

Displaced morphology in German: New evidence for post-syntactic morphology

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1. Abstract. Displaced non-finite morphology in German results from a conflict between the head-finality of the German VP and head-initial verb clusters. There are 3 arguments for a post-syntactic treatment: A: the placement of the affixes is affected by adjacency. B: restrictions on displacement are due to the selectional restrictions of the vocabulary items. C: displacement has no semantic effects.

2. Intro. In German varieties (and older stages of G.) non-finite morphology can be displaced, i.e. does not occur on the immediately dependent V but rather on the last verb of the verb cluster:

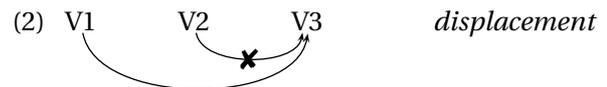
(1) a. Er schiint₁ nüüt [wele₂ z wüsse₃] dervoo.
 He seems nothing want.INF to know.INF about.it 1 ... 23 Zurich German
 'He does not seem to be interested in it.' Weber (1987: 244, fn. 1)

b. kâsd₁ mē heləf₂ gəschri:₃
 can.2SG me.DAT help.INF GE.write.INF
 'Can you help me write?' 123 dialect of Kleinschmalkalden, Höhle (2006: 68)

c. dez han₁ wir unser kunichlich Insigel an disen breiff haissen₂ gehenket₃
 therefore have.1PL we our royal seal to this letter let.INF attach.PART
 'Therefore we had our royal seal attached to this letter.' 123 Middle High German

In (1-a), V1 selects a *z*-Inf, but *z* is not realized on V2, but on V3. In (1-b), V1 selects an Inf with a *ge*-prefix while V2 selects a bare Inf; crucially, the *ge*-Inf appears on V3 (note that in some varieties, modals systematically select a *ge*-Inf while other Inf-taking verbs select a bare Inf).

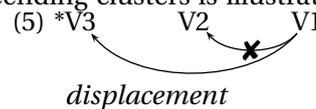
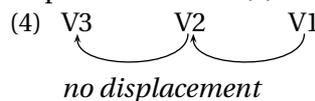
In (1-c), V1 selects a participle, but V2 appears as a bare Inf while the participial morphology is found on V3. The selectional requirements of V2 seem to be suppressed (but see 5. below). Displacement is schematically illustrated in (2):



Crucially, displacement is limited to *ascending and partially ascending* verb clusters, viz. 123, 132, 312. In strictly *descending* clusters, viz. 321, the morphology occurs in the expected place, on the immediately dependent verb and no selectional requirements are suppressed. This is illustrated in (3), a variant of (1-a) with a descending verb cluster where the *zu* selected by V1 ends up on V2:

(3) dass er nichts davon wissen₃ zu wollen₂ scheint₁
 that he nothing of.it know.INF to want.INF seems
 'that he does not seem to be interested in it' 321 Standard German

The realization of selectional relationships in descending clusters is illustrated in (4). Hypothetical displacement as in (5) is never observed:



3. Analysis: The features realized by non-finite morphology reside in separate functional heads above V like *Part*, *zu*; shorthand: F. These FPs are the sisters of the selecting governor, morphological selection is thus *checked in syntax*. Given the head-finality of the German VP, F is linearized after its VP-complement. The non-finite morphology is associated with a V post-syntactically by Local Dislocation (LD, linear reordering + affixation under adjacency, Embick & Noyer 2001; cf. Hinterhölzl 2009 for a related account and Vogel 2009 for a realizational alternative). If the verbs in the V-cluster occur in descending 321 order, the morphology selected by V1 occurs on the immediately dependent V2 as F will be adjacent to it ((6) is the derivation of (3); I omit the FP above VP3 for the Inf selected by V2):

(6) [VP₁ [FP [VP₂ [VP₃ V3] V2] F] V1] → Vocabulary-Insertion + Local Dislocation: V3 **zu**+V2 V1

But in ascending verb clusters, which for concreteness' sake I assume are derived by post-syntactic VP-inversion (Haegeman & van Riemsdijk 1986, Wurmbrand 2005)/flexible linearization (Abels 2016), a different V occurs adjacent to F so that the morphology will appear to be “displaced” (cf. (1-a)):

(7) [VP₁ V1 [FP [VP₂ V2 [VP₃ V3]] F]] → Vocabulary Insertion + Local Dislocation: V1 V2 **z**+V3

Crucially, there is thus no real displacement, the non-finite morphology is always placed in the same way; rather, “displacement” is a side-effect of cluster reordering. Importantly, I will show that the analysis is compatible with several (but not all) theories of verb clusters.

4. Restrictions on displacement. In ascending clusters, systematic displacement will often lead to more than one F being attached to a verb. In such configurations displacement is only possible if the morphological exponents are compatible with each other. Despite the flexible positioning, the morphological objects thus display the usual signs of selectiveness. (8) shows that *z*-displacement is blocked in Aux-Part clusters with 12-order although this order is possible if finite: the derivation crashes at vocabulary insertion since the selectional restrictions of *z* are not respected in the complex head *[[[V]Part]*z*]: *z* selects an Inf and thus cannot attach to a participle :

(8) ohni s {*ha₁ z gläse₂}/{✓ gläse₂ z ha₁} ||vs. ✓ dass er s hät₁ gläse₂
 without it have.INF to read.PART read.PART to have.INF that he it has read.PART
 ‘without having read it’||‘that he has read it’ 12/21; *Swiss German, Western dialects*

5. Combinatorial possibilities. Given the exponents’ selectional requirements, multiple displacement to V3 is possible in 3 configurations: (a) both Vs select the same non-finite morphology and only one instance is realized; (b) one V selects a subset of the form selected by the other or (c) both forms are cumulatively realized on V3 since one is prefixal and one is suffixal. In (a) there will be two identical functional heads clause-finally so that at Vocabulary-insertion, haplology reduces them to one. An instance of this is so-called missing-*z* in Swiss German: V1 and V2 select a *z*-infinitive, but only one *z* is realized, on V3, see (9), and (10) for the derivation:

(9) wüu dr Hans sine Fründe [_{VP1} schiint_{1[+zu]} [_{VP2} probiere_{2[+zu]} [_{VP3} z häuffe₃]]]
 because the John his.DAT friends seems try.INF to help.INF
 ‘because John seems to try to help his friends’ Bader (1995) *Bernese German*

(10) [_{VP1} V1 [_{FP1} [_{VP2} V2 [_{FP2} [_{VP3} V3] F₂]] F₁]] → V1 V2 V3 z z → haplology: V1 V2 V3 z → LD: V1 V2 z+V3

An instance of (b) is found when V2 selects an Inf and V1 selects a form containing the Inf, i.e. *zu*+Inf, cf. (1-a), the gerund or the *ge*-Inf, cf. (1-b). Haplology will reduce the two Infs to one, cf. (1-a): [*zu*[[V]inf]inf] → [*zu*[V]inf]. An instance of (c) is found in the dialect of Steinbach (Höhle 2006): cumulative displacement is possible because V1 selects a (suffixal) gerund and V2 a (prefixal) *ge*-infinitive, two forms that attach on different sides of the V and select for a stem: [*ge*-Inf[V]ger]. If, however, the exponents are not compatible with each other, the derivation usually crashes (as in (8) above); in some instances, however, last resort deletion (suppression) is possible:

6. In favor of derivations. While most of the facts can be captured by representational-realizational approaches like Vogel (2009), an argument for derivation comes from suppression patterns: In some configurations, suppression of the requirements of V1 with the requirements of V2 realized on V3 is possible, but the reverse, viz., suppression of the requirements of V2 and realization of V1’s requirements on V3, is not attested (I will comment on (1c)). This pattern follows under a derivational perspective because the F selected by V2 is always attached before the F selected by V1. If the F selected by V1 is not compatible with the morphology already present on V3, last resort deletion applies. Since the F selected by V2 is always attached first, it will not be affected by last resort deletion (suppression).

7. No interpretive effects. Another crucial argument for a post-syntactic treatment comes from the fact that displacement has no interpretive effects: An account like Hinterhölzl’s, where different cluster orders are derived in syntax and displacement is thus the result of syntactic permutations, wrongly predicts for (1-c) that the semantics contributed by the participle apply to V3 while in fact they apply to V2. To cope with this mismatch, Hinterhölzl postulates a repair operation copying the Part-features of V3 to V2. Under the present account the interpretive facts follow straightforwardly because at LF the relevant features of Part reside in an FP selecting VP2. Post-syntactic displacement has no effect on interpretation and consequently, no repair operation is needed.

8. Scope of the analysis. The analysis does not cover the scandal construction (Vogel 2009, Wurmbrand 2012), the only German construction where the displaced morphology precedes the selector (312 with Part on V3, selected by V1). I will argue that it requires a completely different analysis. 312 clusters with normal displacement can be accommodated if the order is derived by VP3-movement (+ VP-inversion V1-VP2) or post-syntactic reordering between V2 and V1. Finally, I show that displacement in German must be treated differently than parasitic morphology in Frisian/Norwegian/Swedish, where an account in terms of Agree as in Wurmbrand (2012) is most promising. Time permitting, I will address the interaction of displacement with particle and prefix verbs.