



Intelligibility of Low German to speakers of Dutch

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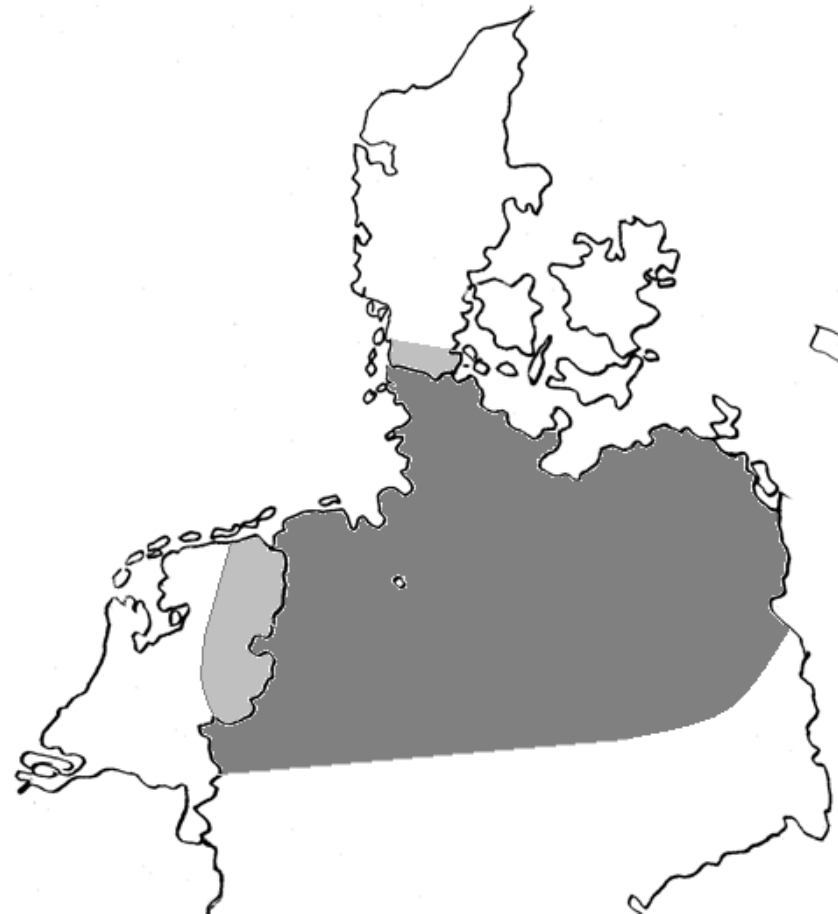
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Introduction

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Low German dialect continuum



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Research questions

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- › Are Dutchmen from the Dutch-German border area better at understanding Low German than Dutchmen from other parts of the Netherlands?
- › If so, which factors explain the difference?



Factors determining intelligibility

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1. Contact

We assume that people from the border area have more contact with Low German than people from other parts of the country



2. Linguistic distance

We assume that the linguistic distance between the border varieties and Low German is smaller than between non-border varieties and Low German



Linguistic distances

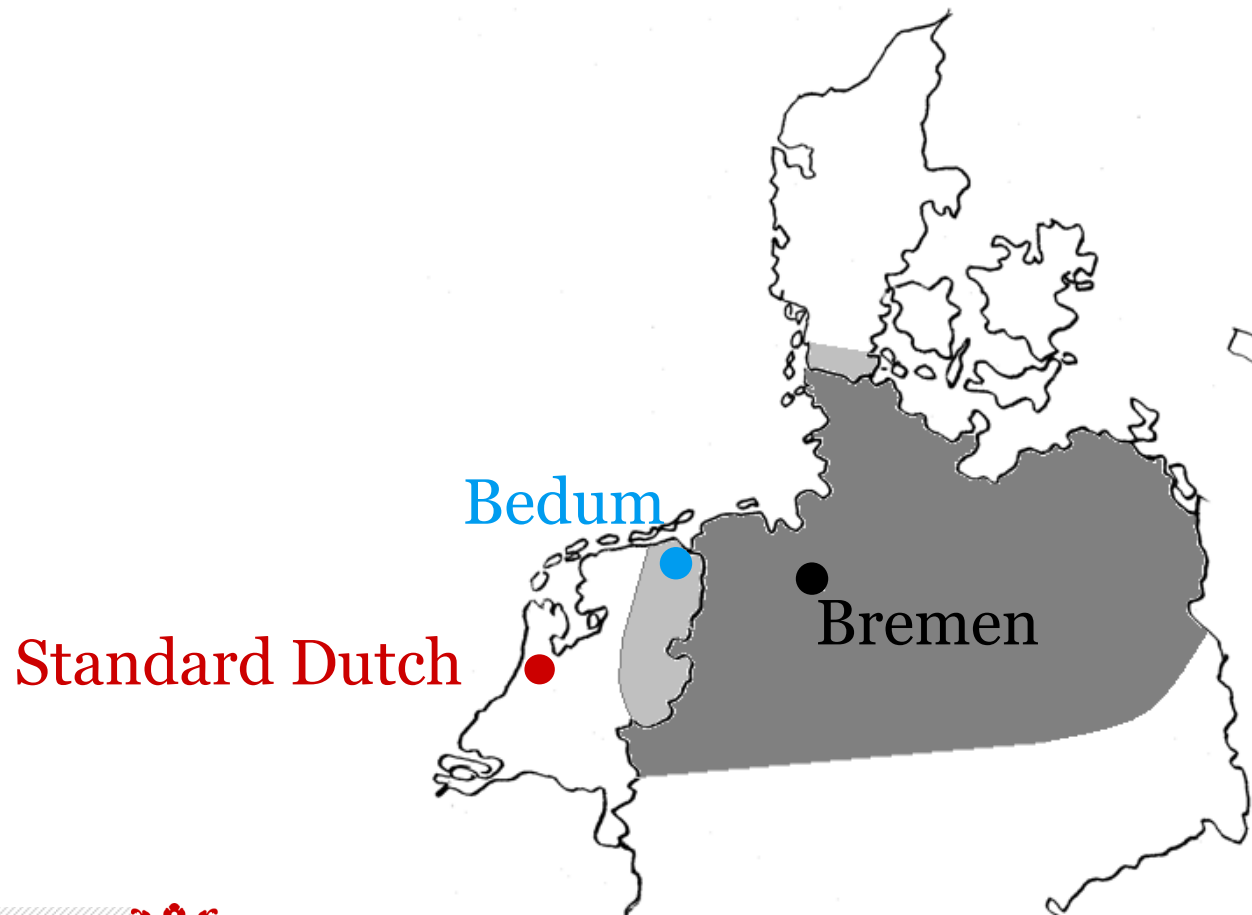
- › 289 frequent cognates
- › recordings of Low German (Bremen), Standard Dutch, border dialect (Bedum)
- › phonemic transcriptions
- › Levenshtein algorithm



Introduction

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Recordings of 289 cognates

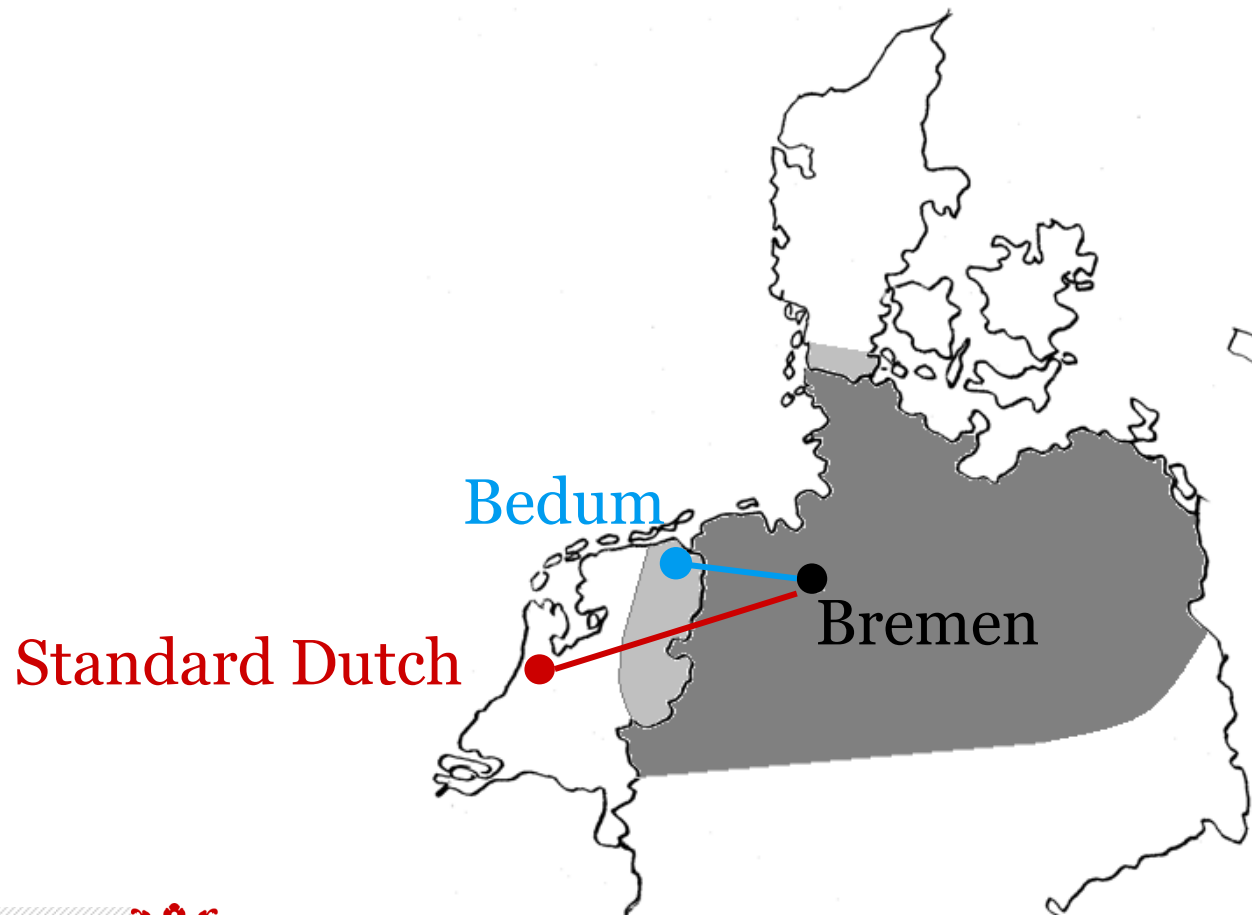


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Linguistic distances



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Factors determining intelligibility

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Linguistic distances

Low German – border dialect 39 %
Low German – Standard Dutch 41 %
diff. non-sign. ($p > .05$)

n.b.

- › listeners from the border also know Standard Dutch
- › can use information from both varieties when listening to Low German
- › smallest distances per word pair 36 % → diff. sign. ($p < .01$)



Hypothesis I

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Cognates (historically related words)

- › More contact with Low German in border area than in other parts of the country
- › More linguistic advantage in border area than in other parts of the country

Prediction: Low German intelligibility higher in border area than in non-border area



Hypothesis II

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Non-cognates (historically unrelated words)

- › Linguistic distance plays no role
- › More contact with Low German in border area than in other parts of the country

Prediction: Low German intelligibility higher in border area than in non-border area



Intelligibility experiment

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Material

369 Low German nouns

- randomly selected from a list of 2575 highly frequent spoken words
- 292 Standard Dutch and 289 border dialect cognates
- 77 Standard Dutch and 80 border dialect non-cognates
- read aloud by a Low German speaker from Bremen



Intelligibility experiment

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Material

examples cognates

Low German	Dutch border dialect	Standard Dutch	meaning
[hɔnt]	[hɔ:nt]	[hɔnt]	'dog'
[politsaj]	[politsi]	[politsi]	'police'



Intelligibility experiment

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Material

examples non-cognates

Low German	Dutch border dialect	Standard Dutch	meaning
[feɔdl]	[vYrəl]	[kuart]	'quarter'
[vo:lt]	[bɔs]	[bɔs]	'forest'
[deɔn]	[vɪxjə]	[mɛjʃə]	'girl'



Intelligibility experiment

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Listeners

- › 65 from border area
 - 15-19 years (mean 16.5)
 - high schools in Groningen and Drenthe (northern part of Low Saxon area)
 - familiar with local dialect

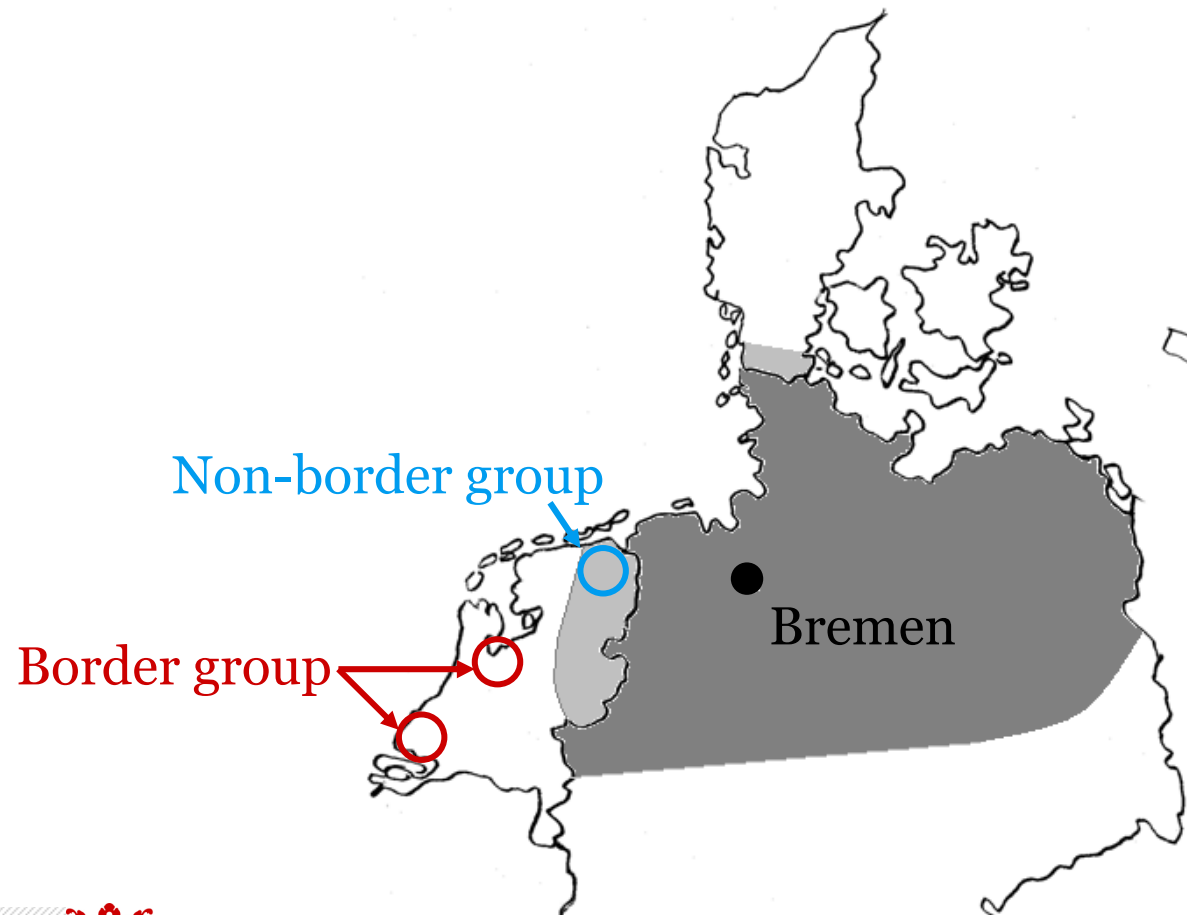
- › 27 from non-border area
 - 15-19 years (mean 16.1)
 - high schools in Zeeland and Flevoland



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Listeners



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Intelligibility experiment

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Procedure

- › Internet-based
- › via head phones
- › translations into Dutch
- › <http://www.let.rug.nl/lrs>
login: germanic
password: guest



Intelligibility experiment

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Calculations

Percentage correctly translated words

- › Corrected for spelling mistakes
ex. *kultuur* instead of *cultuur* ‘culture’
- › Sometimes several possible translations
ex. *winkel* or *boetiek* for Low German *Laden* ‘shop’



Cognates

% correctly translated words

border group 67%

non-border group 62%

diff. sign. ($p < .01$)



Intelligibility results

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- › Correlation between linguistic distance and intelligibility is significant at the .01 level for both groups ($r = .33$ for border group and .47 for non-border group)
- › Linguistic distance may play a role
- › Contact?



Intelligibility results

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In 68 word pairs border dialect is more similar to Low German, for example:

Low German	Dutch border dialect	Standard Dutch	meaning
[knɛj]	[knɛj]	[kni]	'knee'
[bu:tnlant]	[butənlant]	[bœjtnlant]	'abroad'
[vi:n]	[vi:n]	[vɛjn]	'wine'
[mɔnt]	[mɔ:nt]	[ma:nt]	'month'

Prediction:

If linguistic distance plays a role, intelligibility of these words will be higher for the border group



Intelligibility results

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% correct translations of 68 word pairs where border dialect is more similar to Low German

border group 47%
non-border group 38%
diff. sign. ($p < .01$)

Linguistic distance plays a role



Intelligibility

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In 55 word pairs Standard Dutch is more similar to Low German, for example:

Low German	Dutch border dialect	Standard Dutch	meaning
[bɛt]	[bɛ:r]	[bɛt]	'bed'
[bibliote:k]	[bibɔltajk]	[bibliote:k]	'library'

Predictions:

- › If only linguistic distance plays a role there will be no difference in intelligibility
- › If contact plays a role the intelligibility will be better for the border group



Intelligibility results

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% correct translations of 55 word pairs where Standard Dutch is more similar to Low German

border group 74%
non-border group 72%
diff. non-sign. ($p > .05$)

Contact plays no role



Intelligibility

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In 166 word pairs linguistic distance to Low German is the same for border dialect and Standard Dutch, for example:

Low German	Dutch border dialect	Standard Dutch	translation
[bɪlt]	[be:lt]	[be:lt]	'picture'
[modɛl]	[modɛl]	[modɛl]	'model'

Predictions:

- › If only linguistic distance plays a role there will be no difference in intelligibility
- › If contact plays a role the intelligibility will be better for the border group



Intelligibility results

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% correct translations of 166 word pairs where linguistic distance is the same for border dialect and Standard Dutch

border group 70%
non-border group 68%
diff. non-sign. ($p > .05$)

Contact plays no role



non-cognates

% correctly translated

border group 12%

non-border group 8%

diff. non-sign. ($p > .05$)



contact nor linguistic distance play a role



non-cognates

- › Sometimes translated correctly via High German, for example

Low German [dɪʃ] ‘table’, Dutch [ta:fəl]
= High German [tɪʃ]

Low German [kri:ç] ‘war’, Dutch [ɔ:rlɔx]
= High German [kʁi:k]



Conclusions

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- › People from the Dutch-German border area are better at understanding Low German cognates than people from other parts of the Netherlands
- › Linguistic distance most important factor
- › No evidence that contact plays a role

