On the l-syntax of directionality/resultativity:
the case of Germanic preverbs[*]

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Abstract

This paper offers a l(exical)-syntactic explanation of some challenging patterns of Germanic complex verbs that have been argued to cause non-trivial problems to Hale & Keyser's (1993, 1997) syntactic theory of argument structure. We tackle the task of dealing with all of them in two important ways: on the one hand, drawing on Hale & Keyser's (2000) insight concerning 'P as a cognate complement' in English complex verbs of the type *heat up*, we provide the relevant l-syntactic analyses for German complex location verbs of the type *einrahmen* ('in-frame'), complex denominal verbs of the type *verslumen* ('become a slum'), and complex deadjectival verbs of the type *eindeutschen* ('germanize'). On the other hand, drawing on McIntyre's (2004) and Zubizarreta & Oh's (in press) modifications of Mateu's (2001a, 2002) syntactic 'plug-in' theory of so-called 'lexical subordination processes', we review our previous l-syntactic analysis of complex denominal verbs of the type *vergärtnern* ('garden away') by providing a slightly modified analysis of the relevant conflation process involved. We also argue that an l-syntactic subordination process is involved in complex locatum verbs of the type *überdachen* ('roof over') and complex denominal verbs of the type *versanden* ('sand up'). Finally, we show how the present account of Germanic preverbs can be integrated into Mateu's (2002) l-syntactic approach to Talmy's (1991, 2000) typology of satellite- vs. verb-framed languages.

1. Introduction

Given the abundant literature on Germanic verb-particle constructions,[1] we would like to start this paper by making it clear that our present goal is quite specific: i.e. to provide a l(exical)-

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[1] See Dehé et al. (2002) and Booij & Marle (2003) for two recent compendia.

syntactic account of those Germanic preverb constructions that have been argued to cause serious problems to Hale & Keyser's (henceforth: H&K) syntactic approach to argument structure. In a sense, this paper can then be taken as an extensive reply to Stiebels's (1998) criticism of their syntactic approach. In particular, she claims that the list of German complex verbs that cannot be explained by H&K includes complex location verbs of the type *einrahmen* ('in-frame'), complex denominal verbs of the type *verslumen* ('become a slum'), complex locatum verbs of the type *überdachen* ('roof over'), complex denominal verbs of the type *versanden* ('sand up'), and complex denominal verbs of the type *vergärtnern* ('garden away').

As is well-known, most of generative linguists dealing with verb-particle constructions are divided between those who argue for a Complex Predicate analysis and those who argue for a Small Clause analysis. Following H&K (2002: chap. 8) and Ramchand & Svenonius (2002), among others, we will be arguing for a particular version of the SC account but without assuming the existence of a truly clausal complement (cf. Kayne 1985; Hoekstra 1988; Mulder 1992; Den Dikken 1995, among others). Unlike the proponents of a CP account (cf. Johnson 1991; Neeleman 1994; Zeller 2001, among others), we posit that the internal DP argument is merged with the predicative particle/preverb before that substructure is merged with the verb.

The organization of the present article is as follows: in Section 2 we review the basics of H&K's (1998, 2000, 2002) theory of argument structure, on which we will ground our l-syntactic analyses of Germanic complex verbs. Due to our present concerns, we pay special attention to their claim that P heads a cognate complement in English complex verbs of the type *heat up*. In Section 3, we put forward an l-syntactic analysis for different types of German complex verbs, showing also why our present account based on H&K's (2002) theory of l-syntax is to be preferred to Stiebels's (1998) semantic one based on Wunderlich's (1997) Lexical Decomposition Grammar (LDG). In Section 4 we show how the present account of Germanic preverbs can be integrated into Mateu's (2002) l-syntactic approach to Talmy's (1991, 2000) descriptive typology of satellite- vs. verb-framed languages. Section 5 contains some concluding remarks.

2. The basic elements of argument structure

Argument structure is conceived of by H&K as the syntactic configuration projected by a lexical item, i.e. argument structure is the system of structural relations holding between heads (nuclei) and the arguments linked to them, as part of their entries in the lexicon. Although a lexical entry is much more than this, of course, argument structure in the sense intended by H&K is precisely this and nothing more. Their main assumptions can be expressed informally as follows: argument structure is defined in reference to two possible relations between a head and its arguments, namely, the head-complement relation and the head-specifier relation. A given head (i.e. x in 1) may enter into the following structural combinations in 1: these are its argument structure properties, and its syntactic behavior is determined by these properties.[2]
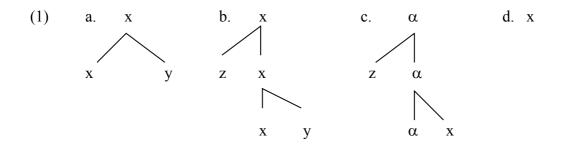
(1)   a. x b. x c. α d. x

         x y z x z α

                                         x y α x

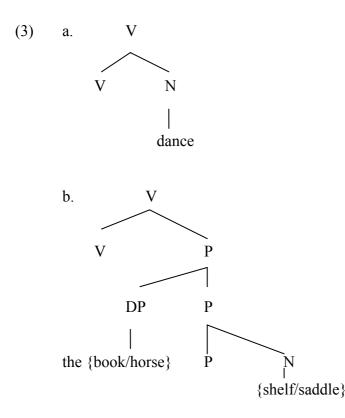Figure 1. Head (x); complement (y of x), predicate (x of z).

The main empirical domain on which H&K's hypotheses have been tested includes denominal verbs (unergative verbs like *dance* in 2a, locative verbs like *shelve* in 2b, or locatum verbs like *saddle* in 2c) and deadjectival verbs like *clear* in 2d.

(2)   a.   John danced.
       b.   John shelved the book.
       c.   John saddled the horse.
       d.   John cleared the screen / The screen cleared.

Unergative verbs are argued to be transitive since they involve merging a non-relational element (typically, a noun) with a verbal head (see 3a); both locative verbs (e.g. *shelve*) and

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[2] According to H&K, the prototypical or unmarked morphosyntactic realizations in English of the syntactic heads in 1 (i.e. the *x*'s) are the following ones: *V* in 1a, *P* in 1b, *Adj* in 1c, and *N* in 1d.

locatum verbs (e.g. *saddle*) involve merging the structural combination in 1b into the one of 1a: see 3b. Finally, unaccusative deadjectival verbs involve the structural combination in 1c, the transitive or causative one involving two structural combinations, i.e. the one depicted in 1c is merged into the one in 1a: see 3c.[3]

(3)   a.

```
            V
           / \
          V   N
              |
            dance
```

       b.

```
              V
             / \
            V   P
               / \
             DP   P
             |   / \
   the {book/horse}  P   N
                     |   |
              {shelf/saddle}
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[3] Uriagereka (1998) has argued that adopting H&K's conservative argument for the existence of phrasal projection inside lexical entries runs into problems with Chomsky's (1995) minimalist program. In order to solve them, Uriagereka (1998) argues that those structures given in 3 are not lexical representations, but syntactic structures corresponding to lexical representations, after they are selected from the numeration. For example, Uriagereka (1998: 438) points out that (i) is to be regarded as the actual lexical representation of the denominal verb *saddle* that determines the syntactic argument structure in 3b (NB: the abbreviations in (ia) are used by Uriagereka (1998: 434-438) to mean the following: F-P = feature-P (i.e. "a-Prep-incorporates-into-me"), v-F = v-feature (i.e. "I-incorporate-into-v), F-N = feature-N (i.e. "a-Noun-incorporates-into-me"), and P-F = P-feature (i.e. "I-incorporate-into-P")).

(i)   a.   [-N, +V, F-P…] +   [-N, -V, v-F, F-N]   +   [+N, -V, P-F]
       b.   v   +   P   +   saddle

According to Uriagereka, the features in (ia) are purely combinatorial markings, uninterpretable formal features of words like *saddle* and *shelve* that are idiosyncratic to each of these verbs. Be this as it may, since the analyses to be presented in the present paper do not crucially hinge on assuming Uriagereka's feature-based refinements such as those in (i) to derive argument structures like the one in 3b, we will omit such a discussion here. As far as we can tell, our present proposal can be regarded as compatible with both Hale & Keyser's 'conservative' and Uriagereka's minimalist ways of constructing syntactic argument structures.

c.

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          V
        /   \
       V     V
            /  \
          DP    V
          |    /  \
     the screen V   A
                    |
                  clear
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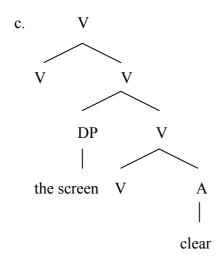
Figure 2. L(exical)-syntactic analyses of unergative verbs (3a), locative/locatum verbs (3b), and deadjectival verbs (3c).

The external argument of transitive constructions (unergatives included) is argued by H&K to be truly external to the argument structure configurations: for example, they typically appeal to this proposal when accounting for why unacusative structures can be transitivized (cf. 2d),[4] while unergatives ones cannot (*Mary danced John*). The external argument can be said to occupy the specifier position of a functional projection in s(entential)-syntax.[5] Alternatively, as argued by H&K themselves, following Koopman & Sportiche (1991), this argument is structurally an adjunct to the VP and, moreover, a 'distinguished adjunct' coindexed with the VP.

According to H&K (1998), all verbs in 2 implicate a process of conflation, i.e. a specific kind of incorporation that conforms to an especially strict version of the Head Movement Constraint (Travis 1984; Baker 1998), an operation that copies a full phonological matrix into an empty one, this operation being carried out in a strictly local configuration: i.e., in a head-

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[4] See H&K (2002: chap. 6) on why unaccusatives of the *arrive* type do not causativize.

[5] According to H&K, the term 'sentential syntax' is used to refer to the syntactic structure assigned to a phrase or sentence involving both the lexical item and its arguments and also its 'extended projection' (Grimshaw 1991) and including, therefore, the full range of functional categories and projections implicated in the formation of a sentence interpretable at PF and LF.

complement one. This guarantees locality and precludes conflation of a specifier: e.g. 4a and 4b are ruled out since the specifier of P is not selected by the verbal head in 3b.[6]

(4)   a.   *John booked the shelf (on the reading *John put a book on the shelf*)

      b.   *John horsed the saddle (on the reading *John provided the horse with a saddle*)

Applying then the conflation operation to 3a involves copying the full phonological matrix of the noun *laugh* into the empty one corresponding to the verb. Applying it to 3b involves two steps: the full phonological matrix of the noun {*shelf/saddle*} is first copied into the empty one corresponding to the preposition; since the phonological matrix corresponding to the verb is also empty, the conflation applies again from the saturated phonological matrix of the preposition to the unsaturated matrix of the verb. Finally, applying the conflation process to 3c involves two steps as well: the full phonological matrix of the adjective *clear* is first copied into the empty one corresponding to the internal verb; since the phonological matrix corresponding to the external verb is also empty, the conflation applies again from the saturated phonological matrix of the inner verb to the unsaturated matrix of the external verb.

It is however important to point out that H&K's definition of 'conflation' has recently changed: e.g. conflation is no longer viewed by H&K (2002: chap. 3) as an operation akin to Baker's (1988) incorporation, but rather is said to be subsumed by Selection. Indeed, the existence of hyponymous and cognate constructions like those in 5 have been essential to their arguing for such a theoretical move:

(5)   a.   John danced a polka.

      b.   John shelved the book onto the top shelf.

On the one hand, H&K (1997) argue that a full DP can be inserted in the argumental position corresponding to the complement of the verb in 3a/5a or to the complement of the preposition in 3b/5b. It is crucial for that analysis that the trace of the raised N is not a 'referential' trace of the sort defined by DP movement, for example. On the other hand, H&K (2002: chap. 3)

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[6] In contrast to conflation, incorporation in s(entential)-syntax is argued to be constrained by government. Since a head governs the specifier of its complement, there is no barrier to incorporating from that position (see Baker (1988) and H&K (1993, 1998, 2002) for further discussion).

assume that the verbs *dance* and *shelve* are not to be derived in the way intended by their corresponding argument structures in 3, but are entered as such in the lexicon. The idea would be that the full verbs *dance* and *shelve* in 2a and 2b would be 'rich enough' (*sic*) in semantic features to license the nominal categories involved in their corresponding argument structures. According to H&K (2002: 103), conflation is merely the binding relation that holds between the semantic features of a verb (phonologically overt now) and features of the nominal head. For example, an overt verb (e.g. *dance*) could be said to be directly provided with hyperonymic semantic features corresponding to the activity of *dancing*. These superordinate features assigned to the verb could then impose strong restrictions on the semantic nature of the nominal complement, which would be provided with more specific or subordinate (i.e. hyponymic) content: e.g. *a polka* is to be understood to refer to something belonging to the class of dances.

However, we can not accept H&K's (2002: chap. 3) recent proposal of (re)defining conflation on the basis of constructions like 5: as emphasized by Mateu (2005a), verbal heads in 3 cannot be directly associated with encyclopedic semantic features because of their merely relational eventive character. So for example in 3a we claim that all the encyclopedic features are directly associated to the complement position, i.e. the hyperonymic ones to the nominal root √DANCE, and the hyponymic ones to the root of the DP inserted later. Clearly, their semantic compatibility is to be established out of the computational system, i.e. in the encyclopedia component (Marantz 1997; Harley & Noyer 2000). For our present purposes, we will then continue assuming H&K's (1997) theory of cognate object constructions.

2.1. Some remarks on the l-syntax of English verb-particle constructions. Verb-particle constructions like those exemplified in 6 are discussed by H&K (2002: chap. 8), their main concern there being the manner in which the specifier is introduced into syntactic argument structures. H&K argue that particles do not in and of themselves require specifiers (cf. den Dikken 1995), and they are said to function only synergetically with their overt complements in the projection of specifiers. Accordingly, they point out that *the books* in 6a and *her saddle* in 6b occupy the specifier position of the complex predicative structure formed by *down on the shelf* and *up on the fence*, respectively: see (7).

(6) a. They put the books down on the shelf.
     b. She put her saddle up on the fence.

(7)

```
                        V
                   ____/ \____
                  V           π
                 put      ___/ \___
                         DP        π
                      the books  _/ \_
                      her saddle π      P
                                down  _/ \_
                                up   on    DP
                                         the shelf
                                         the fence
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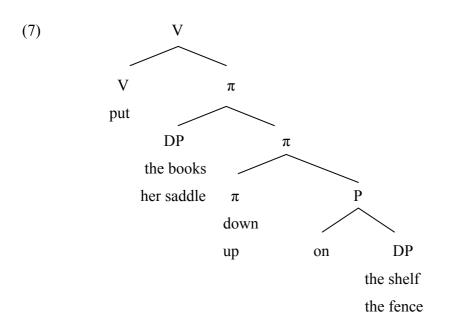
Figure 3. L(exical)-syntactic analysis of (6)

H&K (2002: 232) point out that 8a,b are ruled out because of economical reasons: in their words, the 'delayed gratification' involved in 6a,b (defined wrt the introduction of the specifier into the complex π+P structure in 7) is said to preempt the 'immediate gratification' involved in 8a,b. Notice also that the interesting contrast between 8a,b and 8d has to do with the fact that the PP is a complement in the former examples but not in the latter, where it is an adjunct (but see Den Dikken (1995) for another view). Moreover, when the complement is not present (cf. *They put the books down*), H&K assume Svenonius's (1996) original proposal that the complement is conflated with the particle.

(8)   a.   *They put down the books on the shelf.   (cf. 6a)

          b.   *She put up her saddle on the fence.   (cf. 6b)

          c   They put decorations up in the kids'room.

          d.   They put up decorations in the kids'room.

Consider now H&K's (2000: 39) examples in (9), which are more relevant for our present purposes.

(9)   a.   We heated the soup.

          b.   We heated the soup up.

      c.   The soup heated (slowly).

      d.   The soup heated up (finally).

H&K (2000: 39-49) put forward the interesting proposal that the examples in 9b,d involve a cognation process similar to the one found in 5: in particular, they assume that the prepositional particle that appears in 9b,d can be analyzed like those hyponymous and cognate objects in 5. Moreover, this prepositional element is said to have the following semantics: 'it is the component of an adjectival expression which refers to the 'degree' or 'intensity' at which the quality denoted by the adjective is realized (…) If it is indeed correct, then we have a source for the particles *up, off, down*, and the like, as they occur in association with deadjectival verbs' (p. 40). Notice that this non-trivial modification leads them to replace the l-syntactic analysis of deadjectival verbs in 3c by the one in 10.
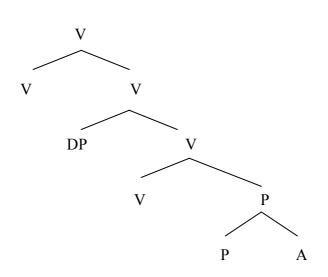

(10)

Figure 4. L(exical)-syntactic analysis of (complex) deadjectival verbs

According to H&K, in 9b the overt particle *up* is inserted in place of the empty P in 10, i.e. in the position corresponding to the 'trace' left by incorporation of P into V. In 10 'P does not head a separate, autonomous predicate. Instead, it is as if A and P jointly head one and the same predicate. And this, like any adjectival predicate, finds its subject external to its own projection' (HK 2000: 45-46).[7]

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[7] As noted by H&K (2000: 46; fn. 23), 'it is unlikely that there is a synchronically real phonological derivation here; the relationship <between *hot* and *heat*: JM> is essentially suppletive, but in many other cases, e.g. *warm,*

2.2. Generalizing the P(ath) structure. As emphasized by H&K (2000: 40f), the analysis in (10) is not only posited for complex deadjectival verbs but, more generally, for 'simple' deadjectival verbs. Although we are fully sympathetic to the generalized replacement of 3c by 10, we think that the semantic description H&K associate to the P in 10 is not the correct one (cf. supra).[8] Rather it seems to us that the relational semantics of P in 10 is not so different from the one associated to π in 7: i.e. our claim is that both denote a Path relation, which in turn subcategorizes for a P(lace) relation in 7 and a State (i.e. an abstract Place) encoded by A in 10. As a result, notice that our arguing that π in 7 and P in 10 are the very same P(ath) element strenghtens a parallelism which is not captured by the previous analyses of change of location verbs like *shelve* (cf. 3b) and change of state verbs like *clear* (cf. 3c).

Indeed, as is well-known, H&K do not posit a direct association of the Path and Place functions with the prepositional(like) elements of l-syntax. Rather they prefer using the notions of terminal and central coincidence relations (Hale 1986; H&K 2000).[9] Be this as it may, we think that there is an emerging consensus concerning the semantics associated to the prepositional(like) elements, the notions of Path and Place being the most relevant ones (see Svenonius (2006) for an excellent review). In this sense, we think that H&K's syntactic project can provide configurational approaches with an important insight: H&K (2000, 2002) argue that the distinction between terminal coincidence relation and central coincidence one can in fact be derived or read off from the *mere* l-syntactic structure: i.e., the terminal coincidence meaning is derived from a configuration containing two P's, while the central coincidence one is derived from a configuration containing only one P.[10] Indeed, *mutatis*

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cool, the adjective and the derived verb are homophonous, and in many, the relation involves affixal morphology, as in *redden, widen, darken'*. See also H&K (1998) for further discussion on similar cases.

[8] Our proposal is that semantic notions like 'degree' or 'intensity' should not be associated to the l(exical)-syntax of argument structure. Rather they should be associated to a non-lexical category which is usually referred to as DegreeP, i.e. the extended/functional projection of the lexical category Adjective.

[9] Roughly, a terminal coincidence relation (e.g. cf. *to, out of, from*, etc.) involves a coincidence between one edge or *terminus* of the theme's path and the place, while a central relation (e.g. cf. *with, at, on*, etc.) involves a coincidence between the center of the theme and the center of the place. See Hale (1986) for further discussion.

[10] Accordingly, in spite of the fact that examples like ia and ib are superficially identical, H&K (2000, 2002) posit that the former involves a complex P structure (i.e. *to* = the terminal coincidence relation *to* plus an abstract central coincidence relation: e.g. *at*), while the latter involves a simple P structure, the one headed by *in*. See H&K (2002: 221-224) for more discussion.
(i)   a.   Leecil went to Tucson.
        b.   Leecil stayed in Tucson.

mutandis, the same parallelism could be adopted for reading Path and Place functions from syntactic structure, i.e. a P(ath) structure would always contain two P's -or one P(ath) particle + Adjective as in 10- and a P(lace) structure would always contain only one P (or A).[11] In short, the structures in 3b and 3c should both be replaced by those in 7 and 10, respectively, the P(ath) generalization commented on above applying to superficially 'complex' verbs (e.g. *bottle up* or *clear up*) and, less trivially, to superficially 'simple' verbs (e.g. *bottle* or *clear*) as well.

3. Stiebels's (1998) challenging patterns of German complex verbs revisited

With the previous theoretical background in mind, we are ready to tackle the task of refuting the main objections raised by Stiebels (1998) against H&K's syntactic theory of argument structure. We will deal with all the alleged challenging patterns that are said to cause serious problems to H&K's approach. As will be seen below, most of her criticisms are mainly based on the idea that their approach is too restrictive and empirically inadequate since it cannot deal with those complex verbs that are said to involve 'adjunct incorporation' of the preverb (cf. sections 3.1, 3.3, 3.4, and 3.6). Here we argue that the formation of complex verbs in German can be explained by appealing to two different l-syntactic analyses: (i) a P 'cognation' analysis in H&K's (2000) sense is claimed to be involved in those complex verbs where the Ground is conflated in the verb (cf. sections 3.1 to 3.3), and (ii) a root-V compound analysis (McIntyre 2004; Zubizarreta & Oh in press) is shown to be involved in the rest of complex verbs (cf. sections 3.4 to 3.6).

3.1. Complex denominal verbs of the type <u>einrahmen</u>. Consider the following examples from Stiebels (1998: 290):

(11)   a.   Sie rahmte das Foto ein.

                she framed the photo in

         b.   Sie bahrten den Leichnam auf.

                she biered the corpse on

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[11] See Mateu (2002, 2005b) for a radical approach which prevents the category A from having primitive status in grammatical theory (contra Baker (2003) and H&K (1993f)). In particular, Mateu argues that adjectives can be further decomposed into a relational (prepositional-like) element plus a non-relational (nominal-like) element. See Mateu (2002: chap. 1; 2005b) for theoretical and empirical arguments in favor of such a reduction.

Stiebels (1998: 296) points out that these complex verbs 'should not occur according to HK because they violate the Head Movement Constraint'. Our reply is as follows: indeed, the examples in 11 would be ungrammatical on the analysis where the N *Rahmen* 'frame' jumps the intervening P element by incorporating directly into the verb. However, as shown in section 2.1 above, this is not the analysis we want to posit for the examples in 11. Rather our explanation of the data in 11 is to be based on our considering the directional particle *ein* 'in' as a cognate complement of the verb in a similar way as *onto the top shelf* can be argued to be a cognate complement of the denominal verb *shelve* (on the relevant, i.e. non-adjunct reading) in 5b *John shelved the book onto the top shelf*: see 12. Crucially, notice that it is not the case that the nominal root *Rahmen* incorporates into the particle *ein*: rather our claim is that this prepositional element is inserted into the P(ath) head *after* the ('simple') denominal verb has been formed. Similarly, *onto the top shelf* is inserted as a full P(ath) constituent after the denominal verb *shelve* has been formed or, for that matter, the DP *the polka* is inserted into the complement position of the unergative verb after the denominal verb *dance* has been formed: cf. 5a *John danced a polka*).
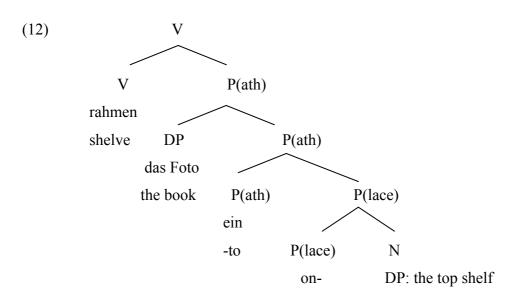
(12)

Figure 5. L(exical)-syntactic analysis of complex locative verbs

To a certain extent (and given a certain degree of abstractness), the 'cognation' process we have been arguing for in our syntactic analysis of 11 is not too far from the explicitly recognized 'redundant' (*sic*) lexical entry Stiebels (1998: 290-291) argues for complex location verbs like *einrahmen*. According to her, 'an analysis which starts with the denominal base *rahmen* should be preferred (…) the preverb redundantly specifies what may be

conceptually inferred from the simple denominal verb.' The (final) semantic derivation posited by Stiebels (1998: ex. 48d) is depicted in 13:

(13) [ein [rahmen]$_V$] $_V$: $\lambda y \, \lambda x \, \lambda s$ [CAUSE (x, BECOME(LOC(y, R_{prox} [FRAME]))) (s)

$\qquad\qquad$ & BECOME(LOC(y, INT [FRAME])) (s)

Indeed, we believe that one important advantage of H&K's syntactic approach over Stiebels's semantic one is that the (syntactically relevant) semantics is not acting freely but is read off or determined by syntax: as far as we can tell, it is not clear to us which principled device contrains the 'adjunct incorporation' operation in Stiebels's LDG framework. In contrast, it is quite clear why syntax constrains the apparent addition of 'extra material' into argument structures: e.g. see H&K (2000: 34f) for a principled explanation of why examples like *We overheated the soup up* are ruled out, this being based on the general uniqueness restriction: to put it in our terms, *over-* and *up* compete for the very same (syntactic!) P(ath) position.[12] In short, we do not know how the so-called 'adjunct incorporation' is to be constrained (in a principled way) by Stiebels.

3.2. Complex denominal verbs of the type verslumen. Consider the following examples from Stiebels (1998: 293):

(14) a. Dieses Stadtviertel ver-slum-t immer mehr.

$\qquad\qquad$ this quarter ver-slum-3sg more and more

$\qquad\qquad$ 'This quarter is becoming more and more like a slum'.

$\qquad$ b. Diese Firma ver-schrott-et täglich 20 Autos.

$\qquad\qquad$ this company ver-scrap_metal-3sg daily 20 cars

$\qquad\qquad$ 'This company scraps 20 cars a day'.

Assuming as correct Stiebels's (1998: 293) claim that the prefix *ver-* in 14 does not contribute any specific meaning, two l-syntactic analyses can be argued for examples like 14:

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[12] See H&K (2000: 35) for some reasons why Keyser & Roeper's (1992) 'abstract clitic hypothesis' is to be abandoned in favor of their new analysis. As shown by H&K's (2000: 35) examples in ia,b, two prefixes like *re-* and *over-* are not incompatible provided that they occupy different syntactic positions (see Svenonius (2004) for an elegant syntactic distinction between 'lexical' prefixes and 'superlexical' ones). See also McIntyre (2003) for insightful semantic analyses of prefixes like *re-* and *over-*.
(i) a. rereheat the soup
$\qquad$ b. reoverheat the soup

(i) the prefix *ver-* is part of the phonological matrix of the verb (i.e. similar to the verbal suffix *–en*) or, alternatively, (ii) the prefix can be regarded as an additional grammatical mark of the predicative relation established between the Figure *Dieses Stadtviertel* and the Ground *Slum*. Assuming the latter analysis, as in the *einrahmen* type above, we do not want to argue for the proposal that the nominal root *Slum* incorporates into the prefix *ver-*; rather our claim would be that this preverb is inserted into the P(ath) head after the denominal verb has been formed. See 15 for the l-syntactic analysis of 14a, where the curly brackets are intended to indicate that the prefix can be regarded as a verbal prefix or a prepositional-like one. For the time being, we remain undecided wrt choicing the more adequate analysis of the prefix *ver-* in 14: be this as it may, what is important for us is to have shown that examples like 14 do not cause problems to H&K's syntactic approach.
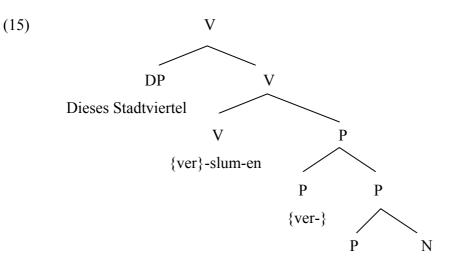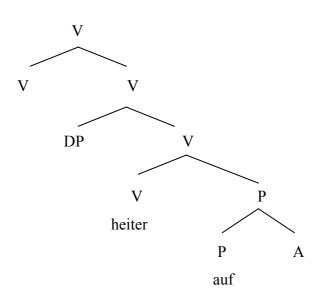
(15)

```
                        V
                      /   \
                   DP        V
          Dieses Stadtviertel  /  \
                            V        P
                      {ver}-slum-en  / \
                                    P    P
                                 {ver-}  / \
                                        P   N
```

Figure 6. L(exical)-syntactic analysis of *verslumen*

3.3. Complex deadjectival verbs of the type <u>eindeutschen</u>. Consider the following examples from Stiebels (1998: 280):

(16) a. ein$_{pt}$-deutsch-en 'germanize'
      b. auf$_{pt}$-heiter-n 'cheer up'

These complex verbs could be said to be analyzed within H&K's syntactic approach as follows: (i) the adjective root is conflated with the preverb and (ii) this complex predicative head (P+A) is then conflated with the null verb, providing it with phonological content.

Again this is not the analysis we want to argue for the examples in 16: as in the *einrahmen* denominal type above, our claim is that the directional/resultative preverbs in 16 are inserted into the P(ath) head after the deadjectival verb has been formed. Accordingly, we argue that the appropriate analysis for the complex deadjectival verbs in 16 is the same one H&K (2000) posit for examples like *We heated the soup up/The soup heated up*, i.e. the l-syntactic analysis in 10, repeated below in 17 (cf. section 2.1 for its original motivation).

(17)

```
                    V
                  /   \
                 V     V
                      / \
                    DP   V
                        / \
                       V   P
                    heiter / \
                          P   A
                         auf
```

Figure 7. L(exical)-syntactic analysis of complex deadjectival verbs

As noted in section 2.2, it is important to bear in mind that, unlike H&K (2000), we do not assume that the P in 10/17 refers to the degree or intensity at which the quality denoted by the adjective is realized. Rather we argue that P in 17 encodes the very same Path meaning found in complex locative verbs. Indeed, the so-called 'Localist Hypothesis' provides us with the right results since the German examples in 16 are quite transparent in this sense:[13] e.g. *ein* projects the spatial 'go *into X'* schema onto that of becoming German(ized), while *auf* delineates the upper path typically associated with positive emotions (see Lakoff & Johnson (1980) for insightful discussion on so-called 'orientational metaphors'). Notice then that the 'cognation' analysis allows us to capture the typical hyponymic vs. hyperonymic contrast involved: i.e. the preverb specifies and/or elaborates on the abstract trajectory associated to the change of state encoded by the deadjectival verb.

---

[13] See Mateu (2002, 2005b) for the localist claim that the P(ath) element involved in directional PP's and resultative AP's is the very same one (see Gruber (1965) and Jackendoff (1990) for relevant discussion on the Localist Hypothesis).

So far we have provided an l-syntactic analysis for those complex verbs that conflate a Ground element (as noted above, the adjectival base in 16 can also be interpreted as Ground: cf. Gruber's (1965) or Jackendoff's (1990) Localist Hypothesis). Most of times we have made use of H&K's (2000) P cognation analysis in order to explain why a preverb can co-occur with a Ground element conflated in the verb. From now on we will deal with more complex cases, i.e. cases that involve what has often been referred to in the literature as *lexical subordination processes* (Levin & Rapoport 1988; Spencer & Zaretskaya 1998; Mateu 2000, 2002, 2005b; McIntyre 2004, among others).

3.4. Complex denominal verbs of the type <u>vergärtnern</u>. Stiebels (1998: 285-286) points out that HK's syntactic approach cannot explain the formation of complex denominal verbs like those in 18. Once again her main criticism is based on the fact that complex verbs with an alleged integrated adjunct (e.g. the prefixes *ver-* and *er-* in 18a and 18b) should not occur according to HK.

(18)   a.   Er ver-gärtner-te   sein gesamtes Vermögen.
               he ver(away)-gardener-ed   his whole   fortune
               'In gardening, he used up all his fortune'.
       b.   Sie er-schreiner-te   sich   den Ehrenpreis der Handwerkskammer.
               she er-carpenter-ed herself$_{DAT}$ the prize   of the trade corporation
               'She got the prize of the trade corporation by doing carpentry'.

For example, Stiebels claims that the prefix *ver-* in 18a functions as a lexical adjunct and turns out to affect the argument structure of the base denominal verb by adding one argument, i.e. 'the consumed object' in the final derivational step in 19:

(19)   [ver[gärtner]$_V$]$_V$ λu λx λs [GARDENER (x) (s) & CONSUME (u) (s)]

However, as argued by Mateu (2001b, 2003), Stiebels's (1998: 285) requirement that the verbal prefixes in 18a-b be 'lexical adjuncts' is not to be taken for granted. According to the 'lexical subordination approach' (cf. Levin and Rapoport 1988; Spencer and Zaretskaya 1998), it is precisely the preverb element (e.g. *ver-* in 18a) that must be considered as part of the main thematic structure, the surface head element (e.g. *[gärtner]$_V$* in 18a) being a subordinate predicate. The point of departure of Mateu's (2001b, 2003) analysis of those

Germanic preverb constructions that involve l-syntactic subordination is to be found in Spencer and Zaretskaya's (1998) insightful semantic description of verb prefixation in Russian: they argue that some verb prefixation constructions in this language (e.g., 20a) can be given the same L(exical) C(onceptual) S(tructure) analysis as that assigned by Levin and Rapoport (1988) to English resultative constructions like *They drank the pub dry*. Both constructions are explained by making use of a 'lexical subordination operation' to be introduced by the semantic operator *BY* (cf. 20b)). Spencer and Zaretskaya (1998: 17-18) interpret 20a 'to mean that the pen became 'exhausted' (in some sense that is defined in part semantically and in part pragmatically) by virtue of writing activity. This is then completely parallel to the analysis given for *They drank the pub dry*'.[14]

(20) a. Ona is-pisala   svoju ručku   (Russian)
          she iz(out)-write   her   pen.ACC
          'Her pen has run out of ink' (lit. She has written her pen out (of ink)).

     b.   [[CAUSE [ACT (she)]], *IZ* (pen)], BY [WRITE (she)]]

According to Spencer & Zaretskaya, the core predicate (i.e. the semantically primary predicate) corresponds to the preverb (e.g. *iz*-), or to the resultative phrase (e.g. *dry*), while the subordinate predicate (i.e. the semantically secondary predicate) corresponds to the verb (e.g. {*write*/*drink*}). Mateu (2001a,b; 2003) pointed out that one of the most important advantages that can be attributed to the lexical subordination analysis is that it can provide an elegant explanation of so-called 'unselected object constructions'.[15] For example, the unselected kind of direct object in 20a is due to the fact that it is only with the prefix *iz*- ('out') that the basic verb *pisat'* ('to write') can take such an object. As Spencer and Zaretskaya (1998: 17) correctly observe, 'the best way of regarding this case is to take the *iz*-prefix as the core predicator in a complex predicate, with the activity verb *pisat'* as a subordinate predicator'.[16]

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[14] This English resultative construction is assigned the following LCS by Spencer and Zaretskaya (1998: 7): [[CAUSE [ACT (they))], BECOME [DRY (pub)]], BY [DRINK (they)]], i.e. 'they caused the pub to become dry by drinking.'

[15] See Goldberg (1995), Wunderlich (1997), Spencer and Zaretskaya (1998), Mateu (2001a, 2005b), McIntyre (2003, 2004), Svenonius (2004), among others.

[16] Given this, notice that a unified analysis of unselected object constructions such as those in i appears to be possible: indeed, as shown by Levin and Rapoport (1988), it is precisely this unification what the lexical subordination analysis can account for in an elegant way (the Russian examples in id,e come from Spencer and Zaretskaya (1998: ex. 74, 83)).

As pointed out by Mateu (2001b, 2003), Spencer and Zaretskaya's (1998) lexical subordination analysis of verb prefixation can be extended naturally to account for the German complex denominal verbs in 18, which are also examples of unselected object constructions: accordingly, 18a could be said to be assigned the LCS analysis in 21, whose 'structural semantics' is essentially identical to that in 20b, the main differences being reduced to those having to do with their different 'idiosyncratic semantics'.[17]

(21)   [[CAUSE [ACT (he)], *VER* (all his fortune)], BY [GARDEN (he)]] (i.e. 'he caused all his fortune to go away by gardening')

This notwithstanding, the major point of Mateu's (2003) is to claim that Spencer and Zaretskaya's (1998) analysis of verb prefixation as lexical subordination is not to be grounded in a non-syntactic LCS, but rather in H&K's l-syntax, the latter being regarded as the locus of parameterization of morphosyntactic facts affecting argument structure. As emphasized by Mateu (2003), there seems to be strong empirical evidence pointing to the fact that the kind of lexical-syntactic variation involved in Talmy's (1991, 2000) well-known typology between verb- and satellite-framed languages plays a crucial role in accounting for the formation of the data in 18 or 20a: to the extent that this kind of linguistic variation cannot be explained in *purely* lexical-conceptual terms, it is natural to transfer the responsibility of the formation of these complex predicates to the realm of syntax (see section 4 below for further discussion of Talmy's typology).

According to Mateu (2003), the l-syntactic analysis of complex verbs like 18a involves the syntactic composition of two l-syntactic structures: the 'main' one is a transitive structure that

---

(i)   a.   They drank the pub dry.
       b.   They danced the night away.
       c.   Daniel slept his way to the top.
       d.   On pro-pil   vsju   svoju   zarplatu   (Russian)
             he pro-drank   all   his   wages
             'He's drunk his way through all his wages.'
       e.   Rebënok do-kričal-sja   do xripoty
             baby   do-cried-sja(itself)   to hoarseness
             'The baby cried itself hoarse.'

[17] See Rappaport Hovav & Levin (1998) for a descriptive distinction between the 'structural' vs. 'idiosyncratic' components of lexical meaning.

expresses a caused change of location and the 'subordinate' one is an unergative one. Mateu (2003) argued that complex denominal verbs like 18a can be analyzed by means of a 'generalized transformation' (HK 1997; Chomsky 1995; Mateu 2002), whereby the subordinate unergative verb is to be conflated with the main null transitive verb: see 22.[18]
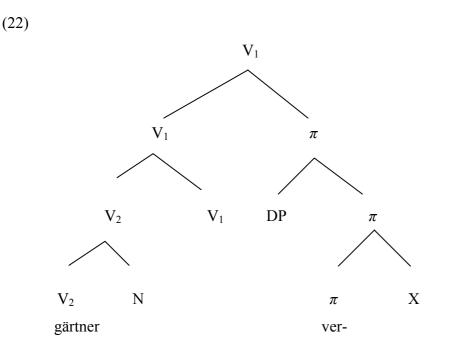
(22)

Figure 8. Mateu's (2003) l-syntactic analysis of *vergärtnern*

Accordingly, the semantic intepretation involved in the so-called 'lexical subordination process' could be argued to be read off from the complex l-syntactic structure in 22, roughly:

(23)   [(he) [[DO-garden]-CAUSE] [all his fortune away]] (i.e. 'he caused all his fortune to go away by doing gardening')

However, taking into account McIntyre's (2004) and Zubizarreta & Oh's (in press) insightful modifications of Mateu's (2001a, 2002) syntactic 'plug-in' theory of 'lexical subordination processes', here we want to provide a slightly modified analysis of the relevant conflation process depicted in 22. Basically, we want to adopt from McIntyre's (2004) and Zubizarreta

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[18] The resultative prefix (e.g. *ver-*) is the head of the inner SC projection (i.e. *P*), which turns out to be adjoined to the superior complex verbal head because of its affixal status. Moreover, following H&K (2002: chap. 8) and Svenonius's (1996) original idea, the proposal that bare particles incorporate their Ground complement was also assumed. See also Svenonius (2004: 243) for an alternative syntactic analysis of 20a.

& Oh's (in press) analyses the idea that the relevant conflation involved in 22 is not carried out via subordinating a full-fledged unergative verb to a null transitive verb, but rather a root to this null light verb: cf. 24. Furthermore, we recognize that there is no empirical evidence for us to posit that a true unergative verb is involved in the formation of the verb *vergärtnern*, whereby we consider that the simpler analysis in 24 is more appropriate than our previous analysis in 22 (for sake of simplicity, the decomposition of π into a complex P(ath)-P(lace) constituent is omitted here: cf. sections 2.1 and 2.2 above).[19]
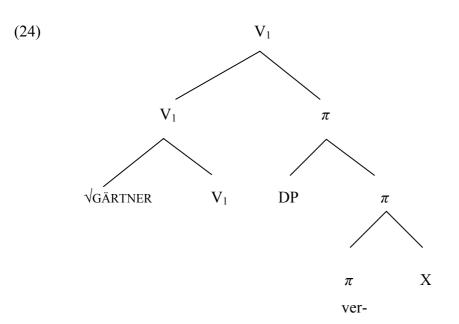
(24)

Figure 9. L-syntactic analysis of *vergärtnern* revisited

3.5. Complex denominal verbs of the type <u>versanden</u>. Consider the following examples from Stiebels (1998: 291):

(25)   a.   Die Bücher ver-staub-en.

              the books   ver-dust-3pl

              'The books get dusty'.

---

[19] McIntyre's (2004) and Zubizarreta & Oh's (in press) agree with Mateu's (2000, 2001b, 2002) proposal that the formation of Germanic complex resultative(-like) constructions (those ones in 18 included) is not to be carried out in a semantic level but rather in a syntactic one (*contra* Wunderlich 1997; Stiebels 1998; Spencer & Zaretskaya 1998). However, concerning the relevant linguistic/parametric variation involved, the former appear to be more sympathetic to Snyder's (2001) relating the formation of resultative constructions to his 'compounding parameter', whereas we think that it is Talmy's (1991, 2000) well-known typology what is stake here. We postpone this issue until section 4, where we show why Snyder's 'compounding parameter' is not empirically well-grounded; moreover, in this section, we will review our previous l-syntactic explanation of Talmy's (1991, 2000) descriptive typology between verb-framed vs. satellite-framed languages by paying special attention to important differences between some Germanic vs. Romance Path constructions.

b.   Die Bucht ver-sand-et.

the bay   ver-sand-3sg

'The bay gets full of sand'.

After positing a LDG-based semantic analysis for 25, which we will not review here for reasons of space, Stiebels (1998: 296) points out that the verbs in 25 should be analyzed by H&K as follows: 'the base noun, being the internal argument of P, is moved to the overt P, and then this complex is moved to V. This derivation, however, violates the fact that the prefix does not attach to nouns'.

We agree with Stiebels that prefixes like *ver-* do not attach to nouns whereby she is right in pointing out that this cannot be the correct analysis. In fact, we want to argue that the appropriate l-syntactic analysis of the examples in 25 does *not* involve any relation between the prefix *ver-* and the noun (*contra* Stiebels's suggestion above). Rather our proposal is that these examples involve an l-syntactic subordination process like the one we argued for the *vergärtnern* type above. In 25 the resultative prefix *ver-* specifies that the surface of the subject DP is fully affected: indeed, *ver-* is the SC predicate (see Mulder 1992),[20] which, in our system, means that it is the prepositional-like head of a subpredicative structure merged with the upper verb (cf. sections 2.1 and 2.2 above). Following our previous revision of l-syntactic subordination processes, we claim that the introduction of *Sand* into the complex verb in (26) is via a root-Verb compounding (McIntyre 2004; Zubizarreta & Oh in press).
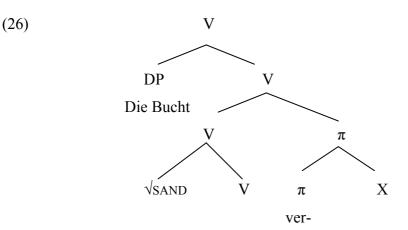
(26)

Figure 10. L(exical)-syntactic analysis of *versanden*

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[20] See also Mulder (1992) for an insightful SC analysis of the polysemic prefix *ver-* in Dutch, which is, to our view, more explanatory than Lieber & Baayen's (1992) descriptive semantic account.

On the other hand, Stiebels (1998: 296) points out that the intransitive denominal verb *versanden* should not occur according to H&K's theory because all denominal verbs based on a P-complement structure like the one in 3b are predicted to be transitive. However, as shown above, *shelve* and *versanden* do have different syntactic argument structures: 3b (or its revised version in 7) and 26, respectively. Crucially, the specifier is merged internally to P in 3b, while it is the inner subject of V in 26: indeed, this would be in essence H&K's answer of why *shelve* cannot enter into the causative alternation, while *versanden* can. This said, the fact that the causative alternation is typically taken by H&K as a good structural test to discriminate l-syntactic structures should not lead one to consider that conceptual factors are irrelevant. Of course, they are relevant! Accordingly, for example, we agree with Stiebels's (1998: 292) remarks when saying 'that *verstauben* <(cf. 25a: JM)> cannot be used as a causative verb is explained by conceptual reasons or plausibility: it is implausible to cause something to become dusty'. Interestingly, notice that H&K's (2002) syntactic approach does provide a nice account of the following prediction: intransitivization of *shelve* (*The book shelved*) should be worse than transitivization of *verstauben* (cf. 25a). Indeed, the former process gives an anomalous (i.e. semantically deviant) and ungrammatical result, while the latter gives an anomalous but grammatical result.[21]

3.6. Complex locatum verbs of the type <u>unterkellern</u>. Consider the following examples from Stiebels (1998: 288):

(27) a. Sie unter-keller-ten das Haus
          they under-cellar-ed the house
          'They put a cellar under the house'.
      b. Sie über-dach-ten den Vorgarten
          they over-roof-ed the front yard
          'They roofed (over) the front yard'.

Stiebels points out that an adequate paraphrase of the meaning of the verb in 27a is not a locative one ('to cause that a cellar becomes located under the house'), but rather a possessive one ('to cause that the house gets a cellar, which is located under the house'). Its final
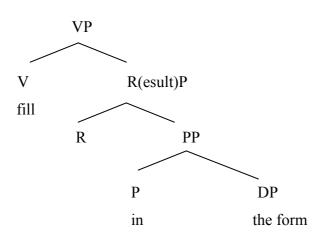
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[21] For reasons of space, we leave it for future work to clarify some of the misconceptions of H&K's use of the causative alternation test found in Kiparsky (1997), among others.

semantic derivation is formalized in 28, where the preverb is said to serve to specify the spatial relation.

(28)   [unter [keller]$_V$]$_V$ λy λx λs [CAUSE (x, BECOME(POSS(y, CELLAR)))(s)

                        & BECOME (LOC (CELLAR, UNDER [y])) (s)

As pointed out by Stiebels, there is no way for H&K to deal with this adjunct analysis. This notwithstanding, assuming the prefix *unter* is not an adjunct but the SC predicate, we would like to argue for an alternative syntactic analysis based on or inspired by the one put forward by Svenonius (2004) when dealing with what he calls 'unaccusative particle constructions' like *fill in the form* (vs. *fill in the information*): cf. 29a. According to Svenonius (2004: 223), 'what distinguishes unaccusative particle constructions is the absence of a Figure-introducing *p* head, parallel to the Agent-introducing *v* of much recent work. (…) In <29a: JM> no internal case is available, as in the classic Burzio's Generalization cases, so the complement of P must get case from the verb, and does not surface as a prepositional complement'. The corresponding analysis of 27a expressed in Svenonius's (2004) and Ramchand & Svenonius's (2002) terminology is given in 29b, 29c being its proper translation into our present l-syntactic terms.

(29)   a.

```
                    VP
                   /  \
                  V    R(esult)P
                 fill    /  \
                        R    PP
                            /  \
                           P    DP
                           in   the form
```

b.

```
                    VP
                   /  \
                  V    R(esult)P
                kellern   /  \
                         R    PP
                             /  \
                            P    DP
                          unter-  das Haus
```

c.

```
                    V
                   / \
                  V   P(ath)
                 / \   /  \
          √KELLER  V  Ø    P(ath)
                             /  \
                         P(ath)  P(lace)
                                 /  \
                            P(lace)  DP
                             unter-  das Haus
```
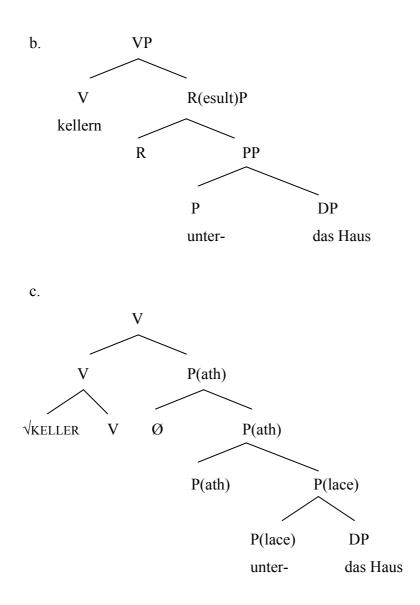
Figure 11. L(exical)-syntactic analyses of 'unaccusative particle constructions'

Interestingly, notice that in these locatum constructions the Figure/Theme argument can be expressed via a *with/mit* adjunct: e.g. *fill in the form with relevant information*; similarly, *mit einem Kohlenkeller* (i.e. 'with a coal cellar') can also be added to 27a. It seems then that there is a correlation between promoting the Ground argument to an affected direct argument position and demoting the Figure/Theme argument out of the complex predicative PP headed by the preverb. In a sense, notice that such a demoting process is similar to the one found in the passive construction, a well-known example of unaccusative construction.

On the other hand, notice that there is a non-trivial step involved in the derivation of 29c: i.e. assuming that encyclopedic roots cannot typically be directly associated to V (as noted above, due to their relational nature, verbal heads can only be directly associated with so-called

'light' stuff: cf. 'light verbs'), we posit that the nominal root in 27 is introduced via a root-V compound strategy (cf. section 3.4 above). As will be shown immediately below, the assumption that verbal heads and, more generally, relational heads cannot be directly associated with potentially open-ended encyclopedic stuff is not only based on theoretical grounds (Mateu 2005a) but on empirical ones as well: next we will show how this assumption relates to our l-syntactic conception of Talmy's (1991, 2000) typological difference between satellite- and verb-framedness.

4. Talmy's (1991, 2000) typology of satellite- vs. verb-framed languages revisited: Path constructions in Germanic vs. Romance

In this section, after briefly reviewing Mateu's (2000, 2002, 2003) l-syntactic explanation of Talmy's well-known descriptive typology, we will deal with some apparent counterexamples to his typology (e.g. the existence of directional preverbs in Romance).[22]

First of all, it will be useful to introduce some relevant background on his typological work. Consider some paradigmatic examples of his typology in 30: while English can typically be taken as an example of satellite-framed language, Catalan can typically be regarded as an example of verb-framed language (Mateu & Rigau 2002; Mateu 2002). To put it in Talmy's (1985) terms, 30a involves conflation of Motion with Manner, or alternatively, in Talmy's (1991) terms, 30a involves conflation of $_{\text{AGENTIVE}}$MOVE with [EVENT]$_{\text{SUPPORTING}}$. In contrast, the corresponding counterpart of 30a in a Romance language like Catalan (cf. 30b) typically involves a different lexicalization pattern, i.e. conflation of Motion with Path, the Manner component (or the Co-event) being expressed as adjunct.

(30)   a. The boy danced into the room.

     b. El noi   entrà   a l'habitació   ballant.   (Catalan)

        The boy   went-into/entered   loc.prep the room   dancing

The 'satellite-framedness' of Germanic languages is to be related to the fact that, for example, the *P*(ath) element *into* in 30a is not conflated in the verb, this null verb being then allowed to be conflated with the so-called {'Manner constituent'/ [EVENT]$_{\text{SUPPORTING}}$}. To

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put it in Mateu's (2000f) terms, an 'l-syntactic subordination' process is involved in 30a, which HK's theory allows us to express in the following morphosyntactic terms:[23] the non-conflating (i.e. 'satellite') nature of *into* allows the phonologically null unaccusative verb to be merged with the root √DANCE (cf. 31a). In contrast, the conflating nature of this Path element in Catalan gives a directional verb (*entrar* 'enter'), the adjunct *ballant* ('dancing') being merged outside the main argument structure: cf. 31b.
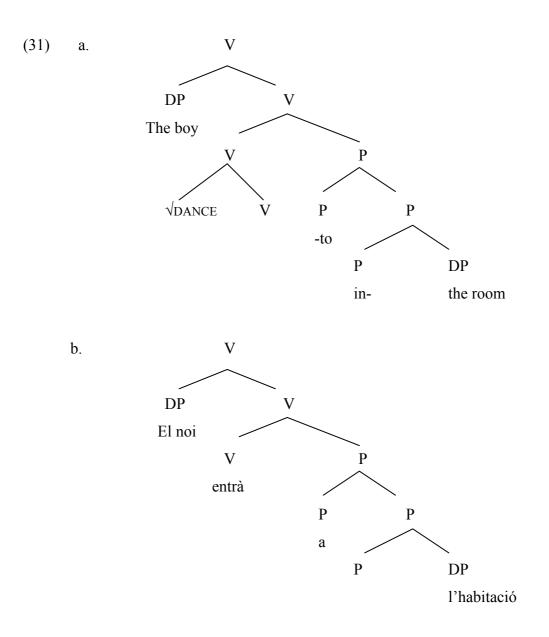
(31)   a.

```
                    V
           _____
          DP                  V
        The boy        _____
                      V                   P
                 _____          _____
              √DANCE     V        P            P
                        -to             _____
                                       P          DP
                                      in-       the room
```

   b.

```
                    V
           _____
          DP                  V
        El noi         _____
                      V                   P
                    entrà           _____
                                   P          P
                                   a     _____
                                        P          DP
                                            l'habitació
```

Figure 12. L(exical)-syntactic analyses of *The boy danced into the room* and Cat. *El noi entrà a l'habitació*

---

[23] As in section 3.4 above, by taking into account McIntyre's (2004) and Zubizarreta & Oh's (in press) insightful modifications of Mateu's (2001a, 2002) syntactic 'plug-in' theory of 'lexical subordination processes', here we provide a slightly modified analysis of the relevant conflation process involved.

As emphasized by Mateu (2003), Talmy's (1991, 2000) typology accounts for why Romance languages (and, more generally, 'verb-framed languages') typically lack both complex path of motion constructions like 30a and resultative preverb constructions like those ones in 18a,b and 20a. Basically, our explanation of this descriptive fact is that verb-framed languages typically lack the l-syntactic pattern in 31a since in these languages it is the Path (and not an independent root) what typically provides the relevant null motion verb with phonological content: cf. 31b.[24]

This notwithstanding, there appear to be some counterexamples to Talmy's typology. Indeed, there is a variety of directional constructions in Romance languages that could be taken as problematic for his typology since they appear to involve 'satellite-framed' constructions, i.e. constructions where directional P is apparently not conflated in the verb: e.g. cf. (a) Italian verb-particle constructions; (b) *correre*-verbs in unaccusative contexts or (c) directional prefixes in Romance.[25]

(32) a. It. mettere *giù* 'put down'; buttare *via* 'throw down'; saltare *dentro* 'jump in'

 b. It. Gianni è corso *a* casa ('lit. Gianni is run to home', 'Gianni ran home')

 c. It. *im*bottigliare; Cat. *em*botellar; Fr. *em*bouteiller: *IN*bottle, 'to bottle' (cf. 'to put *IN*to a bottle')

 c'. It. *a*llargare; Cat. *a*llargar; Sp. *a*largar: *TO*large, 'to enlarge' (cf. 'to cause X to go *TO* the state of <large>)

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[24] As noted above, the parametric differences between English and Catalan we are discussing in the context of Talmy's typology could also be related to Snyder's (2001) alternative explanation, which is based on the connection between productive compounding (like N-N compounds) and complex predicates (like resultatives). Indeed, Snyder's approach appears to make the correct predictions for languages like English and Catalan (i.e. while the former shows both productive N-N compounding and complex resultative constructions, the latter lacks both). However, his predictions are not borne out when considering other language families: for example, on the one hand, Slavic languages do have resultative constructions like the one in 20a (cf. Spencer & Zaretskaya (1998), Mateu (2002), Svenonius (2004); *contra* Snyder (2001: 329)), but lack productive N-N compounding. On the other hand, Basque lacks resultative constructions but has productive N-N compounding. Given this fact, we do not consider Snyder's alternative explanation as correct and, for our present purposes, will limit ourselves to basing our syntactic analysis on Talmy's (1991, 2000) empirically well-grounded typology .

[25] Although the literature on directional constructions in Romance is not so extensive as the one on Germanic preverbs, here are some recent references: for Italian verb-particle constructions, see Masini (2005), among others; for *correre* verbs in directional contexts, see Folli & Ramchand (2002) and Zubizarreta & Oh (in press), among others; for Romance directional prefixes, see Di Sciullo (1997), Padrosa (2005), and Acedo (2006, in press), among others.

Our present proposal is that the formation of all the examples in 32 does not involve an l-syntactic pattern like the one in 31a but rather they are all cases of P-cognation, i.e. cases where the prepositional(like) element specifies the P(ath) element that has already been conflated in the verb.[26] Accordingly, the constructions in 32 are 'verb-framed' in the sense that P(ath) is already conflated in the verb: concerning 32a,b, notice that the verb itself encodes a directional meaning which is further specified through a directional P, i.e. a particle in 32a and a directional preposition in 32b.[27]

Concerning the directional prefixation cases in 32c-c', their corresponding l-syntactic analyses would involve the P-cognation process we have put forward for the denominal type *einrahmen* (cf. section 3.1) and the deadjectival type *eindeutschen* (cf. section 3.3), respectively.[28] Following Acedo Matellán's (2006) insightful discussion on 'rich' vs. 'poor' Paths, we could relate their main differences (e.g. their morphological (in)dependency) to the fact that German particles like *ein* are conceptually richer than Romance prefixes like *en-* and *a-*.

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[26] Indeed, notice that this is precisely the case of 30b/31b as well, where the preposition *a* 'to' specifies the Path that has been conflated in the verb (see Mateu & Rigau 2002: 224).

[27] Unsurprisingly, the list of *correre*-verbs that can enter into an unaccusative construction is quite reduced, which includes *correre* 'run', *saltare* 'jump', *volare* 'fly', and a few more (see Folli & Ramchand (2002) and Zubizarreta & Oh (in press)). For us it is crucial to point out that *all* of them encode a directional component which is to be l-syntactically related to P(ath): if so, the directional preposition/particle co-occuring with the '*correre*-verb' could be analyzed as a case of P-cognation. Clearly, such an analysis is not possible for the Italian counterpart of 33b *John danced into the room (*cf. It. *Gianni è ballato alla stanza*), since manner of motion verbs that do not lexically involve a directional component are excluded from the unaccusative context. In striking contrast to that, in Germanic languages manner of motion verbs systematically enter into the unaccusative context.
Similar qualifications hold for Italian verb-particle constructions: it is important to realize that the list of Italian verbs that enter into these constructions is reduced to directional verbs as well. In contrast, as shown by the example in 33a *John drank the night away*, this restriction does not hold in Germanic.
All in all, we think that the existence of both verb-particle constructions and unaccusative constructions containing *correre*-verbs in a verb-framed language like Italian cannot be taken as a serious counterexample to Talmy's typological generalizations concerning Romance, since both constructions do involve directional verbs, i.e. verbs that already encode a Path meaning, which is further specified, we argue, by a cognate P.

[28] Alternatively, one could argue that the P(ath) cognation strategy is typically valid for Romance (or, more generally, for verb-framed languages) and that the formation of German verbs like *einrahmen* 'to frame' or *eindeutschen* 'to germanize' involves an l-syntactic subordination process like the one depicted in 24. Accordingly, for example, *einrahmen* could roughly be paraphrased as 'to put X into a space in a framing manner'. However, in this paper, we have argued for extending H&K's (2000) P-cognation analysis of English complex verbs like *heat up* or *warm up* to those German complex verbs involving a very similar semantics, i.e. those that have an (abstract) Ground conflated in the verb: e.g. *einrahmen* 'to frame' or *eindeutschen* 'to germanize'. Of course, H&K's (2000) and our P-cognation analyses for these Germanic verbs could be wrong as well as the associated strong intuition that they conflate a final location or state, an l-syntactic subordination

On the other hand, as predicted by Talmy's typology, examples like those in 33 are *not* found in Romance: this is not surprising at all since in these cases the verb does *not* lexically involve a directional meaning. Indeed, the constructions in 33 do not involve a P cognation analysis; rather they involve an l-syntactic structure where the phonological matrix of the relevant null verb has been saturated by an independent root (e.g. cf. 31a for 33b).

(33) a. John drank the night away.

b. The boy danced into the room / The truck rumbled into the yard.

c. Pat outplayed Peter in the final.

d. John talked us into a stupor.

e. The dog barked the chickens awake.

f. He slept his way into a wonderful world.

For reasons of space, we must leave the discussion here. At least we hope to have shown that those apparent counterexamples in 32 must not be taken as involving serious problems to Talmy's typology (as we understand it). In contrast, it should be clear that to find cases like those ones in 33 in verb-framed languages would contribute to refuting his typology. As far as we can tell, such cases are not easy to find, which leads us to conclude that Talmy's typological patterns are quite robust.

5. Concluding remarks

As noted above, the goal of the present paper was quite specific: i.e. to provide a l(exical)-syntactic explanation of some challenging patterns of Germanic complex verbs that were taken by Stiebels (1998) to cause non-trivial problems to H&K's (1993, 1997) syntactic theory of argument structure. Interestingly, we have reached a very different conclusion from Stiebels's: i.e. semantic approaches to the formation of complex verbs like *cool off*, *gamble away* or *outdrink* can be descriptively adequate, but cannot provide a principled explanation of why some languages (typically, the 'verb-framed' ones) lack them. This fact led us to pursue an l-syntactic explanation of Talmy's (1991, 2000) typology within HK's (2002) theory of argument structure (Mateu 2002; 2005b, i.a.). To our view, the difficulty of finding (clear) counterexamples to Talmy's typology (as we understand it) leads us to claim that it is

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analysis being then more appropriate for these cases. We leave it for further research to determine which of these two competing analyses is more viable for those verbs that (appear to) have a Ground conflated.

empirically well-grounded and that its associated descriptive generalizations are quite robust. Additionally, we hope that the l-syntactic explanations we have provided for them will contribute to show the explanatory power of H&K's (1998, 2000, 2002) syntactic approach to argument structure.

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