

# Towards a unified account of verbal morphology in West-Germanic

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## Introduction

In non-standard varieties of West-Germanic (Dutch, Afrikaans, German), verbal morphology (e.g. the infinitival marker *te/zu* 'to' and the past participle marker *ge-*) often appears on a different position than required by selection criteria.

blue = verb that selects the verbal morphology  
red = verb on which the morphology should appear

- (1) Koen zal niet [*<te>* **hoeven**<sub>1</sub> *<te>* **gaan**<sub>2</sub> *<te>* **voetballen**<sub>3</sub>].  
Koen will not to need to go to play.football  
'Koen won't have to go play football.'

(Pots 2017; regional Dutch)

→ In regional Dutch, *te* can be: - raised = appear on V1 instead of V2  
- lowered = appear on V3 instead of V2  
- doubled = appear twice, when selection requires only one *te*

- (2) ... dat Jan die huis [*<ge->* **laat**<sub>2</sub> *<ge->* **bou**<sub>3</sub> **het**<sub>1</sub>].  
... that Jan the house GE- let GE- build have  
'... that Jan had the house build.'

(De Vos 2003, regional Afrikaans)

→ In regional Afrikaans, *ge-* can be: - lowered = appear on V3 instead of V2  
- doubled = appear twice, when selection requires only one *ge-*

## Questions

### Empirical:

1. What is the exact empirical picture of displaced verbal morphology within West-Germanic?
2. Do we see exactly the same (dis)placement patterns for the infinitival marker as for the past participle marker or do they show different patterns?

### Theoretical:

1. What is the merge position of verbal morphology in the West-Germanic verb cluster?
2. What allows this verbal morphology to migrate through the verb cluster?
3. How can we account for the attested microvariation in (dis)placement patterns of verbal morphology within West-Germanic?

## The data

Three theoretically possible positions in three-verb clusters:  
(abstracting away from different verb orders within the cluster)

*zu/te-V1-zu/te-V2-zu/te-V3*      *ge-V1-ge-V2-ge-V3*

### Terminology:

- **Raising** = appearing on a hierarchically higher verb...
- **Lowering** = appearing on a hierarchically lower verb...
- **Doubling** = appearing one time more often (i.e. twice)...  
... than required by selection

### Displacement of the infinitival marker

	Dutch	German	Afrikaans
<i>zu/te</i>			
raising	✓	✗	✗
lowering	✓	✓	✗
doubling	✓	✓	✗

- German does not seem to allow *zu*-raising (Salzmann 2013 et seq.; Schallert 2018)
- In Afrikaans, *te*-complements are generally rare (De Vos 2001)
- *Zu/te*: Dutch is most flexible, then German, Afrikaans is not

### Displacement of the past participle marker

	Dutch	German	Afrikaans
<i>ge-</i>			
raising	✗	✗	✗
lowering	✗	✓	✓
doubling	✗	✗	✓

- *Ge*-raising is unattested (Conradie 2012; De Vos 2003; Höhle 2006; Jaeger 2016; see Postma 2002 for discussion on Dutch)
- *Ge-*: Afrikaans is most flexible, then German, Dutch is not

→ Dutch is most flexible w.r.t. *te*-placement, Afrikaans w.r.t. *ge*-placement, German behaves in between Dutch and Afrikaans w.r.t. both types of morphology

## The analysis

### Prerequisites

1. **Verbal morphology: affix > clitic**
- The flexibility w.r.t. their position of verbal morphemes indicates whether they are an affix or clitic

→ Freedom in placement = *zu/te* or *ge-* is clitic  
Restrictions in placement = *zu/te* or *ge-* is affix

2. **Merge positions of the affixal vs. clitic verbal morphology**
- When *zu/te* or *ge-* is an affix: realised as a feature on the verb
- When *te/zu* or *ge-* is a clitic: it is an individual element, realised by an Agree relation between the verb that selects the verbal morphology and a lower functional head
- This functional head is low in the structure, right above the lexical verb (see Wurmbrand (2001); Hinterhölzl (2009))

### Analysis part I: the clitic moves

When *zu/te* or *ge-* is a clitic, it can successive cyclically move up (cf. clitic climbing in Italian (Cardinaletti & Shlonsky (2004)) to higher verbs within the cluster

Back to the example in (1)

- (3) [<sub>ModP</sub> Mod **hoeven**<sub>1</sub> [<sub>AspP</sub> Asp **gaan**<sub>2</sub> [<sub>FP</sub> F *<te>* [<sub>VP</sub> V **voetballen**<sub>3</sub> ]]]]

- V1 *hoeven* selects a *te*-infinitive: *te* should appear on V2
- When *te* is a clitic, it is merged in F, right above the lexical verb, caused by an Agree relation between V1 *hoeven* and F
- If it stays in its low merge position: **te-lowering**
- But it can also successive cyclically move up within the cluster:

- (4) [<sub>ModP</sub> Mod *<te>* **hoeven**<sub>1</sub> [<sub>AspP</sub> Asp *<te>* **gaan**<sub>2</sub> [<sub>FP</sub> F [<sub>VP</sub> V **voetballen**<sub>3</sub> ]]]]

- Leading to 'correct' *te*-placement or **te-raising**, or **te-doubling** when more than one copy is spelled out

Back to the example in (2)

- (5) [<sub>TP</sub> T **het**<sub>1</sub> [<sub>vcauseP</sub> v<sub>cause</sub> *<ge>* **laat**<sub>2</sub> [<sub>FP</sub> F *<ge>* [<sub>VP</sub> V **bou**<sub>3</sub> ]]]]

- V1 *het* selects a past participle: *ge-* should appear on V2
- When *ge-* is a clitic, it is merged in F, caused by Agree
- If it stays low: **ge-lowering**, when it moves up: *ge-* in 'correct' position, when both copies are spelled out: **ge-doubling**

### Analysis part II: the affix does not move

When *zu/te* or *ge-* is an affix, it is realised as a feature on the verb on which it should appear, and therefore cannot move

For example *zu* placement in Standard German (SD)

- (6) ... dass er das Buch [*(\*zu)* **gelesen**<sub>3</sub> *zu* **haben**<sub>2</sub> *(\*zu)* **dachte**<sub>1</sub>].  
... that he the book to read to have to thought  
'... that he thought he had read the book.' (Salzmann 2016)

→ V1 *dachte* selects a *zu*-infinitive: *zu* can only appear on V2

### Explaining the attested microvariation

The morphosyntactic status of *zu/te* and *ge-* in West-Germanic

	Dutch	German	Afrikaans
<i>zu/te</i>	clitic	clitic/affix	affix
<i>ge-</i>	affix	clitic/affix	clitic

→ In Dutch, *te* is a clitic and *ge-* is an affix  
In German, *zu* and *ge-* are 'in between' affix/clitic  
In Afrikaans, *te* is an affix and *ge-* is a clitic

## Implications & open questions

→ Why is *ge*-raising unattested, while *te*-raising is possible?  
More fieldwork (esp. in German and Afrikaans) is needed

→ It looks like the more clitic-like one of the two verbal morphemes is, the more affix-like the other is. Is this apparent interaction real?

→ Is there an interaction between the flexibility of *ge-* and the IPP effect (the appearance of the past participle marker as a bare/infinitival form)?  
Afrikaans is most flexible w.r.t. *ge-* and has most optional IPP, the opposite is true for Dutch, and German is again 'in between' (Schmid 2005)

## Conclusion

- In non-standard varieties of West-Germanic, the infinitival/past participle marker can appear on a different position than required by selection
- When the verbal morpheme is restricted to one position, it has the status of an affix, whereas when it shows positional flexibility, it has the status of a clitic
- In the latter case it is merged low in the functional structure and can successive cyclically climb up to higher verbs (cf. clitic climbing in Italian)

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