

V to C and Late Syntactic Word Formation

1. Immobile verbs

Immobile verbs in German and Dutch have been discussed by Haider (1993), Koopman (1995), Vikner (2005), and others. Immobile verbs can appear in base position, as seen in (1a), but not in second position, as illustrated in (1b–d).

- (1) a. omdat deze uitgeverij zulke boeken vandaag de dag niet her-uitgeeft
because this publisher such books today the day not re-out.gives
‘because this publisher does not republish such books today’
b. *Vandaag geeft deze uitgeverij zulke boeken niet her-uit.
today gives this publisher such books not re-out
c. *Vandaag her-geeft deze uitgeverij zulke boeken niet uit.
today re-gives this publisher such books not out
d. *Vandaag her-uitgeeft deze uitgeverij zulke boeken niet.
today re-out.gives this publisher such books not

I provide a new analysis of this phenomenon which relates it to certain phenomena in English (incompatibility of *re-* and verbal particles) and in Nordic languages (obligatory incorporation of verbal particles in derivations).

2. Very brief sketch of the analysis

I suggest that words are formed relatively late in the syntactic derivation, a fact which has important consequences for spell-out and the architecture of grammar more broadly. In brief, immobile verbs involve operators, like *re-*, which bind word-internal variables. These are merged when the VP is built, and then labels are assigned and linearization of syntactic constituents is determined, including V-to-C. V-to-C respects a boundary introduced by separable prefixes, which is why they are stranded. Subsequently to V-to-C, words are formed. In the case of a separable prefix verb, V-to-C will at this point have destroyed the environment for forming a word which includes both the verbal stem and the prefix corresponding to *re-*, or any other operator with word-internal scope. At LF, an operator which cannot bind a suitable variable leads to derivational crash.

3. Syntactic words and the scope of *re-*

Although it is sometimes suggested that the notion of ‘word’ has no syntactic significance, I argue that it is significant for Germanic, at least. Consider the combinations in (2).

- | | | | |
|-----|------------------------------|--------------------|---------------------|
| (2) | | One syntactic word | Two syntactic words |
| | One listeme (idiomatic) | <i>upload</i> | <i>boot up</i> |
| | Two listemes (compositional) | <i>outswim</i> | <i>swim out</i> |

Upload and *boot up* are listemes, because they have unpredictable meanings (Di Sciullo and Williams 1987), while *outswim* and *swim out* are compositional combinations of two listemes. The table in (2) shows that the listeme doubly dissociates from the word.

As observed by Williams (2014), the prefix *re-* is sensitive to the syntactic word boundary. It must scope over a RESULT head (Ramchand 2008) which is located in the same syntactic word. This captures the fact, observed by Keyser and Roeper (1992), that *re-* cannot combine with unincorporated verb-particle combinations, as illustrated in (3).

- | | | |
|-----|-------------|---------------|
| (3) | re-upload | *re-boot up |
| | re-outswim | *re-swim out |
| | re-overturn | *re-turn over |
| | re-uproot | *re-root up |

In verb-particle combinations, the verbal particle overtly lexicalizes the RESULT head (Ramchand and Svenonius 2002). If this is incorporated into the verbal stem, then *re-* can scope over it within the word, as in the examples on the left; but if the particle remains unincorporated, then it remains outside the scope of *re-* and the forms are bad.

4. V-to-C

Examples like (1a) show how prefixes like Dutch *her-* may combine with separable prefixed verbs in the head-final verbal cluster, just like English *re-* combining with incorporated verb-particle combinations as in (3). According to my analysis, this means that *her-* must form a syntactic word with the verb-particle combination when they occur together in a cluster. The examples in (1b–d) show how this is incompatible with V-to-C. The problem is not that V-to-C cannot front a complex verb; simple verbs prefixed with *her-* can appear in C. Rather, the problem is that V-to-C is sensitive to a boundary, the boundary between the verb stem and the separable prefix; this causes the verb stem to linearize in C without the particle. Once the verb stem is linearized in C, it is no longer located in the same local domain as the prefix *her-*, which hence cannot form a word with it and therefore cannot scope over the result operator which comprises part of the verb’s lexical semantics.

5. Cyclicity

The analysis entails that word formation occurs inside the verb phrase after C merges. Word formation must apply to the complex verb *heruitgeeft* in (1a). If it applied in a main clause, prior to the merge of C, then it should be able to appear in second position, i.e., (1d) should be acceptable. The fact that word formation fails to combine *her-* with the verb stem in the main clause is directly due to V-to-C separating the verb stem away from the prefix, as in (1b).

If word formation were generally the result of head-to-head movement, then this would require countercyclicity: C is merged, and subsequently to that, V incorporates to the prefix in VP. However, there are many other problems with the assumption that word formation is generally due to head-to-head movement. I suggest that word formation is a part of the spell-out cycle, and does not involve movement. Hence, there is no problem here for the well-supported assumption that movement is strictly cyclic and obeys the extension condition.

Attempts to avoid the conclusion that incorporation is syntactic fail. If incorporation were presyntactic, then it could not be bled by V-to-C. If incorporation were postsyntactic, then it would either have to be an LF or a PF phenomenon. If it were a PF phenomenon, it could have no effect on interpretation, and the condition on *re-* would also have to be a PF condition. But plausible PF conditions on *re-* are satisfied by either or both of (1b–c), so the problem cannot be a PF problem. If incorporation were an LF phenomenon, then it should be able to apply under reconstruction: the verb and particle are clearly interpreted as a unit, even when separated by V-to-C, so must be unified by reconstruction at LF, at which point incorporation could occur if it were an LF phenomenon.

6. Consequences

In the model which emerges from this analysis, sections of extended projections linearize in a way that is sensitive to certain boundaries, including the one between a verbal stem and a separable prefix (cf. Brody 2000a,b). In the usual case, these boundaries also correspond to word boundaries, as seen in the Nordic languages, in which verbal head-initial multiword combinations like *gå ut* ‘go out’ systematically alternate with derived head-final words like *utgang* ‘exit.’ In some cases words can be formed across these boundaries, as in cluster formation in the German and Dutch clause-final verbal complex. The pattern of immobile verbs, I have argued, shows that this word formation is syntactic, but does not involve movement.

References

- Brody, Michael. 2000a. Mirror Theory: Syntactic representation in Perfect Syntax. *Linguistic Inquiry* 31 1: 29–56.
- Brody, Michael. 2000b. Word order, restructuring, and Mirror Theory. In *The Derivation of VO and OV*, edited by Peter Svenonius, pp. 27–43. John Benjamins, Amsterdam.
- Di Sciullo, Anna-Maria and Edwin Williams. 1987. *On the Definition of Word*. Linguistic Inquiry Monographs; 14. MIT Press, Cambridge, Ma.
- Haider, Hubert. 1993. *Deutsche Syntax, generativ: Vorstudien zur Theorie einer projektiven Grammatik*. Narr, Tübingen.
- Keyser, Samuel Jay and Thomas Roeper. 1992. Re: The abstract clitic hypothesis. *Linguistic Inquiry* 23 1: 89–125.
- Koopman, Hilda. 1995. On verbs that fail to undergo V-second. *Linguistic Inquiry* 26 1: 137–63.
- Ramchand, Gillian. 2008. *Verb Meaning and the Lexicon*. Cambridge University Press, Cambridge.
- Ramchand, Gillian and Peter Svenonius. 2002. The lexical syntax and lexical semantics of the verb-particle construction. In *Proceedings of WCCFL 21*, edited by Line Mikkelsen and Christopher Potts, pp. 387–400. Cascadilla Press, Somerville, Ma.
- Vikner, Sten. 2005. Immobile complex verbs in Germanic. *Journal of Comparative Germanic Linguistics* 8: 83–115.
- Williams, Edwin. 2014. Derivational prefixes are projective, not realizational. In *Functional Structure from Top to Toe: A Festschrift for Tarald Taraldsen*, edited by Peter Svenonius, pp. 290–315. Oxford University Press, New York.