

Immobile Complex Verbs in Germanic

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Abstract

Certain complex verbs in Dutch, German, and Swiss German do not undergo verb movement. I suggest that these "immobile" verbs have to fulfill both the requirements imposed on complex verbs of the V° type (= verbs with "non-separable prefixes") and the requirements imposed on complex verbs of the V* type (= verbs with "separable prefixes"). This results in such verbs being morphologically unexceptional, i.e. having a full set of forms, but syntactically peculiar ("immobile"), i.e. they can only occur in their base position, where no movement has taken place. Any kind of movement is incompatible with either the V° requirements or the V* requirements.

Haider (1993:62) and Koopman (1995), who also discussed such immobile verbs, only account for verbs with two prefix-like parts (e.g. German *uraufführen* 'to perform (a play) for the first time' or Dutch *herinvoeren* 'to reintroduce'), not for the more frequent type with only one prefix-like part (e.g. *zwüsche* in Swiss German *zwüschelande* 'to have a stop-over' or *bauch/buik* in German *bauchreden*/Dutch *buikspreken* 'to ventriloquise').

This analysis will try to account not only for the data in Haider (1993) and Koopman (1995) but also for:

- why these immobile verbs include verbs with only one prefix-like part (and why the single prefix-like part in these verbs may NOT be a particle),
- why these immobile verbs include verbs with two prefix-like parts where each of these are separable (!) particles (as in e.g. German *voranmelden* 'preregister' and *vorankündigen* 'announce in advance')
- why there is such a great amount of individual speaker variation as to which verbs are immobile,
- and finally also for why such verbs are not found in Germanic VO-languages such as English and Danish.

Whereas I thus disagree with Haider (1993) and Koopman (1995) about the details of the morpho-syntactic analysis of the individual verbs, I agree with these two works about the consequences for the analysis of verb movement in Dutch, German, and Swiss German. The reason why it is only possible for finite forms of these verbs to occur in clause-final position in embedded clauses is that this position is the base-generated position, and thus no conflict can arise as to whether the prefix-like part must or must not be carried along under verb movement.

Thus, the fact that several OV-Germanic verbs, not just one, behave in this way provides support for the conclusion that the clause-final position of finite verbs in embedded clauses is parallel to the position that non-finite verbs have in all clauses, i.e. inside their own VP. In other words, Dutch, German, and Swiss German do not have V°-to-I° movement.

This talk is based on Vikner (2005).

0. Introduction: Sentence structure

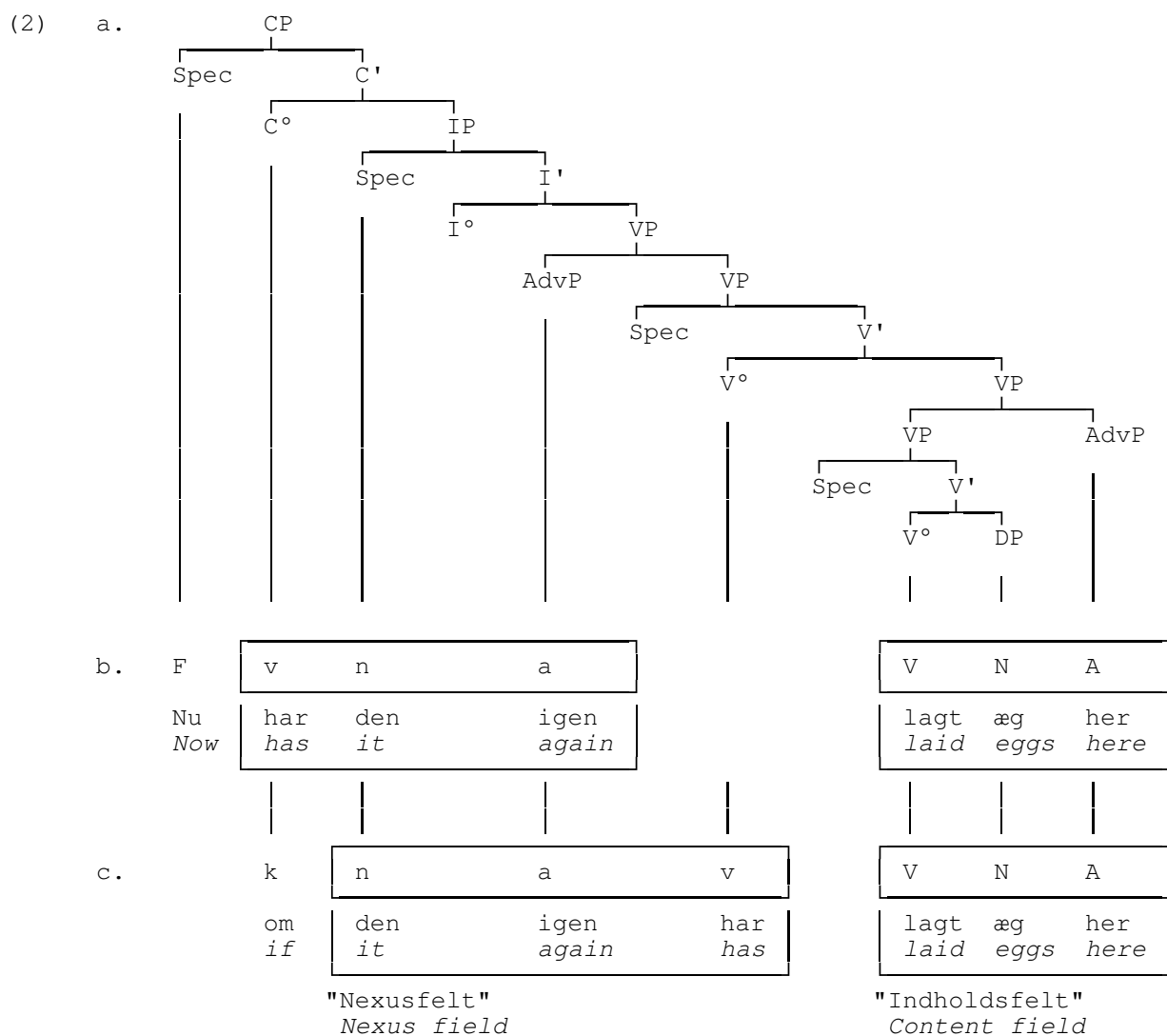
In a somewhat simplified generative analysis, the structure of a sentence is as follows:

- (1) A clause is a CP,
the complement of its head (= C°) is an IP, and
the complement of the IP's head (= I°) is a VP.

(VP thus corresponds to Diderichsen's 1962 "indholdsfelt",
IP thus corresponds to BOTH Diderichsen's 1962 "nexusfelt" AND "indholdsfelt")

All verbs have their own VP. Adverbials (etc.) may be adjoined both on the left side and on the right side of a VP.

The structure in (2a) may thus be compared to the Diderichsen model for modern Danish (etc.) as illustrated in (2b) for main clauses (Diderichsen 1962:162, 186, jf. også Hansen 1980:44, Heltoft 1986, Allan et al. 1995:491-496, Jørgensen 2000:71-78, Tøgeby 2003:56, 72) and in (2c) for embedded clauses (Diderichsen 1962:186, jf. også Hansen 1980:72-74, Allan et al. 1995:496-498, Heltoft 1986, Jørgensen 2000:63-71, Tøgeby 2003:97-99):

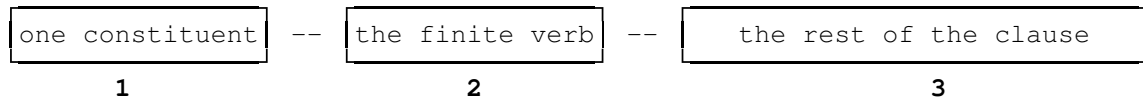


(This collapsing of the Diderichsen model for the main clause with the one for the embedded clause was introduced by Platzack 1985).

0.1 Main clauses

In all Germanic languages with the exception of Modern English, main clauses are "verb second" (V2), i.e. the finite verb occupies the second position in the clause:

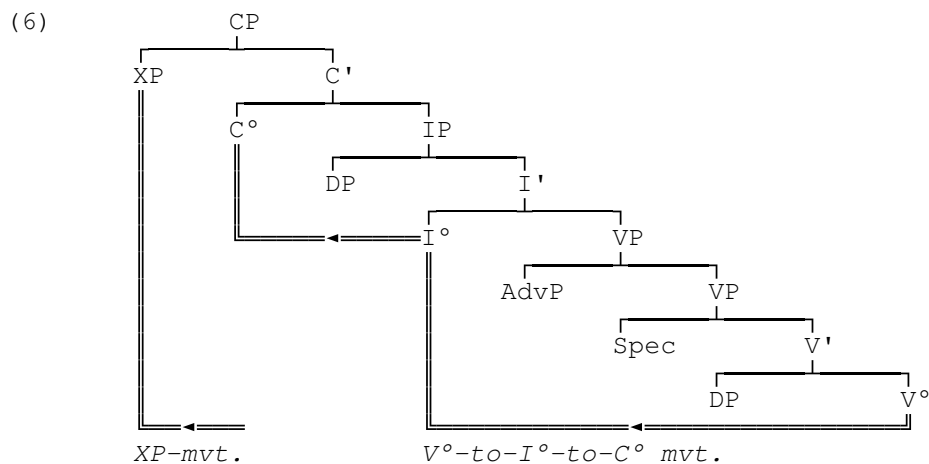
(3) Verb second = V2:



Danish, Icelandic and German are thus V2, whereas English and French are not:

	CP-Spec	C°	IP
(4) a. Da.	Den her bog	<u>har</u>	Peter læst
b. Ic.	Þessa bók	<u>hefur</u>	Pétur lesið
c. Ge.	Dieses Buch	<u>hat</u>	Peter gelesen
d. En.	*This book	<u>has</u>	Peter read
e. Fr.	*Ce livre	<u>a-t-</u>	il lu
(5) a. Da.	Nu	<u>har</u>	Peter læst den her bog
b. Ic.	Nú	<u>hefur</u>	Pétur lesið þessa bók
c. Ge.	Jetzt	<u>hat</u>	Peter dieses Buch gelesen
d. En.	*Now	<u>has</u>	Peter read this book
e. Fr.	*Maintenant	<u>a-t-</u>	il lu ce livre

V2 is analysed as two movements: A maximal projection (e.g PP, AdvP, DP) moves into CP-Spec (i.e. the 1st position) and the finite verb moves into C° (i.e. the 2nd position):



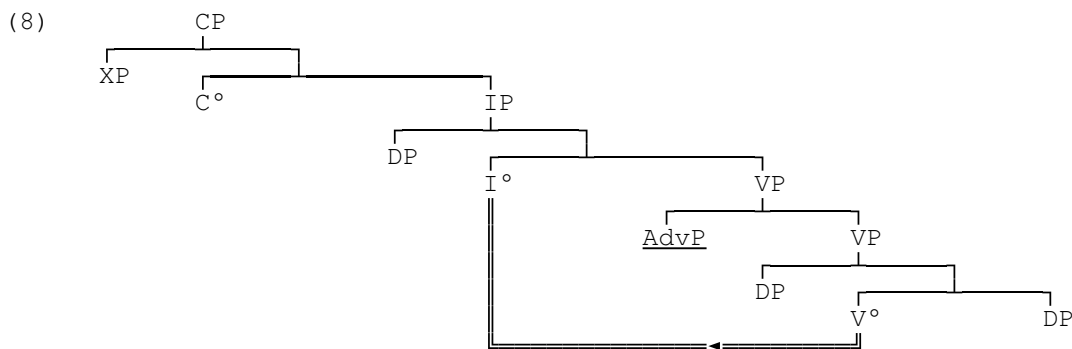
	V2 (sec. 0.1)	V°-to-I° (SVO: 0.2, SOV: 0.3)
a. French	-	+
b. English	-	-
c. Icelandic	+	+
d. Danish	+	-
e. German	+	? (Vikner 1995: +, Vikner 2001, this paper:-)

0.2 Embedded SVO-clauses

Germanic and Romance SVO-languages differ as to whether they have V° -to- I° movement or not, i.e. whether the finite verb (which is taken to be base-generated in V°) may remain in V° or has to move into I° . Given that V2 forces the finite verb to move to C° , V° -to- I° movement is only visible in clauses which are not V2 (i.e. in most of the Germanic languages only in embedded clauses).

Whether a finite verb is in V° or in I° can be seen from its position relative to a medial adverbial (or negation): If the finite verb is left of the adverbial, it is in I° , whereas if the finite verb is right of the adverbial, it is in V° .

Medial adverbials are adverbials that occur in the middle of the clause, i.e. neither clause initially nor clause finally but right of the subject and left of the non-finite verbs and the object.



In Icelandic, Yiddish and French, the finite verb precedes a medial adverbial in all clauses (incl. all embedded clauses). This shows that these languages have V° -to- I° movement:

(9)

	C°	IPsp	I°	AdvP	V°	DP	
a. En.	*That	John	eats	often		tomatoes	(surprises most people)
b. Da.	*At	Johan	spiser	ofte		tomater	(overrasker de fleste)
c. Fa.	*At	Jón	etur	ofta		tomatir	(kemur óvart á tey flestu)
d. Ic.	Að	Jón	borðar	oft		tómata	(kemur flestum á óvart)
e. Yi.	Az	Jonas	est	oft		pomidorn	(iz a khidesh far alemen)
f. Fr.	Que	Jean	mange	souvent		des tomates	(surprend tout le monde)

In English, Danish and Faroese (and also Norwegian and Swedish), the finite verb follows a medial adverbial in those embedded clauses that do not allow V2. This shows that these languages do not have V° -to- I° movement:

(10)

	C°	IPsp	I°	AdvP	V°	DP	
a. En.	That	John		often	eats	tomatoes	(surprises most people)
b. Da.	At	Johan		ofte	spiser	tomater	(overrasker de fleste)
c. Fa.	At	Jón		ofta	etur	tomatir	(kemur óvart á tey flestu)
d. Ic.	*Að	Jón		oft	borðar	tómata	(kemur flestum á óvart)
e. Yi.	*Az	Jonas		oft	est	pomidorn	(iz a khidesh far alemen)
f. Fr.	*Que	Jean		souvent	mange	des tomates	(surprend tout le monde)

In Vikner (1997/1999, forthc.), I suggest that V° -to- I° movement in the above-mentioned SVO-languages is linked to the presence of person inflection in all tenses, i.e. a language has V° -to- I° movement iff finite verb agreement w.r.t to person is found in all tenses.

0.3 Embedded SOV-clauses

Now what about SOV-languages like German or Dutch? As far as verbal inflection is concerned, the above suggestion would lead us to expect German (but not Dutch) to have V° -to- I° movement. Although this is what I used to think (Vikner 1995:152-157), I no longer think so, in that I now think that none of the OV-languages have V° -to- I° movement, not even German (Vikner 2001). One of the reasons for this is the evidence concerning "immobile verbs" to be discussed in the rest of this paper.

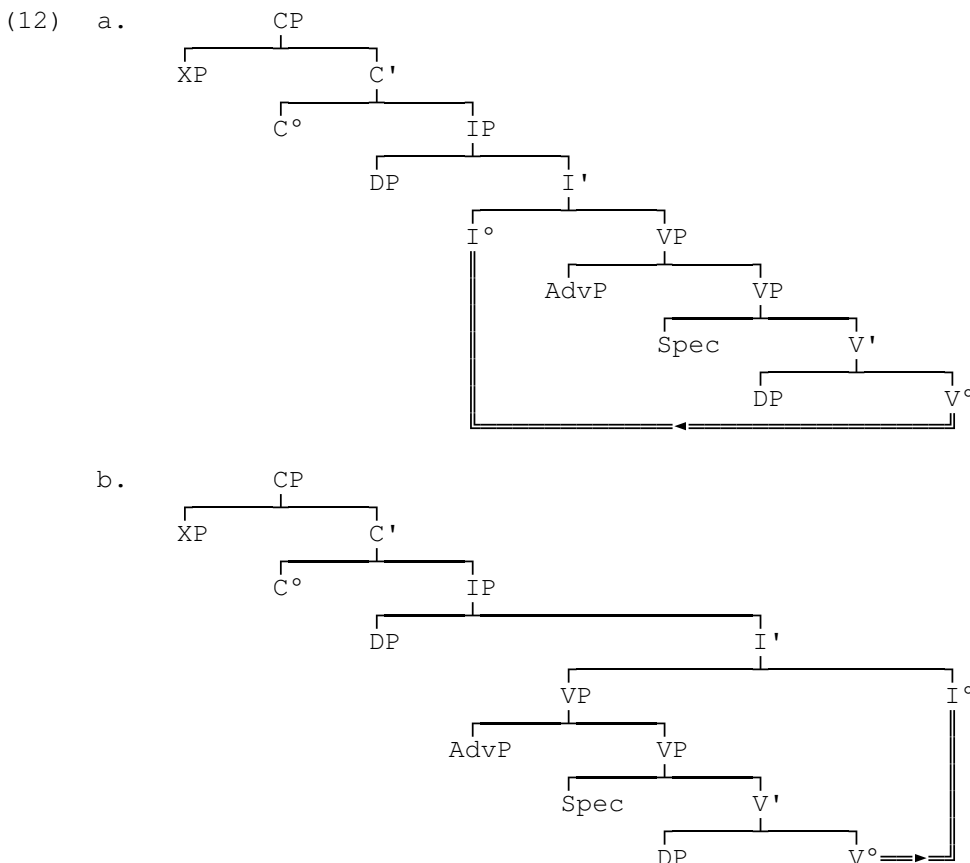
Consider first the German version(s) of (9) and (10):

- (11) Ge. a. *Dass Johann isst oft Tomaten (überrascht die meisten Leute)
 b. *Dass Johann oft isst Tomaten (überrascht die meisten Leute)
 c. Dass Johann oft Tomaten isst (überrascht die meisten Leute)

The ill-formedness of (11a), which must have the structure (12a), could be due to I° being final (as I thought in Vikner 1995:153) and/or to be due German not having V° -to- I° movement (as argued in this paper).

The ill-formedness of (11b) is caused by German being an OV-rather than a VO-language, i.e. the order inside the German or Dutch VP is DP- V° (and not V° -DP as in Danish or English).

The well-formedness of (11c) may either be the result of V° -to- I° movement if I° is final, as in (12b), or of lack of V° -to- I° movement, as in either of (12a,b) WITHOUT the arrows:



In other words, if German lacks V° -to- I° movement, we have no evidence of the position of I° in German, and thus it may be that the only difference between German clause structure and that of e.g. English and Danish is the position of V° , as in (12a) vs. (8).

1. German *uraufführen*

The German verb *uraufführen* 'to put on (a play) for the very first time' contains two prefixes, *ur-* 'for the first time' and *auf-* 'on':

- (13) Ge. a. Sollten sie das Stück uraufführen ?
Should they the play original-on-put.INF ?
b. Haben sie das Stück uraufgeführt ?
Have they the play original-on-put.PPLE?

These two (main) clauses contain non-finite versions of *uraufführen*. The following (embedded) clause on the other hand contains a finite form (simple past, 3rd person plural) of *uraufführen*:

- (14) Ge. ... ob sie das Stück uraufführten
... if they the play original-on-put.3.PL.PAST

It would thus seem that this is a more or less ordinary verb. That this is not so, is clear when native speakers are asked to construct main clauses containing a finite form of *uraufführen*. The verb simply refuses to undergo V2:

- (15) Ge. a. *Uraufführten sie das Stück _____ ?
b. * Aufführten sie das Stück ur_____ ?
c. *Ur- führten sie das Stück auf_____ ?
d. * Führten sie das Stück urauf_____ ?
(Original) (on)put.3.PL.PAST they the play (original) (on) ?

Following Höhle (1991), Haider (1993:62) suggests the following analysis (summarised in English in Haider 2001:70-73): *ur-* is a non-separable particle and *auf-* is a separable one. Given that the separable particle *auf-* is closer to the stem *-führen* than the inseparable particle *ur-* is, one of three possible situations must obtain, each of which leads to ungrammaticality: Either *auf-* is carried along under V2, violating its requirements, (15a,b), or *ur-* is left behind, violating its requirements, (15b,d), or what is moved is not a constituent, (15c). Consequently, the only well-formed sentences with this verb are ones where the verb is not moved at all: (13a,b) and (14).

The fact that *uraufführen* may be finite iff it occurs sentence-finally, (14), leads to the conclusion that the clause-final position of finite verbs in embedded clauses is a non-moved position, since it violates neither the requirements of the non-separable *ur-*, nor the requirements of the separable *auf-*.

According to Höhle (1991) and Haider (1993:62), this means that German finite verbs in clause-final position in embedded clauses have not undergone any movement. This again means that German does not have V°-to-I° movement, assuming that it is a characteristic of V°-to-I° movement (as opposed to e.g. V2) that all finite verbs obligatorily undergo this movement (as is generally assumed e.g. for the Romance languages and for those Germanic VO-languages that have V°-to-I° movement, cf. e.g. Vikner 1997/1999, 2001, Rohrbacher 1999, ...). Whether German does or does not have V°-to-I° movement has been an on-going debate for at least 15 years. The point is that as opposed to V°-to-I° movement in a VO-language, V°-to-I° movement in an OV-language is often assumed to be string vacuous.

While I agree with the conclusion that the data concerning immobile verbs show that German does not have V°-to-I° movement, I do not find the Höhle/Haider analysis itself satisfactory, as it does not apply to a large number of immobile verbs, to be discussed in more detail in sections 3 and 5 below. The verbs not accounted for are immobile verbs that do not have two "conflicting" prefixes/particles, either because there is only one prefix-like part, e.g. *schutzimpfen* 'inoculate', or because the two prefixes/particles do not impose conflicting

requirements, e.g. *voranmelden* 'preregister' (both prefixes/particles are separable) or *strafversetzen* 'transfer for disciplinary reasons' (both prefixes/particles are non-separable).

2. Dutch *herinvoeren*

Koopman's (1995:139, (2b)) examples from Dutch are all parallel to *uraufführen*, i.e. they contain two prefixes/particles with conflicting requirements:

- (16) *herindelen* 'to re-in-split', i.e. 'to redivide'
herindijken 'to re-dike-in', i.e. 'to put within dikes again'
herinvoeren 'to re-in-lead', i.e. 'to reintroduce'
heruitgeven 'to re-out-put', i.e. 'to republish'
heruitzenden 'to re-out-send', i.e. 'to rebroadcast'
- (17) Du. a. ... omdat ze vorig jaar deze wet hebben heringevoerd
... because they last year this law have re-intro-duced.PPLE
b. ... omdat ze vorig jaar deze wet herinvoerden
... because they last year this law re-intro-duced.3.PL.PAST
(Koopman 1995:141, (6d) & (5d))
- (18) Du. a. *Deze wet herinvoerden ze vorig jaar _____
b. *Deze wet invoerden ze vorig jaar her_____
c. *Deze wet her-voerden ze vorig jaar in_____
d. *Deze wet voerden ze vorig jaar herin_____
This law (re) (intro) duced.3.PL.PAST they last year (re) (intro)
((18a) from Koopman 1995:141, (4d))

Koopman (1995:143) adapts and elaborates Haider's (1993:62) analysis of (13)-(15). This analysis rests on an insoluble conflict between the two particles/prefixes: *ur-* cannot be left behind if the verb moves, and *auf-* must be left behind if the verb moves, and so the only way to avoid conflict is to avoid verb movement. Koopman (1995:156-159) accounts for the data by assuming that *ur-* in (13)-(15) and *her-* in (16)-(18) (i.e. the leftmost or outermost of the two particles/prefixes) blocks overt checking of finiteness features. This in turn means that only LF-checking is an option, which again means that there can be no overt movement to a checking head (i.e. no V°-to-I° movement) in examples like (14) and (17b).

It seems to me that the conclusions concerning verb movement drawn by Haider (1993:62) and Koopman (1995) must be on the right track, even if I disagree with the analyses themselves.

Both Haider's and Koopman's analyses only work for verbs with two prefixes: Haider's (1993:62) analysis needs the prefixes to conflict, and Koopman's (1995:159) analysis needs a second prefix to violate the strict c-command requirement. In section 5 below, I will suggest a different analysis, also based on conflicting requirements, but not requiring such verbs to have two prefix-like parts. Before that, in section 3 below, I will discuss "immobile" verbs that only have one prefix-like part.

3. Other "immobile" verbs

Haider (1993:62) lists some additional German verbs (originally from Höhle 1991) which behave exactly like *uraufführen* in (13)-(15), cf. (20). All these verbs have only one prefix-like part, and it is thus not clear which predictions Haider's (1993:62) account or Koopman's (1995:156-159) account would make for them:

- (19) *bauchreden* 'to stomach-speak', i.e. 'to ventriloquise'
bausparen 'to building-save', i.e. 'to save with a building society'
rückfragen 'to back-question', i.e. 'to query'
wettrudern 'to contest-row', i.e. 'to row in a competition'

- (20) Ge. a. Sie will bausparen
 She wants (to) building-save
 (She wants to save with a building society)

- b. ... weil er baupart
... *because he building-saves*
(... *because he saves with a building society*)

((20a,b) adapted from Eisenberg 1998:226, 324, (16a))

- c. * Spart er bau ?
d. * Bauspart er ?
 (Building-) saves he (building) ?
 (Intended: Does he save with a building society?)

Eisenberg (1998:324, (14)) adds the following verbs:

- (21) *bauchlanden* 'to stomach-land', i.e. 'to land on one's stomach'
bergsteigen 'to mountain-rise', i.e. 'to climb mountains'
bruchlanden 'to break-land', i.e. 'to make a crash-landing'
ehebrechen 'to marriage-break', i.e. 'to commit adultery'
kopfrechnen 'to head-reckon', i.e. 'to do mental arithmetic'
kunststopfen 'to art-mend', i.e. 'to mend textiles so well that you cannot tell that they
have been mended'
manndecken 'to man-cover', i.e. 'to mark someone in soccer (man-to-man marking)'
preis Kegeln 'to prize-bowl', i.e. 'to play skittles in order to win a prize'
punktschweißen 'to spot-weld'
Schutzimpfen 'to protection-inoculate', i.e. 'to inoculate'
strafversetzen 'to punishment-transfer', i.e. 'to transfer for disciplinary reasons'
Teilzahlen 'to part-pay', i.e. 'to pay by instalments'
Wetturnen 'to contest-exercise', i.e. 'to do gymnastics in a competition'

A search through the electronic versions of two *Duden* dictionaries of German, the 1993 *Duden Universal Wörterbuch* and the 2000 *Duden Rechtschreibung* and subsequent checks with native speakers turned up the following further examples of the same kind, i.e. of verbs which may occur in finite form clause-finally in embedded clauses, but not in the first or second position in main clauses:

- (22) *auferstehen* 'to up-rise', i.e. 'to rise from the dead'
auferwecken 'to up-wake', i.e. 'to raise from the dead'
erstaufführen 'to first-on-put', i.e. 'to perform a play for the first time'
feuerverzinken 'to fire-zinc', i.e. 'to rustproof something by immersion in liquid zinc'
gefriertrocknen 'to freeze-dry'
gegensprechen 'to counter-speak', i.e. 'to speak on a two-way intercom'
generalüberholen 'to general-overhaul', i.e. 'to give something a general overhaul'
hartlöten 'to hard-solder', i.e. 'to solder at more than 450°C'
hohnlächeln 'to scorn-smile', i.e. 'to smile scornfully'
hohnsprechen 'to scorn-speak something', i.e. 'to fly in the face of something'
prämiensparen 'to prize-save', i.e. 'to save in such a way that a prize may be won'
sonnenbaden 'to sun-bathe'

voranmelden 'to pre-at-report', i.e. 'to preregister, to book e.g. a ticket'
vorglühen 'to pre-glow', i.e. 'to pre-heat a diesel engine'
zweckentfremden 'to purpose-alienate', i.e. 'to use for a different purpose'
zwischenlanden 'to between-land', i.e. 'to stop over in X on the way to Y'

Strictly speaking, some of these verbs have a structure similar to *uraufführen* and the other verbs discussed in section 1 above: *auferstehen*, *auferwecken*, *feuerverzinken*, *generalüberholen*, *strafversetzen*, *zweckentfremden*, and also in *erstaufführen* and *voranmelden*, there is not one but two prefix-like parts. However, only *erstaufführen* and *voranmelden* are really parallel to *uraufführen*, because these are the only two where the second of the prefix-like parts, i.e. *-auf-* and *-an-*, is a separable particle (see section 5 below).

Another question is of course whether examples of either kind exist in the other Germanic OV-languages. According to Cooper (1994:47), the Zürich Swiss German versions of *uraufführen* (*uruffüere*) and the verbs in (19) may move to C°. However, according to my informants, in so far as verbs that correspond to the "immobile" German verbs exist at all, most of them are also "immobile" e.g. in Stuttgart (Swabian) and in Bern, Zürich and Sankt Gallen (Swiss German, where the conflict may be avoided by insertion of *tun* 'do'). Consider the following example from Swiss German as spoken in Bern (Ursula Wegmüller, p.c.):

- (23) Be. a. Uf em Wääg vo Züri uf New York müesse mer in Paris zwüschelände
 On the way from Zürich to New York must we in Paris between-land
 (On the way from Zürich to New York, we have to have a stopover in Paris)
- b. Uf em Wääg vo Züri uf New York si mer in Paris zwüschegglandet
 On the way from Zürich to New York are we in Paris between-landed
 (On the way from Zürich to New York, we had a stopover in Paris)
- c. ... öb mer äch uf em Wääg vo Züri uf New York
 ... if we really on the way from Zürich to New York
 in Paris zwüschelände
 in Paris between-land
 (... whether we will really have a stopover in Paris on the way from Zürich to New York)
- (24) Be. a. * Zwüschelände mer eigentlech in Paris ?
 b. * Lande mer eigentlech in Paris zwüsche ?
 (Between-)land we actually in Paris (between) ?
 (Intended: Will we actually have a stopover in Paris?)

A brief check of Dutch (Norbert Corver, p.c.) shows that at least the following Dutch verbs behave the same way:

- (25) *bergklimmen* 'to mountain-climb', i.e. 'to climb mountains'
bouwsparen 'to building-save', i.e. 'to save with a building society'
buikspreken 'to stomach-speak', i.e. 'to ventriloquise'
echtbreken 'to marriage-break', i.e. 'to commit adultery'
diepvriezen 'to deep-freeze'
hardsolderen 'to hard-solder', i.e. 'to solder at more than 450°C'
hoofdrekenen 'to head-reckon', i.e. 'to do mental arithmetic'
mandekken 'to man-cover', i.e. 'to mark someone in soccer (man-to-man marking)'
prijsschieten 'to prize-shoot', i.e. 'to shoot a rifle for a prize'

Summing up this section, we have seen that the "immobile" verbs include not only verbs with two (conflicting) prefix-like parts, but also verbs with only one prefix-like part. Furthermore we have seen that the languages are less different than might appear from the literature: The data seem to be quite parallel in at least Dutch, German, and Swiss German.

4. Complex verbs: V° or V*

The crucial property common to all the "immobile" verbs as discussed above is that they are complex verbs, with two (or more) internal parts, the last of which is itself a verb. Before returning to the verbs above, I would like to discuss complex verbs more generally.

I assume that for a complex verb, whether it consists of a noun and a verb or of a particle and a verb, there are two relevant possibilities: V° and V*. One option is that the complex verb is of exactly the same status as a simplex verb, V°. The other option, using the notation of e.g. Booij (1990), is that the complex verb constitutes a V* (which is more than V° but possibly less than V'). This follows a suggestion for German made by Haiden (1997:105), Wurmbrand (1998:271), and many others, namely that verb and separable particle form a lexical unit but not necessarily also a syntactic X°-constituent. For more discussion of particle verbs in Danish, German and Yiddish along these lines, see Vikner (2001:33-49).

Examples of V° are [V° [Prt *ver*][V° *stehen*]] 'to under-stand', among the Prt-V° complex verbs, and [V° [N° *brand*][V° *marken*]] 'to fire-mark', i.e. 'to brand, to denounce', among the N°-V° complex verbs. Examples of V* are [V* [Prt *ab*][V° *schicken*]] 'to send off', among the Prt-V° complex verbs, and [V* [N° *statt*][V° *finden*]] 'to place-find', i.e. 'to take place', among the N°-V° complex verbs:

	inseparable	separable
Prt+V compounds	a. Ge. <div style="text-align: center;"> $\begin{array}{c} V^\circ \\ \swarrow \quad \searrow \\ \text{Prt} \quad V^\circ \\ \text{ver} \quad \text{stehen} \end{array}$ </div>	b. Ge. <div style="text-align: center;"> $\begin{array}{c} V^* \\ \swarrow \quad \searrow \\ \text{Prt} \quad V^\circ \\ \text{ab} \quad \text{schicken} \end{array}$ </div>
N+V compounds	c. Ge. <div style="text-align: center;"> $\begin{array}{c} V^\circ \\ \swarrow \quad \searrow \\ N^\circ \quad V^\circ \\ \text{brand} \quad \text{marken} \end{array}$ </div>	d. Ge. <div style="text-align: center;"> $\begin{array}{c} V^* \\ \swarrow \quad \searrow \\ N^\circ \quad V^\circ \\ \text{statt} \quad \text{finden} \end{array}$ </div>

Particle verbs that are V° are **mobile but inseparable**. (28a) is excorporation, i.e. there is a trace inside V°, which is impossible, according to Baker (1988:73):

- (27) Ge. Den Brief wird er nicht verstehen
 The letter will he not understand

V°: mobile but inseparable

- (28) Ge. a. *Den Brief steht er nicht [_{V°} ver [_{V°} t]]
 b. Den Brief versteht er nicht [_{V°} t]
 The letter (under)stands he not (under)

Particle verbs that are V* are **mobile but separable** (actually, it is the V° contained within a V* that is mobile). In (30b), C° contains a V*, not a V°, but as a V* is larger than an X°, it cannot occur in C°:

- (29) Ge. Den Brief wird er nicht abschicken
 The letter will he not offsend

V*: mobile but separable

- (30) Ge. a. Den Brief schickt er nicht [_{V*} ab [_{V°} t]]
 b. *Den Brief abschickt er nicht [_{V*} t]
 The letter (off)sends he not (off)

Particle verbs of the V° and V* types also differ when it comes to the placement of the past participle prefix *ge-* and of the infinitival marker *zu*. If the whole particle verb is a V°, it does

not allow the past participle prefix *ge-* at all, and all of it is preceded by the infinitival marker *zu*, whereas if it is a *V**, only its second half (which is a *V°*) is preceded by *ge-* or by *zu*:

V°, inseparable: no "ge-"

- (31) Ge. a. *Er hat den Brief nicht vergestanden
 b. *Er hat den Brief nicht geverstanden
 c. Er hat den Brief nicht verstanden
He has the letter not understood

V°, inseparable: "zu" as prefix

- (32) Ge. a. *Er hat versucht, den Brief ver-zu-[_{V°}stehen]
 b. Er hat versucht, den Brief zu [_{V°}verstehen]
He has tried the letter (under) to (under) stand
(He has tried to understand the letter)

V*, separable: "ge-" as infix

- (33) Ge. a. Er hat den Brief nicht abge[_{V°}schickt]
 b. *Er hat den Brief nicht ge[_{V*}abschickt]
He has the letter not off-sent

V*, separable: "zu" as infix

- (34) Ge. a. Er hat versucht, den Brief ab-zu-[_{V°}schicken]
 b. *Er hat versucht, den Brief zu [_{V*}abschicken]
He has tried the letter (off) to (off) send
(He has tried to send off the letter)

For more detail on the placement of the *ge-* prefix, see Geilfuß (1998) and Rathert (2002).

The following verbs, taken from the lists in Eisenberg (1998:323, (10) & 324, (15)) and Wellmann (1998:449) are further examples of the two types:¹

- (35) *V°*, like *brandmarken*: (**mobile but inseparable**)
gewährleisten 'to guarantee-achieve', i.e. 'to guarantee, to ensure'
handhaben 'to hand-have', i.e. 'to handle, to implement'
lobpreisen 'to praise.N-praise.V', i.e. 'to praise'
lustwandeln 'to joy-stroll', i.e. 'to stroll'
maßregeln 'to measure-rule', i.e. 'to reprimand'
nachtwandeln 'to night-stroll', i.e. 'to sleepwalk'
sandstrahlen 'to sand-radiate', i.e. 'to sandblast'
schlussfolgern 'to conclusion-conclude', i.e. 'to conclude'
wetteifern 'to contest-strive', i.e. 'to compete'
wetterleuchten 'to weather-light', i.e. 'for lightning to flash in the distance'
- (36) *V**, like *stattfinden*: (**mobile but separable**)
Acht geben 'to attention give', i.e. 'to pay attention'
Amok laufen 'to amok run', i.e. 'to run amok'
Eis laufen 'to ice run', i.e. 'to ice-skate'
Halt machen 'to stop make', i.e. 'to stop'
Hof halten 'to court hold', i.e. 'to hold court'
Kopf stehen 'to head stand', i.e. 'to stand on one's head'
Maß halten 'to measure hold', i.e. 'to exercise moderation'

¹I have changed Eisenberg's spelling to conform with the 1998 German orthographical reform. The changes introduced in the words in (36), from e.g. *achtgeben* to *Acht geben*, have been the subject of heated debate not only in the public at large but also among linguists, cf. e.g. Bredel & Günther (2000), and Gallmann (1999, 2000).

preisgeben 'to prize-give', i.e. 'to relinquish, to surrender something'
Probe singen 'to sample sing', i.e. 'to show how well one sings'
Schlange stehen 'to snake stand', i.e. 'to queue, to stand in line'
standhalten 'to stand-hold', i.e. 'to stand firm'
teilnehmen 'to part-take', i.e. 'to take part'
Wort halten 'to word hold', i.e. 'to keep one's word'

The two types behave differently both syntactically and morphologically. If the whole complex verb is a V°, all of it may undergo verb movement, whereas if it is a V*, only its second half (which is a V°) may undergo verb movement².

V°: mobile but inseparable

- (37) Ge. a. *Er markte die Missstände [_{V°} brand [_{V°} t]]
 b. Er brandmarkte die Missstände [_{V°} t] (28b)
He (fire)marked the irregularities (fire)
(He denounced the irregularities) (adapted from Eisenberg 1998:322)

V*: mobile but separable

- (38) Ge. a. 1999 fand die Tagung in Berlin [_{V*} statt [_{V°} t]] (30a)
 b. *1999 stattfand die Tagung in Berlin [_{V°} t]
1999 (place)found the conference in Berlin (place)
(In 1999, the conference took place in Berlin)

However, if the verb occurs clause-finally, there are no observable differences:

²Although *stattfinden* thus may split up when *finden* undergoes V2, there are still more indications than the orthography that *stattfinden* and the other V* complex verbs make up a complex verb rather than simply being two different constituents of the clause. One such indication is that unless *-finden* itself undergoes V2, *statt-* and *-finden* can never be split, cf. (ib) and (iiib,c), as opposed to the transitive verb *finden* 'find' and its object, cf. (iib) and (ivb,c):

- (i) Ge. a. Die Tagung hat in Berlin stattgefunden
 b. *Die Tagung hat statt in Berlin gefunden
The conference has (place) in Berlin (place)found
(The conference took place in Berlin)
- (ii) Ge. a. Peter hat in Berlin das Buch gefunden
 b. Peter hat das Buch in Berlin gefunden
Peter has (the book) in Berlin (the book) found
(Peter found the book in Berlin)
- (iii) Ge. a. Stattgefunden hat die Tagung in Berlin
 b. * Gefunden hat die Tagung statt in Berlin
 c. * Gefunden hat die Tagung in Berlin statt
(Place)found has the conference (place) in Berlin (place)
(The conference took place in Berlin)
- (iv) Ge. a. Das Buch gefunden hat Peter in Berlin
 b. Gefunden hat Peter das Buch in Berlin
 c. Gefunden hat Peter in Berlin das Buch
(The book) found has Peter (the book) in Berlin (the book)
(Peter found the book in Berlin)

The topicalised participles in (iiia) and (iva-c) focus on the main verb and are best in contrastive contexts. Examples of such contexts could be for (iii): *The conference took place in Berlin, but it was planned in Stuttgart*, for (iva): *Peter found the book in Berlin, but he wrote his paper on it in Stuttgart*, for (ivb): *Peter found the book in Berlin, but he read it in Stuttgart*, and finally for (ivc): *Peter found the book in Berlin, but he found the article in Stuttgart*.

- (39) Ge. ... ob er die Missstände brandmarkte
 ... if he the irregularities fire-marked
 (... whether he denounced the irregularities)
- (40) Ge. ... ob die Tagung in Berlin stattfand
 ... if the conference in Berlin place-found
 (... whether the conference took place in Berlin)

If the whole complex verb is a V°, all of it is preceded by the past participle prefix *ge-*, and all of it is preceded by the infinitival marker *zu*, whereas if it is a V*, only its second half (which is a V°) is preceded by *ge-* or by *zu*:

V°, inseparable: "ge-" as prefix

- (41) Ge. a. *Er hat die Missstände brandge[_{V°}markt]
 b. Er hat die Missstände ge[_{V°}brandmarkt]
 He has the irregularities fire-marked
 (He denounced the irregularities)

V°, inseparable: "zu" as prefix

- (42) Ge. a. *Er hat versucht, die Missstände brand-zu-[_{V°}marken]
 b. Er hat versucht, die Missstände zu [_{V°}brandmarken] (32b)
 He has tried the irregularities (fire)to (fire)mark
 (He has tried to denounce the irregularities)

V*, separable: "ge-" as infix

- (43) Ge. a. 1999 hat die Tagung in Berlin stattge[_{V°}funden] (33a)
 b. *1999 hat die Tagung in Berlin ge[_{V*}stattfunden]
 1999 has the conference in Berlin place-found
 (In 1999, the conference took place in Berlin)

V*, separable: "zu" as infix

- (44) Ge. a. 2001 scheint die Tagung in Berlin statt-zu-[_{V°}finden] (34a)
 b. *2001 scheint die Tagung in Berlin zu [_{V*}stattfinden]
 2001 seems the conference in Berlin (place)to (place)find
 (In 2001, the conference would seem to take place in Berlin)

Neither of the two classes of complex verbs discussed here are "immobile", in that V2 is possible in both cases, see (37b) and (38a).

Summing up, there are nine logical possibilities (where the underlining shows which parts may undergo V2):

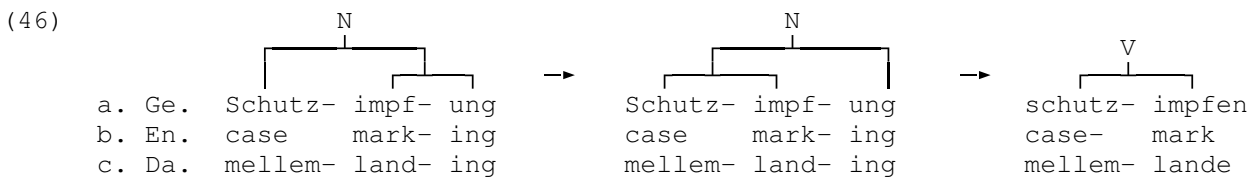
(45)

	<u>inseparable</u> (V2: including the prefix)	<u>separable</u> (V2: excluding the prefix)	<u>immobile</u> (V2: not at all)
N+V	a. <u>brand-marken</u>	b. statt- <u>finden</u>	c. schutz-impfen
Prt+V	d. <u>ver-stehen</u>	e. ab- <u>schreiben</u>	f. -----
Prt +Prt+V	g. <u>be-[ein-flüssen]</u> <u>ver-[aus-gaben]</u>	h. an- <u>[er-kennen]</u> <u>[vor-an]-gehen</u>	i. ur-[auf-führen] vor-[an-melden]

The non-existence of type (45f) is discussed at the end of 5.3 below. The differences between types (45g) and (45i) are discussed at the end of 5.5 below, where it is argued that the verbs under (45g) here should really be under (45d).

5. "Immobile" verbs have to respect the requirements for both V° and V*

I would now like to return to the "immobile" verbs discussed previously, i.e. the ones which did not allow verb movement. Take as an example the complex verb *schutzimpfen* 'to inoculate', which behaves syntactically exactly like *uraufführen* in (13)-(15) and *bausparen* in (20) above. It has been derived from the compound noun *Schutzimpfung* (*Schutz* 'protection', *Impfung* 'inoculation') by means of back-formation, which undoes the nominalisation of the second part of the compound by removing the nominalising suffix *-ung*. The result is a so-called pseudo-compound (Wellmann 1998:449), as *schutzimpfen* was not derived by composition although it appears to be a compound, i.e. *schutz-impfen*. In other words, it is derived exactly like the English verbs *to back-stab* and *to case-mark* or the Danish *mellemlande* 'to between-land', i.e. 'to stop over in X on the way to Y', and *førsteopføre* 'to first-up-put', i.e. 'to perform a play for the first time' (for more Danish examples, see (59b) below):



It is clear that the second half of *schutzimpfen*, i.e. *impfen*, is a verb, cf. the infinitival morphology, but the categorial status of the whole complex verb has not been resolved, i.e. it has not been resolved whether it is a V° or a V*. I would like to make the rather controversial suggestion that *schutzimpfen* and the other immobile complex verbs above have to fulfill **BOTH** the requirements imposed on complex verbs of the V° type **AND** the requirements imposed on complex verbs of the V* type. I would like to tentatively suggest that maybe the reason that immobile verbs have to fulfill the requirements imposed on V° is that they are seen as verbal elements that can receive a suffix (because they are derived by removing a nominalising affix) and that maybe the reason that immobile verbs have to fulfill the requirements imposed on V* is that they clearly consist of two parts (N° + V°) each of which is interpretable on its own. Whatever the exact reasons may be, I submit that the result is that immobile verbs are not specified as being only V* or as being only V°, and therefore they may only occur in contexts which are compatible with both analyses.

5.1 Syntactic consequences

Syntactically, this means that V2 contexts are impossible, as neither the last half of the complex verb, nor the whole complex verb can undergo V2 in more than one of the analyses.

In the V° case, the whole complex verb can undergo V2, (37b), as it is a V°, but the last half of the complex verb cannot, (37a), as this would cause the existence of a trace inside a V° (which is impossible, according to Baker 1988:73).

In the V* case, the whole complex verb cannot undergo verb movement, (38b), as it is not a V° but a V*, but the last half of the complex verb can, (38a), as it is a V°, and as such a movement would not cause a word-internal trace (but only a trace internal to V*).

However, as both V° and V* complex verbs may occur clause-finally in an embedded clause, so may "immobile" verbs like *schutzimpfen*.

5.2 Morphological consequences

Morphologically, the requirement that the complex verb may only occur in contexts which are compatible with both analyses means that *ge-* prefixation of the whole complex verb is impossible, as this is incompatible with the V^* analysis: (43b), *ge-* can only be prefixed on a V° , not on a V^* . Exactly the same goes for the infinitival marker *zu*, it cannot occur in front of the whole complex verb, as this is incompatible with the V^* analysis: (44b), *zu* only occurs in front of a V° , not in front of a V^* .

However, the second half of the complex verb is itself a V° under both analyses, and although this V° cannot be moved when it is itself part of another V° , it may be prefixed either by *ge-* or by *zu*, both when it is part of V^* , (43a) and (44a), and, by assumption, also when it is part of V° . The latter cannot be directly observed, cf. the ungrammaticality of *brandgemarkt*, (41a), and *brandzumarken*, (42a), but I would like to suggest that this ungrammaticality is only caused by a preference for prefixation to apply to as large domains as possible, and so (41a) and (42a) are only dispreferred because the options (41b) and (42b) are possible.

That "infixation" of *ge-* and *zu* is an option with all types of complex verbs, even with the complex verbs of the V° type, is supported by the following facts:

According to the German orthographical dictionary, *Duden Rechtschreibung*, two of the V° verbs in (35) may have either prefixation or infixation of *ge-*: *gelobpreist* and *lobgepriesen* are both possible past participles of *lobpreisen* 'praise', *gesandstrahlt* and also *sandgestrahlt* are possible participles of *sandstrahlen* 'sandblast'.

A search of the corpus of written German available at the Institut für deutsche Sprache in Mannheim turned up the following infixed forms among the complex verbs of the V° type in (35) above:

- (47) Ge. a. 7 cases of *handzuhaben* vs. 528 of *zu handhaben*
b. 1 case of *lobzupreisen* vs. 13 of *zu lobpreisen*
c. 2 cases of *lustzuwandeln* vs. 17 of *zu lustwandeln*
d. 1 case of *maßzuregeln* vs. 40 of *zu maßregeln* / *zu massregeln*
e. 21 cases of *sandgestrahlt* vs. 3 of *gesandstrahlt*
f. 2 cases of *wettzueifern* vs. 37 of *zu wetteifern*

All the other forms of the verbs mentioned here, and the other verbs in (35) above were only found with prefixed *ge-* and *zu*. Still, in contrast to this somewhat mixed picture, all the verbs in the V^* group, (36), only have one type of forms, with infixation of *-ge-* and *-zu-*. As for the group of "immobile" verbs, I would also expect them only to have infixed *-ge-* and *-zu-*, and I have to admit that the corpus search turned up two "prefixed" verb forms that go against this:

- (48) Ge. a. 20 cases of *aufzuerstehen* vs. 1 of *zu auferstehen*
b. 6 case of *zweckzuentfremden* vs. 1 of *zu zweckentfremden*

I conclude that although prefixation of *ge-* and *zu* (*zu handhaben*) is much more frequent than infixation (*handzuhaben*) with the complex verbs of the V° type, infixation remains an option.

5.3 Overview

The various possibilities can be summarised as follows:

	$[V^\circ N^\circ V^\circ]$, <i>brandmarken</i>	$[V^* N^\circ V^\circ]$, <i>stattfinden</i>	Examples
(49)	a. $*[C^\circ V^\circ] \dots [V^\circ N^\circ t]$ └──────────┘ b. $[C^\circ V^\circ] \dots t$ └──┘	a' $[C^\circ V^\circ] \dots [V^* N^\circ t]$ └──────────┘ b' $*[C^\circ V^*] \dots t$ └──┘	(37a), (38a) (37b), (38b)
(50)	a. $C^\circ [IP \dots [V^\circ N^\circ V^\circ]]$	a' $C^\circ [IP \dots [V^* N^\circ V^\circ]]$	(39), (40)
(51)	a. $[V^\circ N^\circ ge-V^\circ]$ b. $ge-[V^\circ N^\circ V^\circ]$	a' $[V^* N^\circ ge-V^\circ]$ b' $*ge-[V^* N^\circ V^\circ]$	(41a), (43a) (41b), (43b)
(52)	a. $[V^\circ N^\circ zu V^\circ]$ b. $zu [V^\circ N^\circ V^\circ]$	a' $[V^* N^\circ zu V^\circ]$ b' $*zu [V^* N^\circ V^\circ]$	(42a), (44a) (42b), (44b)

Under the assumption that the "immobile" verbs like *schutzimpfen* have to fulfill both the requirements imposed on complex verbs of the V° type and the requirements imposed on complex verbs of the V^* type, we expect to find them only in structures which are possible in both columns. These cases are (50a/a'), clause-final finite verbs in embedded clauses, and (51a/a') and (52a/a'), "infixation" of *ge-* and of *zu* (even though (51a) and (52a) would seem to be very infrequent).

One way of describing this situation is that the "immobile" verbs are in the intersection of the two sets of verbs, one which comprises complex verbs of the V° type, and another which comprises complex verbs of the V^* type:

(53)

V° $[V^\circ [N^\circ \text{ brand}][V^\circ \text{ marken}]]$ $[V^\circ [\text{prt ver}][V^\circ \text{ stehen}]]$	uraufführen voranmelden bausparen schutzimpfen	
	V^* $[V^* [N^\circ \text{ statt}][V^\circ \text{ finden}]]$ $[V^* [\text{prt ab}][V^\circ \text{ schicken}]]$	

One fact which is striking is that there are no particle verbs (to be exact: no particle verbs with only one particle) which belong to the intersection of the two sets, i.e. there are no "immobile" particle verbs. I think that this is due to the fact that the verbs which are "immobile" are not semantically transparent, i.e. we need real world knowledge to interpret what *bausparen* 'building-save' means, and thus semantics can offer no help in determining whether *bausparen* should belong to the V° or V^* class. Particle verbs never find themselves in

this situation: If they are semantically opaque, then they are also lexicalised and as such established as belonging either to the V° or the V* group (e.g. *umbringen*, *aufhören*, *verstehen*, where it is not obvious what the contribution of *um-/auf-/ver-* to the semantics of the verb are). If they are not established or lexicalised, then they (or rather their particles) have a transparent semantics/morphology, which will put them clearly into either the V° or the V* class.

5.4 The considerable variation from speaker to speaker

This account (in particular, the fact that the semantics of the verbs in question is non-transparent) is also compatible with the fact that there is considerable variation from speaker to speaker in whether they find a given example well-formed or not when confronted with potentially "immobile" back-formation verbs. This is because it is a property of the individual complex verb in the lexicon whether it is a V° or a V* (or "both"). Which class a given complex verb belongs to depends on many factors which vary from speaker to speaker, including how frequently it is used.

As Eisenberg (1998:324) and Eschenlohr (1999:156) also say, the judgements on these data are subject to a lot of variation. One example is that Eisenberg (1998:324, (15)) classifies *notlanden*, 'to emergency-land', i.e. 'to make an emergency landing', among the V* verbs, so that *notlanden* may undergo V2 if *not* stays behind while *landen* moves to C°, like *stattfinden* in (38). Gallmann (1999:298, (90)), on the other hand, classifies *notlanden* among the immobile verbs, like *uraufführen* in (13)-(15) and *bausparen* in (20).

A search of the corpus of written German available at the Institut für deutsche Sprache in Mannheim turned up the following figures showing that a few V2 cases do occur, even though informants reject them:

(54)	Ge.	a.	Out of 153 finite cases of <i>auferstehen</i> ,	15 were V2	(9.8 %)
		b.	Out of 4 finite cases of <i>auferwecken</i> ,	0 were V2	(0 %)
		c.	Out of 2 finite cases of <i>bausparen</i> ,	0 were V2	(0 %)
		d.	Out of 1 finite case of <i>erstaufführen</i> ,	0 were V2	(0 %)
		e.	Out of 2 finite cases of <i>gefriertrocknen</i> ,	1 was V2	(50 %)
		f.	Out of 18 finite cases of <i>hohnsprechen</i> ,	0 were V2	(0 %)
		g.	Out of 2 finite cases of <i>manndecken</i> ,	0 were V2	(0 %)
		h.	Out of 26 finite cases of <i>notlanden</i> ,	1 was V2	(3.8 %)
		i.	Out of 1 finite case of <i>rückfragen</i> ,	0 were V2	(0 %)
		j.	Out of 4 finite cases of <i>sonnenbaden</i> ,	0 were V2	(0 %)
		k.	Out of 2 finite cases of <i>strafversetzen</i> ,	0 were V2	(0 %)
		l.	Out of 66 finite cases of <i>uraufführen</i> ,	0 were V2	(0 %)
		m.	Out of 5 finite cases of <i>voranmelden</i> ,	0 were V2	(0 %)
		n.	Out of 42 finite cases of <i>zweckentfremden</i> ,	10 were V2	(23.8 %)
		o.	Out of 19 finite cases of <i>zwischenlanden</i> ,	0 were V2	(0 %)

(Notice also that if two of the fifteen "immobile" verbs that are found in finite form were excluded from the count, viz. *auferstehen* and *zweckentfremden*, the number of counterexamples would fall from a total of 27 to only 2 (or from 7.8% to 1.3%). Notice further that these two verbs were the only two that were found with the infinitival marker *zu* prefixed to the entire complex verb, cf. (48) above.)

5.5 Verbs with two prefixed particles

This analysis can also be applied to those immobile verbs which have two prefix-like parts, the second of which is a separable prefix, i.e. the Dutch verbs in (16) above and the following German verbs:

- (55) *uraufführen* 'to original-on-put', i.e. 'to put on (a play) for the very first time'
erstaufführen 'to first-on-put', i.e. 'to put on (a play) for the very first time'
voranmelden 'to pre-to-report', i.e. 'to preregister'
vorankündigen 'to pre-to-announce', i.e. 'to announce in advance'
voreinchecken 'to pre-in-check', i.e. 'to check in in advance'

The reason why these verbs are immobile has to do with the verb formed by the inner particle and the final V°, i.e. *-auf-führen*, *-an-melden* and *-ein-checken*.

I have already suggested above that complex verbs containing separable prefixes are V*, and this also goes for *-auf-führen*, *-an-melden* and *-ein-checken*, given that *auf*, *an* and *ein* are separable particles. Now I would like to add the suggestion that the element to which German *ur-*, *erst-*, *vor-*, and Dutch *her-* are prefixed must be interpretable as a V°. We therefore find ourselves in the same double requirement situation as above (presumably due to the fact that also these verbs came into existence through back-formation), where the *-aufführen* that occurs in *uraufführen* has to conform to both the requirements imposed by the V° analysis (e.g. *-auf-* cannot be left behind during verb movement), and those imposed by the V* analysis (e.g. *-auf-* cannot be taken along during verb movement), which means both that the *-aufführen* that occurs in *uraufführen* can not occur in V2 at all, only clause-finally, and that *ge-* and *zu* can only precede *-führen*.

This account has a distinct advantage over the one that relies on the two prefix-like parts imposing different requirements (i.e. that in *uraufführen*, *ur-* is non-separable and *auf-* is separable). The point is that such an account could not be applied to e.g. *voranmelden* or *vorankündigen* (cf. *Voranmeldung* 'pre-registration' and *Vorankündigung* 'advance announcement'), both of which are immobile. The immobility of these two verbs cannot be linked to either of the two prefixes/particles being non-separable, because both *vor-* and *an-* are actually separable, and yet *voranmelden* and *vorankündigen* belong to the immobile verbs.

That *vor-* and *an-* are both separable can be seen from the fact that when either *vor* or *an* is the only particle, they are always separable, e.g. in *annehmen* 'assume', *anschauen* 'look at', or *vornehmen* 'plan, carry out', *vortäuschen* 'simulate'. That *vor-* and *an-* are both separable can also be seen from the large number of verbs where *voran-* can be left behind during V2: e.g. *voranbringen* 'advance something', *vorangehen* 'go in front', *vorankommen* 'make headway', *vorantreiben* 'push ahead'. The relevant difference between *voranmelden* and *vorankündigen*, both immobile, and *vorangehen*, *vorantreiben* etc., which are well-formed in V2 clauses, is not that the prefixes/particles impose different requirements, but instead that the two types have different structures: *[vor[anmelden]]* vs. *[[voran]treiben]* (a difference which is also supported by the differences in interpretation and in accentuation). Only in the former case, *[vor[anmelden]]*, is there a V*, viz. *[anmelden]*, that now also has to fulfill the requirements imposed on a V°, because *vor-* cannot be prefixed on a V*. In the case of *[[voran]treiben]*, there is a complex particle, *voran*, which together with the verbal part *treiben*, form a V*, but there is nothing which has to be interpreted both as a V° and as a V*, and so *[[voran]treiben]* may undergo V2 like any other separable particle and verb combination.

A different but related question is what the difference is between the verbs in (55) above, e.g. *ur-[auf-führen]* or *vor-[an-melden]*, which belong to the type (45i) above and the following verbs listed at the end of section 4 as belonging to type (45g), which are inseparable and not immobile:

- (56) *be-[auf-tragen]* 'to PRT-on-carry', i.e. 'to give someone a particular task'
be-[ein-drucken] 'to PRT-in-press', i.e. 'to impress'
be-[ein-flussen] 'to PRT-in-flow', i.e. 'to influence'
ver-[aus-gaben] 'to pre-out-give', i.e. 'to give more than one has, wear oneself out'

Under the analysis suggested here, the verbs in (56) would be predicted to be immobile verbs, just like the verbs in (55) above. The prefixation by the outer particles (*be-*, *vor-*) require the inner particle and the verb to form a V° , whereas the inner particle itself is a separable one (*auf-*, *ein-*, *aus-*) requiring the inner particle and the verb to form a V^* , much like *ur-* and *vor-* require the inner particle and the verb (in *ur-[auf-führen]* and *vor-[an-melden]*) to form a V° whereas the inner particle itself is a separable one (*auf-*, *an-*) requiring the inner particle and the verb to form a V^* .

However, there are reasons to assume that the analysis in (56) is not the correct one. As opposed to the verbs in (55) above, the verbs in (56) do not arise through back-formation but through conversion. *be-* and *ver-* are purely verbal prefixes, which are applied to the nouns *Auftrag* 'task', *Eindruck* 'impression', *Einfluß* 'influence' and *Ausgabe* 'expenditure' (cf. also that the vowels in *-drucken*, *-flussen*, and *-gaben* are different from their corresponding verbs, which are *drücken* 'press', *fließen* 'flow', and *geben* 'give'). This means that the structures in question are not as given in (56), but rather:

- (57) *be-auftragen* 'to PRT-task', i.e. 'to give someone a particular task'
be-eindrucken 'to PRT-impress', i.e. 'to impress'
be-einflussen 'to PRT-influence', i.e. 'to influence'
ver-ausgaben 'to pre-expenditure', i.e. 'to give more than one has, wear oneself out'

In other words, these are not examples of type (45g) but rather of type (45d), i.e. inseparable verbs with only one particle. This does not necessarily mean that no verbs of type (45g) (inseparable particle verbs with two particles) could possibly exist, only that both particles would have to be inseparable.

6. Why a VO-language like Danish has no immobile verbs

In Danish and presumably in the other Germanic VO-languages, no finite verbs exist that are possible in some positions, e.g. in embedded clauses, but not in others, e.g. in main clauses. It is important that the crucial difference here is OV vs. VO, rather than e.g. V2 vs. non-V2, as suggested in McIntyre (2002).

As far as potential verbs derived by back-formation are concerned, there are only two groups. One consists of verbs that do not exist, even though related nouns that could be the source for back-formation do exist:

- (58) **båndoptage* 'to tape-up-take', which should mean 'to record on tape'
**bjergbestige* 'to mountain-climb', which should mean 'to climb mountains'
**bogbinde* 'to book-bind', which should mean 'to bind books'
**boligopspare* 'to home-up-save', which should mean 'to save for buying a home'
**bugtale* 'to stomach-speak', which should mean 'to ventriloquise'
**hovedregne* 'to head-reckon', which should mean 'to do mental arithmetic'
**solbade* 'to sun-bathe'
**vandkøle* 'to water-cool'

The other group consists of back-formation verbs that do exist. I have split this group into two subgroups, because I do not find the (59a) group completely well-formed (although all the verbs in (59a,b) may be found in two Danish dictionaries from 1996, *NuDansk Ordbog* and *Retskrivningsordbogen*).

- (59) a. ?*databasehandle* 'to data-treat', i.e. 'to computerise, to process on a computer'
?*gæsteforelæse* 'to guest-lecture'
?*kæderyge* 'to chain-smoke'
?*maskinskrive* 'to machine-write', i.e. 'to type'
?*nydanne* 'to new-form', i.e. 'to construct, to coin'
?*prisgive* 'to prize-give', i.e. 'to relinquish, to surrender something'
?*strejkelamme* 'to strike-paralyze', i.e. 'to paralyze through a labour strike'
- b. *dagdrømme* 'to day-dream'
deltage 'to part-take', i.e. 'to take part'
dybfryse 'to deep-freeze'
førsteopføre 'to first-up-put', i.e. 'to perform a play for the first time'
hjernevaske 'to brain-wash'
iscenesætte 'to in-scene-put', i.e. 'to direct, to engineer'
lovprise 'to praise.N-praise.V', i.e. 'to praise'
mandsopdække 'to man-cover', i.e. 'to mark someone in soccer'
mavelande 'to stomach-land', i.e. 'to land on one's stomach'
mellemlande 'to between-land', i.e. 'to stop over in X on the way to Y'
planlægge 'to plan-lay', i.e. 'to plan'
støvsuge 'to dust-suck', i.e. 'to vacuum-clean'
sygemelde 'to sick-report', i.e. 'to call in sick, to report someone as sick'
uropføre 'to original-up-put', i.e. 'to perform a play for the first time'

It is clear, however, that in so far as the verbs in (59a,b) are well-formed, they may occur in finite form in all positions in which finite verbs may occur (see also Hansen 1967, III:177).

Thus the question arises why Danish (and presumably the other Germanic VO-languages) do not have any verbs like the Dutch, German, and Swiss German immobile verbs.

The analysis of such verbs suggested in section 5 above was that they have to fulfill the requirements imposed on V° complex verbs as well as the requirements imposed on V* complex verbs.

I would like to suggest that the reason why such verbs do not exist in Danish is that there is no way Danish verbs could possibly satisfy the two sets of requirements, due to the directionality variation. The verbal part of the complex verb is the rightmost one in the V° cases, (59a,b), as in [V° [N° *plan*][V° *lægge*]] 'to plan'. (60b) shows that *planlægge* is a V° and (61) shows that the order is N-V:

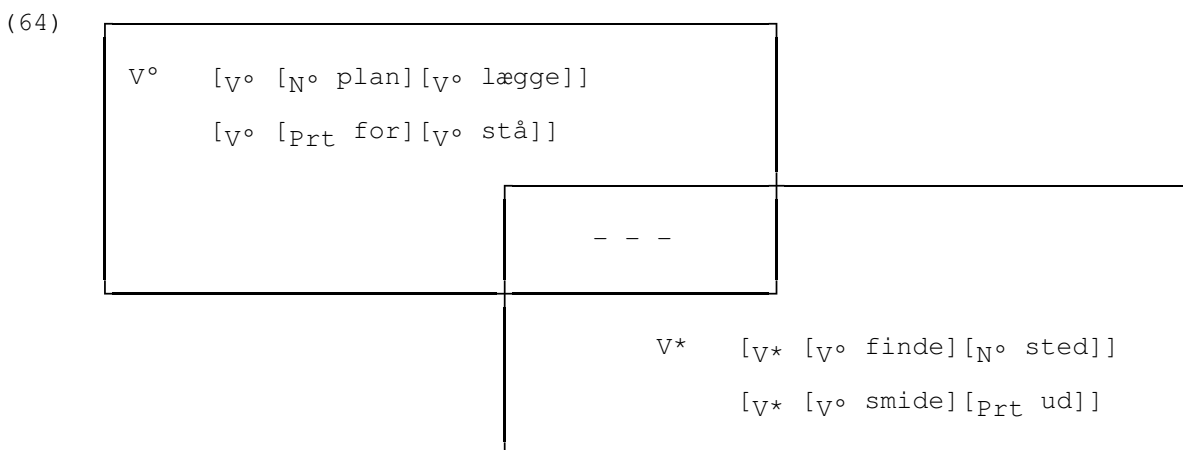
- (60) Da. a. * Lægger de plan at holde konferencen i Reykjavík?
 b. Planlægger de at holde konferencen i Reykjavík?
 (Plan)lay they (plan) to hold conference-the in Reykjavík?
 (Are they planning to hold the conference in Reykjavík?)
- (61) Da. a. *Hvorfor kunne de ikke lægge plan at holde konferencen her ?
 b. Hvorfor kunne de ikke planlægge at holde konferencen her ?
 Why could they not plan to hold conference-the here?

In the V* cases (see (65) below for more examples), the verbal part of the complex verb is the leftmost one, as in [V* [V° *finde*][N° *sted*]] 'to take place'. (62a) shows that *finde sted* is a V* and (63) shows that the order is V-N:

- (62) Da. a. Finder konferencen sted i Reykjavík?
 b. * Stedfinder konferencen i Reykjavík?
 (Place)find conference-the (place) in Reykjavík?
 (Is the conference taking place in Reykjavík?)
- (63) Da. a. Hvorfor kunne konferencen ikke finde sted her ?
 b. *Hvorfor kunne konferencen ikke sted-finde her ?
 Why could conference-the not take place here?

The difference between the Danish separable complex verb [V* [V° *finde*][N° *sted*]] and the German separable complex verb [V* [N° *statt*][V° *finden*]] is thus completely parallel to the differences between entire VPs in the two languages, Danish is VO and German OV.

In other words, the intersection between the two sets, illustrated for German in (53), is necessarily empty in Danish:



planlægge 'to plan-lay', i.e. 'to plan'

forstå 'to fore-stand', i.e. 'to understand'

finde sted 'to find place', i.e. 'to take place'

smide ud 'to throw out'

Here are some more examples of the V* type (more can be found in the literature on Danish under the heading "unit accentuation", e.g. Thomsen 1992 or Grønnum 1998:206):

- (65) *gå amok* 'to go amok'
give agt 'to give attention', i.e. 'to pay attention'
gøre holdt 'to make stop', i.e. 'to stop'
holde måde 'to hold measure', i.e. 'to exercise moderation'
holde ord 'to hold word', i.e. 'to keep one's word'
holde stand 'to hold stand', i.e. 'to stand firm'
tage del 'to take part'
vække opsigt 'to awake attention', i.e. 'to attract attention'

The reason why a VO-language like Danish has no immobile verbs is thus that it is simply not possible for any verbs to satisfy both the requirements on complex V° verbs (which are prt-V) and the ones on complex V* verbs (which are V-prt). This account therefore explains why Danish verbs similar to *uraufführen* and the other doubly prefixed verbs are not immobile. In Danish, the following verbs are of this type:

- (66) *genopblomstre* 'to re-up-blossom', i.e. 'to experience a renaissance'
genopblusse 'to re-up-flare', i.e. 'for e.g. hostilities to break out again'
genopsætte 'to re-up-put', i.e. 'to put on a play again'

These may all undergo V2, (67a), even though without the prefix *gen-* 're-', they are impossible in V2 clauses unless the (separable) inner particle *op-* 'up' is left behind, (68):

- (67) Da. a. I maj genopblussede stridighederne med fornyet styrke
b. *I maj oplussede stridighederne gen med fornyet styrke
c. *I maj gen- blussede stridighederne op med fornyet styrke
d. *I maj blussede stridighederne genop med fornyet styrke
In May (re) (up) flared hostilities-the (re) (up) with renewed force
(In May the hostilities broke out again with renewed force)
- (68) Da a. *I maj oplussede stridighederne med fornyet styrke
b. I maj blussede stridighederne op med fornyet styrke
In May (up) flared hostilities-the (up) with renewed force
(In May the hostilities broke out with renewed force)

The point here is similar to the one above, namely that the requirements for V* are violated even before the new verb with *gen-*, e.g. *genopblusse*, is formed, because V* (i.e. with a separable particle) does not allow the order particle-verb, but only verb-particle. Therefore *opblusse* has already been forced into being a V° only, and the fact that prefixation of *gen-* requires *opblusse* to be a V° does not change anything. The crucial question is thus whether *genopblusse* is a possible verb or not, and not whether it occurs in one position or the other.

7. Conclusion

In this paper, I have suggested a somewhat radical analysis of the immobile verbs in Dutch, German, and Swiss German. The suggestion was that for reasons of underspecification, these immobile verbs have to fulfill both the requirements imposed on complex verbs of the V° type (= verbs with non-separable prefixes) and the requirements imposed on complex verbs of the V^* type (= verbs with separable prefixes). This results in such verbs being morphologically unexceptional, i.e. having a full set of forms, but syntactically peculiar (immobile), i.e. they can only occur in their base position, where no movement has taken place. Any kind of movement is incompatible with either the V° requirements or the V^* requirements.

The analysis here has tried to account for:

- why these immobile verbs include verbs with only one prefix-like part (because they are created through back-formation and are semantically opaque) and why the single prefix-like part in these verbs may NOT be a particle (particle verbs are either semantically transparent and then the particle determines V° or V^* , or they are opaque, and then they are lexicalised as either V° or V^*),
- why these immobile verbs include all two-particle verbs with the structure [Prt [Prt V]] where the inner (i.e. rightmost) particle is a separable particle, including verbs with two separable particles as in e.g. German *voranmelden* 'preregister' and *vorankündigen* 'announce in advance' (because the outer separable particle requires a V° but the inner separable particle produces a V^*),
- why there is such a high amount of individual speaker variation as to whether a given verb belongs to this group or not (because it is a property of the individual complex verb in the lexicon whether it is a V° or a V^* or unspecified, and this depends on many factors which vary from speaker to speaker, including how frequently the verb in question is used),
- and finally also for why such verbs are not found in Germanic VO-languages like English and Scandinavian (there is no way that any verb could simultaneously satisfy the V° requirements, which include a prefixed particle, and the V^* requirement, which include a postposed particle).

Whereas I thus disagree with Haider (1993:62) and Koopman (1995) about the details of the morpho-syntactic analysis of the individual verbs, I agree with these two works about the consequences for the analysis of verb movement in Dutch, German, and Swiss German. The reason why it is only possible for finite forms of these verbs to occur in clause-final position in embedded clauses, is that this position is the base-generated position, and thus no conflict can arise as to whether the prefix-like part must or must not be carried along under verb movement.

Thus the fact that several OV-Germanic verbs, not just one, behave in this way provides further support for the conclusion that the clause-final position of finite verbs in embedded clauses is the same position that non-finite verbs have in all clauses (presumably inside their own VP and definitely below I°). In other words, Dutch, German, and Swiss German do not have V° -to- I° movement.

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