UCLouvain

Institut Langage et Communication (IL&C)

Presentatie in het Nederlands
Slides in English

Linguists' Day 2026

Woordklemtoon en prosodische focus in het Nederlands door Franstalige leerders

Vergelijking van muzikanten vs. niet-muzikanten*

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*EN: Word stress and prosodic focus in Dutch among French-speaking learners: comparison of musicians vs. non-musicians

1. Introduction

Every language has its own prosody

- **French:** Fixed-stress language
  J'habite une mai<u>SON</u>.
  J'habite une grande mai<u>SON</u>.
  J'habite une grande maison <u>BLEUE</u>.
- **Dutch**: Variable-stress language

Word level Rietveld & Van Heuven (2016)
Variable position
NEderlands vs. *presenTAtie*
Lexical: can change the meaning
VOORkomen vs. *voorKOmen*

Word group level/sentence
Rasier (2004)
Encode information structure
Vanmorgen heb ik je <u>broer</u> gezien

Challenging aspect for L2 learners

- French-speaking learners face difficulties with accentuation in Dutch Hiligsmann (1998)
- Transfer from L1 accentuation patterns Rasier & Hiligsmann (2007), Mennen & de Leeuw (2014)

⇒ **nederLANDS*
⇒ **Vanmorgen heb ik je broer ge<u>zien</u>*

2. Music and prosody

Could music help?

- **Link?**

  Prosody is the music of language: both rely on rhythm, pitch, duration, and intensity Patel (2008)

- **Music &**
  - **Prosody perception**
    - Use of music Degrave (2021, 2022)
    - Music training Degrave (2022)
    - Musical abilities and speech prosody perception Jansen, et al. (2023)
  - **Prosody production?**
    - Fewer studies
    - More target-like L2 prosody production Pei, et al. (2016), Cason, et al. (2020), Feng, et al. (2020), Jekiel & Malarski (2023)

3. Rationale & research questions

- Research on **relationship between musical training and L2 prosody production** is still scarce
  - **L2 Dutch** and **L1 French** is less covered in the literature

1. RQ1:
To what extent do musicians outperform non-musicians in an L2 Dutch **word stress production** task?

2. RQ2:
To what extent do musicians outperform non-musicians in an L2 Dutch **prosodic focus production** task?

4. Methodology

4.1. Sample

36 L1 French speakers, aged 18–26

- 2 groups:



18 amateur musicians (12 ♀ + 6 ♂):
≥5 years of musical training
+ regular practice



18 non-musicians (10 ♀ + 8 ♂):
≤2 years of training, ≥8 years ago
+ no longer active

- L2 Dutch B1–B2 (B1: 9 musicians + 9 non-musicians; B2: 9 musicians + 9 non-musicians)
  - DIALANG Lancaster University (n.d.) and LexTALE Lemhöfer & Broersma (2012)
  - No significant difference between both groups
    - LexTALE ($p=0.93$); DIALANG grammar ($p=0.39$); DIALANG listening ($p=0.64$)
- No language, learning or hearing disorders
- No immersion/CLIL education

4. Methodology

4.2. Controlled production tasks

1. **Word stress** (based on Michaux, 2014)

2. **Prosodic focus task** (based on Rasier, 2006)

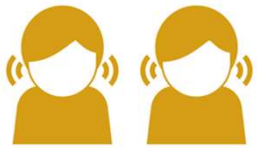
4. Methodology

4.2. Controlled production tasks

1. Word stress (based on Michaux, 2014)



- **Read-aloud task**
  - 30 trisyllabic cognate words (e.g., *PAgina*, *conSENsus*)
  - Primary stress: first or second syllable
  - Target words read aloud in sentence context:
    X heb ik gezegd ('It is X I said') / *Ik heb X gezegd* ('I said X')



- **Evaluation by 2 linguists**
  - Identified the placement of word stress
  - Compared to canonical stress position: 0 incorrect / 1 correct



- **GLMM analysis**
  - Musical profile
  - CEFR level
  - Gender
  - Word stress position
  - Target word position
  - Musical profile ~ Word stress position
  - Musical profile ~ Target word position

4. Methodology

4.2. Controlled production tasks



N = New
G = Given
C = Contrastive

2. **Prosodic focus task** (based on Rasier, 2006)

➢ **Elicitation task**

- 9 elicited noun phrases 'indefinite article + adjective + noun' (e.g., *een ROde DRIEhoek*)
  - 1xNN + 2xGC + 2xCG + 2xCC + 2 fillers
- Prosodic focus: either narrow or broad focus
- Target geometrical figures that changed in colour and shape
- *Ik weet het niet* ('I don't know') elicited for fillers (unknown figures)

➢ **Evaluation by 2 linguists**

- Indicated where the prosodic focus was produced
- Agreement: 43.25% (Cohen's k = .28 McHugh (2012))
- Compared to L1 Dutch results: 0 unexpected / 1 expected Rasier (2006)

➢ **GLMM analysis**

- Within-participants = information contexts
- Between-participants = **musical profile**, gender, CEFR score

5. Results & Discussion

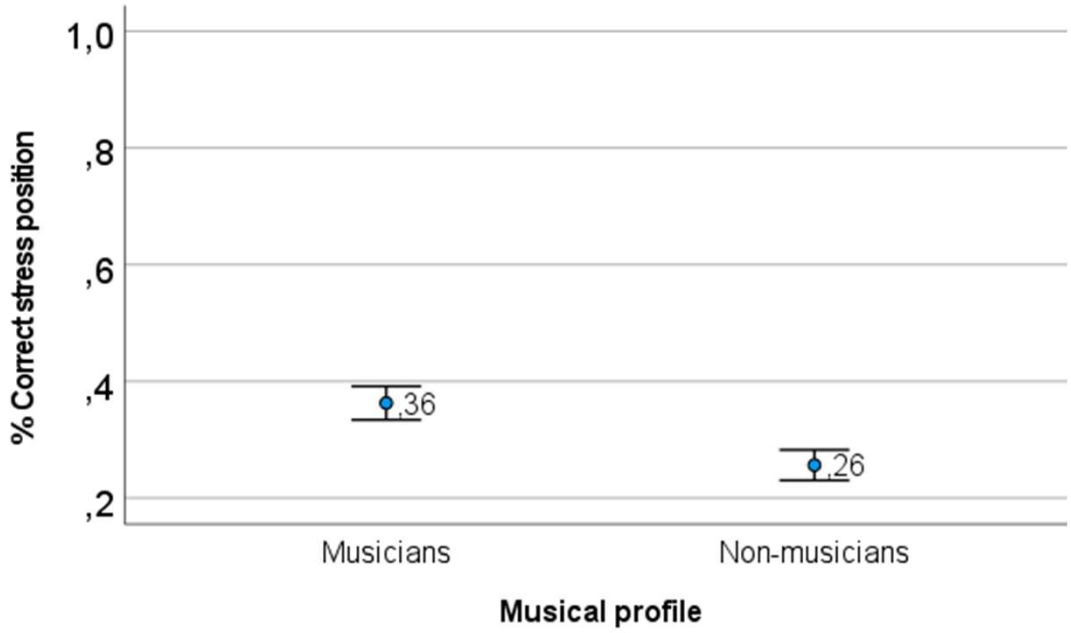
1. Word stress (based on Michaux, 2014)

GLMM analysis

« Ik heb ***PAgina*** gezegd / « ***PAgina*** heb ik gezegd »

Musical profile?

$F(1, 2152) = 5{,}64$, $p = .018$



5. Results & Discussion

1. Word stress (based on Michaux, 2014)

GLMM analysis

« Ik heb ***PAgina*** gezegd / « ***PAgina*** heb ik gezegd »

Musical profile? ✓

$F(1, 2152) = 5{,}64$, $p = .018$

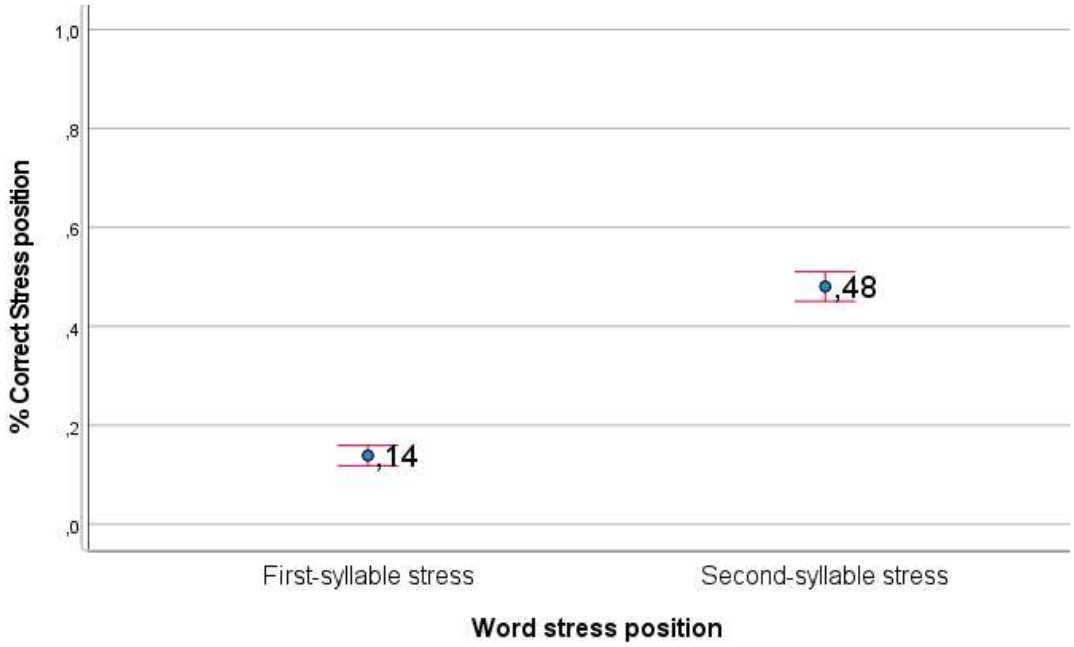
Language level (CEFR)? ✗

Gender? ✗

Characteristics of the task?

Word-stress position ✓

$F(1, 2152) = 274{,}11$, $p < .001$



5. Results & Discussion

1. Word stress (based on Michaux, 2014)

GLMM analysis

« Ik heb ***PAgina*** gezegd / « ***PAgina*** heb ik gezegd »

Musical profile? ✓

$F(1, 2152) = 5{,}64$, $p = .018$

Language level (CEFR)? ✗

Gender? ✗

Characteristics of the task?

- Word-stress position ✓

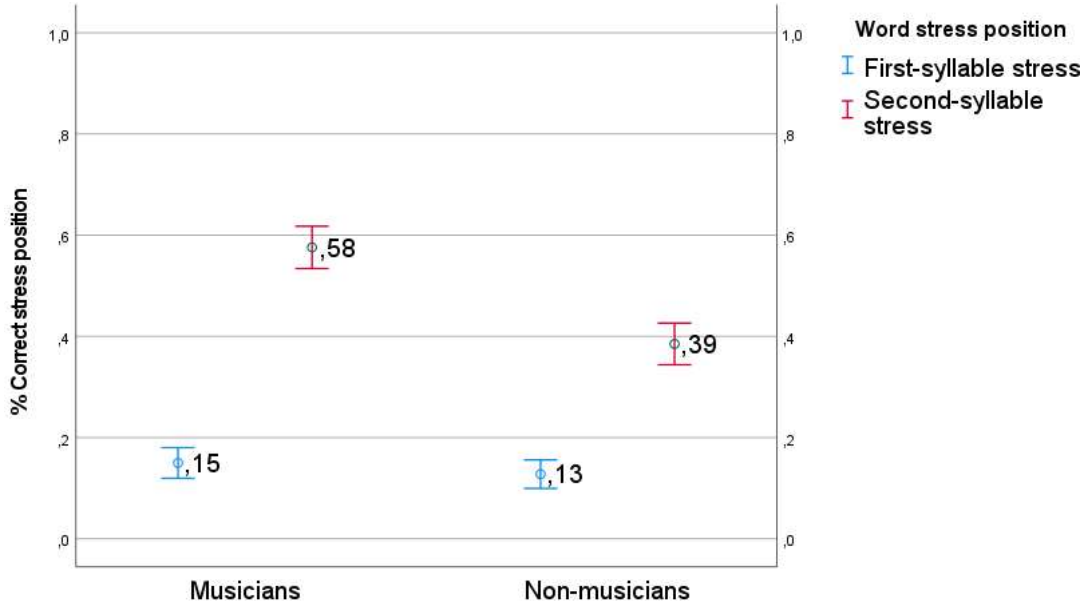
  $F(1, 2152) = 274{,}11$, $p < .001$

- Target-word position ✗

Interaction
musical profile & word-stress position? ✓

$F(1, 2152) = 5{,}04$, $p = .025$

Interaction
musical profile & target-word position? ✗



De Wispelaere & Degrave

5. Results & Discussion

« Een ROde DRIEhoek! / Een GEle driehoek »

2. **Prosodic focus task** (based on Rasier, 2006)





% of expected accentuation pattern based on L1 Dutch		
NN *een <u>RO</u>de <u>DRIE</u>hoek*	28%	**0%**

De Wispelaere & Degrave

5. Results & Discussion

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CG *een <u>GE</u>le driehoek* *een <u>ROOD</u> vierkant*	25%	22%

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GC *een <u>GEEL</u> <u>VIER</u>kant / een geel <u>VIER</u>kant* *een <u>BLAUW</u> <u>VIER</u>kant / een blauw <u>VIER</u>kant*	44%	42%

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CC *een <u>BLAU</u>we <u>CIR</u>kel* *een <u>GE</u>le <u>STER</u>*	72%	**81%**

5. Results & Discussion

« Een ROde DRIEhoek! / Een GEle driehoek »

GLMM analysis

2. **Prosodic focus task** (based on Rasier, 2006)



Musical profile? ✕



p=0.809

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« Een ROde DRIEhoek! / Een GEle driehoek »

2. **Prosodic focus task** (based on Rasier, 2006)

Information context? ✓ p=0.001



Musical profile? ✗ p=0.809



	% of expected accentuation pattern based on L1 Dutch	
NN *een <u>RO</u>de <u>DRIE</u>hoek*	28%	**0%**
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5. Results & Discussion

« Een ROde DRIEhoek! / Een GEle driehoek »

2. **Prosodic focus task** (based on Rasier, 2006)





Musical profile? p=0.809

Information context? p=0.001

NN vs. CG vs. GC vs. CC

Gender? p=0.783

woman vs. man

CEFR score? p=0.998

B1 vs. B2

Interaction
musical profile & information context? p=0.811

6. Conclusion

1. Word stress (based on Michaux, 2014)

Statistically influential factors:

- Musical training
  - musicians > non-musicians
- Word stress position
  - 2nd syllabe stress > 1st syllable stress
- Interaction musical profile / word stress position

// Perception level

Limitations:

- Number of stimuli
- Rather unauthentic
- Other analyses (acoustic, intelligibility…)

2. Prosodic focus task (based on Rasier, 2006)

Statistically influential factor:

- Information context
  - No post-hoc tests carried out for pairwise comparisons

Anno 2026:

French-speaking learners of Dutch still face substantial difficulties with L2 Dutch prosody

- While a **musical training** seems to be a **significant** factor of influence at **word level**, it does **not** seem to help at **word group/sentence level**
- In addition to other studies investigating musical training, **future research** could also investigate other factors of influence on L2 Dutch prosody among these learners (e.g., **university learning context**, **phonetic instruction**, etc.)

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Thank you for your attention!
Bedankt voor jullie aandacht!

Do you have any question?

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