Testing the role of prosody in the realization of grammatical NUMBER in contemporary Pennsylvania Dutch

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Agenda

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Pennsylvania Dutch

- North American language spoken in 31 US states and 3 Canadian provinces
- Descendent of the German dialects spoken in the Palatinate region of Germany in the 18th century
- Has been in close contact with English for ~300 years
- Can be categorized sectarian or non-sectarian

- Will be abbreviated PD for the rest of this presentation

(Louden, 2016, 2020)

The Twelve Largest Settlements

Settlement	State	Districts	Estimated population
Lancaster County area	Pennsylvania	257	43,640
Holmes County area	Ohio	323	40,435
Elkhart/LaGrange Counties area	Indiana	231	29,180
Geauga County area	Ohio	160	20,980
Adams County area	Indiana	69	10,855
Nappanee area	Indiana	53	6,835
Daviess County area	Indiana	35	6,145
Arthur/Arcola area	Illinois	33	5,605
Mifflin County area	Pennsylvania	35	5,420
Seymour area	Missouri	21	4,025
Allen County area	Indiana	25	3,850
Indiana County area	Pennsylvania	25	3,315

"Twelve Largest Amish Settlements, 2024."

Number in Standard German

Standard German Plural Options

	Plural	Example	Gloss
syllabic	-e	Tisch / Tisch**e**	“table(s)”
	-e + umlaut	Fuß / F**üß**e	foot / feet
	-er + umlaut	Buch / B**üch**er	“book(s)”
non-syllabic	-(e)n	Frau / Frau**en**	"woman/women"
	umlaut	Vogel / V**ö**gel	“bird(s)”
	-s	Auto/Auto**s**	“car(s)”
	-Ø	Fenster / Fenster	“window(s)”

Trochaic Tendency

- A trochee is a “binary syllabic structure with the stress pattern strong-weak” (Wiese 2009: 145)
- German plurals tend to be trochaic.
- This means if a singular noun is already trochaic, it will (generally) be pluralized by adding a non-syllabic plural option. If it is not, a syllabic option will pluralize.
- German dialects are not all conditioned by trochee to the same extent (Wiese 2009)

Number in Pennsylvania Dutch

	Plural	Example	Gloss
syllabic	-e	Disch / Disch**e**	“table(s)”
	-er (+ umlaut)	Buch / B**i**ch**er**	“book(s)”
non-syllabic	-n	Leffli / Lefflin	“spoon(s)"
	umlaut	H**a**nd/H**e**nd	“hand(s)”
	-s	Daett / Daetts	“dad(s)”
	-Ø	Freind / Freind	“friend(s)”

Research Question

To what extent does the trochaic template condition plural formation in contemporary Pennsylvania Dutch?

Participants

16 Amish PD-speakers from (mostly) Holmes Co., Ohio

- 6 males, 10 females
- Mean age: 42 (range: 22-74)
- All speak PD as their L1 and most consider it their dominant language
- All know English well
- Majority (*n*=13) speak Holmes Co. Ohio PD
  - 1 comes from Lancaster, PA (20-29)
  - 1 from Mifflinburg, PA (40-49)
  - 1 from Nappannee, IN (20-29)

Age Range	*n*	F	M
20-29	6	5	1
30-39	3	1	2
40-49	3	1	2
50-59	-	-	-
60-69	1	1	-
70-79	3	2	1

Experimental Tasks

Wug Task

- Participants fill in the blank.
- This is a *wug*. Now there are two. There are two ___.
- The “wug” is a nonce word that sounds like it could be a PD word.

Repetition Task

- Participants repeat the sentence they just heard.
- Sentences contain a made-up word that sounds like it could be a PD word.

Acceptability Judgment Task

- Participants rate nonce plural forms based on how “acceptable” they are.

(Berko Gleason, 1958)

Wug Task Stimuli

Stimuli were **singular nonce** PD words, accompanied by an image of a made-up item.

Carrier phrase: Des iss en ___. Nau sin es zwee vun sie. Es sinn zwee…
This is a ___. Now there are two of them. There are two…

Trials began with 3 **practice items**.

Utterances were **transcribed** in Praat using X-SAMPA and then **coded**.

Example Stimuli

- Umlautable (e.g., *Schtach*)
- Non-umlautable (e.g., *Yind*)

- Monosyllabic (e.g., *Raaf*)
- Disyllabic (e.g., *Huppli*)

Wug Task Results

Singular \ Plural	Nontrochaic	Trochaic	
Nontrochaic	86 (21%)	322 (79%)	408
Trochaic	22 (16%)	142 (84%)	170
	114 (20%)	464 (80%)	578

A trochaic plural was produced from a non-trochaic singular 79% of the time

Number of plurals elicited

Trochaic plurals were produced in 80% of utterances

A nontrochaic plural was produced from a trochaic singular 16% of the time

Wug Task Results

A nontrochaic plural was produced from a trochaic singular 16% of the time (*n* = 22)

- Two are due to the deletion of a syllable (e.g., Meh.ve > Mehm)
- One is due to the addition of a syllable (Men.ger > Me.ge.lin)
- The rest are nontrochaic mono-, tri-, or tetrasyllables involving [ɛɐ] and [ɔɐ] vowel combinations
  - For example:
    - Dre.er [dɹɛ.ɐ] > Dre.er.lin [dɹɛ.ɐ.lɪn]
    - La.ar [lɔ.ɐ] > Laat [lɔət]

Wug Task Results – Umlaut

- Most umlaut plurals involved fronting to [ɛ] (*n*=22) or [e] (*n*=3)
- Also a few diphthongal frontings: [ɛɐ], [eə] (*n*=1 each) and [eɪ] (*n*=2)
- Two cases of [ɪ] and four of [i]
- Two cases of [y] and three of [æ]

Wug Task Results – Plural Allomorphs

Plural allomorph	Count	Proportion
-e	193	33.98%
-er	86	15.14%
-ø	85	14.96%
Diminutive (often -lin)	71	12.5%
-s	63	11.09%
Umlaut	24	4.22%
-n	19	3.35%
-en	16	2.82%
Other	11	1.94%

-*e* is most frequent by far

17 additional ones were umlaut + a suffix
e.g., *umlaut* + *-e* : Braas [bɹɔs] > Breese [bɹe̲.sə̲]

AJT Stimuli

Stimuli were **nonce** PD words. Both **singular and plural** versions were created and utilized.

Carrier phrase: Ee ___, drei ___, en ganzi bunch ____.
One ___, three ___, a whole lot of ____.

Each participant heard only one instance of a singular-plural stimulus pair. Twenty **lists** were created, balanced, and randomly assigned to participants.

Trials began with 3 **practice items**.

Rating scale: 1-10 (1=least acceptable, 10=most acceptable)

Example stimuli

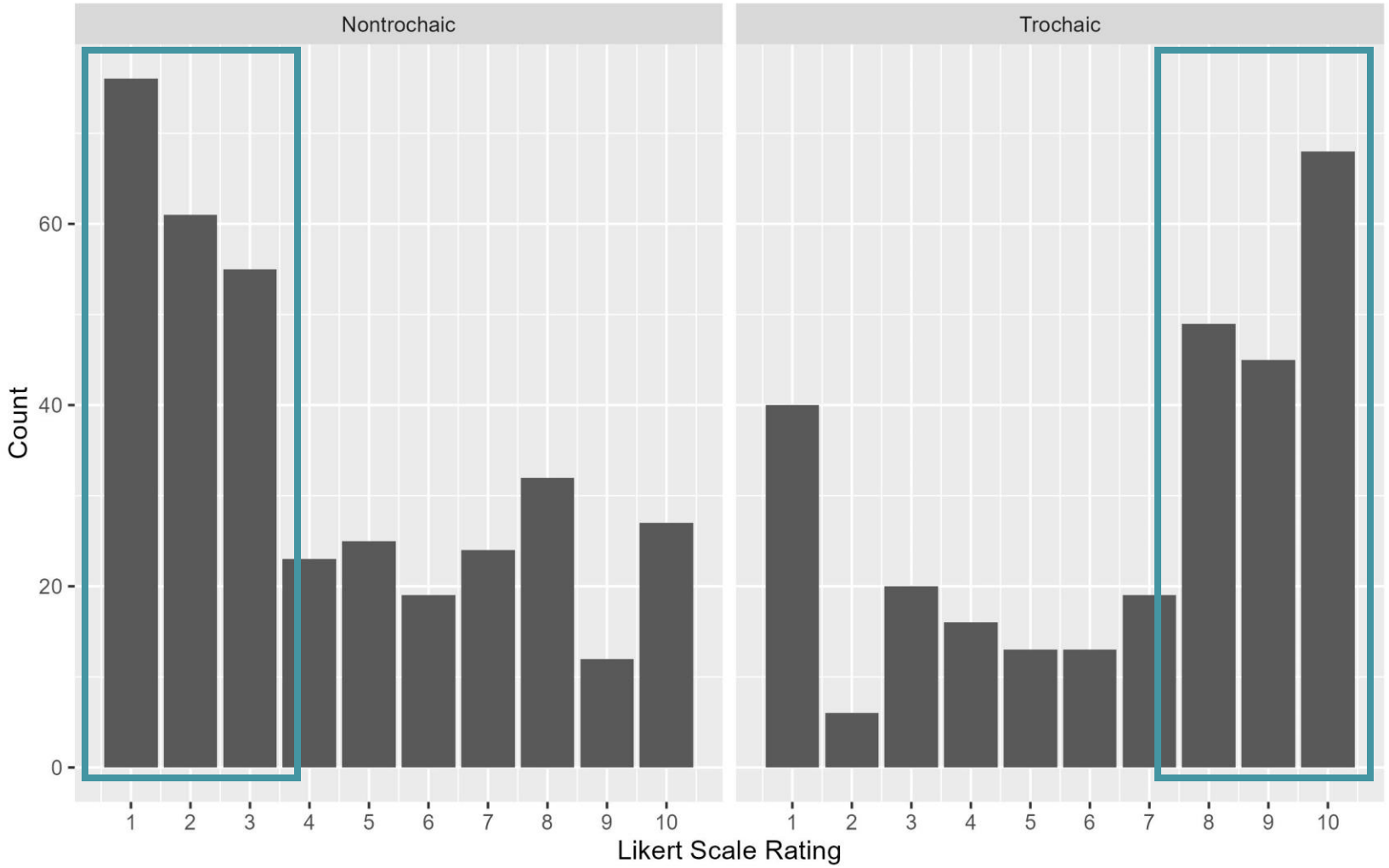
<u>4-exponent</u>

- Singular: Hink
- Plural options:
  - Hinke
  - Hinker
  - Hinks
  - Hink

<u>5-exponent</u>

- Singular: Schlatt
- Plural options:
  - Schlatte
  - Schlatter
  - Schlatts
  - Schlatt
  - Schlätt

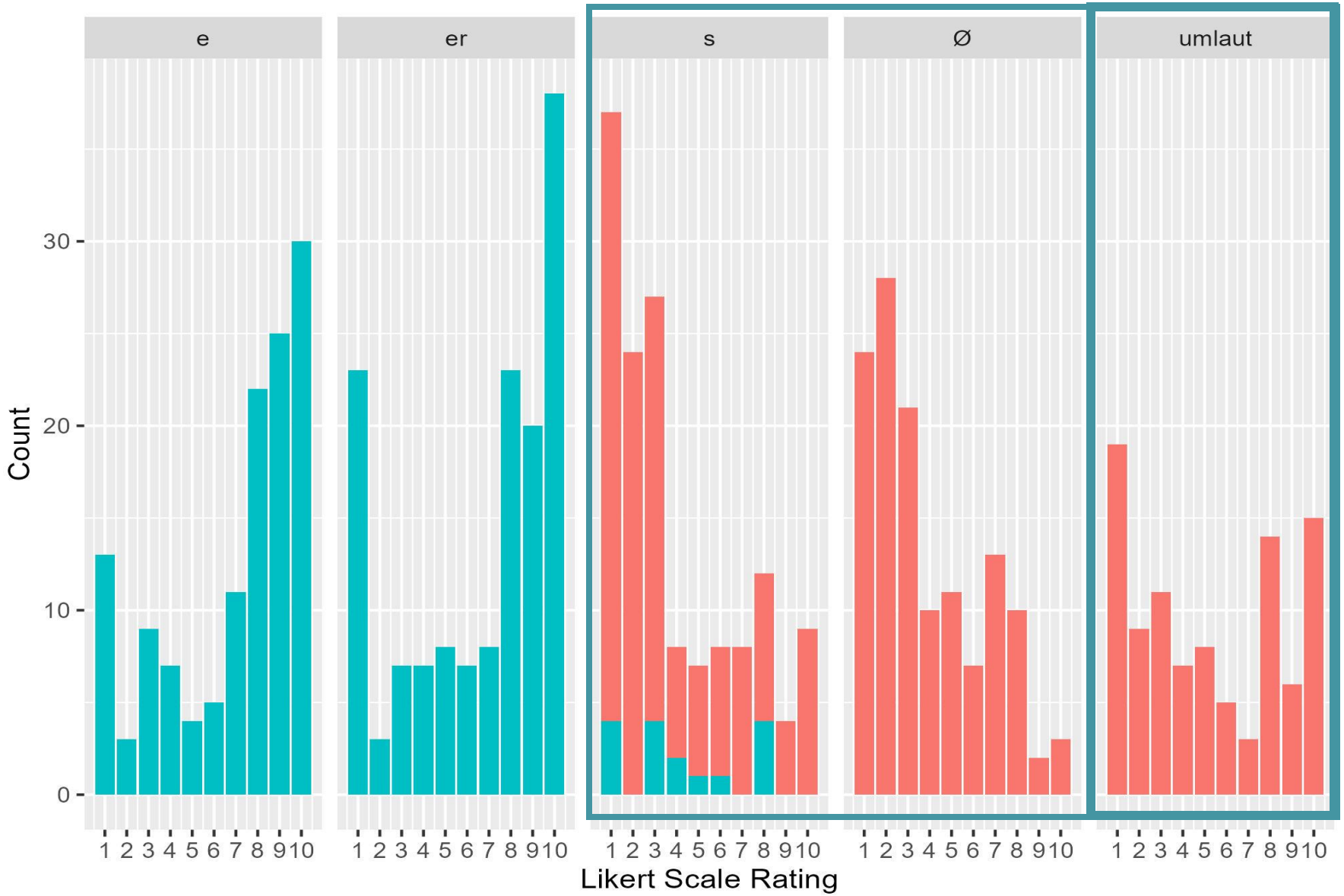
AJT Results



Median rating for nontrochaic plurals (*n*=354) = 3

Median rating for trochaic plurals (*n*=289) = 8

> clear preference for trochaic plurals



Median rating for all nontrochaic plurals = 3

Median rating for umlauted nontrochaic plurals = 5

> in the case of a nontrochaic plural, preference for umlaut

Conclusions

Prosody plays a role in plural declension even in non-terrestrial German varieties like PD

PD-speakers display a preference for trochaic plurals

Umlaut is a salient marker of plurality in PD

PD-speakers show a preference for umlauted plurals in the absence of a trochaic plural

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Denki schee fer hariche!

Wug Task Results – Age and Gender