A layered-derivation approach to conflation*

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Abstract

I propose a novel syntactic analysis of conflation based on Zwart's (2009, 2011) layered-derivation theory and De Belder & van Craenenbroeck's (2011) theory of roots: in conflation constructions the verb corresponds to a whole vP which, nevertheless, acts as a head. I explore how the theory explains the cross-linguistic variation in the availability of conflation. Finally, I show that atransitivity —the fact that the verb in conflation constructions cannot link any argument— is easily accommodated within the theory.

1 Introduction

Conflation has been described as the phenomenon involved in predicates where the verb expresses a co-event or accompanying event, rather than the main event —see McIntyre 2004, Haugen 2009, Mateu 2012, among others.[1] Thus, in (1), an example

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[1] The term *conflation* was first used by Talmy (1972) to describe the fact that one and the same morph expresses any several different semantic components —see also Talmy (1985) for further considerations. Crucially, in the use advocated here and also in McIntyre (2004), Haugen (2009) or

of conflation, the verb *sing* describes the way Sue causes herself to become hoarse, which is the main event. By contrast, in (1), an example of *incorporation* (Haugen 2009), the verb describes the main event itself (a singing event):

(1) a. Sue sang herself hoarse.

b. Sue sang.

In this work I discard morphological (Snyder 2001, McIntyre 2004), root-adjunction (Mateu & Acedo-Matellán 2010) and l(exical)-syntactic (Mateu 2001, 2002) explanations of conflation and I propose a syntactic explanation which revamps Mateu's (2001, 2002) original l-syntactic, generalised-transformations approach through a novel theory of Merge (Zwart 2009, 2011) and of the nature of roots (De Belder & van Craenenbroeck 2011, De Belder 2011). In this analysis, which, unlike current syntactic analyses of conflation, conforms with Bare Phrase Structure (BPS; Chomsky 1993f.), the verb in the conflation predicate corresponds to a whole vP which acts as a head. The analysis proposed is shown to be effective in explaining the cross-linguistic variation involved in the availability of conflation, namely the satellite-/verb-framed distinction (Talmy 2000), and also in accounting for the fact that the verb in conflation constructions cannot link selected arguments (cf., with respect to (1), *Sue sang arias herself hoarse).

The chapter is structured as follows. In Section 2 I present different approaches to conflation predicates and show that they either must resort to the existence of a separate module (Morphology) or they encounter problems when viewed from a BPS

Mateu (2011), the term is restricted, roughly, to the representation of an *event* component and a *co-event* component through the same morph. See also footnote 2.

perspective. However, I note that Mateu's (2001, 2002) l-syntactic approach, if implemented through a particular theory of Merge and of roots, is adequate in accounting for conflation. In Section 3 I present the theoretical tools to accomplish this implementation and in Section 4 I show how the conflation/incorporation distinction is handled. In Section 5 I explore how the analysis fares with respect to the satellite-/verb-framed distinction. In Section 6 I provide an explanation for the unability of a verb to link its arguments in a conflation construction. I draw overall conclusions in Section 7.

2 Approaches to conflation

Levin & Rapoport (1988) called *lexical subordination* the phenomenon involved in certain constructions in which verbs can be interpreted as providing adjunct-like information to a main event (examples from Levin & Rapoport 1988: 275-283):

(2) a. Sally waltzed into Phillip's arms.
b. Denise hammered the metal flat.
c. Pauline smiled her thanks.

It is quite obvious that the verb in the above examples can be taken as a kind of adjunct, a co-event of the main event expressed by the predicate. Thus, waltzing, hammering and smiling are co-events or "eventive manners" of, respectively, ending up in Phillip's arms, causing the metal to become flat and expressing one's thanks. Of course all the above verbs have "canonical" uses where they do not encode an adjunct-like eventuality, as shown in (3):

(3) a. Sally waltzed.

b. Denise hammered (the metal).

c. Pauline smiled.

Following Haugen (2009), I will be referring to the phenomenon in (2) as *conflation* and to the one in (3) as *incorporation*.[2] There have been several types of analyses of conflation. First I will revise the morphological and syntactic approaches and afterwards I will show that Mateu's (2001, 2002) l-syntactic approach can overcome the problems of the other approaches, when revamped in minimalist terms.

2.1 The morphological approach

The morphological approach to conflation is first represented by Snyder (1995, 2001), who observes a correlation between the availability of what he considers complex predicates —encompassing constructions such as resultatives or double object constructions— and that of productive morphological compounding. The correlation would obtain both cross-linguistically and also in the course of language acquisition. The former correlation is illustrated in (4) through (7). (4), (5) and (6) (examples from Snyder 2001:337-338) show how in English, German and Hungarian, respectively, both a complex resultative construction (*a* examples) and productive root compounds (*b* examples) are possible. On the other hand, (7) shows that in Romance (Catalan), neither complex resultative constructions (*a* example) nor productive root

[2] I note that this use of the terms *conflation* and *incorporation* may introduce a certain confusion. Indeed, in Hale & Keyser's (2002) theory they have been used not as alternative and coexisting ways of deriving a verb, but as two competing hypotheses on the way the phonological shape of lexical items is obtained in l(exical)-syntax: either by head movement (incorporation) or by the inheritance of the phonological signature from a head to its sister (conflation). See also footnote 1 for more additional information on the term *conflation*.

compounding (*b* examples) is possible. The claim is, in a nutshell, that the availability of productive morphological compounding is a prerequisite for the availability of complex predicates:

(4) a. John hammered the metal flat.

b. Worm can

(5) a. Hans hämmert das Metall flach. [German]
Hans hammers the metal flat

b. Wurm-kanne [German]
worm-can

(6) a. A munkás lapos-ra kalapácsol-ta a fémet. [Hungarian]
the worker flat-TRANS hammer-PST the metal
'The worker hammered the metal flat.'

b. Giliszta vedér [Hungarian]
worm can

(7) a. *En Joan martellejà el metall pla. [Catalan]
the Joan hammered the metal flat

b. *Cuc llauna [Catalan]
worm can

McIntyre (2004) or Zubizarreta & Oh (2007) follow Snyder's (1995, 2001) lead and propose that conflation constructions such as adjectival resultative constructions (*John hammered the metal flat*) or complex manner of motion constructions (*Sally waltzed into Phillip's arms*) involve a process of morphological compounding of a lexical verb and a light verb. For instance, in McIntyre's (2004:550) example of (8)

the lexical verb *drink* compounds with the light verb INIT, of become semantics, to yield *Jana drinks the bar empty*:

(8) Jana drinks the bar empty.

[$_{InitP}$ Jana [$_{Init}$ drink+INIT] [$_{ChangeP}$ the bar [CHANGE empty]]]

Different researchers —Horrocks & Stavrou 2003, Son 2007, Den Dikken 2008, Son & Svenonius 2008, Padrosa-Trias 2010 or Acedo-Matellán 2010, among others— have pointed out an empirical problem with Snyder's approach and his followers', namely, that there exists a double dissociation between compounding and complex predicate formation. On the one hand, languages like Basque or Modern Greek allow productive root compounding and disallow complex predicates, and, on the other hand, languages like Slavic or Latin which do not productively generate root compounds, admit at least a set of complex predicates (based on prefixed verbs). On the theoretical side, the Snyder-based analyses assume the existence of an independent morphological module, which makes the model less explanatory on the whole.

2.2 The root-adjunction approach

The second type of approach to conflation I would like to revise —championed by Embick 2004, Marantz 2003f., Mateu 2008a or Acedo-Matellán 2010— is syntactic and focuses on the adjunct interpretation of verbs in conflation constructions. Thus, it proposes that conflation consists in the head-adjunction of a root to a light verb, the former encoding the encyclopaedic content related to the concomitant subevent. Thus, as shown in (9) (from Acedo-Matellán 2010:206), the verb *hammer* in an adjectival resultative construction (*Sue hammered the metal flat*) emerges as the result of

adjoining the root √HAMMER, providing the encyclopaedic content of the event, to the light verb v, which provides the event itself (in this case, a telic event of change-of-state, due to the presence of the transition head Path; this and other details are irrelevant for our purposes here):

(9) Sue hammered the metal flat.

[$_{vP}$ Sue [$_{v'}$ [$_{v}$ v √HAMMER] [$_{PathP}$ [$_{DP}$ the metal] [$_{Path'}$ Path [$_{PlaceP}$ [$_{DP}$ the metal] [$_{Place'}$ Place √FLAT]]]]]]

The root-adjunction approach eliminates the need to posit a separate, morphological module for the formation of verbs (and words, in general). However, I think that it is not free of problems. Specifically, I find two different problems in the root-adjunction analysis of conflation, one of empirical and the other one of theoretical nature. As for the former, shared by the morphological approach, it is not clear whether this analysis derives the fact that in conflation predicates an activity event is interpreted, in addition to the main event. Thus, in (2) there is waltzing, hammering and smiling in addition to going into Phillip's arms, getting the metal flat and expressing one's thanks, respectively. The root-adjunction analysis, however, does not provide any syntactic representation of the activity, unergative event.

The second problem of the root-adjunction problem is of theoretical nature, and concerns the distinction between conflation and the unergative instance of incorporation. Indeed, within the BPS model of syntax, and assuming no ontological distinction between set- and pair-Merge (Chomsky 2000), it is not possible to distinguish a structure such as the one in (10), which is a complex minimal category involving head *adjunction* of a root to v, from a structure such as the one in (11),

which is a nonminimal category resulting from the merger of a root as *complement* to v:

(10) [$_{v}$ v √ROOT]: conflation. Cf. *Pauline smiled her thanks*

(11) [$_{vP}$ v √ROOT]: unergative instance of incorporation. Cf. *Pauline smiled*

If, as said, no set-/pair-Merge difference is assumed, merging two minimal categories, such as v and the root should always yield the same result.[3] Let us suppose that that result is (10). This implies that any maximal category merged with (10) will be a complement, since any head merged (either externally or internally) with a maximal category will determine the label, the maximal category automatically becoming a complement. As a consequence, that maximal category cannot be a specifier/adjunct, so the widely accepted analysis of unergative predicates as underlying transitives (see Hale & Keyser 1993f., Chomsky 1995, Harley 2005, among many others) becomes unfeasible:

(12) [EA [v √ROOT]]

[Pauline [v √SMILE]]

[3] The set-/pair-Merge distinction was proposed to handle the difference between specifiers and adjuncts (see, also, Chomsky 2001:18-23). As Chomsky (1995:248, 335) points out, some authors (Lasnik & Saito 1992, Kayne 1994) deny the *specifier*/adjunct distinction, which would immediately remove the need for the set-/pair-Merge distinction. In this work an additional argument for this removal is offered, based, however, on the consideration whether the *complement*/adjunct distinction at the head level is real.

Even if the external argument is introduced via a head different from v, as proposed by Pylkkänen (2002) or Marantz (2005), among others (and see, also, Kratzer 1996), the problem remains unsolved, since the head introducing the external argument (Voice, for instance), merges with a (complex) head and yields a complex head yet again:

(13) [EA [Voice [v √ROOT]]]

If, on the contrary, we assume that merging v and a root yields (11), any maximal category merged thereafter will be interpreted as a specifier or an adjunct —if no difference between both is needed; see foonote 3. Hence, there is no way that this maximal category merged to the structure in (11) be a complement. This precludes analyses in which a complex v does take a complement, such as Mateu's (2012) analysis of complex creation predicates like *John smiled his thanks*, shown in (14), or Marantz's (2005:13) analysis of high applicative constructions like *To bake John a cake*, shown in (15):

(14) John smiled his thanks.

[vP [v √SMILE v] [DP his thanks]]

(15) To bake John a cake.

[vP [v v √BAKE] [ApplP John [Appl [DP a cake]]]

Within a BPS framework it is difficult therefore to implement the distinction between conflation and the unergative instance of incorporation.

2.3 Mateu's (2001, 2002) generalised-transformations approach revisited

Mateu (2001, 2002) proposes an l-syntactic analysis of conflation based on the existence of generalised transformations in the l-syntax. In later works (cf., for instance, Mateu 2008a) he abandons this analysis for an l-syntactic, root-adjunction analysis (cf. Subsection 2.2). He assumes that argument structure configurations are l-syntactic structures (Hale & Keyser 1993f.), and that an independently generated unergative structure can get adjoined to the eventive head of a causative or an unaccusative structure (as through the mechanism of generalised transformations revisited in Chomsky 1995f.). For instance, in the predicate of (16), *Cincerella scrubbed her fingers to the bone*, clearly involving conflation, an unergative structure formed by an eventive causative V head, namely V_2, and a non-relational element, the root √SCRUB, gets adjoined to the eventive causative V_1 head of the main structure, which takes as its complement a prepositional structure *her fingers to the bone* (example from Mateu 2002:176, adapted):

(16) (Cinderella) scrubbed her fingers to the bone.

[$_{V1}$ [$_{V1}$ [$_{V2}$ V_2 √SCRUB] V_1] [$_P$ [*her fingers*] [$_P$ P (=*to*) [*the bone*]]]]

Crucially, this analysis solves the co-event problem mentioned earlier, since that co-event is syntactically represented through the independently generated unergative structure (cf. [$_{V2}$ V_2 √SCRUB] in (16)). The theoretical labelling dilemma is also solved, since the option of adjoining a root to an eventive head is not contemplated: the root (*non-relational element*, in Mateu's [2001, 2002] terms) is the complement in an unergative structure. However, Mateu (2001, 2002) is not particularly concerned with implementing this generalised-transformations analysis in a BPS framework, and

phrasal levels are simply not represented in his configurations, which, as remarked, are l-syntactic. In the remainder of this paper I will propose an analysis inspired in Mateu's (2001, 2002) generalised-transformations one, but conforming to a minimalist model of syntax. Crucially, I will try to capture the idea that in conflation constructions the v + root combination is simultaneously phrasal, yielding the activity co-event interpretation, and atomic, heading the whole predicate and being able to take complements. I first present the theoretical tools which I will assume in the next section and I come back to the conflation/incorporation distinction in Section 4.

3 The layered-derivations theory of Merge and the empty-set theory of roots

In this Section I will present Zwart's (2004f.) theory of Merge and De Belder & Van Craenenbroeck's (2011) and De Belder's (2011) theory of roots. It is through these theories that I intend to update Mateu's (2001, 2001) analysis of conflation.

In Zwart's (2004, 2009, 2011a, 2011b) theory Merge is a unary operation affecting just one object of the lexical numeration or *resource* and assigning it to the derivational workspace or, as Zwart puts it, *object under construction*:

(17) Merge selects a single element from a resource and includes it in the object under construction. [Zwart 2004, apud Zwart 2011a:102]

The output of one derivation can be used as an element in the numeration feeding a subsequent derivation, which is dubbed thus a *layered derivation*. For instance in (18) the DP *the man* is the output of a subderivation which is taken as a member of the numeration N for the derivation which yields *The man saw the woman* (example from Zwart 2009:171):

(18) [The man] saw [the woman]

N = {[the man], saw, [the woman]}

This view implies that the output of the subderivation is complex and simple at the same time, that is, phrasal and nuclear at the same time: it is phrasal by virtue of its being the product of a series of applications of Merge. However, with respect to the new derivation —for instance the sentence in (18)— it is, by definition, atomic, a head, since it is listed in a numeration. Being atomic, it must also necessarily be opaque: the elements it contains (*the* and *man* in the case at hand) are not visible to the current derivation. The layered structure of derivations and the fact that an element may be phrasal and atomic at the same time is the first ingredient needed to reinterpret Mateu's (2001, 2002) analysis of conflation in s-syntactic terms.

We still need a way to overcome the dilemma presented in (10) and (11): are roots in conflation constructions adjuncts or complements? Crucial in answering this question is the status of the first application of Merge to a derivation, or *Primary Merge*, in the terminology of De Belder & van Craenenbroeck (2011). De Belder & van Craenenbroeck (2011) and De Belder (2011) adopt the following idea from Fortuny (2008) and Zwart (2009), among others: Primary Merge yields a set of two elements, one of them being the first element selected from the resource and the other one being the empty set. De Belder & van Craenenbroeck (2011) and De Belder (2011) then take the empty-set theory of Primary Merge as the basis of a novel theory of roots. Roots are the result of (lately) inserting a Vocabulary Item into the empty-set position after the derivation is shipped off to the interfaces, as schematised below:

(19) a. Resource = {a, b, c, d}. Derivation = ∅

b. Resource after Primary Merge = {b, c, d}. Derivation after Primary Merge = [a, ∅]

c. Vocabulary Insertion after syntax: Vocabulary Item → ∅

In this way, De Belder & van Craenenbroeck (2011:15) derive a series of properties standardly assumed for roots. First, roots play no role in the syntactic derivation, since the root is not merged as a syntactic object, but is late-inserted post-syntactically. Second, they cannot bear grammatical features, including category, since the empty set is by definition devoid of these properties. Third, roots are defined structurally, not lexically and they seem to be freely inserted in the structure, rather than to create structure around them. Finally, and most importantly for present purposes, roots must appear as the first complement (a non-branching one, then) of every derivation. This is so because the empty set is unable to project. This last point provides a natural solution for the mentioned dilemma: roots cannot be but complements. Thus, they are naturally precluded from specifier position, adjunct position (as required in Marantz 2009, 2011) and head position (as allowed for in Harley 2005).

4 Conflation and incorporation in a layered-derivation approach

With this picture in mind we are in a position to approach conflation from a novel perspective. I propose to treat conflation constructions as layered-derivations where a vP resulting from a previous derivation is taken as an atomic element for the numeration which will feed the spinal derivation. I will illustrate the process with the derivation of the predicate *The smith hammered the metal flat*. To simplify matters, I will assume for the moment the following analysis of complex resultative sentences like this one (see Acedo-Matellán 2010 and Section 5 for a more refined analysis of FP); I am also not showing functional material above vP and corresponding

movement operations:

(20) [$_{vP}$ [$_{DP}$ *The smith*] [[$_{vP}$ v *hammer*] [$_{FP}$ [$_{DP}$ *the metal*] [F *flat*]]]]

The complex v takes as its complement a small clause FP headed by a functional head F, which, in turn hosts the object (*the metal*) as its specifier and the resultative secondary predicate (the root of the adjective *flat*) as its complement. In (21) I show how the structure of this vP is derived:

(21) a. Derivation of *The smith*

i) Resource: {D}. Derivation: ∅

ii) Resource after Primary Merge: none. Derivation: [$_{DP}$ D ∅]

iii) Insertion of VIs after syntax: [$_{DP}$ *The smith*]

b. Derivation of *hammer*

i) Resource: {v}. Derivation: ∅

ii) Resource after Primary Merge: none. Derivation: [$_{vP}$ v ∅]

iii) Insertion of VIs after syntax: [$_{vP}$ v *hammer*]

iv) Filling-in of empy matrixes: [$_{vP}$ *hammer* ~~*hammer*~~]

c. Derivation of *the metal*

i) Resource: {D}. Derivation: ∅

ii) Resource after Primary Merge: none. Derivation: [$_{DP}$ D ∅]

iii) Insertion of VIs after syntax: [$_{DP}$ *the metal*]

d. Spinal derivation: *Sue hammered the metal flat*

i) Resource: {$\boxed{[_{DP}\ \textit{The smith}]}$, $\boxed{[_{vP}\ \textit{hammer}]}$, $\boxed{[_{DP}\ \textit{the metal}]}$, F}. Derivation: ∅

ii) Resource after Primary Merge:

{[DP *The smith*], [vP *hammer*], [DP *the metal*]}. Derivation: [FP F ∅]

iii) Resource after second Merge: {[DP *The smith*], [vP *hammer*]}. Derivation: [FP [DP *the metal*] [F ∅]]

iii) Resource after third Merge: {[DP *The smith*]}. Derivation:

[vP [vP *hammer*] [FP [DP *the metal*] [F ∅]]]

iv) Resource after fourth Merge: none. Derivation:

[vP [DP *The smith*] [[vP *hammer*] [FP [DP *the metal*] [F ∅]]]]

v) Insertion of VIs after syntax:

[vP [DP *The smith*] [[vP *hammer*] [FP [DP *the metal*] [F *flat*]]]]

vi) Filling in of empty matrixes:

[vP [DP *The smith*] [[vP *hammer*] [FP [DP *the metal*] [*flat* ~~*flat*~~]]]]

In the derivation of *The smith hammered the metal flat* three subderivations are needed, namely that of the DP *The smith*, that of the DP *the metal* and that of the complex v *hammer*. These subderivations are illustrated in (21)a, (21)b and (21)c, respectively. The resources for each of these derivations contains a single element: the functional head D in the first two cases and the functional head v in the third case. After Primary Merge has applied the resources are empty and the derivations have grown to a DP, another DP and a vP, each of which features the empty set in complement position. After each derivation is finished, Vocabulary Insertion takes place, post-syntactically, and inserts the phonological matrixes of the functional material and also vocabulary items into the empty-set complement positions: *smith*, *metal* and *hammer*. In the case of the subderivation of the atomic vP a further operation takes place which fills in the empty (defective) matrix of the v head with the

phonological matrix of its complement (*hammer*), erasing this latter one afterwards (see Hale & Keyser 2002:60f. or Acedo-Matellán 2010:73-77 for discussion on this phonological operation). These three subderivations, represented in boxes, are admitted into the resource for the *spinal* derivation, shown in (21). The derivation starts off by building the small-clause FP, so Primary Merge selects the functional head F and assigns it to the derivational workspace, empty as of yet, creating an FP with an empty set as the complement. A second application of Merge assigns the atomic DP [$_{DP}$ *the metal*] to this derivational workspace. This DP becomes the specifier of the small clause, which is thus completed. The third application of Merge assigns the atomic vP [$_{vP}$ *hammer*] to the derivational workspace. This vP comes to head the derivation at this point. Finally, the DP [$_{DP}$ *The smith*] is assigned to the derivational workspace as the specifier of the vP, and the resource is exhausted.[4] At Vocabulary Insertion the vocabulary item *flat* is inserted into the empty-set position of the small clause FP. Afterwards, the repairing strategy mentioned above transmits the phonological matrix of flat into the defective matrix of F (see (21)).

[4] I comment on a labelling problem in Zwart's theory of layered derivations: there is no algorithm as to which element projects in the course of the derivation. Thus, sometimes it is the item manipulated by Merge and assigned to the derivational workspace (the verb, for instance), and sometimes it is the head of the derivation under construction (the verb, again, when a DP is assigned to the derivation and becomes the specifier). This problem impinges directly on the analysis of conflation constructions developed here. Specifically, the situation is to be avoided where the atomic vP, when merged onto the structure is interpreted as a specifier, hence not projecting. Jordi Fortuny (p. c.) suggests a way to preclude specifiers from projecting: if a specifier projects the verb cannot check its D feature with the object, since it is disabled as probe. The derivation would crash due to the fact that an interpretable D feature in v arrives at LF. Jan-Wouter Zwart (p. c.) proposes that maybe the specifier/head distinction is spurious (see also Starke 2009f.). I do not pursue this line here, but I emphasise the fact that within the present framework an atomic vP has to project while an DP subject has to be unable to project.

In this derivation the verb *hammer* is both phrasal and atomic: on the one hand, as an unergative vP, it conveys the hammering activity interpretation present in *The smith hammered the metal flat*; on the other hand, as a head it is able to take a complement (in the analysis presented, the small clause FP *the metal flat*).

Next I will show that the analysis proposed syntactically derives the difference between conflation and the unergative instance of incorporation, without resorting to the set-/pair-Merge distinction. I illustrate with the derivation of the unergative predicate *The smith hammered*, shown in (22).

(22) a. Derivation of *The smith*

i) Resource: {D}. Derivation: ∅

ii) Resource after Primary Merge: none. Derivation: [DP D ∅]

iii) Insertion of VIs after syntax: [DP *The smith*]

b. Spinal derivation: *The smith hammered*

i) Resource: {[DP *The smith*], v}. Derivation: ∅

ii) Resource after Primary Merge: {[DP *The smith*]}.

Derivation: [vP v ∅]

iii) Resource after second Merge: none.

Derivation: [vP [DP *The smith*] [v ∅]]

iv) Insertion of VIs after syntax: [vP [DP *The smith*] [v *hammer*]]

v) Filling in of empty matrixes: [vP [DP *The smith*] [*hammer* ~~*hammer*~~]]

As we see, in the case of unergative, non-conflation predicates, the vP is not formed in a separate derivational cycle. Rather, it forms the spine of the derivation. The only subderivation needed for the above predicate is that forming the DP *The smith*, which

will end up as the specifier of the vP. The spinal derivation proceeds merging first v onto the derivational workspace and creating the vP [$_{vP}$ v ∅], with the empty set as complement. The last syntactic step is merger of the DP created by the previous subderivation. Under this view, therefore, the only difference between conflation and the unergative instance of incorporation is derivational: in the former the unergative structure formed is reintroduced into the resource for the spinal derivation; in the latter, the unergative structure is itself the spinal derivation.

The incorporation strategy, that is, the use of the verb as conveying the main event, has been proposed to be involved also in denominal and deadjectival change-of-state predicates (Mateu 2012). Following a line of research from Hale & Keyser (1993) through Mateu (2002) and Acedo-Matellán (2010), I assume that these predicates involve a small-clause configuration —which, as said, I will refine in the next section— as complement to the eventive head v. In the complement position of this small clause FP is inserted the vocabulary item which surfaces as the verb. I illustrate in (23) and (24) with the deadjectival verb *clear* and the denominal verb *shelve* (examples from Acedo-Matellán 2010:55). The subderivations are, again, boxed:

(23) The strong winds cleared the sky.

a. Spinal derivation: [$_{vP}$ $\boxed{[_{DP}\ \textit{The strong winds}]}$ [v [$_{FP}$ $\boxed{[_{DP}\ \textit{the sky}]}$ [F ∅]]]]

b. Insertion of VIs after syntax:

[$_{vP}$ $\boxed{[_{DP}\ \textit{The strong winds}]}$ [v [$_{FP}$ $\boxed{[_{DP}\ \textit{the sky}]}$ [F *clear*]]]]

c. Filling in of empty matrixes:

[$_{vP}$ $\boxed{[_{DP}\ \textit{The strong winds}]}$ [*clear* [$_{FP}$ $\boxed{[_{DP}\ \textit{the sky}]}$ [~~*clear*~~ ~~*clear*~~]]]]

(24) Sue shelved the books.

a. Spinal derivation: [$_{vP}$ $\boxed{[_{DP}\ \textit{Sue}]}$ [v [$_{FP}$ $\boxed{[_{DP}\ \textit{the books}]}$ [F ∅]]]]

b. Insertion of VIs after syntax: [vP [DP *Sue*] [V [FP [DP *the books*] [F *shelve*]]]]

c. Filling in of empty matrixes:

[vP [DP *Sue*] [*shelve* [FP [DP *the books*] [~~*shelve*~~ ~~*shelve*~~]]]]

I would like to remark an important difference between this approach to the derivation of vPs and that purported by Zwart (2009) or De Belder and van Craenenbroeck (2011), namely, that I do not consider all semantically contentful verbs to be the result of a subderivation, as they do. Such theories do not distinguish the conflation from the incorporation instantiation of a given verb, and the semantic differences associated therewith, as exposed in (2) and (3). [5] This failure to implement the conflation/incorporation distinction has a major empirical consequence which I explore in Section 5.

5 The phonological opacity of subderivations and the satellite-/verb-framed distinction

In this section I show that the analysis of conflation proposed, together with some assumptions on the parameterisation of morphophonology, can derive the unequal availability of the conflation strategy cross-linguistically. Indeed, it has very often been observed that many languages completely or partially lack conflation constructions. As was pointed out in Section 2.1, Snyder (1995, 2001) observed the unavailability of complex predicates (which involve conflation) in some languages and correlated it with their lack of productive root compounding. Talmy (1991, 2000),

[5] Zwart's (2009:) use of the terms *conflation* and *conflated verb* is crucially different from that advocated here: he thereby refers to the operation which brings about the surface form of a verb from its basic structure. As pointed out, for Zwart all non-light verbs are the result of a subderivation inserted into the resource of the spinal derivation.

on the other hand, describes a major typological division based on the fact that there are languages which express the main event (Talmy's 2000:218 *Core Schema*) in the verb while there are other languages which express it in what he calls a *satellite*, "[...] the grammatical category of any constituent other than a noun phrase or prepositional phrase complement that is in a sister relation to the verb root." (Talmy 2000:101-102). The former languages are correspondingly called *v*(*erb*)*-framed languages*, and the latter, *s*(*atellite*)*-framed languages*. I illustrate with the next examples from Catalan and English (Acedo-Matellán 2010:87-88):

(25) a. La pilota va [entrar]$_{\text{Core Schema}}$ [rodolant.]$_{\text{Co-event}}$
the ball PST.3SG go_in.INF rolling

b. The ball [rolled]$_{\text{Co-event}}$ [in.]$_{\text{satellite: Core Schema}}$

Observe that the fact that the Core Schema in s-languages like English is not expressed in the verb make it possible for the verb to express a co-event (cf. *rolled*, in (25)a). V-framed languages like Catalan have to express the co-event as an adjunct (cf. the gerund *rodolant* 'rolling' in (25)b), since the verb is already expressing the Core Schema. Crucially, s-framed languages feature the conflation strategy discussed in this work: the verb may express the co-event, as in (25)a and (2) (Section 2). On the other hand, conflation seems to be impossible in v-framed languages, as shown by the ill-formed Catalan renditions of (2):

(26) a. #La Sally valsejà als braços d'en Phillip. [Non-directional reading only.]

b. #En Denise martellejà el metall pla. [Depictive reading only.]

c. *La Pauline somrigué les gràcies.

Contrasting with conflation, incorporation seems to be universally available, as evidenced by the availability of deadjectival verbs, denominal unergative verbs, denominal location verbs and denominal locatum verbs in both s-framed English and v-framed Catalan (see (27) through (30)):

(27) a. Sue whitened her teeth.

b. La Sue s'emblanquí les dents.

(28) a. The cow calved yesterday.

b. La vaca vedellà ahir.

(29) a. Sue corralled the horse.

b. La Sue encorralà el cavall.

(30) a. Sue saddled the horse.

b. La Sue ensellà el cavall.

In attempting an explanation for the lack of conflation in languages like Catalan I will follow a trend in the literature that, beginning from Talmy's (1991, 2000) work, relates the lack of conflation to the lexicalisation pattern of verbs in v-framed languages (Mateu 2002, Mateu & Rigau 2002, Real Puigdollers 2010, 2011, Acedo-Matellán 2010). In particular, I will assume that a functional head present in the syntactic structuring of events of change, Path, is specified to *fuse* with v in v-framed languages, so that they become one and the same node for Vocabulary Insertion. I now update the syntactic representations used in Section 4, in order for the proposal to be fully understood. Take the analysis in (23) for the predicate *The strong winds cleared the sky*. The small-clause FP proposed there is actually a PathP, headed by the

transition head Path, which takes a PlaceP as its complement. In turn, the Place head expresses a predicative relation between the Figure (the DP *the sky*) and the Ground (the complement of Place). Path pulls the Figure onto its specifier, where it is interpreted as a Measurer of the event (in this case, the clearing event is not over until the sky is not cleared):

(31) The strong winds cleared the sky.

[$_{vP}$ [$_{DP}$ *The strong winds*] [v [$_{PathP}$ [$_{DP}$ *the sky*] [Path [$_{PlaceP}$ [~~$_{DP}$ *the sky*~~] [Place ∅]]]]]]

At Vocabulary Insertion the root *clear* is inserted at the empty-set position and the phonological repairing operation successively brings it up through the empty Path head into the empty v head, yielding the surface form of the predicate. The analysis is the same for v-framed languages:

(32) El sol fongué la neu.
the sun melted the snow
[$_{vP}$ [$_{DP}$ *El sol*] [v [$_{PathP}$ [$_{DP}$ *la neu*] [Path [$_{PlaceP}$ [~~$_{DP}$ *la neu*~~] [Place ∅]]]]]]

As said, in v-framed languages v and Path form one and the same node before Vocabulary Insertion takes place (see (33)). It is in this node that the phonological

matrix of the complement of Place ends up (after having gone through the empty matrix of Place; see (34)):[6]

(33) [$_{vP}$ [$_{DP}$ *El sol*] [[$_{PathP}$ [$_{DP}$ *la neu*] [[$_{Path}$ Path+v] [$_{PlaceP}$ [$_{DP}$ ~~*la neu*~~] [Place ∅]]]]]]

(34) [$_{vP}$ [$_{DP}$ *El sol*] [[$_{PathP}$ [$_{DP}$ *la neu*] [[$_{Path}$ *fon*] [$_{PlaceP}$ [$_{DP}$ ~~*la neu*~~] [~~*fon*~~ ~~*fon*~~]]]]]]

Under this assumption, conflation predicates are not possible in v-framed languages. Let us see why. Take, for instance, the predicate in (26)b, which is out in the resultative reading. Its derivation would be as depicted below:

(35) [$_{vP}$ [$_{DP}$ *En Denise*] [[$_{vP}$ *martell*] [Path [$_{PlaceP}$ [$_{DP}$ *el metall*] [Place ∅]]]]]

After this derivation is fully computed, the Path and the v head should be fused into one and the same node for Vocabulary Insertion. However, v, that is, the atomic vP *hammer*, being itself the result of a subderivation, has already been PF-interpreted, and is, so to say, *opaque* to the present (spinal) derivation (see Zwart 2009:173-178). Since this property of Path (fusion with v) is not satisfied, the derivation crashes at PF. In s-framed languages, on the contrary, there is no fusion requirement on v and Path, so atomic vPs do not endanger the PF interpretation of the derivation. This is why s-framed languages allow the conflation strategy.

Observe that until now I have only considered transition events as the locus of the cross-linguistic variation discussed. In fact, as pointed out by Rigau (1997) and Mateu

[6] I am neglecting v-to-T movement in Romance. (34) is therefore not exactly the final phonological representation, since the Path+v+T sequence reads *fongué*. However, for current purposes the important idea is that v and Path form one and the same node for Vocabulary Insertion.

(2002), in Catalan there are syntactic contexts which allow activity verbs to license a stative, existential interpretation, as *canten* in the next example:[7]

(36) En aquesta coral hi canten nens.
in this choir LOC sing.3PL children
'There are children singing in this choir.'

The present analysis of the lack of conflation in v-framed languages like Catalan allows, nevertheless, for a predicate like (36) to feature conflation provided that the Path head is not present in the derivation. If that is the case, as seems reasonable to assume given the semantics of these expressions, no morphophonological requirement would be at odds with the presence of an atomic vP *canten*, yielding the conflation flavour.[8]

[7] See Centineo (1996:230-231) and Mendikoetxea (1999:1613-1616) for parallel examples in Italian and Spanish, respectively.

[8] Predicates like (2c), repeated below as (ia), are also out in v-framed languages, as shown in (26c) and repeated below as (ib) —see also Mateu 2003, Acedo-Matellán 2010:148-155:

(i) a. Pauline smiled her thanks.
b. *La Pauline somrigué les gràcies.

However, it is by no means obvious that these complex creation predicates involve transition semantics and, hence, a Path head in the present theory. Why should they be banned in v-framed languages, then? In Acedo-Matellán (2010148-155) I adapt ideas from Marantz (2005) and Dobler (2009) to propose that complex creation predicates do express a change of state, namely from nonexistence to existence. Complex creation predicates would involve the same functional material as complex change predicates but they would lack a Figure argument (a specifier for the predicative head Place); what surfaces as the object is a DP sitting at Compl-Place (Ground) position, where it is interpreted, effectively, as a result:

(ii) [$_{vP}$ [$_{DP}$ *Pauline*] [[$_{vP}$ *smile*] [PathP [$_{DP}$ *her thanks*] [Path [$_{PlaceP}$ Place [$_{DP}$ ~~*her thanks*~~]]]]]]

Finally, I point out that the present analysis is incompatible with approaches to the satellite-/verb-framed distinction where it is the operation generating conflation what is banned in some languages and not in others, as proposed by McIntyre (2004), Zubizarreta & Oh (2007) or Mateu (2012). Indeed, note that in the present account conflation is the embedding of the output of a subderivation (an atomic vP) within the spinal derivation, so it is by definition a universal phenomenon and cannot in principle be parameterised.

6 Restrictions on the structure of the atomic vP: atransitivity and complex verbs

In this section I address important restrictions on verbs in conflation constructions: their inability to appear with selected objects —*atransitivity*, to use McIntyre's (2004:523) term— and the fact that many complex verbs in English cannot appear in conflation constructions. I show how the present analysis, in combination with a fairly standard version of case theory, derives these two types of restrictions uniformly and straightforwardly.

Let us first deal with the fact that in conflation constructions the verb cannot appear with selected arguments.[9] This atransitivity is illustrated in (37) for English,

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The reason that these predicates are not possible in v-framed languages would be exactly the same for change predicates like *The smith hammered the metal flat*: the atomic vP is already phonologically interpreted when entering into the spinal derivation, so the Path head cannot form one and the same node with it, and the derivation crashes at PF. However, this analysis is not free of problems, as pointed out by Acedo-Matellán (2010:254-255). I leave a satisfactory analysis of complex creation predicates for future research.

[9] See McIntyre (2004:542-547) for a convincing rejection of the hypothesis, sustained by Carrier and Randall 1992 or Neeleman and Weerman 1993, among others, that the verb in conflation constructions

where the verbs *eat* and *scrub*, which appear with the unselected objects *himself* and *my knuckles*, disallow the coappearance of the canonical selected objects *cake* and *the floor*, respectively:

(37) a. Nick ate (*cake) himself sick ("Nick got himself sick through cake-eating").

b. Cinderella scrubbed (*the floor) her knuckles to the bone.

The facts in (37) are straightforwardly accounted for in a theory where the verb in the conflated construction does not form an atomic vP: either phrase-structural considerations or case theory can be resorted to in order to bar these aberrant examples. However, if the atomic-vP theory is adopted, that vP could, in principle, present complex internal structure, including a DP object licensed within the vP itself, since that structure would be invisible in the spinal derivation. I argue that even within the present framework the facts of (37) can be seen as related to a case problem. Specifically, accusative case cannot be assigned to the object within atomic vPs, since there is no external argument, an illustration of Burzio's generalisation. However, since the configuration does not host any T head, nominative case is also unavailable. Hence, the object remains caseless and the derivation crashes.[10]

A similar explanation can be invoked to account for another restriction linked to the appearance of certain verbs in conflation constructions. Harley (2007), for instance, deals with the inability of so-called Latinate verbs, in contrast to simple,

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can link its argument when it conforms to the verb's selection (as in *hammer nails flat*, *hammer nails into the wall* or *hammer in nails*).

[10] The atomic vP contains, in effect, an object which remains caseless: the root. However, this circumstance does not jeopardise the derivation, since case is of course a property of DPs/NPs.

Anglo-saxon verbs, to enter into typical conflation constructions like double object constructions (see Snyder 2001), resultative constructions or verb particle constructions, as respectively shown in the examples below:

(38) Susie {gave/*donated} Oxfam some canned food.
Bill {sent/*conveyed} Sue his regards.
Mary {showed/*displayed} the committee her findings.

(39) {walk/*perambulate} yourself tired
{squeeze/*compress} it empty
{drink/*imbibe} yourself unconscious

(40) {write/*compose} it up
{fire/*ignite} it up
{change/*extrade} it in

Harley proposes that the reason for the facts in (38) through (40) is morphosyntactic. In particular, the Latinate verbs in these constructions are bimorphemic, each morpheme (in most cases cranberry ones: *ex*-, *don*-, *dis*-, etc.) representing each of the two heads in the bipartite vP which is assumed to be involved in (38) through (40): the higher causative v and the head of the lower small-clause configuration. By contrast, the Anglo-Saxon verbs in (38) through (40) are monomorphemic: they represent only the higher part of this bipartite structure, the causative v head, into which their root has been freely inserted (what Harley 2007:17 calls "Manner Incorporation" —cf. Haugen's 2009 *conflation*, the term assumed here). The lower small-clause configuration is occupied in these cases by the rest of the material in the vP: the two objects in (38), the object and the result predicate in (39) and the object

and the particle in (40). Thus, the Latinate verbs do not fit in the configuration with an already occupied small clause, as in (38) through (40), because their two morphemes are forced to squeeze into one and the same node, namely, the causative v head.[11]

Assuming that the sentences in (38) through (40) do involve a bipartite structure, with a higher v head and a lower small-clause-like configuration (as was proposed in the previous section), I want to extend the case-based explanation offered above for the atransitivity effect to the disallowance of complex verbs in conflation constructions. In particular, a complex verb like *compress*, which is bimorphemically parsed, could in principle form an atomic vP. However, the predicative piece represented by the prefix *com-* could not project its own argument therein, since this argument could not obtain (accusative) case, as I have argued. In general, then, the atomic vP cannot contain more structure than the very light verb and the root. The same reason arguably explains why the overtly complex and productively generated *out*-prefixed verbs are not possible in conflation constructions either:

(41) a. Dora outsent Mary (*letters).

b. Dora outsang Jean (*out of the room).

c. Dora outcleaned Jean (*up).

As shown in these examples, *out*-prefixation cannot coexist with a double object construction (see (41)), a complex directed motion construction (see (41)) or a verb-particle construction (see (41)). From the perspective adopted here, the only way to

[11] The restriction does not have to do, of course, with etymology. Thus, as Harley (2007:25) herself points out, the anomalous verb-particle construction **confess up* becomes good when the Latinate verb is clipped in informal speech: *fess up*.

interpret these sentences is to understand that the *out*-prefixed verb corresponds in fact to an atomic vP, where the *out* predicative particle cannot project its argument. Since the argument introduced by *out-* is not omissible, as shown in (42), the sentences in (41) are not possible:

(42) a. *Dora outsends.
b. *Dora outsings.
c. *Dora outcleans.

The analysis of the incompatibility of *out*-prefixed verbs with independent resultative predicates can be extended to the well-known cases of complementary distribution of prefixes and resultative secondary predicates in Dutch studied by Hoekstra & Mulder (1990:18-21) and Mulder (1992:179-180). I illustrate with the next example from Mulder (1992:179):

(43) *Hij be-hangt de muur vol me foto's.
he be-hangs the wall full with photos
'He hangs the wall full of photos.'

As shown in the example, the prefix *be-* is incompatible with the resultative AP *vol* (*me foto's*). If, as argued by these authors, the prefix originates as the predicate of a small clause, the ungrammaticality of (43) must be due, within the present approach, to the fact that the small-clause structure headed by the prefix is contained within an atomic vP, disallowing the prefix to project its argument (the subject of the small clause, that is), for case reasons.

Crucially, the facts discussed in this section should not lead us to conclude that prefixed verbs do not themselves involve a conflation configuration. For instance, I argue (Acedo-Matellán 2010:229) that *out*-prefixed predicates do involve such a configuration: the prefix *out*- is part of the spinal derivation, a predicate of a small clause-like configuration, while the verb is, in effect, an atomic vP, as schematically shown in the next analysis of (41) —here I provide a simplified version of the small clause:

(44) $[_{vP}$ *Dora* $[\boxed{[_{vP}$ v clean$]}$ $[_{SC}$ *Jean out*-$]]]$

A rough semantic paraphrase of (44) would then be "Dora caused Jean to be *out* (= "exceeded by her") through cleaning". In the same vein, languages like Latin, Ancient Greek (see Acedo-Matellán 2010) and the Slavic languages (see Spencer & Zaretskaya 1998, Arsenijević 2006, Gehrke 2008 and Acedo-Matellán 2010, among others) have prefixed predicates as their main conflation predicates.

Finally, I would like to compare this theory of atransitivity with that proposed by McIntyre (2004:556). This author treats conflation as a *morphological* operation (*m-conflation*) combining a lexical verb with a light verb. Crucially, the lexical verb happens to be the non-head member of the compound and, hence, it is unable to link its arguments (Di Sciullo and Williams 1987:30). Thus, data such as those in (37) receive an explanation on a par with those in (45), where it shown that the left, non-head member (*scrub*-, *cry*- and *bake*-, respectively) of a verb-noun compound cannot appear with its argument:

(45) scrubwomen (*of floors)

a crybaby (*of bitter tears)

a bakehouse (*of cakes)

I remark that my analysis of atransitivity is based, on the one hand, on a particular interpretation of conflation —derived, in turn, from a general theory of Merge and of roots— and, on the other hand, on very general case-theoretic considerations. Crucially, it does not have to rely on the existence of a separate module —that is, Morphology— with its own idiosyncratic laws (and see Zwart 2009:169-170 for more considerations on the application of the layered-derivation theory of Merge to morphology).

7 Conclusions

In this paper I have adopted Zwart's (2009, 2011) theory of Merge and De Belder & van Craenenbroeck's (2011) theory of roots to develop a theory of conflation based on the idea that the verb in conflation predicates acts simultaneously as an unergative vP and as the head of the predicate, which has a predecessor in Mateu's (2001, 2002) l-syntactic, generalised-transformations approach. I have presented a minimalist analysis in strictly s-syntactic terms and which, additionally, overcomes the problems that syntactic treatments of conflation encounter when a BPS model of syntax is assumed. I have also approached the fact that the conflation strategy does not seem to be universal, that is, that verbs are more elastic in some languages than in others. Since the verb in conflation constructions is the result of a subderivation, and subderivations are phonologically opaque to the spinal derivation, the little v in a conflation construction cannot morphophonologically interact with any other element of the spinal derivation. This is incompatible with the fact that in some languages the functional element expressing a transition, the Path, must form one and the same node

for phonological interpretation with the light verb. I have finally addressed the issue of atransitivity, that is, the unlinkability of arguments by verbs in conflation constructions. I have claimed that DPs cannot get case within an atomic vP, and I have extended this analysis of atransitivity to the cases of complex verbs in English and other languages which are not possible in conflation constructions.

References

Acedo Matellán, Víctor. 2006. Una aproximació sintàctica als verbs prefixats en català. *Estudios Catalanes* 4. 41-78.

Acedo-Matellán, Víctor. 2010. *Argument Structure and the Syntax-Morphology Interface. A Case Study in Latin and other Languages*. Barcelona: Universitat de Barcelona dissertation. Downloadable at http://filcat.uab.cat/clt/publicacions/tesis/pdf/AcedoMatellan2010PhDDissertation.pdf

Acedo-Matellán, Víctor. 2011. A comment on Marantz's "Syntactic approaches to argument structure without incorporation". Paper presented at the *Structuring the Argument/Structurer l'argument* workshop. CNRS/Paris 8, Paris. September 5-7 2011.

Acedo-Matellán, Víctor & Jaume Mateu. 2008. The path from satellite-framed Indo-European to verb-framed Romance: A lexical-syntactic account. Paper presented at the 10th *Diachronic Issues in Generative Syntax* (*DIGS 10*), Ithaca, New York, August 2008.

Arsenijević, Boban. 2006. *Inner Aspect and Telicity: The Decompositional and the Quantificational Nature of Eventualities at the Syntax-Semantics Interface* (LOT Dissertation Series 142). Utrecht: LOT Publications.

Gehrke, Berit. 2008. *Ps in Motion: On the Semantics and Syntax of P Elements and Motion Events* (LOT Dissertation Series 184). Utrecht: LOT Publications.

Borer, Hagit. 2005. *Structuring Sense*, vol. 2: *The normal course of events*. Oxford: Oxford University Press.

Carrier, Jill and Janet Randall. 1992. The argument structure and syntactic structure of resultatives. *Linguistic Inquiry* 23, 173-234.

Centineo, Giulia. 1996. A lexical theory of auxiliary selection in Italian. *Probus* 8(3). 223-271.

Chomsky, Noam. 1993. A minimalist program for linguistic theory. In Kenneth Hale & Samuel J. Keyser (eds.), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, 1-52. Cambridge, Massachusetts: MIT Press

Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, Massachusetts: MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on Minimalist Syntax in honor of Howard Lasnik*, ed. Roger Martin, David Michaels and Juan Uriagereka, 89-156. Cambridge, Mass.: MIT Press.

Chomsky, Noam. 2001. Beyond explanatory adequacy. *MIT Occasional Papers in Linguistics* 20, 1-28. Cambridge, Massachusetts: MIT Working Papers in Linguistics.

Cinque, Guglielmo. 1999. *Adverbs and functional heads: A crosslinguistic perspective.* Oxford: Oxford University Press

De Belder, Marijke. 2011. *Roots and Affixes. Eliminating Lexical Categories from Syntax* (LOT Dissertation Series 282). Utrecht: LOT. http://www.lotpublications.nl/index3.html

De Belder, Marijke & Jeroen van Craenenbroeck. 2011. How to merge a root (ms.).

CRISSP/HUB/UiL-OTS/Utrecht & CRISSP/HUB/FUSL/KUL. http://ling.auf.net/lingBuzz/001226

Den Dikken, Marcel. 2008. Directions from the GET-GO. On the syntax of manner-of motion verbs in directional constructions (ms.). New York: City University of New York.

Di Sciullo, Anna-Maria & Edwin Williams. 1987. *On the Definition of Word*. Cambridge, Massachusetts: MIT Press

Dobler, Eva. 2009. Creating as putting something into the world. *ConSOLE* XVI. 39-50. http://www.sole.leidenuniv.nl

Fortuny, Jordi. 2008. *The emergence of order in syntax*. Amsterdam: John Benjamins

Hale, Kenneth & Samuel J. Keyser. 1993. On argument structure and the lexical expression of syntactic relations. In Kenneth Hale & Samuel J. Keyser (eds.), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, 53-109. Cambridge, Massachusetts: MIT Press

Hale, Kenneth & Samuel J. Keyser. 2002. *Prolegomenon to a Theory of Argument Structure* (Linguistic Inquiry Monograph 39). Cambridge, Massachusetts: MIT Press

Harley, Heidi. 2005. How do verbs get their names? Denominal verbs, Manner incorporation and the ontology of verb roots in English. In Nomi Erteschik-Shir & Tova Rapoport (eds.), *The Syntax of Aspect. Deriving Thematic and Aspectual Interpretation*, 42-64. Oxford: Oxford University Press

Harley, Heidi. 2007. The bipartite structure of verbs cross-linguistically, or Why Mary can't *exhibit John her paintings*. Write-up of a talk given at the 2007 ABRALIN Congres in Belo Horizonte, Brazil, March 2007.

Haugen, Jason D. 2009. Hyponymous objects and Late Insertion. *Lingua* 119(2). 242-

262.

Horrocks, Geoffrey & Melita Stavrou. 2003. Actions and their results in Greek and English: The complementarity of morphologically encoded (viewpoint) aspect and syntactic resultative predication. *Journal of Semantics* 20(3). 297-327.

Kayne, Richard. 1994. *The antisymmetry of syntax.* Cambridge, Massachusetts: MIT Press.

Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck & Laurie Zaring (eds.), *Phrase Structure and the Lexicon*, 109-137. Dordrecht: Kluwer.

Lasnik, Howard and Mamoru Saito. 1992. *Move α.* Cambridge, Mass.: MIT Press.

Levin, Beth & Tova R. Rapoport. 1988. Lexical Subordination. *Chicago Linguistic Society* (*CLS*) 24. 275-289

Marantz, Alec. 2003. Subjects and objects (ms.). Cambridge, Massachusetts: Massachusetts Institute of Technology

Marantz, Alec. 2005. Objects out of the lexicon: Objects as events (ms.). Cambridge, Massachusetts: Massachusetts Institute of Technology

Marantz, Alec. 2009. Roots, *re-* and affected agents: Can roots pull the agent under little v?. Paper presented at the workshop *Roots: Word Formation from the Perspective of "Core Lexical Elements"*, Stuttgart, June 10-12, 2009

Marantz, Alec. 2011. Syntactic Approaches to Argument Structure Without Incorporation: Doing the (anti-lexicalist) Dance without Doing the Dance. Paper presented at the *Structuring the Argument/Structurer l'argument* workshop. CNRS/Paris 8, Paris. September 5-7 2011.

Mateu, Jaume. 2001. Preverbs in complex denominal verbs: Lexical adjuncts or core predicates?. *Catalan Working Papers in Linguistics* 9. 37-51.

Mateu, Jaume. 2002. *Argument Structure. Relational Construal at the Syntax-Semantics Interface*. Bellaterra: Universitat Autònoma de Barcelona PhD thesis. http://seneca.uab.cat/clt/publicacions/tesis/index.html.

Mateu, Jaume. 2003. Parametrizing verbal polysemy: The case of *bake* revisited. *Chicago Linguistics Society* (*CLS*) 39(1). 256-269.

Mateu, Jaume. 2008a. On the l-syntax of directionality/resultativity: The case of Germanic preverbs. In Anna Asbury, Jakub Dotlačil, Berit Gehrke & Rick Nouwen (eds.), *Syntax and Semantics of Spatial P*, 221-250. Amsterdam & Philadelphia: John Benjamins

Mateu, Jaume. 2008b. Argument structure and denominal verbs (ms.). Bellaterra: Centre de Lingüística Teòrica-Universitat Autònoma de Barcelona

Mateu, Jaume. 2012. Conflation and incorporation processes in resultative constructions. In Violeta Demonte & Louise McNally (eds.), *Telicity, Change, and State: A Cross-Categorial View of Event Structure,* 252-278. Oxford: Oxford University Press.

Mateu, Jaume & Gemma Rigau. 2002. A minimalist account of conflation processes: parametric variation at the lexicon-syntax interface. In Artemis Alexiadou (ed.), *Theoretical Approaches to Universals*, 211-236. Amsterdam & Philadelphia: John Benjamins

McIntyre, Andrew. 2004. Event paths, conflation, argument structure, and VP shells. *Linguistics* 42(3). 523-71.

Mendikoetxea, Amaya. 1999. Construcciones inacusativas y pasivas. In *Gramática descriptiva de la lengua española*, vol. 2: *Las construcciones sintácticas fundamentales. Relaciones temporales, aspectuales y modales*, ed. by Ignacio Bosque Muñoz and Violeta Demonte Barreto, 1575-1629. Madrid: Espasa Calpe.

Neeleman, Ad and Fred Weerman. 1993. The balance between syntax and morphology: Dutch particles and resultatives. *Natural Language and Linguistic Theory* 11, 433-475.

Padrosa-Trias, Susanna. 2010. *Complex Word-Formation and the Morphology-Syntax Interface*. Bellaterra: Universitat Autònoma de Barcelona PhD thesis.

Pylkkänen, Liina. 2002. *Introducing Arguments*. Cambridge, Massachusetts: Massachusetts Institute of Technology PhD thesis.

Real Puigdollers, Cristina. 2010. A microparametric approach on goal of motion constructions: properties of adpositional systems in Romance and Germanic. *Catalan Journal of Linguistics* 9, 125-150.

Real Puigdollers, Cristina. 2011. Towards a non-syntactic approach of manner incorporation. Paper presented at the *Workshop on verbal elasticity*. Centre de Lingüística Teòrica, Universitat Autònoma de Barcelona, Bellaterra. October 3-5 2011.

Rigau, Gemma. 1997. Locative sentences and related constructions in Catalan: *ésser*/*haver* alternation. In Amaya Mendikoetxea & Myriam Uribe-Etxebarria (eds.), *Theoretical Issues at the Morphology-Syntax Interface*, 395-421. Bilbao & Donostia-San Sebastián: Universidad del País Vasco & Diputación Foral de Gipuzkoa.

Snyder, William. 1995. *Language Acquisition and Language Variation: The Role of Morphology*. Cambridge, Massachusetts: Massachusetts Institute of Technology PhD thesis

Snyder, William. 2001. On the nature of syntactic variation: Evidence from complex predicates and complex word-formation. *Language* 77(2). 324-342

Son, Minjeong. 2007. Directionality and resultativity: The cross-linguistic correlation

revisited. Nordlyd 34(2). 126-164.

Son, Minjeong & Peter Svenonius. 2008. Microparameters of cross-linguistic variation: Directed motion and resultatives. West Coast Conference on Formal Linguistics (WCCFL) 27. 388-396.

Spencer, Andrew & Marina Zaretskaya. 1998. Verb prefixation in Russian as lexical subordination. *Linguistics* 36. 1-39.

Svenonius, Peter. 2003. Limits on P: Filling in holes vs. falling in holes. *Nordlyd* 31(2). 431-445.

Talmy, Leonard. 1972. *Semantic Structures in English and Atsugewi*. Berkeley: University of California at Berkeley PhD thesis.

Talmy, Leonard. 1985. Lexicalization patterns: Semantic structure in lexical forms. In Timothy Shopen (ed.), *Language Typology and Syntactic Description*, vol. 3: *Grammatical Categories and the Lexicon*, 57-149. Cambridge: Cambridge University Press.

Talmy, Leonard. 1991. Path to realization: A typology of event conflation. Berkeley Linguistic Society (BLS) 17. 480-519

Talmy, Leonard. 2000. *Toward a Cognitive Semantics*, vol. 2: *Typology and Process in Concept Structuring*. Cambridge, Massachusetts: MIT Press

Tenny, Carol. 1994. *Aspectual Roles and the Syntax-Semantics Interface* (Studies in Linguistics and Philosophy 52). Dordrecht: Kluwer.

Zubizarreta, María Luisa & Eunjeong Oh. 2007. *On the Syntactic Composition of Manner and Motion*. Cambridge, Massachusetts: MIT Press

Zwart, Jan-Wouter. 2004. Unary Merge. Paper presented at the Tilburg University Staff Seminar. October 28 2004

Zwart, Jan-Wouter. 2009. Prospects for top-down derivation. *Catalan Journal of*

Linguistics 8. 161-187

Zwart, Jan-Wouter. 2011a. Structure and order: Asymmetric merge. In Cedric Boeckx (ed.), *The Oxford Handbook of Linguistic Minimalism*, 96-118. Oxford/New York: Oxford University Press

Zwart, Jan-Wouter. 2011b. Recursion in language: A layered-derivation approach. *Biolinguistics* 5.1-2. 43-56