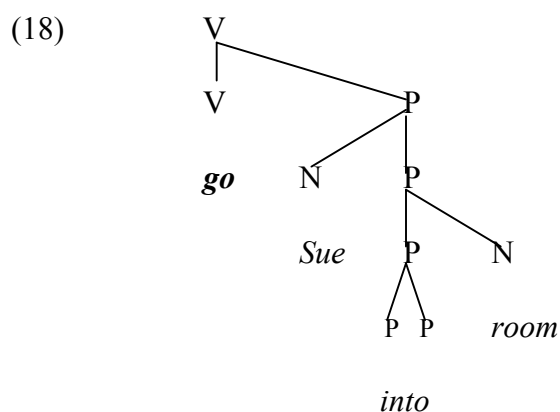
(18) would be interpretable at the interface with systems of thought, whereas some syntactic object like (19) would not. Indeed, the Projection Principle requires that the null verb **go** select a spatial relation but not a non-relational element as its complement, this being due to its transitional feature.

(19)

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       V
       |\
       | \
       V  N

      go  room
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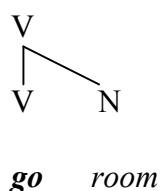
However, as it stands, the syntactic computation of (18) would not be convergent at PF, because the verb **go**, being devoid of phonological matrix, would not be interpretable or legible at the interface level with sensoriomotor systems. In order to avoid its crashing at PF,

it is required that the empty verb be conflated with another element with phonological matrix. The unergative verb *dance* represented in the numeration in (17) turns out then to be adjoined to the phonologically null unaccusative verb by means of Merge. As a result, the conflation of *dance* with **go** will be spelled out as *dance*. Its corresponding syntactic representation is given in (20).

(20)
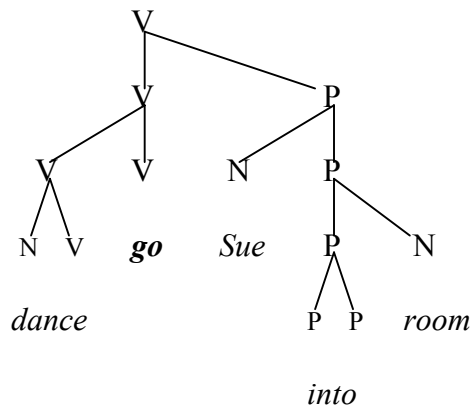
Given (20), our claim is that the generalized transformation used by Hale & Keyser (1997) in their account of sentences like (16b) is not but an instantiation of Merge. By using this operation, we provide the empty unaccusative verb with the phonological features needed for it to be legible at the interface level with sensoriomotor systems. This is in accordance with Chomsky's claim that syntactic operations can be argued to be used in order to satisfy external conditions.

Let us now analyze (16c) *John danced Sue into the room*. As noted by Ritter & Rosen (1998:140-141; 157-158), a sentence like (16c) does not alternate with (16a) or (16b), but with *John danced*. That is, (16c) is not an example of the well-known causative-inchoative alternation.[10] In Ritter & Rosen's event-based approach, a delimiting predicate (e.g., *into the*

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[10]   Therefore, examples like (16c) must be put apart from those in (i), which are commented on by Levin & Rappaport Hovav (1995) and Ritter & Rosen (1998):

(i)   a.   John ran the rats into the maze.
        b.   John jumped the horse over the fence.

Both (ia) and (ib) clearly involve the causativization of (iia) and (iib) respectively:

room) is posited to be added to the activity verb *dance* in sentences like (16c), the former predicate licensing then a delimiting argument (e.g., *Sue).* Accordingly, Ritter and Rosen point out that the fact that *John* is the subject of the verb *dance* and *Sue* an argument of the secondary predicate *into the room*, explains why the object must not necessarily be engaged in the action denoted by the verb: for example, they note that *John* must be dancing in (16c) but *Sue* could be a doll *John* is holding as he dances.
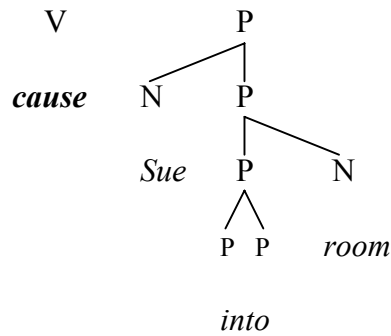
Although we agree with Ritter & Rosen's empirical considerations, we have our qualms on their event-based analysis, according to which a 'delimiter phrase' is said to be *added* to the activity verb, this secondary predicate licensing then a 'delimiting object'. Rather our syntactic analysis of the conflation process takes the configuration in (21) as the main or basic one, i.e., that formed by merging a PP headed by *into* with the lexical item in (22), which represents a phonologically null causative verb.
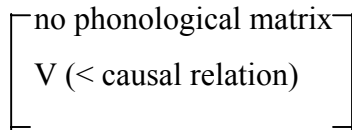
(21)   V

    (ii)   a.   The rats ran into the maze.
            b.   The horse jumped over the fence.

Our proposal is that (iia) and (iib) do not involve a conflation process like that depicted in (16b) *Sue danced into the room* (cf. (20)). Accordingly, both *run* and *jump* can be taken as basic unaccusative verbs in (ii). Crucially, in (20) the complex verbal head formed by the unergative verb *dance* and the null unaccusative verb will have to move to the head of *v* in order to license the external argument of the verb *dance* (i.e., the 'Originator'). As a result, in (20) *Sue* will be interpreted as both 'Originator' and 'Figure', the latter being due to its occupying the specifier position of the PP merged with the empty unaccusative verb ***go***. The licensing of *Sue* as the Originator of the unergative verb *dance* will be due to its occupying the specifier position of the functional projection headed by *v*. Note that it is precisely this fact what prevents a possible causativization of (20) from being carried out. By contrast, such a licensing cannot be posited to take place in the examples in (i), because *the rats* and *the horse* can easily be argued to never occupy the spec of *v*, this position being occupied by the unique external argument, i.e., *John*. Hence in (i) *the rats* and *the horse* can only be interpreted as Figures at LF.

Furthermore, our considering *run* and *jump* as basic unaccusative verbs in (ii) receives empirical support from Italian, a Romance language that apparently contradicts Talmy's (1985) typology. In this language, these two verbs (*correre* ('run') and *saltare* ('jump')) are usually classified as exceptions in the sense that in their intransitive use, both can select *avere* ('have') and *'essere'* ('be'), the latter auxiliary being chosen when a directional PP is present: see Rosen (1984), among others. By contrast, *ballare* ('dance') always selects *avere*. As expected, it is in their unaccusative use that *correre* and *saltare* select a directional PP.

```
        V              P
                      / \
  cause    N        P
           |       / \
          Sue    P     N
                / \
               P  P   room

              into
```

(22)   *cause*

┌ no phonological matrix ┐
│ V (< causal relation) │
└   ┘

In order to saturate the empty phonological matrix of the causative verb, the conflation depicted in (23) is then required, the unergative verb *dance* providing the main causative verb with a phonological basis for it to be interpreted or legible at PF.

(23)

```
              V
             / \
            V    P
           / \  / \
          V   V N   P
         / \      / \
        N  V cause Sue P   N
                     / \
       dance        P P  room

                   into
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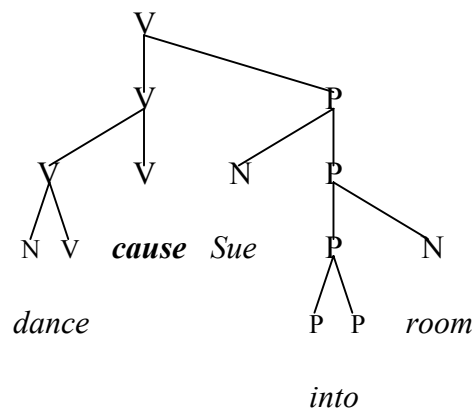
On the other hand, note that the same conflation process represented in (23) also appears to be involved in the examples in (24), where the path represented by the Particle, which is a complex one in (24a-c) (cf. (9b-c)), is not incorporated into the verb, this requiring the conflation of the empty causative predicate with an unergative verb by means of Merge.[11]

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[11] Besides the semantic/aspectual restriction that the conflated verb must denote an activity (see Jackendoff (1990), Hoekstra (1992), among others), there also appears to be a

(24) a. Sue danced the night away.

b. Tribal members ceremonially danced it open. (Wechsler (1995))

c. Sue laughed herself silly.

d. Sue sneezed the napkin off the table.

e. Sue laughed her way into the room.

f. Sue swam her swimsuit to tatters.

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syntactic reason excluding the examples in (i), which contain unaccusative verbs: the internal specifier position projected by P, which has been assumed to be subcategorized for by all unaccusative verbs (e.g., cf. (10)), i.e., that occupied by Figure, could not be licensed in (i) either.

(i) a. *Sue came the door open.
     b. *Sue arrived herself silly.

Furthermore, it is interesting to note that our analysis of resultatives is more in tune with Hoekstra's (1988, 1992) Small Clause (SC) approach, rather than with that adopted by Carrier and Randall (1992) or Levin & Rappaport Hovav (1995). The differences between these two competing approaches come to the fore when analyzing so-called 'transitive resultatives' like that in (iia):

(ii) a. John wiped the table clean (cf. John wiped the table)
      b. John wiped the crumbs off the table (cf. ≠John wiped the crumbs)

Unlike Carrier and Randall (1992) and Levin & Rappaport Hovav (1995), Hoekstra (1988, 1992) claims that in (iia) the direct internal argument of the verb *wiped* is not *the table* but the SC [*the table clean*]. Crucially, it is important to realize that our conflation analysis does not force us to state that the verb *wipe* directly subcategorizes for a SC. Rather what we are claiming is that there is an empty causative verb selecting this SC that turns out to be conflated with the verb *wipe*. Moreover, notice that in our present framework, the SC amounts to the projection of a complex particle, whose specifier is occupied by *the table*.

To be sure, in (iia) what John was wiping was *the table*, but this mere observation should not force us to consider it as the direct internal argument of *wipe*. In fact, note that what John was wiping in (iib) was *the table* as well, this not implying that it is its direct internal argument. That is, it seems fully unnatural to postulate a syntactically-coded control relation in (iib) to account for this fact, this being left to be stated at a conceptual level.

Furthermore, those tests put forward by Carrier and Randall (1992) to identify direct internal arguments (the middle formation test, the adjectival passive test, and the nominalization test), which have been argued to militate against a SC analysis of 'transitive resultatives' like (iia), have been shown to be non-criterial in German, since they can also hold for resultative constructions containing unergative verbs (see Wunderlich (1997: 118); moreover, see Goldberg (1995) or Spencer & Zaretskaya (1998: 9f) for a rebuttal of these tests). For reasons of space, we will not review these complex issues here.

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Quite interestingly, our syntactic analysis of the conflation processes involved in (20) and (23) can also be shown to receive empirical support from examples like the German ones in (25), which are nicely commented on by Seibert (1992: 62).

(25)   a.   Er schwamm aus dem Gefängnis.

               He swam out of the prison.

        b.   Er hat sich   aus dem Gefängnis geschwommen.

               He has REFL out of   the prison swum.

According to Seibert (1992: 66), "the adverbial <in (25b)> does not denote a place the subject reaches as a natural result of swimming, i.e., the person might have been swimming in a completely different place, or the person may have never left the prison while actually swimming". By contrast, the adverbial *out of the prison* in (25a) does denote a place the subject reaches as a natural result of swimming. Seibert's comments on (25) can be explained on the basis of our conflation analysis in a quite elegant way. While (25a) involves merging the verb *schwimmen* ('swim') with the null verbal element corresponding to the transition (i.e., **go**), (25b) involves merging *schwimmen* with the null verbal element corresponding to the causation (i.e., **cause**), this being in full accordance with the interpretive effects noted by Seibert. That is to say, (25a) is to be analyzed as (20), whereas (25b) is to be analyzed as (23).

So far our syntactic analysis of the lexicalization pattern typical of English, that involving conflation of manner into the verb.[12] Let us now deal with the lexicalization pattern corresponding to conflation of path into the verb, which has been said to be characteristic of

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[12] Some relevant remarks are in order here: as noted by Juffs (1996), it should be clear that the distinction between satellite-framed languages and verb-framed ones must not be drawn across the board, but rather it depends on the lexical-semantic domains analyzed. For example, English is said to be satellite-framed with regard to 'physical motion'. This notwithstanding, concerning 'abstract motion', it is both satellite-framed (cf. the adjectival resultative construction in (24b-24c)) and verb-framed (cf. the huge number of change of state verbs in English (cf. Levin (1993)).

Romance languages.[13]   As noted by Talmy, in Spanish the directional or path element is incorporated into the motion verb. For example, a Spanish verb like *entrar* ('to go in') lexically incorporates a complex path particle, which appears to have its own lexical entry in English (see (17) for the lexical entry of *into*). Since the verb-framed nature of Spanish is a fossilized property in those verbs expressing positive transition or motion (this being due to the diachronic evolution of this language), it is clear that each verbal lexical entry affected by such a fossilization will have to reflect it. For example, the lexical entry of *entrar* ('to go in') will have to contain information like that depicted in (26):

(26)   *entrar*

$$\begin{bmatrix} \text{phonological matrix} \\ \text{V} (< \text{transitional rel.}) \\ _\text{V}[\text{P V}] \end{bmatrix}$$

Given (26), we can now explain why Spanish lacks constructions like (27b):

(27)   a.   Sue bailó.

Sue danced

b.   *Sue bailó   a   la habitación.

Sue danced (in)to the room

The construction in (27b) is ungrammatical in Spanish: since the preposition corresponding to the path constituent is lexically incorporated into the transition verb in Romance, there is no phonologically null unaccusative verb corresponding to positive

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[13] This notwithstanding, it is important to keep in mind the following remarks found in Talmy (1985: 72) : "English does have a certain number of verbs that genuinely incorporate Path, as in the Spanish conflation type, for example: *enter, exit, pass, rise, descend, return, circle, cross, separate, join* (...)But these verbs are not the most characteristic of English. In fact, the majority (here all except *rise*) are not original English forms but rather borrowings from Romance, where they are the native type".

transition that turns to be available in Spanish. As a result, merging an unergative verb like *bailar* ('dance') with an empty unaccusative verb expressing transition is not a real possibility in such a language. Accordingly, Spanish speakers are forced to encode the manner component as an adjunct: see (28).

(28) a. Sue entró   *a*   la habitación (bailando).   American Spanish
          Sue went+into (in)to the room   (dancing)

      b. Sue entró   *en*   la habitación (bailando).   European Spanish
          Sue went+into in(to) the room   (dancing)

The syntactic stucture associated with (28a) is that in (29), the adjunct *bailando* ('dancing') being omitted from the syntactic argument structure:

(29)
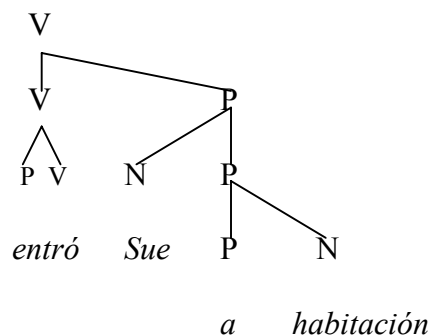
The examples in (28) could be argued to pose a potential problem for our analysis of lexical incorporation:[14] why is it the case that the lexically incorporated prepositional complement of the unaccusative verb can reappear again in syntax (cf. *a/en la habitación* 'into the room')? We think that the fossilized kind of incorporation of P into the verb *entrar*

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[14] One caveat is in order here: although the PP *a/en la habitación* ('into the room') can be omitted, it is not an adjunct: see Tortora (1998), where it is argued for the argumental status of these dispensable elements. According to Tortora (1998: 344), PPs like those in (28) do not occupy a VP-external position; rather they are part of the core eventuality of the VP, just like English resultative adjectival phrases in *the river froze solid* or *the window broke open*.

is crucial in order to understand why the prepositional complement reappears. Moreover, our claim is that P is always projected in syntax, this being a copy of the P incorporated into the verb. Otherwise, note that there would not be any internal specifier position available for the subject of the unaccusative sentence. This copy can be pronominal, as in the Catalan example (30a), or phonologically null when recovered via deixis (see 30b)).[15]

(30)   a.   Sue hi   entrà.
            Sue loc.clitic went+*into*

       b.   Sue entrà.
            Sue went+*into*

So far we have been dealing with cases where two lexicalization patterns (e.g., conflation of motion with manner and that of motion with path) do not coincide in a unique language. This is the case in English and Spanish: recall Talmy's proposal that while English usually lacks conflation of path into the verb because of its satellite-framed character, Spanish lacks conflation of manner into the verb because of its verb-framed nature.

On the other hand, it is interesting to notice that there are some languages that appear to combine both options, as shown by the Dutch data in (31), drawn from van Hout (1996), and by the Russian data in (32), drawn from Spencer & Zaretskaya (1998). However, as we shall see immediately below, the incorporation of the Particle into V must not be treated in the following data just like in the Spanish examples analyzed above.

(31)   a.   John is weg-gelopen.
            John is away-walked
            'John walked away'.

       b.   De gevangene is de gevangenis uit-gezwommen.
            the prisoner   is the prison   out-swum
            'The prisoner swam out of the prison'.

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[15] In (30b) the P lexically incorporated into V allows the phonologically null complex P to be properly interpreted, since the former ensures the recoverability of the latter.

(32) Ona vo-sla   / v-letela.

      she in-walked / in-flew

      'She walked/flew in'.

 As has often been noted in the literature, there is an unaccusativization procces involved in (31)-(32). The basic verb is unergative, but the syntactic construction where it appears turns out to be unaccusative when a directional element is present. For example, note that the auxiliary selected in the Dutch data is *zijn* ('be') (see Hoekstra (1984)).

Our analysis of (31a) below can be argued to hold for the rest of the data in (31b) and (32). As assumed above when dealing with English data like (16b) *Sue danced into the room*, we want to propose that the lexicon of both Dutch and Russian contains a phonologically null predicate denoting transition, besides its phonetically realized correspondent. Following our present convention, we represent this phonologically null unaccusative verbal element in bold type: for expository reasons, let us call it *go* once again. As noted, it is required that the empty verb be conflated with another element with phonological matrix in order for the former to be interpretable or legible at the interface level with sensoriomotor systems. To avoid its crashing at PF, the unergative verb (*ge*)*lopen* ('walk(ed)'), which has also been selected from the lexical subarray, turns to be adjoined to the phonologically null unaccusative verb by means of Merge. As a result, the conflation of (*ge*)*lopen* with *go* will be spelled out as (*ge)lopen*. Its corresponding syntactic configuration is given in (33).[16]

(33)

gelopen   weg-

                    [affix]

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[16] See footnote 3.

So far the analysis of (31a) is identical to its corresponding English version *John walked away*. However, there is an additional step in the syntactic derivation of (31) and (32), which appears to be triggered by the affixal nature of the complex Particle. Consequently, this P will have to move to the superior verbal head, adjoining to it. In this case, Move is clearly justified because of the affixal status of P.

On the other hand, it shoud be clear that in (31) and (32), the incorporation of the Particle into V is not a fossilized process, as it is in Spanish. Crucially, the morphological analysis of the verbs in (31) and (32) is quite transparent: the prefix corresponding to the Particle can be easily identified. By contrast, Spanish path verbs like *entrar* ('to go in'), *bajar* ('to go down'), *subir* ('to go up'), etc., constitute morphophonological atoms (that is, what corresponds to the particle and what corresponds to the verb in such verbs cannot be distinguished synchronically any longer), that being due to the above-mentioned fossilization process.

Accordingly, it should not be surprising that the fossilized status of the incorporation of P into V prevents Spanish from merging the unergative verb with the unaccusative verb, whereas the non-fossilized character of the incorporation of P into V in (31)-(32) allows the unergative verb to be merged with the unaccusative verb.

Finally, we will conclude this paper by showing that instances of satellite-framed nature can also be found in the Romance languages, which, as noted above, have been argued to be typically verb-framed. Once again it appears to be the case that such a distinction cannot be drawn across the board, but it depends on the different lexical semantic domains involved (see Juffs (1996)). For example, it is clear that the impersonal existential constructions in (34), drawn from Torrego (1989) and Rigau (1997), involve conflation of manner into a negative transition (i.e., **be**).

(34) a. En este árbol anidan cigüeñas.   Spanish
          In this tree nest-3pl storks
          'Some storks nest in this tree'.
      b. (En aquest esbart,) hi   ballaran   adolescents.   Central Catalan

In this   group, loc.cl. will-dance-3pl   teenagers

'Some teenagers will dance here (in this group)'.

c.   N'   hi   ballaran   molts

part.cl. loc.cl. will-dance many

'Many of them will dance there'.

The unaccusativity of these constructions can be argued to be shown by the licensing of (i) a postverbal bare NP in (34a) and (34b), and (ii) the partitive clitic *en/ne* in (34c).[17] Moreover, the sentences in (34) are impersonal just like their corresponding paraphrases in (35), which are formed by the impersonal verb Sp. *haber* / Cat. *haver-hi* ('have') plus a gerund or a pseudorelative construction:

(35)   a.   En este árbol hay   cigüeñas {anidando/que anidan}

in this tree   has-loc.cl. storks   {nesting/that nest-3pl}

'There are some storks nesting in this tree'.

b.   En aquest esbart, hi hauran adolescents {ballant/que ballaran} Central Catalan

in this   group, loc.cl. will-have-3pl teenagers {dancing/that will dance}

'There will be some teenagers dancing here (in this group)'.

As noted by Rigau (1997, 1999), the locative clitic *hi* acts as an impersonalizer in the Catalan examples in (34) and (35). It is precisely this element that prevents the sentence from having a nominative subject.[18]

Moreover, the parallelism between the sentences in (34) and those with the

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[17]   Torrego (1989) and Rigau (1997) relate the construction in (34) to the so-called 'locative inversion'. Nevertheless, it must be noted that the latter construction appears to have different properties: e.g., definite postverbal DPs are allowed, in Catalan the locative clitic *hi* is not needed, and the discursive conditions governing locative inversion are not the same as those governing (34). See Levin & Rappaport Hovav (1995) for arguments against taking the locative inversion construction as an 'unaccusative diagnostic'. By contrast, the constructions in (34) are unaccusative.

[18]   Following Longa, Lorenzo & Rigau (1998), we assume that Spanish has a phonologically null locative determiner represented as *<HI>*. See this article for motivation of this assumption.

impersonal existential verb *haver-hi* ('have') is also visible in those Romance languages and dialects where this verb does not agree with its object NP in number: compare the sentences in (36) with (37a) below.

(36)   a.   En aquest esbart, hi   balla   adolescents.   Northwestern Catalan

               in this   group, loc.cl. dances teenagers

               'There are some teenagers dancing here (in this group).'

      b.   B'   at ballatu   tres pitzinnas.[19]   Sardinian (Jones (1993: 105))

               loc. cl. has danced   three girls

               'Three girls danced'.

The Sardinian sentence in (36b) shows that the auxiliary selected by the impersonal existential constructions under study is *áere* ('have'), this auxiliary also being selected by the existential verb *áere*. By contrast, the existential or locative verb *éssere* ('be') selects the auxiliary *éssere*. See the Sardinian examples in (37):[20]

(37)   a.   B'   at áppitu metas problemas.   Jones (1993: 114)

               loc.cl. has had   many problems

               'There has been many problems'.

      b.   Bi   sun / *at   istatus issos

               loc.cl. are / *has   been   they

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[19]   As noted by Jones (1993: 195), this construction is not possible when the NP is definite:

(i)   *B'   at   ballatu cussos pitzinnas.
       loc.cl.has danced these girls

[20]   As noted by Jones (1993: 113f), the clitic *bi* is obligatory in (37a), but optative in (37b). In the latter sentence the clitic could be replaced by a locative PP or adverbial phrase, this showing that the clitic *bi* is the true predicate, and not a subject clitic as in (37a). Accordingly, the subject *issos* ('they') in (37b) has nominative case.

'They were there'.

The above-mentioned properties shared by the sentences in (34) and (36), on the one hand, and those in (35) and (37a), on the other, can be explained if we assume that the lexical entry corresponding to the existential verb {Sp. *haber* / Cat. *haver-hi* / Sard. *áere*} contains the same abstract central coincidence preposition (Rigau (1997)) as that syntactically incorporated in the constructions in (34) and (36).

The lexical entry we propose for the impersonal existential verb is depicted in (38):

(38)   Sp. *haber* / Cat. *haver-hi* / Sard. *áere*

$$\begin{bmatrix} \text{phonological matrix} \\ \text{V (<transitional rel.)} \\ [_v \text{ P V}] \end{bmatrix}$$

As an idiosyncratic property of (38), an abstract central coincidence preposition (P) is incorporated into the verb expressing negative transition (see Freeze (1992), Hale & Keyser (1993), Kayne (1993), among many others). This P selects a locative determiner <Cat. *hi* / Sard. *bi*> as its specifier/subject, and an NP as a complement.[21] Following Rigau (1997), we assume that the incorporation of P into the existential verb allows this verb to assign partitive

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[21]   In impersonal deontic existential constructions like those in (i), the specifier selected by P is a dative or locative clitic determiner, that is, a 'quirky case' clitic (see Rigau (1999)).

(i)	a.	Hi	cal	tres ous.	Northwestern Catalan

(i)   a.   Hi   cal   tres ous.   Northwestern Catalan
              loc.cl. is-necessary   three eggs
              'Three eggs are necessary'.
       b.   Mos   cal   un milió de francs.
              to-us   is-necessary   a   million of francs
              'We need a million of francs'.
       c.   Bi   keret   tres ovos.   Sardininan (Jones (1993: 101)
              loc.cl   is-necessary   three eggs
              'Three eggs are necessary'.
       d.   Nos   keret   unu milione de francos.
              to-us   is-necessary   a   million of francs
              'We need a million of francs'.

case, an instance of the inherent case that P is able to assign when incorporated into the host 'light' verb.[22]

In contrast to the constructions with {Sp. *haber* / Cat. *haver-hi* / Sard. *áere*}, those in (34) and (36) involve conflation of manner into a negative transition. In the latter constructions, there is an empty verb expressing negative transition (i.e., **be**), which in turn selects a phonologically null central coincidence P. This null P incorporates into the V in the syntax in order to satisfy the Full Interpretation Principle at PF.

However, since both V and P are phonologically null, the derivation will crash unless the empty head is to be merged with the unergative verb present in the numeration: Functional categories omitted, the syntactic structure corresponding to both (34b) and (36a) is represented in (39). The PP *en aquest esbart* ('in this group') has been set aside, since it is an adjunct.

(39)
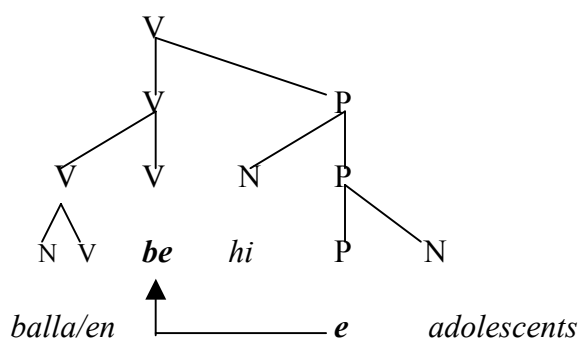
To conclude, we have shown that the same unaccusativization process involved in both (39) and (20) (*Sue danced into the room*) can be explained without appealing to

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[22]   Transitive verbs are associated with accusative case, not partitive case. Consequently, the clitic *en* in (ib) is the genitive case that an overt or covert quantifier assigns to the N (see Rigau (1997)):

(i)   a.   La Maria llegeix (molts) llibres.
                'Mary reads (many) books'.
        b.   La Maria *en* llegeix (molts).
                'Mary reads many of them'.

mechanisms or strategies specifically designed to deal with these constructions. Rather the conflation processes under study have been defined as an instance of the Merge operation that combines two different verbs present in the numeration, the phonologically null one as the main verb, and the full verb as the subordinate one.

3.   Concluding remarks

The most general conclusion to be drawn from our study is fully coherent with Chomsky's (1995: 8) claim that "the apparent richness and diversity of linguistic phenomena is illusory and epiphenomenal, the result of interaction of fixed principles under slightly varying conditions". Being sympathetic with such a perspective, we have shown that Talmy's (1985, 1991) descriptive analysis of the conflation processes involved in the "constructions" under study can be nicely explained (i) on the basis of a minimalist conception of the lexically-coded parametric differences distinguishing satellite-framed languages like English and verb-framed languages like Romance, and (ii) by appealing to Merge to avoid crashings at PF. Quite clearly, the data we have analyzed here do not appear to affect functional aspects of the lexicon. Accordingly, we must conclude that 'parametrized variation' is not to be confined to inflectional systems. This conclusion has been independently reached by Hale & Keyser (1998), Juffs (1996), and Snyder (1995), among others.

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Jaume Mateu & Gemma Rigau
Departament de Filologia Catalana
Facultat de Filosofia i Lletres. Edifici B
Universitat Autònoma de Barcelona (UAB)
E-08193 Bellaterra (Barcelona) Spain
e-mail: Jaume.Mateu@uab.es
Gemma.Rigau@uab.es