Te wel of niet (te) hoeven (te) plaatsen
Variation in te-placement in Dutch non-finite verb clusters

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Syntax-interface lecture, Utrecht
9 October 2017
Outline

1. The whole talk in a nutshell
2. Methodology
3. The data
4. Prerequisites for the analysis
5. The analysis
6. Displaced morphology in verb clusters across Germanic
7. Conclusion and outlook
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2. Methodology
3. The data
4. Prerequisites for the analysis
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7. Conclusion and outlook
New data on -placement in Dutch verb clusters

Koen zal niet hoeven te gaan voetballen.

‘Koen won’t have to go and play football.’

The numbers indicate the hierarchical position of the verbs in the cluster (V1 selects V2, V2 selects V3)

The verb in red: the verb that selects the te-infinitive
The verb in blue: the verb on which te normally appears

In (1), V1 hoeven ‘need to’ selects the te-infinitive te gaan ‘to go’.

bit.ly/slidesTE
The whole talk in a nutshell

New data on *te*-placement in Dutch verb clusters

(1) Koen zal niet [hoeven\textsubscript{1} *te gaan\textsubscript{2} voetballen\textsubscript{3}].

Koen will not need.INF to go.INF play.football.INF.

‘Koen won’t have to go and play football.’
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Koen will not need.INF to go.INF play.football.INF.
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- The numbers indicate the hierarchical position of the verbs in the cluster (V1 selects V2, V2 selects V3)
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(1) Koen zal niet [hoeven$_1$ te gaan$_2$ voetballen$_3$].
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- The numbers indicate the hierarchical position of the verbs in the cluster (V1 selects V2, V2 selects V3)
- **The verb in red**: the verb that selects the *te*-infinitive
- **The verb in blue**: the verb on which *te* normally appears
- In (1), V1 *hoeven* ‘need to’ selects the *te*-infinitive *te gaan* ‘to go’
The whole talk in a nutshell

New data on *te*-placement in Dutch verb clusters

(2) Koen zal niet [hoeven\textsubscript{1} gaan\textsubscript{2} voetballen\textsubscript{3}].
Koen will not need.INF go.INF play.football.INF.
‘Koen won’t have to go and play football.’

- V1 *hoeven* ‘need to’ selects a *te*-infinitive
New data on *te*-placement in Dutch verb clusters

(2) Koen zal niet [hoeven$_1$ gaan$_2$ voetballen$_3$].
Koen will not need.INF go.INF play.football.INF.
‘Koen won’t have to go and play football.’

- V1 *hoeven* ‘need to’ selects a *te*-infinitive
- Many Dutch speakers allow or even need *te* to be dropped, contrary to selection requirements: *te-drop* (2)
New data on *te*-placement in Dutch verb clusters

(3) Koen zal niet [*te hoeven*$_1$ *gaan*$_2$ *voetballen*$_3$].
Koen will not to need.INF go.INF play.football.INF.
‘Koen won’t have to go and play football.’

- V1 *hoeven* ‘need to’ selects a *te*-infinitive
The whole talk in a nutshell

New data on *te*-placement in Dutch verb clusters

(3) Koen zal niet [*te hoeven*₁ *gaan*₂ *voetballen*₃].
Koen will not *to need.INF go.INF play.football.INF.*
‘Koen won’t have to go and play football.’

- V1 *hoeven* ‘need to’ selects a *te*-infinitive
- Many Dutch speakers also allow *te* to appear on V1 instead of V2: *te*-raising (3)
The whole talk in a nutshell

New data on te-placement in Dutch verb clusters

(4) Koen zal niet [te hoeven₁ te gaan₂ voetballen₃].
Koen will not to need.INF to go.INF play.football.INF.
‘Koen won’t have to go and play football.’

▶ V1 hoeven ‘need to’ selects a te-infinitive
The whole talk in a nutshell

New data on *te*-placement in Dutch verb clusters

(4) Koen zal niet [te *hoeven*₁ te *gaan*₂ *voetballen*₃].
Koen will not to need.INF to go.INF play.football.INF.
‘Koen won’t have to go and play football.’

- V₁ *hoeven* ‘need to’ selects a *te*- infinitive
- Many Dutch speakers also allow *te* to appear twice, instead of once: *te*-doubling (4)
New data on te-placement in Dutch verb clusters

(5) Koen zal niet [hoeven₁ gaan₂ te voetballen₃].
Koen will not need.INF go.INF to play.football.INF.
‘Koen won’t have to go and play football.’

▶ V1 hoeven ‘need to’ selects a te-infinitive
The whole talk in a nutshell

New data on *te*-placement in Dutch verb clusters

(5) Koen zal niet [hoeven$_1$ gaan$_2$ *te* voetballen$_3$].
Koen will not need.INF go.INF to play.football.INF.
‘Koen won’t have to go and play football.’

- V1 *hoeven* ‘need to’ selects a *te*-infinitive
- A relatively smaller group of Dutch speakers also allow *te* to appear on V3 instead of V2: **te-lowering** (5)
The whole talk in a nutshell

New data on te-placement in Dutch verb clusters

(5) Koen zal niet [hoeven₁ gaan₂ te voetballen₃].
Koen will not need.INF go.INF to play.football.INF.
‘Koen won’t have to go and play football.’

- V1 hoeven ‘need to’ selects a te-infinitive
- A relatively smaller group of Dutch speakers also allow te to appear on V3 instead of V2: **te-lowering** (5)

- **Focus of today’s talk**: te-raising and te-drop
The whole talk in a nutshell

Main points of the analysis

- Dutch verb clusters are cases of functional restructuring (Cinque 2001; IJbema 2001; Wurmbrand 2001)
- Te-raising is an instance of clitic climbing (cf. Italian)
- Te-doubling is the spell out of both copies of raised te
- Te-drop is due to differences in structural complement size
- Te-raising fills a previously unexplained gap in the cross-linguistic distribution of restructuring phenomena across Germanic and Romance
The whole talk in a nutshell

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The whole talk in a nutshell

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The whole talk in a nutshell

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1. The whole talk in a nutshell

2. Methodology

3. The data

4. Prerequisites for the analysis

5. The analysis

6. Displaced morphology in verb clusters across Germanic

7. Conclusion and outlook
Methodology: design
Methodology: design

Large-scale questionnaire study

- Three types of clusters in 123-order were tested
Methodology: design

Cluster type I. *Te-V1-V2-V3*

(6) Anne *zegt* hier [*te willen*₁ *blijven*₂ *zitten*₃].
Anne says here to *want*.INF *remain*.INF *sit*.INF.
‘Anne says that she wants to remain seated here.’
Methodology: design

Cluster type I. *Te-V1-V2-V3*

(6) Anne *zegt* hier [te *willen*₁ blijven₂ zitten₃].
    Anne says here to want.INF remain.INF sit.INF.
    ‘Anne says that she wants to remain seated here.’

- The finite verb *zegt* ‘says’ in verb second position selects a *te*-infinitive
Cluster type I. Te-V1-V2-V3

(6) Anne zegt hier [te willen₁ blijven₂ zitten₃].
Anne says here to want.INF remain.INF sit.INF.
‘Anne says that she wants to remain seated here.’

- The finite verb zegt ‘says’ in verb second position selects a te-infinitive
- The highest verb in the cluster (V1) is a te-infinitive
Methodology: design

Cluster type II. V1-te-V2-V3

(7) Koen zal niet [hoeven\textsubscript{1} te gaan\textsubscript{2} voetballen\textsubscript{3}].
Koen will not need.INF to go.INF play.football.INF.
‘Koen won’t have to go and play football.’
Methodology: design

Cluster type II. V1-te-V2-V3

(7) Koen zal niet [hoeven₁ te gaan₂ voetballen₃].
Koen will not need.INF to go.INF play.football.INF.
‘Koen won’t have to go and play football.’

▸ V1 hoeven ‘need to’ selects a te-infinitive
Methodology: design

Cluster type II. V1-te-V2-V3

(7) Koen zal niet [hoeven₁ te gaan₂ voetballen₃].
Koen will not need.INF to go.INF play.football.INF.
‘Koen won’t have to go and play football.’

▶ V1 hoeven ‘need to’ selects a te-infinitive
▶ The second verb in the cluster (V2) is a te-infinitive
Methodology: design

Cluster type III. V1-V2-te-V3

(8) Peter zal lang [moeten₁ zitten₂ te wachten₃].
Peter will long must.INF sit.INF to wait.INF.
‘Peter will have to wait for a long time.’
Cluster type III. V1-V2-\textit{te}-V3

(8) Peter zal lang [moeten\textsubscript{1} zitten\textsubscript{2} \textit{te} wachten\textsubscript{3}].
Peter will long must.\textsubscript{INF} sit.\textsubscript{INF} to wait.\textsubscript{INF}.
‘Peter will have to wait for a long time.’

- V2 \textit{zitten} ‘sit’ selects a \textit{te}-infinitive
Cluster type III. V1-V2-te-V3

(8) Peter zal lang [moeten₁ zitten₂ te wachten₃].
Peter will long must.INF sit.INF to wait.INF.
‘Peter will have to wait for a long time.’

- V2 zitten ‘sit’ selects a te-infinitive
- The lowest verb in the cluster (V3) is a te-infinitive
Methodology: design

Goal of the questionnaire study:

- Test whether te can appear in a different position than it should appear in based on the selection requirements
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- Test whether *te* can appear in a different position than it should appear in based on the selection requirements

- Different versions of the three cluster types were included in the questionnaire:
Methodology: design

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- Different versions of the three cluster types were included in the questionnaire:
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- Different versions of the three cluster types were included in the questionnaire:
  - the ‘correct’ version (meeting the selection requirements)
  - *te* occurs on one of the other verbs of the cluster
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▷ Different versions of the three cluster types were included in the questionnaire:
  ▷ the ‘correct’ version (meeting the selection requirements)
  ▷ *te* occurs on one of the other verbs of the cluster
  ▷ *te* is absent
Methodology: design

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▶ Different versions of the three cluster types were included in the questionnaire:
  ▶ the ‘correct’ version (meeting the selection requirements)
  ▶ *te* occurs on one of the other verbs of the cluster
  ▶ *te* is absent
  ▶ *te* occurs twice
Methodology: design

7 different versions of all cluster types:

1. \( te-V1-V2-V3 \)
2. \( V1-te-V2-V3 \)
3. \( V1-V2-te-V3 \)
4. \( V1-V2-V3 \)
5. \( te-V1-te-V2-V3 \)
6. \( te-V1-V2-te-V3 \)
7. \( V1-te-V2-te-V3 \)

- 28 test items, 25 filler items, 5 practice items
Methodology: procedure
Methodology: procedure

Task

▶ Judgment task, using a 5-point Likert scale
Methodology: procedure

Task

- Judgment task, using a 5-point Likert scale
- Online written questionnaire, created in LimeSurvey©
Methodology: procedure

Task

- Judgment task, using a 5-point Likert scale
- Online written questionnaire, created in LimeSurvey©
- Test items presented in randomized order, preceded by a practice round (5 practice items, same order for all participants)
Methodology: procedure

Instructions

- Participants were asked to answer the following question on a 5-point Likert scale after reading the test sentence out loud:

  ‘Is this a possible sentence in Dutch as it is spoken in your immediate environment?’
Methodology: procedure

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- Participants were asked to answer the following question on a 5-point Likert scale after reading the test sentence out loud:

  ‘Is this a possible sentence in Dutch as it is spoken in your immediate environment?’

- ‘Immediate environment’ was defined as ‘friends, family, town or city’
Methodology: procedure

Instructions

- Participants were asked to answer the following question on a 5-point Likert scale after reading the test sentence out loud:

  ‘Is this a possible sentence in Dutch as it is spoken in your immediate environment?’

- ‘Immediate environment’ was defined as ‘friends, family, town or city’
- 5 = ‘certainly’, 1 = ‘certainly not’; they could also assign 2,3,4 or ‘I don’t know’, and comment on their rating in a comment field
Methodology: participants

531 native Dutch speakers completed the questionnaire, 459 were included for analysis:

- 70 participants were excluded due to them having lived abroad for longer than 10% of their lives
- 2 participants were excluded due to inconsistent responses to the filler items
Methodology: participants

Participants

▶ 531 native Dutch speakers completed the questionnaire, 459 were included for analysis:
Methodology: participants

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Participants

- **Mean age**: 53 ($SD$ 12.5; range: 18-99)
Methodology: participants

Participants

- **Mean age:** 53 ($SD$ 12.5; range: 18-99)
- **Gender:** 250 female, 209 male
Methodology: participants

Participants

- **Mean age:** 53 (SD 12.5; range: 18-99)
- **Gender:** 250 female, 209 male
- **Place of birth:** The Netherlands: 361, Belgium: 95 (other: 3)
Methodology: participants

Figure 1: Distribution of included participants
1. The whole talk in a nutshell

2. Methodology

3. The data

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The data: geographical distribution

Figure 2: Linguistic differences mapped onto geographical space

▶ The darker the lines between locations, the more linguistically similar the varieties spoken in those locations
The data: geographical distribution

Figure 2: Linguistic differences mapped onto geographical space

- The darker the lines between locations, the more linguistically similar the varieties spoken in those locations
The data: geographical distribution

- There are no clear geographical patterns in the distribution of variation in te-placement (i.e. te-raising, -drop, -doubling and -lowering)
The data: geographical distribution

- There are no clear geographical patterns in the distribution of variation in *te*-placement (i.e. *te*-raising, -drop, -doubling and -lowering)
- That is, the phenomena are widespread and not restricted to (a) specific area(s)
The data: *te-drop*
The data: te-drop

Terminology:

1. *Te* is present in the cluster, as required by selection: no *te-drop*
The data: \textit{te-drop}

Terminology:

1. \textit{Te} is present in the cluster, as required by selection: no \textit{te-drop}
2. \textit{Te} is absent in the cluster, even though selection requires it to be present: \textit{te-drop}
The data: *te*-drop

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<td>8 (0,7%)</td>
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<td>II. V1-<em>te</em>-V2-V3</td>
<td>191 (41,6%)</td>
<td>187 (40,7%)</td>
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<td>III. V1-V2-<em>te</em>-V3</td>
<td>20 (4,4%)</td>
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**Table 1:** Frequency overview of *te*-drop per type of cluster
The data: *te-drop*

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- 62 speakers (13,5%) rejected all versions of cluster type II
The data: *te*-drop

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Table 1: Frequency overview of *te*-drop per type of cluster

- 62 speakers (13,5%) rejected all versions of cluster type II
- 64 speakers (13,9%) rejected all versions of cluster type III
The data: *te*-drop

*Te*-drop

- *Te* cannot be dropped in cluster type I (9)

(9) Anne *zegt hier [*(te)* willen₁ blijven₂ zitten₃]. Anne says here to want.INF remain.INF sit.INF. ‘Anne says that she wants to remain seated here.’
The data: *te*-drop

**Te-drop**

- However, in cluster type II (10) and cluster type III (11), *te* can or even has to be dropped

(10) Koen zal niet [hoeven\textsubscript{1} gaan\textsubscript{2} voetballen\textsubscript{3}].
Koen will not need.INF go.INF play.football.INF.
‘Koen won’t have to go and play football.’

(11) Peter zal lang [moeten\textsubscript{1} zitten\textsubscript{2} wachten\textsubscript{3}].
Peter will long must.INF sit.INF wait.INF.
‘Peter will have to wait for a long time.’
The data: *te-drop*

Figure 3: Distribution of *te-drop* with *hoeven* ‘need’
The data: *te*-drop

(12) Koen zal niet [hoeven$_1$ gaan$_2$ voetballen$_3$].
Koen will not need.INF go.INF play.football.INF.
‘Koen won’t have to go and play football.’

- In cluster type II, 187 speakers (40.7%) show optional
  *te*-drop, i.e. for these speakers *te* can be dropped, but they
  also allow *te* in situ and/or *te*-raising
The data: *te*-drop

\[(12) \quad \text{Koen zal niet [hoeven}_1 \text{ gaan}_2 \text{ voetballen}_3\].
\]

‘Koen won’t have to go and play football.’

- In cluster type II, 187 speakers (40.7%) show optional *te*-drop, i.e. for these speakers *te* can be dropped, but they also allow *te* in situ and/or *te*-raising
- 19 speakers (4.2%) need *te* to be dropped in this cluster, i.e. they neither allow *te* in situ, nor *te*-raising
The data: te-drop

Figure 4: Distribution of te-drop with zitten ‘sit’
The data: *te*-drop

(13) Peter zal lang [moe{t}en{1} zitten{2} wachten{3}].
Peter will long must.INF sit.INF wait.INF.
‘Peter will have to wait for a long time.’

- In cluster type III, 152 speakers (33,1%) show optional
  *te*-drop, i.e. these speakers allow *te* to be dropped, but also
  allow *te* in situ and/or *te*-raising
The data: *te*-drop

(13) Peter zal lang [moeten₁ zitten₂ wachten₃].
Peter will long must.INF sit.INF wait.INF.
‘Peter will have to wait for a long time.’

- In cluster type III, 152 speakers (33.1%) show optional *te*-drop, i.e. these speakers allow *te* to be dropped, but also allow *te* in situ and/or *te*-raising
- 223 speakers (48.6%) need *te* to be dropped in this cluster, i.e. they neither allow *te* in situ, nor *te*-raising
The data: te-raising
The data: *te*-raising

**Terminology:**

1. *Te* occurs in the position required by selection requirements: 
   *te* in situ
The data: *te*-raising

**Terminology:**

1. *Te* occurs in the position required by selection requirements: 
   _te in situ_
2. *Te* occurs in a higher position within the cluster: _te*-raising
The data: *te*-raising

*Te*-raising

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<td>I. <em>te</em>-V1-V2-V3</td>
<td>459 (100%)</td>
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<td>II. V1-<em>te</em>-V2-V3</td>
<td>193 (51,1%)</td>
<td>165 (43,6%)</td>
<td>20 (5,3%)</td>
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<tr>
<td>III. V1-V2-<em>te</em>-V3</td>
<td>124 (72,1%)</td>
<td>39 (22,7%)</td>
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*Table 2: Frequency overview of *te*-raising per type of cluster*
The data: *te*-raising

(14) Anne zegt hier [ *te willen*₁ blijven*₂ zitten*₃ ].
Anne says here  to want.INF remain.INF sit.INF.
‘Anne says that she wants to remain seated here.’

- In cluster type I, *te* is already on the highest verb of the cluster; we thus do not find *te*-raising in this cluster
The data: te-raising

\(14\) Anne zegt hier \([te \ \text{willen}_1 \ \text{blijven}_2 \ \text{zitten}_3]\). Anne says here to want.INF remain.INF sit.INF. ‘Anne says that she wants to remain seated here.’

- In cluster type I, \(te\) is already on the highest verb of the cluster; we thus do not find \(te\)-raising in this cluster
- All 459 speakers (100%) allow \(te\) in situ (i.e. \(te\) in the position required by selection requirements)
The data: *te*-raising

Figure 5: Distribution of *te*-raising with *hoeven* ‘need’
The data: *te*-raising

(15) ...[ <te> hoeven₁ <te> gaan₂ voetballen₃].
    ... to need.INF to go.INF play.football.INF.
    ‘Koen won’t have to go and play football.’

▶ In cluster type II, 193 (51.1%) of the speakers who allow *te* in this cluster, only allow *te* in situ (i.e. no *te*-raising)
The data: te-raising

(15) ...[ <te> hoeven₁ <te> gaan₂ voetballen₃ ].
    ... to need.INF to go.INF play.football.INF.
    ‘Koen won’t have to go and play football.’

► In cluster type II, 193 (51.1%) of the speakers who allow te in this cluster, only allow te in situ (i.e. no te-raising)
► 165 speakers (43.6%) show optional te-raising, i.e. for these speakers te can be raised, but they also allow te in situ
The data: *te*-raising

(15) \[<te> \text{hoeven}_1 \quad <te> \text{gaan}_2 \quad \text{voetballen}_3].\]

\[\ldots \text{to need.INF to go.INF play.football.INF.}\]

‘Koen won’t have to go and play football.’

- In cluster type II, 193 (51.1%) of the speakers who allow *te* in this cluster, only allow *te* in situ (i.e. no *te*-raising)
- 165 speakers (43.6%) show optional *te*-raising, i.e. for these speakers *te* can be raised, but they also allow *te* in situ
- 20 speakers (5.3%) need *te* to be raised in this cluster
The data: te-raising

Figure 6: Distribution of te-raising to V2 with zitten ‘sit’
The data: *te*-raising

Figure 7: Distribution of *te*-raising to V1 with *zitten* ‘sit’
The data: *te*-raising

(16) ...[ *te*-moeten$_1$ *te*-zitten$_2$ *te*-wachten$_3$].

... to must.INF to sit.INF to wait.INF.

‘Peter will have to wait for a long time.’

- In cluster type III, 124 (72,1%) of the speakers who allow *te* in this cluster, only allow *te* in situ (i.e. no *te*-raising)
The data: te-raising

(16) ...[ <te> moeten₁ <te> zitten₂ <te> wachten₃].
... to must.INF to sit.INF to wait.INF.
‘Peter will have to wait for a long time.’

- In cluster type III, 124 (72,1%) of the speakers who allow te in this cluster, only allow te in situ (i.e. no te-raising)
- 39 speakers (22,7%) show optional te-raising, i.e. for these speakers te can be raised, but they also allow te in situ
The data: *te*-raising

(16) ...[<te> moeten₁ <te> zitten₂ <te> wachten₃].
... to must.INF to sit.INF to wait.INF.
‘Peter will have to wait for a long time.’

- In cluster type III, 124 (72,1%) of the speakers who allow *te* in this cluster, only allow *te* in situ (i.e. no *te*-raising)
- 39 speakers (22,7%) show optional *te*-raising, i.e. for these speakers *te* can be raised, but they also allow *te* in situ
- 9 speakers (5,2%) need *te* to be raised in this cluster

bit.ly/slidesTE
The data: *te*-doubling

Koen won’t have to go and play football.

In addition, we find cases of *te*-doubling: *te* appears twice, whereas only one *te* is required by selection requirements. *Te*-doubling is attested in all three cluster types, but much less frequent in cluster type III than in cluster type I and II.
The data: te-doubling

(17) Koen zal niet [te hoeven$_1$ te gaan$_2$ voetballen$_3$].
Koen will not to need.INF to go.INF play.football.INF.
‘Koen won’t have to go and play football.’

▶ In addition, we find cases of te-doubling
The data: *te*-doubling

(17) Koen zal niet [te hoeven\textsubscript{1} te gaan\textsubscript{2} voetballen\textsubscript{3}].
Koen will not to need.INF to go.INF play.football.INF.
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- *Te*-doubling: *te* appears twice, whereas only one *te* is required by selection requirements
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‘Koen won’t have to go and play football.’

- In addition, we find cases of *te*-doubling
- *Te*-doubling: *te* appears twice, whereas only one *te* is required by selection requirements
- *Te*-doubling is attested in all three cluster types, but much less frequent in cluster type III than in cluster type I and II
The data: summary

Two main findings:

1. The -drop occurs in cluster types II and III, with higher frequencies for cluster type III than cluster type II

2. The -raising occurs in cluster types II and III, with higher frequencies for cluster type II than for cluster type III

▶ For the largest group of speakers who allow te-raising, this raising is optional
▶ I.e., for them the following implicational relation holds: if they allow te-raising, they also allow te in situ

▶ For a small group of speakers, te-raising is obligatory

▶ In addition, we also find te-doubling (not the main focus of this talk)
The data: summary

Two main findings:

1. *Te*-drop occurs in cluster types II and III, with higher frequencies for cluster type III than cluster type II

2. *Te*-raising occurs in cluster types II and III, with higher frequencies for cluster type II than for cluster type III

▶ For the largest group of speakers who allow *te*-raising, this raising is optional
▶ I.e., for them the following implicational relation holds: if they allow *te*-raising, they also allow *te* in situ
▶ For a small group of speakers, *te*-raising is obligatory

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The data: summary

Two main findings:

1. *Te*-drop occurs in cluster types II and III, with higher frequencies for cluster type III than cluster type II
2. *Te*-raising occurs in cluster types II and III, with higher frequencies for cluster type II than for cluster type III
The data: summary

Two main findings:

1. *Te*-drop occurs in cluster types II and III, with higher frequencies for cluster type III than cluster type II
2. *Te*-raising occurs in cluster types II and III, with higher frequencies for cluster type II than for cluster type III
   - For the largest group of speakers who allow *te*-raising, this raising is optional
The data: summary

Two main findings:

1. *Te*-drop occurs in cluster types II and III, with higher frequencies for cluster type III than cluster type II
2. *Te*-raising occurs in cluster types II and III, with higher frequencies for cluster type II than for cluster type III
   - For the largest group of speakers who allow *te*-raising, this raising is optional
   - I.e., for them the following *implicational relation* holds: if they allow *te*-raising, they also allow *te* in situ
Two main findings:

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   - For the largest group of speakers who allow *te*-raising, this raising is optional
   - I.e., for them the following *implicational relation* holds: if they allow *te*-raising, they also allow *te* in situ
   - For a small group of speakers, *te*-raising is obligatory
The data: summary

Two main findings:

1. Te-drop occurs in cluster types II and III, with higher frequencies for cluster type III than cluster type II
2. Te-raising occurs in cluster types II and III, with higher frequencies for cluster type II than for cluster type III
   ▶ For the largest group of speakers who allow te-raising, this raising is optional
   ▶ I.e., for them the following *implicational relation* holds: if they allow te-raising, they also allow te in situ
   ▶ For a small group of speakers, te-raising is obligatory

▶ In addition, we also find te-doubling (not the main focus of this talk)
1. The whole talk in a nutshell

2. Methodology

3. The data

4. Prerequisites for the analysis

5. The analysis

6. Displaced morphology in verb clusters across Germanic

7. Conclusion and outlook
Prerequisites for the analysis

Four theoretical tenets:
Prerequisites for the analysis

Four theoretical tenets:

1. Approach to verb clusters: functional restructuring
Prerequisites for the analysis

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1. Approach to verb clusters: functional restructuring
2. The size of the complement of Dutch modals: TP
Prerequisites for the analysis

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1. Approach to verb clusters: functional restructuring
2. The size of the complement of Dutch modals: TP
3. The position of te: merged in T
Prerequisites for the analysis

Four theoretical tenets:

1. Approach to verb clusters: functional restructuring
2. The size of the complement of Dutch modals: TP
3. The position of te: merged in T
4. The morphosyntactic status of te: clitic vs. prefix
Prerequisites for the analysis

Approach to verb clusters

▶ Proposal: Dutch non-finite verb clusters are cases of functional restructuring
Prerequisites for the analysis

Approach to verb clusters

- **Proposal**: Dutch non-finite verb clusters are cases of functional restructuring
- Modal, aspectual and motion verbs are merged in functional heads above the lexical verb (Cinque 2001; Wurmbrand 2001)
Prerequisites for the analysis

The size of the complement of Dutch modals

- Dutch modals select a TP complement (Aelbrecht 2009)
Prerequisites for the analysis

The size of the complement of Dutch modals

- Dutch modals select a TP complement (Aelbrecht 2009)
- *Support*: the modal and lexical verb can be modified by conflicting temporal adverbs (Aelbrecht 2009: 35)
Prerequisites for the analysis

- Dutch modals select a TP complement (Aelbrecht 2009)
- *Support*: the modal and lexical verb can be modified by conflicting temporal adverbs (Aelbrecht 2009: 35)

(18) *Gisteren* moest ik nog *volgende week optreden*

*yesterday* must PAST *I still next week perform*

en nu zijn de plannen alweer een week opgeschoven.

and now are the plans again a week delayed.

‘Yesterday, I still had to perform next week, and now the plans have been delayed by another week.’
Prerequisites for the analysis

The position and morphosyntactic status of *te*

- *Te* is merged in T (Bennis and Hoekstra 1989; Rutten 1991; IJbema 2001)
Prerequisites for the analysis

The position and morphosyntactic status of *te*

- *Te* is merged in T (Bennis and Hoekstra 1989; Rutten 1991; IJbema 2001)
- We find conflicting judgments on the distributional properties of *te* (Zwart 1993; Bennis 2000; IJbema 2001)
Prerequisites for the analysis

Conflicting judgments on the distributional properties of *te*

- Zwart (1993: 104):

\[(19) \quad \text{a. Om in L.A. } te \text{ leven en (te) sterven.} \]
\[
\text{for in L.A. to live.INF and to die.INF.} \\
\text{‘To live and die in L.A.’} \\
\text{b. Om in L.A. } ge- \text{ boren en } * (ge-) \text{ storven te zijn.} \\
\text{for in L.A. GE- born and GE- died to be.} \\
\text{‘To be born and have died in L.A.’}
\]
Prerequisites for the analysis

Conflicting judgments on the distributional properties of *te*

- Zwart (1993: 104):

(19)  

\[
\begin{align*}
\text{a. } & \text{Om in L.A. } te \text{ leven en (te) sterven.} \\
& \text{for in L.A. to live.INF and to die.INF.} \\
& \text{‘To live and die in L.A.’} \\
\text{b. } & \text{Om in L.A. ge- boren en * (ge-) storven te zijn.} \\
& \text{for in L.A. GE- born and GE- died to be.} \\
& \text{‘To be born and have died in L.A.’}
\end{align*}
\]

- IJbema (2001: 70): (19) shows that *te* is a clitic, as clitics can have scope over two elements in a coordination, whereas prefixes cannot (Miller 1991)
Prerequisites for the analysis

Conflicting judgments on the distributional properties of *te*

- Bennis (2000: 115) rejects coordinations with *te* taking scope over two infinitives (i.e. he argues that *te* is a prefix):

(20) De generaal moedigt het leger aan om *te strijden* the general encourages the army PRT for to fight
en *(te) winnen.*
and to win.
‘The general encourages the army to fight and win.’
Prerequisites for the analysis

The morphosyntactic status of *te*

- **My proposal:** *te* can be either a prefix or a clitic
Prerequisites for the analysis

The morphosyntactic status of \textit{te}

- **My proposal**: \textit{te} can be either a prefix or a clitic
- Differing native speaker judgments reflect variation in the categorial status of \textit{te}
Prerequisites for the analysis

The morphosyntactic status of *te*

- **My proposal**: *te* can be either a prefix or a clitic
- Differing native speaker judgments reflect variation in the categorial status of *te*
- Consequently, speakers for whom *te* is a prefix, do not allow *te*-raising; speakers for whom *te* is a clitic, do
1. The whole talk in a nutshell

2. Methodology

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5. The analysis

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7. Conclusion and outlook
The analysis: \( Te \)-raising is clitic climbing
The analysis: *Te*-raising is clitic climbing

- In Italian, clitics can also appear on a different host than the one they are syntactically associated with (Rizzi 1982; Kayne 1989; Cinque 2004)
The analysis: *Te*-raising is clitic climbing

- In Italian, clitics can also appear on a different host than they are syntactically associated with (Rizzi 1982; Kayne 1989; Cinque 2004)

\[(21)\]

a. \(<Ci>\) vorrei  andar\(<ci>\) con Maria.
   there I.would.want go.INF.there with Maria.
   ‘I would like to go there with Maria.’

b. \(<*Ci>\) detesterei  andar\(<ci>\) con Maria.
   there I.would.hate go.INF.there with Maria.
   ‘I would hate to go there with Maria.’

(Cardinaletti and Shlonsky 2004: 521)
The analysis: *Te*-raising is clitic climbing

- Restructuring is a necessary condition for both Italian clitic climbing and Dutch *te*-raising
The analysis: *Te*-raising is clitic climbing

- Restructuring is a necessary condition for both Italian clitic climbing and Dutch *te*-raising
- I therefore propose that *te*-raising is a case of clitic climbing
The analysis: Te-raising is clitic climbing

Further support: three parallels between Italian and Dutch restructuring
The analysis: Te-raising is clitic climbing

Further support: three parallels between Italian and Dutch restructuring

1. Auxiliary switch
The analysis: *Te*-raising is clitic climbing

Further support: three parallels between Italian and Dutch restructuring

1. Auxiliary switch
2. Clitic doubling
The analysis: *Te*-raising is clitic climbing

Further support: three parallels between Italian and Dutch restructuring

1. Auxiliary switch
2. Clitic doubling
3. Variation in optionality of clitic climbing
The analysis: *Te*-raising is clitic climbing

**Auxiliary switch**

- A restructuring effect in which the auxiliary of the lower, lexical verb is selected, instead of the auxiliary that is associated with the higher, functional verb:

(22) Ci sarei voluto andare con Maria. there I.would.be wanted go.INF with Maria.

‘I would have liked to go there with Maria.’
The analysis: Te-raising is clitic climbing

Auxiliary switch

▶ A restructuring effect in which the auxiliary of the lower, lexical verb is selected, instead of the auxiliary that is associated with the higher, functional verb:

(22) Ci sarei voluto andare con Maria.  
    there I.would.be wanted go.INF with Maria.  
    ‘I would have liked to go there with Maria.’

▶ Functional volere ‘want’ normally selects auxiliary avere ‘have’
The analysis: Te-raising is clitic climbing

Auxiliary switch

- A restructuring effect in which the auxiliary of the lower, lexical verb is selected, instead of the auxiliary that is associated with the higher, functional verb:

(22) Ci sarei voluto andare con Maria.
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    ‘I would have liked to go there with Maria.’

- Functional volere ‘want’ normally selects auxiliary avere ‘have’
- In (22), the auxiliary associated with lexical verb andare ‘go’ is selected instead (e.g. sarei ‘would be’ (essere ‘be’))
The analysis: further parallels between Italian and Dutch restructuring

**Auxiliary switch**

▶ We see the same restructuring effect in verb clusters in (mostly Southern) varieties of Dutch:

(23) ...dat ik naar huis **ben moeten** gaan.
...that I to house am must.INF go.INF
‘...that I had to go home.’
The analysis: further parallels between Italian and Dutch restructuring

Auxiliary switch

- We see the same restructuring effect in verb clusters in (mostly Southern) varieties of Dutch:

(23) ...dat ik naar huis _ben moeten_ gaan.
...that I _to_ house _am must.INF_ go.INF
‘...that I had to go home.’

- Functional _moeten_ normally selects auxiliary _hebben_ ‘have’
The analysis: further parallels between Italian and Dutch restructuring

Auxiliary switch

- We see the same restructuring effect in verb clusters in (mostly Southern) varieties of Dutch:

(23) ...dat ik naar huis **ben moeten** gaan.
...that I to house am must.INF go.INF
‘...that I had to go home.’

- Functional **moeten** normally selects auxiliary **hebben** ‘have’
- In (23), the auxiliary associated with lexical verb **gaan** ‘go’ is selected instead (e.g. **ben** ‘am’ (**zijn** ‘be’))
The analysis: further parallels between Italian and Dutch restructuring

Clitic doubling

- Both in varieties of Italian (Cardinalletti & Shlonsky 2004: 251) and Dutch, we see clitic doubling patterns in restructuring contexts:

(24)  A’ m la dev leve m la.
I to-me it must take-away.to-me it.
‘I have to take it away.’

(25)  Koen zal niet [te hoeven₁ te gaan₂ voetballen₃].
Koen will not to need.INF to go.INF play.football.INF.
‘Koen won’t have to go and play football.’
The analysis: further parallels between Italian and Dutch restructuring

Variation in optionality of clitic climbing

- **Recall**: In the Dutch data, we see three patterns: obligatory *te*-raising, optional *te*-raising, and no *te*-raising (i.e. *te* in situ)
The analysis: further parallels between Italian and Dutch restructuring

Variation in optionality of clitic climbing

- **Recall**: In the Dutch data, we see three patterns: obligatory te-raising, optional te-raising, and no te-raising (i.e. te in situ)
- Exactly these three patterns are also found for clitic climbing in restructuring contexts across varieties of Italian (see amongst others Cinque (2004))
The analysis: further parallels between Italian and Dutch restructuring

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- **Recall**: In the Dutch data, we see three patterns: obligatory *te*-raising, optional *te*-raising, and no *te*-raising (i.e. *te* in situ)
- Exactly these three patterns are also found for clitic climbing in restructuring contexts across varieties of Italian (see amongst others Cinque (2004))
  - Many northern varieties have obligatory clitic in situ
The analysis: further parallels between Italian and Dutch restructuring

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- **Recall**: In the Dutch data, we see three patterns: obligatory *te*-raising, optional *te*-raising, and no *te*-raising (i.e. *te* in situ)
- Exactly these three patterns are also found for clitic climbing in restructuring contexts across varieties of Italian (see amongst others Cinque (2004))
  - Many northern varieties have obligatory clitic in situ
  - Standard Italian (and other varieties) has optional clitic climbing
The analysis: further parallels between Italian and Dutch restructuring

Variation in optionality of clitic climbing

- **Recall**: In the Dutch data, we see three patterns: obligatory te-raising, optional te-raising, and no te-raising (i.e. te in situ)
- Exactly these three patterns are also found for clitic climbing in restructuring contexts across varieties of Italian (see amongst others Cinque (2004))
  - Many northern varieties have obligatory clitic in situ
  - Standard Italian (and other varieties) has optional clitic climbing
  - Many southern varieties have obligatory clitic climbing
The analysis: *Te* in cluster type I.
The analysis: $Te$ in cluster type I.

Cluster type I, $te$-V1-V2-V3

(26) Anne zegt hier [$te$ willen$_1$ blijven$_2$ zitten$_3$].
Anne says here to want.INF remain.INF sit.INF.
‘Anne says that she wants to remain seated here.’

- The finite verb zegt ‘says’ in verb second position selects the te-infinitive
The analysis: $Te$ in cluster type I.

Cluster type I, $te$-V1-V2-V3

(26) Anne zegt hier [te willen\textsubscript{1} blijven\textsubscript{2} zitten\textsubscript{3}].
Anne says here to want.INF remain.INF sit.INF.
‘Anne says that she wants to remain seated here.’

- The finite verb zegt ‘says’ in verb second position selects the $te$-infinitive
- V1 willen ‘want’ is in Mod, V2 blijven ‘remain’ in Asp and the lexical verb V3 zitten ‘sit’ is in V
The analysis: *Te* in cluster type I.

Cluster type I, *te-V1-V2-V3*

(26) Anne zegt hier [te willen₁ blijven₂ zitten₃].
Anne says here to want.INF remain.INF sit.INF.
‘Anne says that she wants to remain seated here.’

- The finite verb *zegt* ‘says’ in verb second position selects the *te*-infinitive
- V₁ *willen* ‘want’ is in Mod, V₂ *blijven* ‘remain’ in Asp and the lexical verb V₃ *zitten* ‘sit’ is in V
- There is no *te*-raising and no *te*-drop in this cluster type
The analysis: *Te in cluster type I.*

The structure of cluster type I:

(27)

```
CP
  C
  zegt
  says
  ...
  TP1
  T1
  te
  ModP
  Mod
  willen1
  want
  T2
  AspP
  Asp
  blijven2
  remain
  vP
  v
  VP
  V
  zitten3
  sit
```
The analysis: *Te in cluster type II.*
The analysis: \( Te \) in cluster type II.

Cluster type II, V1-\( te \)-V2-V3

(28) Koen zal niet [hoeven\textsubscript{1} \( te \) gaan\textsubscript{2} voetballen\textsubscript{3}].
Koen will not need.INF to go.INF play.football.INF.
‘Koen won’t have to go and play football.’

- The highest verb in the cluster, V1 hoeven ‘need to’ selects the \( te \)-infinitive
The analysis: *Te* in cluster type II.

Cluster type II, V1-*te*-V2-V3

(28) Koen zal niet [hoeven\textsubscript{1} *te* gaan\textsubscript{2} voetballen\textsubscript{3}].
Koen will not need.INF to go.INF play.football.INF.
‘Koen won’t have to go and play football.’

- The highest verb in the cluster, V1 *hoeven* ‘need to’ selects the *te*-infinitive
- V1 *hoeven* ‘need to’ is in Mod, V2 *gaan* ‘go’ in Asp and the lexical verb V3 *voetballen* ‘play football’ is in V
The analysis: $Te$ in cluster type II.

Cluster type II, $V1$-$te$-$V2$-$V3$

(28) Koen zal niet [$hoeven_1$ te gaan$_2$ voetballen$_3$].
Koen will not need.INF to go.INF play.football.INF.
‘Koen won’t have to go and play football.’

- The highest verb in the cluster, $V1$ $hoeven$ ‘need to’ selects the $te$-infinitive
- $V1$ $hoeven$ ‘need to’ is in Mod, $V2$ $gaan$ ‘go’ in Asp and the lexical verb $V3$ $voetballen$ ‘play football’ is in V
- 185 speakers allow $te$-raising in this cluster
The analysis: \textit{Te} in cluster type II.

The structure of cluster type II:

(29)

\[
\begin{align*}
\text{CP} & \\
\text{C} & \text{zal} \quad \text{will} \\
\text{TP}_1 & \\
\text{T}_1 & \text{ModP} \\
\text{Mod} & \text{hoeven}_1 \quad \text{need} \\
\text{TP}_2 & \\
\text{T}_2 & \text{AspP} \\
\text{Asp} & \text{gaan}_2 \quad \text{go} \\
\text{vP} & \\
\text{V} & \text{voetballen}_3 \quad \text{play.football}
\end{align*}
\]
The analysis: *Te* in cluster type II.

*Te*-raising in cluster type II:

(30)

```
CP
  C
    zal will ...
    ModP
      TP1
        T1
          te
          Mod
            "hoeven_1"
            need
          TP2
            T2
              AspP
                Asp
                  "gaan_2"
                  go
                vP
                  v
                  VP
                    V
                      "voetballen_3"
                      play.football
```
The analysis: \( Te \) in cluster type II.

- **Recall**: there are also speakers who allow te-drop in cluster type II

(31) Koen zal niet [hoeven\textsubscript{1} gaan\textsubscript{2} voetballen\textsubscript{3}].
Koen will not need.INF go.INF play.football.INF.
‘Koen won’t have to go and play football.’
The analysis: *Te* in cluster type II.

- **Recall**: there are also speakers who allow *te*-drop in cluster type II

(31) Koen zal niet [hoeven$_1$ gaan$_2$ voetballen$_3$].
Koen will not need.INF go.INF play.football.INF.
‘Koen won’t have to go and play football.’

- Diachronic work shows that in the last fifty years, *hoeven* is losing its ability the select a *te*-infinitive (Van de Velde 2017)
The analysis:  *Te* in cluster type II.

- *Recall:* there are also speakers who allow *te*-drop in cluster type II

(31)  Koen zal niet [hoeven<sub>1</sub> gaan<sub>2</sub> voetballen<sub>3</sub>].
Koen will not need.INF go.INF play.football.INF.
‘Koen won’t have to go and play football.’

- Diachronic work shows that in the last fifty years, *hoeven* is losing its ability the select a *te*-infinitive (Van de Velde 2017)
- The fact that this an ongoing language change is reflected by variation among speakers in allowing or disallowing *te*-drop in this cluster
The analysis: Te in cluster type II.

- This is also visible in the data: a correlation test between te-drop in this cluster type and age of the participants shows a (weak) correlation ($r = .20$, df = 457, $p < .001$)

![Figure 8: Age of participants and te-drop with hoeven ‘need’](https://bit.ly/slidesTE)
The analysis: *Te* in cluster type III.
Cluster type III, V1-V2-te-V3

(32) Peter zal lang [moeten₁ zitten₂ te wachten₃].
Peter will long must.INF sit.INF to wait.INF.
‘Peter will have to wait for a long time.’

- The second verb in the cluster, V2 zitten ‘sit’ selects the te-infinitive
The analysis: *Te* in cluster type III.

Cluster type III, V1-V2-*te*-V3

(32)  Peter zal lang [moeten$_1$  zitten$_2$  te wachten$_3$].
Peter will long must.INF sit.INF to wait.INF.
‘Peter will have to wait for a long time.’

- The second verb in the cluster, V2 *zitten* ‘sit’ selects the *te*-infinitive
- 48 speakers allow *te*-raising in this cluster
The analysis: *Te* in cluster type III.

Cluster type III, V1-V2-*te*-V3

(32) Peter zal lang [moeten₁ zitten₂ *te* wachten₃].
Peter will long must.INF sit.INF to wait.INF.
‘Peter will have to wait for a long time.’

- The second verb in the cluster, V2 *zitten* ‘sit’ selects the *te*-infinitive
- 48 speakers allow *te*-raising in this cluster
- Furthermore, 152 speakers optionally drop *te* in this cluster, and for 223 speakers *te*-drop is obligatory
The analysis: *Te* in cluster type III.

- In cluster type III the verb selecting the *te*-infinitive is progressively-used *zitten* ‘sit’
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\[(33) \quad \text{Sofia zit te lachen.} \]
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(34)
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- There is no T-position below V2 *zitten* ‘sit’, which selects the *te*-infinitive
- The structure of cluster type III thus predicts that speakers do not allow *te* to occur in this cluster
The analysis: *Te* in cluster type III.

- *Recall*: The majority of speakers (223) need *te* to be dropped in this cluster:

  «Peter zal lang moeten zitten wachten.»

  «Peter will have to wait for a long time.»
The analysis: $Te$ in cluster type III.

▶ Recall: The majority of speakers (223) need $te$ to be dropped in this cluster:

(35) Peter zal lang [moeten$_1$ zitten$_2$ wachten$_3$].
Peter will long must.INF sit.INF wait.INF.
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- The high frequency of obligatory $te$-drop follows from the structure of the cluster: there is no T-position below V2 $zitten$ ‘sit’ for $te$ to be merged in
The analysis: *Te* in cluster type III.

- For the 172 speakers who do allow *te* in cluster type III, I propose that they can spell out Prog as *te*, i.e. these speakers have reanalysed *te* as a progressive marker.
The analysis: *Te* in cluster type III.

*Te* in cluster type III:

(36)
The analysis: \( Te \) in cluster type III.

\( Te \)-raising to V2 or V1 in cluster type III:

(37)

\[
\text{CP} \quad \text{ModP} \\
\quad \text{C} \quad \text{TP}_1 \\
\quad \text{zal} \quad \text{TP}_2 \\
\quad \text{will} \quad \text{vP} \\
\quad \text{te} \quad \text{ProgP} \\
\quad \text{must} \quad \text{vP}_{\text{prog}} \\
\quad \text{te} \quad \text{zitten}_2 \\
\quad \text{sit} \quad \text{ProgP} \\
\quad \text{te} \quad \text{vP} \\
\quad \text{v} \quad \text{VP} \\
\quad \text{wait} \quad \text{V}
\]
Extension of the analysis: *te*-doubling

Recall: *te* can also be doubled:

\[(38)\]

Koen zal niet te hoeven te gaan voetballen.

‘Koen won't have to go and play football.’

Implicational relation: If speakers allow doubling, they also allow *te*-raising.

bit.ly/slidesTE
Extension of the analysis: *te*-doubling

- **Recall**: *te* can also be doubled:

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Extension of the analysis: te-doubling

- I analyse te-doubling as cases of te-raising in which both copies of te are spelled out

(39)
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2. Methodology

3. The data

4. Prerequisites for the analysis

5. The analysis

6. Displaced morphology in verb clusters across Germanic

7. Conclusion and outlook
Displaced morphology in verb clusters across Germanic

Koen zal niet hoeven gaan te voetballen.

‘Koen won’t have to go and play football.’

In addition to te-drop, te-raising, and te-doubling, the data also show a fourth pattern: te-lowering.

Te-lowering: te appears on a lower position than required by selection requirements.

Te-lowering shows interesting similarities with other morphological displacement phenomena in other Germanic languages, such as German and Afrikaans.
One extra pattern: *te*-lowering

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Displaced morphology in verb clusters across Germanic

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Lowering of the infinitival marker in German

In German, the infinitival marker can also be lowered (Salzmann 2017: 2):

(41)  a. ohne das Buch lesen$_3$ gekonnt$_2$ zu haben$_1$. without the book read.INF can.PTCP to have.INF ‘without having been able to read the book.’

    b. ohne das Buch haben$_1$ lesen$_3$ zu können$_2$. without the book have.INF read.INF to can.INF ‘without having been able to read the book.’
Displaced morphology in verb clusters across Germanic

Lowering of the past participle marker

- We also find lowering of other types of verbal morphology in verb clusters, e.g. lowering of the past participle marker, in (older) varieties of Dutch, German and Afrikaans
Displaced morphology in verb clusters across Germanic

Ge-lowering in Middle German dialects (Höhle 2006: 68):

(42) in die edele vrouwen het(e)$_1$ lazene$_2$ daz ge- tan$_3$.
  him the noble lady have let.INF that GE- do.
  ‘the noble lady had let him do that.’
Displaced morphology in verb clusters across Germanic

Ge-lowering in Kahrkams Afrikaans (De Vos 2001: 96)

(43) Ons had₁ ook mos maar laat₂ ge- ploeg₃.
We have also ADV ADV let GE- plough
‘We also (began) ploughing.’
Displaced morphology in verb clusters across Germanic

Ghe-raising (Postma 1999: 320)

- As we find both te-lowering and te-raising, we find, besides ge-lowering, ge-raising in some Germanic varieties

(44) Men zoud-ze niet ghe- connen$_1$ raken$_2$.
One would-them not GHE- be.able damage
‘One would not be able to damage them.’
Displaced morphology in verb clusters across Germanic

- These data show that in sub-standard/older varieties of Germanic, verbal morphology can be expressed on either one of the three verbs of the cluster.
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- These data show that in sub-standard/older varieties of Germanic, verbal morphology can be expressed on either one of the three verbs of the cluster.
- In German and Afrikaans, an ascending word order is a requirement for displaced verbal morphology.
- **Future research**: testing if this also applies to Dutch te-displacement patterns (i.e. comparing te-placement in 321 order and ascending word orders).
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- *Te-drop* is due to differences in structural complement size
Conclusion and outlook

Topic for future research:

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- Different word orders are possible in Dutch verb clusters (without any semantic effect)
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- **Future research**: investigate whether there is an interaction between te-placement and different cluster orders (i.e. 132, 213, 231, 312, 321)
Full paper: www.bit.ly/Pots-te-raising
www.crissp.be/activities
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