Acceptability as a crucial dimension for measuring pronunciation.

What we can learn from Danish as an L2

Lisa Tulaja, University of Kiel, Germany

March 21, 2025

Nordic Speech Research Forum

Introduction

My background

- Lecturer at University of Kiel, Germany

- Danish as an L2 in schools

- Teacher training, Danish as an L2

Introduction

Danish is very hard to learn

- But: Learning Danish is not fundamentally different from learning other languages?

- Pronunciation is crucial

    - phonetics are really complex

    - Danes tend to switch (Ritzau & Øhrstræm, 2018; Jespersen & Hejná, 2021a,

        Jespersen & Hejná, 2021b)

- Frustrating experience for L2 learners who want to practice

- To be able to successfully take part in oral communication in the target language L2 Danish

    learners have difficult prerequisites

→ How to become successful as an L2 Danish learner? Master the Pronunciation!

Introduction

Teaching and learning L2 pronunciation

- Global measures: dimensions of pronunciation with a "quasi-independent" relationship (Munro & Derwing, 1995; Derwing & Munro, 2015):

    - Accentedness, comprehensibility and intelligibility

- Comprehensibility as a main goal for teaching

- Intelligible/comprehensible speech can still induce negative evaluations of L1 raters (Levis, 2016) → Comprehensibility ≠ Acceptability

- This corresponds with L2 learners' of Danish experiences on L1 speakers' switching behavior

Introduction

Outline

1. Study on L2 Danish on pronunciation error gravity and connection between dimensions of pronunciation (integrating acceptability)

2. Study on comparison between Finnish and Danish

3. Reflections on the dimension of acceptability

   - Why could the further exploration of the dimension of acceptability be interesting also for other L2? And what aspects should be taken into consideration?

A study on L2 Danish: Exploring Acceptability.

Tulaja, L. (2020). Exploring acceptability: L1 judgements of L2 Danish learners' errors. In O. Kang, S. Staples, K. Yaw, & K. Hirschi (Eds.), Proceedings of the 11th Pronunciation in Second Language Learning and Teaching conference, pp. 197–206.

Theoretical Background

Main Focus

- Practical issue: provide evidence-based insights for teaching implications because there was reported a lack of teaching materials for L2 Danish teaching in German schools - specifically for pronunciation

- The study set out to find those phonetic/phonological features that are crucial for German L2 Danish learners

    - What is **difficult** for German L2 Danish learners? (Tulaja, 2019)

    - What is **important** to learn? (Tulaja, 2020)

Theoretical Background

Key research concepts for assessing L2 pronunciation

- Accentedness and Comprehensibility (Munro & Derwing, 1995a, 1995b; Derwing & Munro, 2015)

    - Accentedness: The extend of difference perceived in relation to a norm

    - Comprehensibility: The degree of effort required by a listener to understand an utterance

- How to model the typical switching behavior of the Danes? (Jespersen & Hejná, 2021)

- Comprehensibility ≠ Acceptability (Levis, 2016)

Theoretical Background

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- Comprehensibility ≠ Acceptability (Levis, 2016)

The concept of Acceptability

- Acceptability – a highly subjective yet still real dimension of pronunciation that has largely been overlooked (Thomson, 2018)

- "Social implication of non-normative speech" (Settinieri, 2011): How do you rate this accent? (1 = negative, 7 = positive)

- Pleasantness: "the listener's subjective attitude" (Lee, Kim & Park, 2019)

  How pleasant or unpleasant is your experience of listening to the sentence? (1 = very unpleasant, 9 = very pleasant)

- Acceptability: "A subjective Global Measure that pronunciation is good enough for a purpose (offering employment)" (Pilott, 2016)

- My definition: social implication of non-normative speech, dependent on context, and causing a reaction of L1 raters beyond

  communication (e.g. employment or switching) (Tulaja, 2020)

Study on L2 Danish
- Theoretical Background
- Methodology
- Results
- Discussion and Implications

Methodology

Reseach questions:

- **RQ 1:** Are there error types that are rated significantly more negatively than others?

- **RQ 2:** How is acceptability related to comprehensibility and accentedness?

Methodology

Setting

- L1 Danish raters evaluated speech stimuli of German L2 Danish learners' typical errors in the three dimensions: accentedness, comprehensibility and acceptability.

Participants

- L1 Danish raters: $n = 114$

Stimuli

- erroneous stimuli of five phonetic features of different segmental categories, that are typical for German L2 Danish learners

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Methodology

Key Measures

- Accentedness = He/she speaks with an accent.

- Comprehensibility = It is hard to understand what he/she is saying.

- Acceptability = I would speak a different language than Danish to him/her.

1 = disagree totally

5 = agree totally

Analysis

- Error gravity: mean scores of errors with a one-way ANOVA

- Correlation analysis (Spearman's rho correlation test) to explore relationships between acceptability, comprehensibility, and accentedness

Results

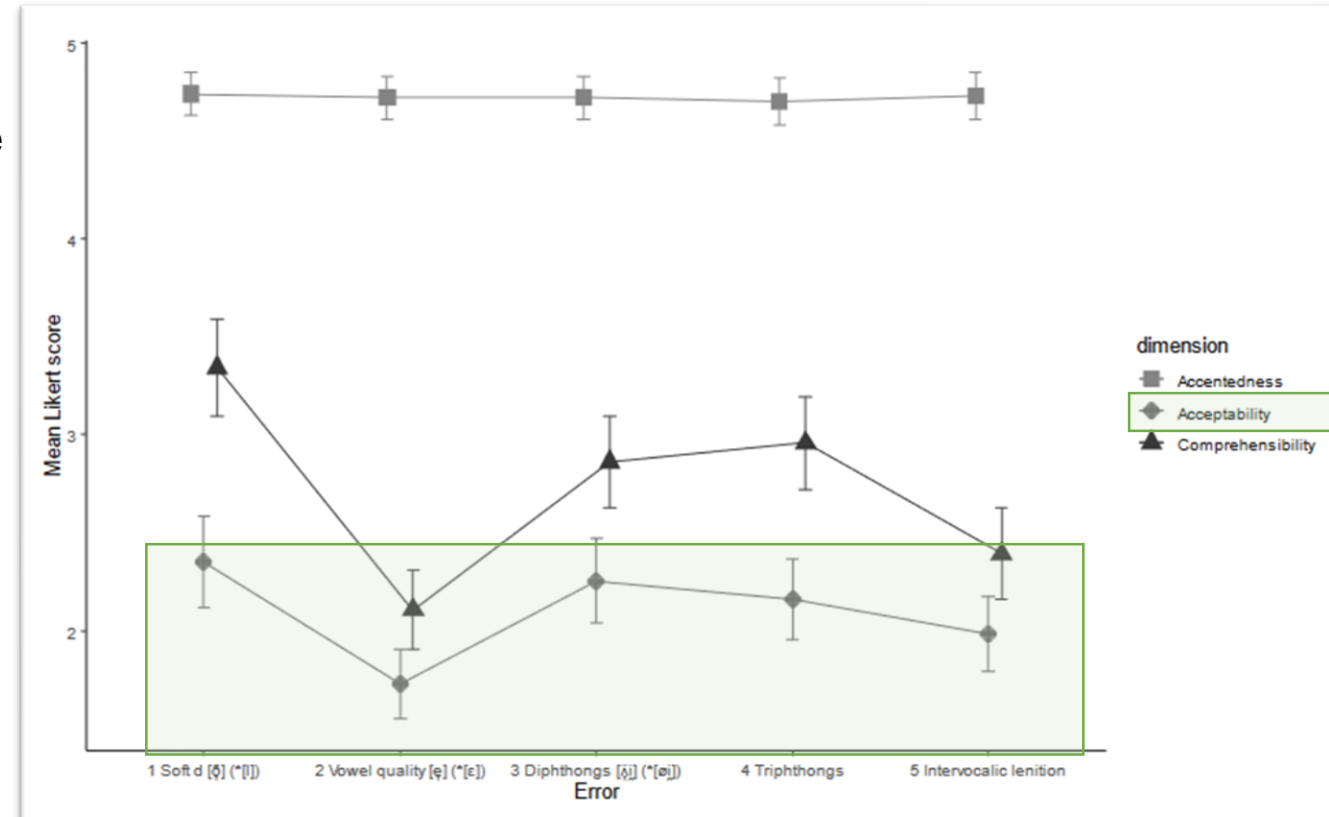**Key Findings RQ 1:** Are there error types that are
rated significantly more negatively than others?

Critical Errors:

- Some errors were rated significantly more
  critical for negatively affecting
  comprehensibility and acceptability.

Mean scores for accentedness, comprehensibility and acceptability ratings in 5 different errors.

Results

Key Findings RQ 2:

How is acceptability related to comprehensibility and accentedness?

Comprehensibility & Acceptability Correlation:

- Spearman's rho: Correlation between comprehensibility and acceptability of L2 Danish pronunciation (rs = .559, p < .001, N = 561).

Accentedness & Acceptability Correlation:

- Spearman's rho: Weaker correlation between accentedness and acceptability (rs = .116, p = .005, N = 561).

Predictors	Estimates	SE	T	p
(Intercept)	.572	.304	1.884	.06
Comprehensibility	.417	.029	14.135	< .001
Accentedness	.076	.065	1.184	.237
Observations	561			

Output of the **mixed effects regression model** of acceptability with comprehensibility and accentedness.

Discussion & Implications

Highlighting differences between errors

- Comprehensibility and acceptability, yielded valuable insights into error differences

- Empirical evidence for implications for teaching contexts (Höder & Tulaja, 2020)

Acceptability Correlations with other dimensions:

- Comprehensibility had significant effects: the more comprehensible the pronunciation, the more acceptable it was rated by the L1 speakers (Pilott, 2016; Lee et al., 2019).

- Accentedness: Is accent less relevant than comprehensibility for the evaluation of acceptability?

- This may be due to the fact that in the present study accent on average was rated constantly across the stimuli.

Another study:
Acceptability in Finnish and Danish

Saloranta, A., Tulaja, L. & Heikkola, L. (2022). Acceptability in Finnish and Danish. Poster session presented at The 10th International Symposium on the Acquisition of Second Language Speech (New Sounds), Barcelona, Spain.

Acceptability in Finnish and Danish

Background

- Does Switching behavior also occur in rating settings with raters from other L1 backgrounds?

- Heikkola et al., 2024: L1 Finnish speakers' language switching in everyday conversations with L2 Finnish speakers (n= 358)

- majority of L1 Finnish speakers reported starting conversations with L2 Finnish speakers in Finnish, 95% of respondents also reported switching the language of the conversation to English.

Does it make a difference in which L1 language community L2 learners plan to get integrated?

Can we use the same acceptability measures equally on all rater groups irrespective their L1 background?

Do native speakers from different L1s evaluate L2 speakers differently?

Acceptability in Finnish and Danish

Research Questions

RQ 1: How do Danish and Finnish L1 speakers rate L2 speakers of their respective

languages?

RQ 2: How is acceptability related to comprehensibility and pleasantness?

Acceptability in Finnish and Danish

- Theoretical Background
- Methodology
- Results
- Discussion and Implications

Acceptability in Finnish and Danish

Methodology

Online questionnaire (jsPsych, deLeeuw, 2015), ratings on L2 speech of native German speakers by L1 Finnish and Danish raters.

L2 speakers (L1 German speakers)

L2 speakers of Finnish: $n = 4$

L2 speakers of Danish: $n = 4$

L1 raters

Finnish L1 speakers: $n = 22$

Danish L1 speakers: $n = 20$

Stimuli

6 read aloud sentences per speaker = 24 sentences

Acceptability in Finnish and Danish

Methodology

Key measures

6 sentences by each L2 speaker (n=4)

Comprehensibility

How easy is this person to understand?

Very hard   Very easy
○ ○ ○ ○ ○ ○ ○ ○

each sentence

Pleasantness

How pleasant is this person to listen to?

Very unpleasant   Very pleasant
○ ○ ○ ○ ○ ○ ○ ○

Acceptability

1

2

Job occupation: What could this person work as?

construction worker / cleaner   salesperson   newsreader
○ ○ ○ ○ ○ ○ ○ ○

Switching: If I was speaking to this person, I would...

Switch to another language   Speak D/F slower Speak D/F
○ ○ ○ ○ ○ ○ ○ ○

Overall evaluations

→ 9 ratings per each L2 speaker

Acceptability in Finnish and Danish

Methodology

Analysis

- Comparison between the Finnish and Danish data sets on the four variables by calculating independent samples t-tests between the groups

- Correlation analysis (Pearson correlation coefficients) to explore relationships between comprehensibility, pleasantness, acceptability (occupation) and acceptability (switching language) for the Finnish and Danish data sets separately

Acceptability in Finnish and Danish

Results

RQ 1: How do Danish and Finnish L1 speakers rate L2 speakers of their respective languages?

- Danes ratings for acceptability (switching) are significantly different to the Finns

- Do Finns tend to switch more easily?
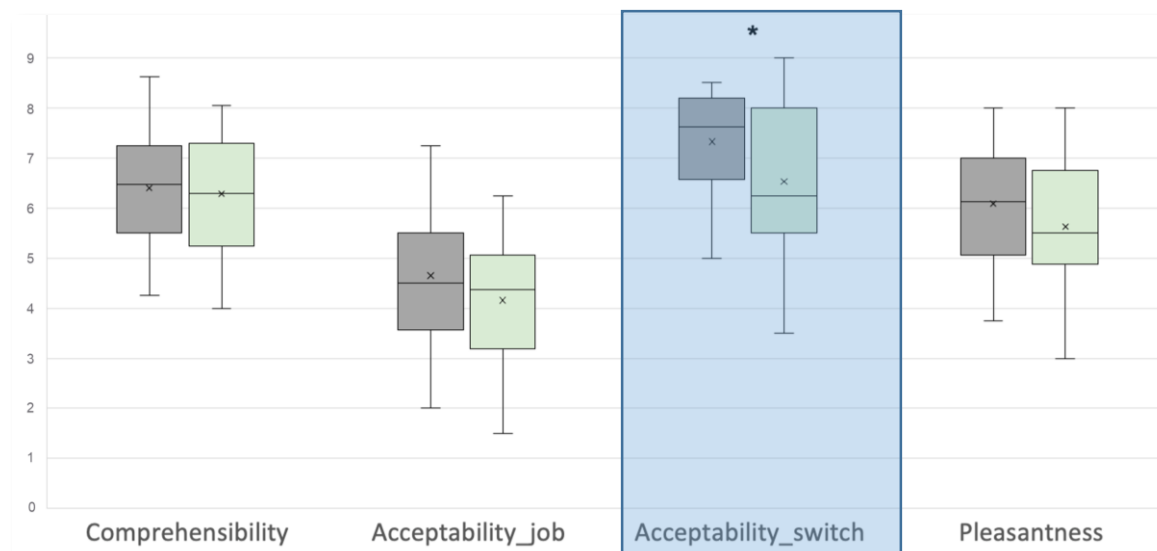
Danish (grey) and Finnish (green) data. Boxplot with means, medians and variations. 1 = indicating worse rating, 9 = indicating better rating. Significant differences between groups are marked with an asterisk (sig. level p > 0.05).

Acceptability in Finnish and Danish

Results

RQ 2: How is acceptability related to comprehensibility and pleasantness?

- Pleasantness higher correlations with acceptability than comprehensibility

- Danes: Acceptability Items are not correlated = switching independent from other ratings/evaluations for Danes

Danish data: Means and standard deviations of variables. Correlations between variables.

Dimension	M	SD
Comprehensibility	6.4	1.3
Acceptability (profession)	4.7	1.4
Acceptability (switching)	7.3	1.0
Pleasantness	6.1	1.2

Significance level $p < 0.05$)	Acceptability (profession)	Acceptability (switching)	Pleasantness	Comprehensibility
Acceptability (profession)	-	ns	0.70	0.54
Acceptability (switching)	ns	-	0.60	0.46
Pleasantness	0.70	0.60	-	0.84
Comprehensibility	0.54	0.46	0.84	-

Finnish data: Means and standard deviations of variables. Correlations between variables.

Dimension	M	SD
Comprehensibility	6.3	1.2
Acceptability (profession)	4.2	1.2
Acceptability (switching)	6.5	1.4
Pleasantness	5.6	1.3

Significance level $p < 0.01$	Acceptability (profession)	Acceptability (switching)	Pleasantness	Comprehensibility
Acceptability (profession)	-	0.70	0.90	0.66
Acceptability (switching)	0.70	-	0.85	0.75
Pleasantness	0.90	0.85	-	0.69
Comprehensibility	0.66	0.75	0.69	-

Conclusion

1. Is it fruitful to investigate the dimension of Acceptability in further research?

2. Which aspects should be considered when doing research on Acceptability?

Conclusion

1. **Is it fruitful to investigate the dimension of Acceptability in further research?**

- Constraints:

    - Complex dimension: perception and evaluation depends on multiple factors (e.g. cultural background L1 raters, first language L2 speakers, context)

    - Only subjective assessment methods: Real-life behavior is hard to measure

- Advantages:

    - Deeper understanding of the impact of L1 speakers' judgements on L2 pronunciation on L2 learners' real life and their social integration

    - Adds the factor of integration-into-the-language-community to simple comprehensibility measurements (very interesting for L2 learners) → Acceptability as an indicator of how well a learner gets on in the target community

    → Acceptability can be challenging to measure but can give an important insight into language use in real life implications

Conclusion

2. Which aspects should be considered when doing research on Acceptability as a dimension?

- Conceptual and theoretical aspects
  - The perception of acceptability can differ across L1 raters from different speech communities (Tulaja, Saloranta & Heikkola, Manuscript in preparation; Saito, et al., 2019)
  - Disentangle dimension from related concepts (e.g. pleasantness)
- Methodological aspects
  - Further development of measurement methods is needed (qualitative measures like interviews, real life behavioral responses, reaction-time measures)
  - Explore both the L1 raters' perspective and the L2 learners (Thomson & Isaacs, 2022) → control for L1 raters' background (e.g. native language, background in language learning, knowledge about accents, extend of language contact) and control for L2 speakers speech characteristics
  - Integrate the social aim as a key measure when exploring acceptability

Acceptability as a crucial dimension for measuring pronunciation.

What we can learn from Danish as an L2

Thank you for your attention

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