Rhythmic Rejection

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Introduction

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  - Rhythmic syncope = unstressed V deletion from iterative feet
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    - leveled out alternations
    - innovated new prefixes
  - Previous reports terse, will present new evidence of change

Transitional Odawa

–1930s Adults–

Phonetic Reduction

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  - Iterative feet from left-right
  - Word-final degenerate foot allowed
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- Cusp of rhythmic syncope, will assume perceived as categorically deleted

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‘book’	‘my book’	
/mʌzɪnʌʔɪgʌn/	/nɪ-mʌzɪmʌʔɪgʌn/	UR
(mʌzí)(nʌʔí)(gʌ́n)	(nɪmʌ́)(zɪnʌ́)(ʔɪgʌ́n)	Stress
(mᵊzí)(nᵊʔí)(gʌ́n)	(nᵊmʌ́)(zᵊnʌ́)(ʔᵊgʌ́n)	Reduction
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- ˜40% of stems began with at least 1 light σ
- ˜25% began with more than 1 light σ

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[mzɪnʔɪgʌn]	[nmʌznʌʔgʌn]	SR

- Build iterative binary feet

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- Build iterative binary feet
- Destroy them with deletion
- Rationale for deletion not apparent on surface

OT must fail

- Classic OT can avoid unstressed vowels, but not the right ones (Kager 1997, Blumenfeld 2006).

mʌkɪzɪn	*V-PLACE$_{weak}$	ID(str)	FTBIN	MAX-V
a. ☞ (mkí)(zín)		**	**	**
b. (mʌkí)(zín)	*!	**	*	*
c. ☞ (mʌ́k)(zín)		**	**	**
d. (mʌ́)(kí)(zín)		***(!)	***(!)	

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d. (mʌ́)(kí)(zín)		***(!)	***(!)	

- Classic OT tries to foot and delete simultaneously.
- An intermediate representation guides deletion (McCarthy 2008).

Local Summary

Old Odawa	17th - 19th centuries (Baraga 1878, Blackbird 1887)
↓	
Increased Reduction	1912 (Sapir, in Rhodes 2008)
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Transitional Odawa	1938 (Bloomfield 1957)

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- "The reduced vowels are rapidly spoken and often whispered or entirely omitted" (Bloomfield 1957:5).
- Language at cusp of rhythmic syncope
- Children just need to phonologize it

New Odawa

–1930s Children–

Murmurs of Change

- “Odawa has added a rule fairly recently, which deletes unstressed vowels . . . It would be interesting to speculate about the ultimate impact of this rule on Odawa phonology”
  - Kaye (1974b:148-9)

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  - Piggott (1974 [1980]:2)

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- Missing vowels "easily resupplied" by older speakers, not by younger speakers
  - Rhodes (1975:130):, see also Rhodes (1976:5-6)
  - i.e. The vowels are gone for younger speakers

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  - i.e. The vowels are gone for younger speakers
- Kaye and Piggott gathered most of their data in 1968-70
- Early childhood of mid-30's consultants coincides with Bloomfield.

Prefix Restructuring

- Rhodes (1985) identifies a major change in person prefixes
  - See also Kaye (1974a)
- Expected person prefixes:

Pre-Consonantal			Pre-Vocalic			
1	2	3	1	2	3	
nɪ-	gɪ-	ʊ	nɪd-	gɪd-	ʊd-	Old Odawa
n-	g-	∅	nd-	gd-	d-	New Odawa

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- Innovative prefixes became productive

1	2	3	(New Odawa)
ndʌ-	gdʌ-	dʌ-	
ndɪ-	gdɪ-	dɪ-	
ndoː-	doː-	doː-	

New Prefixes Spread

- New prefixes displace old prefixation pattern across lexicon

‘He has a close call’	‘I have a close call’	(T. Odawa)
/bʌʒɪneː/	/nɪ-bʌʒɪneː/	UR
(bʌʒí)(néː)	(nɪbʌ́)(ʒɪnéː)	Stress
(bᵊʒí)(néː)	(nᵊbʌ́)(ʒᵊnéː)	Reduction
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- New Odawa: [bʒɪneː], [ndʌ-bʒɪneː]
- Note: stem alternations are gone too!

New Prefix Origins

- New prefixes arose via reanalysis of Transitional Odawa short vowel-initial words:

‘He hangs’	‘I hang’	(T. Odawa)
/ʌgoːd͡ʒɪn/	/nɪ-ʌgoːd͡ʒɪn/	UR
—	nɪ[d]ʌgoːd͡ʒɪn	Hiatus Resolution
(ʌgóː)(d͡ʒín)	(nɪdʌ́)(góː)(d͡ʒín)	Stress
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- A plausible mis-analysis (repeatable for [ɪ, ʊ], see Bowers 2012):

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  - i.e. maintain stem alternations, prefer original prefixes
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- To find out: surveyed 20 speakers on Manitoulin Island and Walpole Island

Surveys

–1930s Children (now elders)–

Surveys and Participants

- 20 first-language speakers
  - (8 males, 12 females)
  - All born during heyday of strong reduction
    - 61-87 years old
    - mean: 71.6, sd: 7.3
  - Includes highly competent translators, instructors, activists

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- 3 surveys:
  1. Which prefix do you prefer? (no stem-internal alternations)
  2. Do you prefer [ndoː-] or [n-]? (words with stem-internal alternations)
  3. Can you pick the right prefixed stem allomorph? (words with stem-internal alternations)

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  3. Can you pick the right prefixed stem allomorph? (words with stem-internal alternations)
- 30 mostly random words per survey
- Items presented using standard romanization

Survey 1 Task

- Target question: which prefix do you prefer?
  - ndʌ-, ndoː-, ndɪ-, n- + daːbaːn

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  - ndʌ-, ndoː-, ndɪ-, n- + daːbaːn
  - plus nd- for vowel-initial words
- All words underlyingly began with ((ʌ,ɪ,ʊ)C)VV
- Equal numbers of ʌC, ɪC . . . , words were drawn

Survey 1 Results

- Target question: which prefix do you prefer?

	C	ʌC	ʊC	ɪC	VV
n-	**27**	8	15	8	3
ndʌ-	33	**49**	16	29	34
ndoː-	23	25	**53**	21	32
ndɪ-	17	17	15	**42**	4
nd-	—	—	—	—	**27**

- ndʌ-, ndoː- usually favorites
  - Always combine to $\geq 50\%$ in column

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    - Historically attested gets a boost (largest in row)
  - Speaker age, vocabulary size non-significant
  - Word familiarity significantly boosts historical selection

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  - Speaker age, vocabulary size non-significant
  - Word familiarity significantly boosts historical selection
  - Modern language has embraced innovative prefixes
  - Historical forms looking a bit like memorized irregulars

Survey 2 Task

- Target question: do you prefer [ndoː-] or [n-]?
  - n-mʌkzɪn vs ndoː-mkɪzɪn ‘my book’

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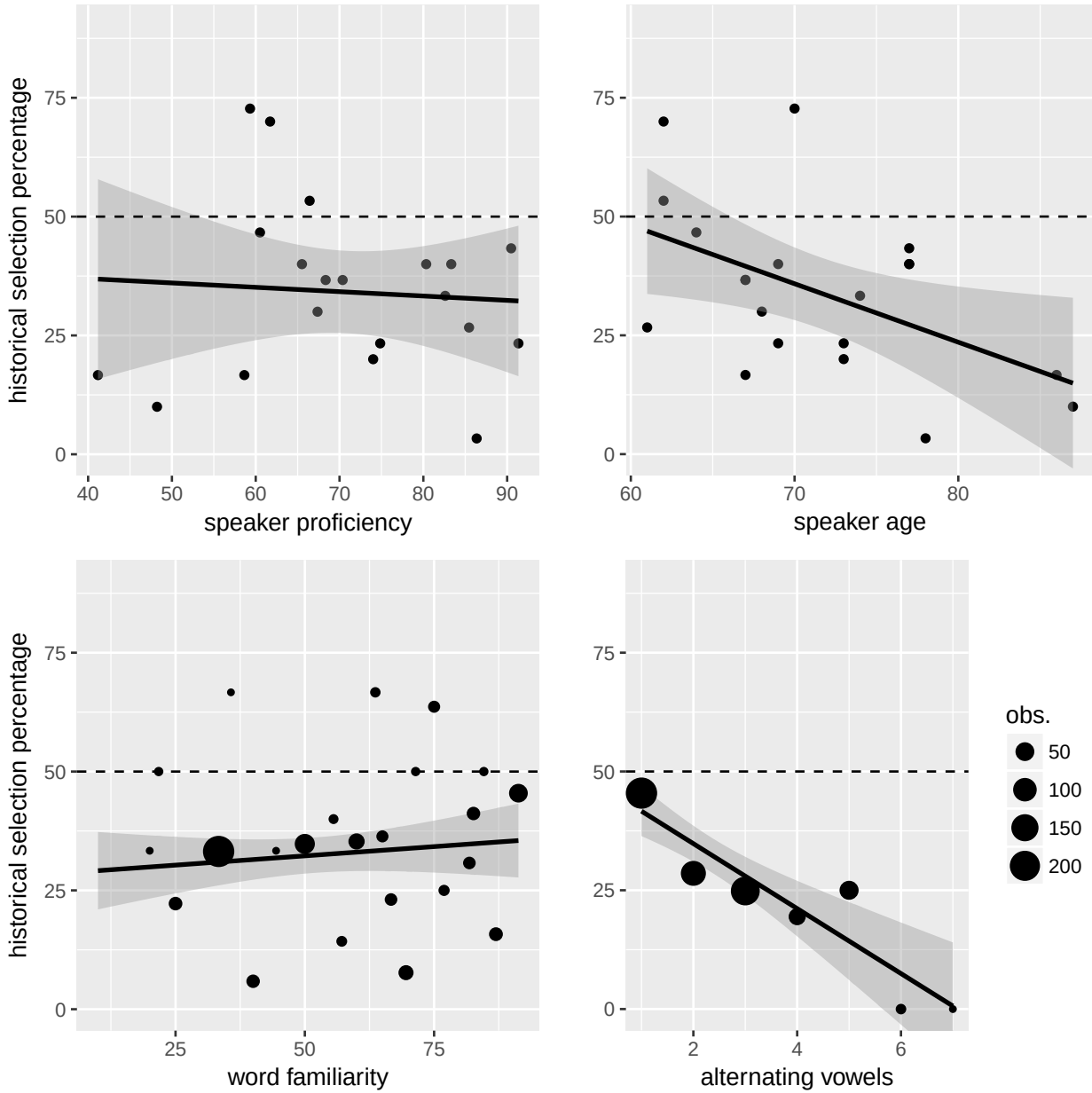
- Target question: do you prefer [ndoː-] or [n-]?
  - n-mʌkzɪn vs ndoː-mkɪzɪn ‘my book’
- Words varied in number of alternating syllables (1-6)

Survey 2 Results



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  - Is this compensation?
- Word familiarity gives a modest boost to conservative forms

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  - Is this compensation?
- Word familiarity gives a modest boost to conservative forms
- Real shock: speakers dislike lots of alternating vowels
  - n-mɪʃiːmɪn (1) > n-mʌkzɪn (2) > n-bʌdkʌʃkʔɪgʌn (3)
  - Always below chance for selecting conservative forms
  - But each alternating vowel drops the rate

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  - Always below chance for selecting conservative forms
  - But each alternating vowel drops the rate
- Maybe they just aren't very familiar with conservative forms . . .

Survey 3 Task

- Target question: Can you pick the right prefixed stem allomorph?
  - **n-mʌkzɪn** vs n-mɪkzɪn

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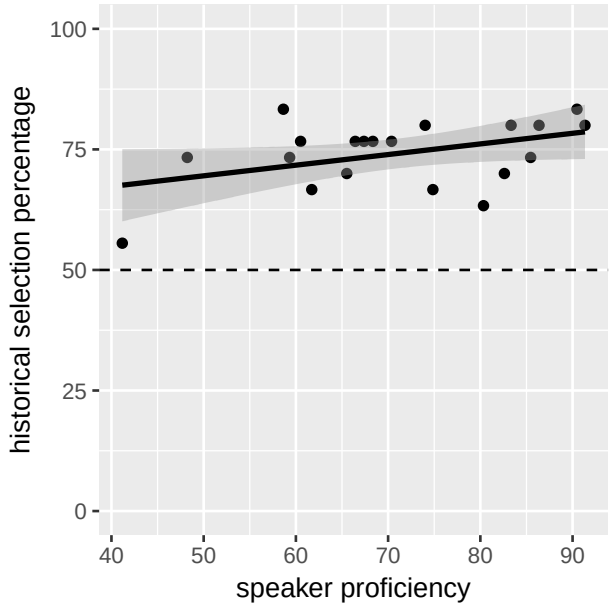
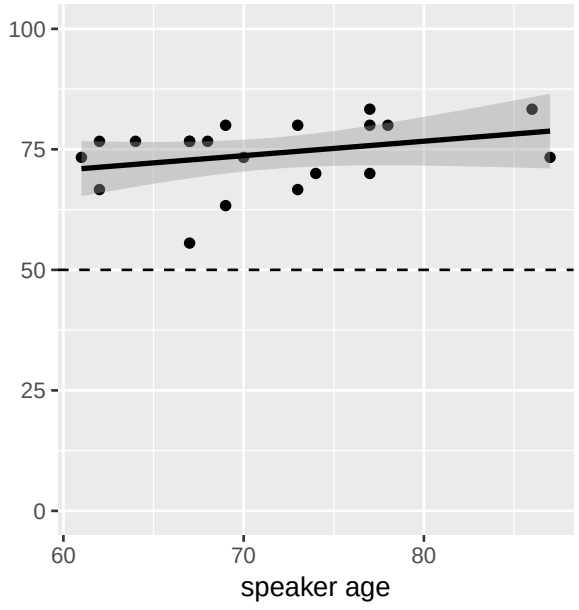
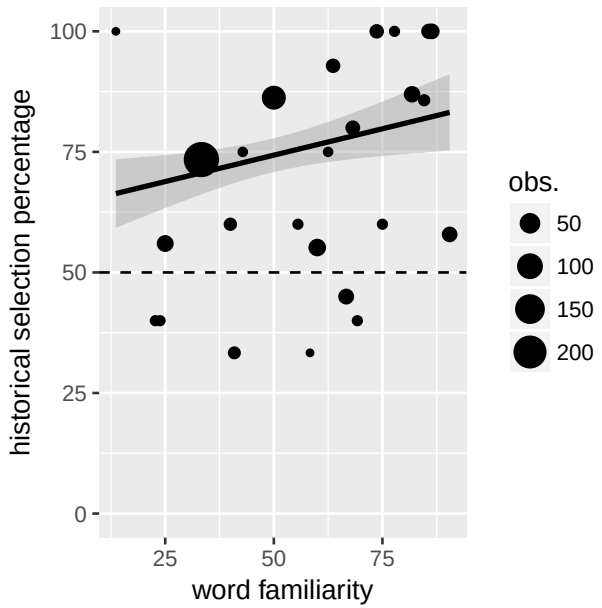
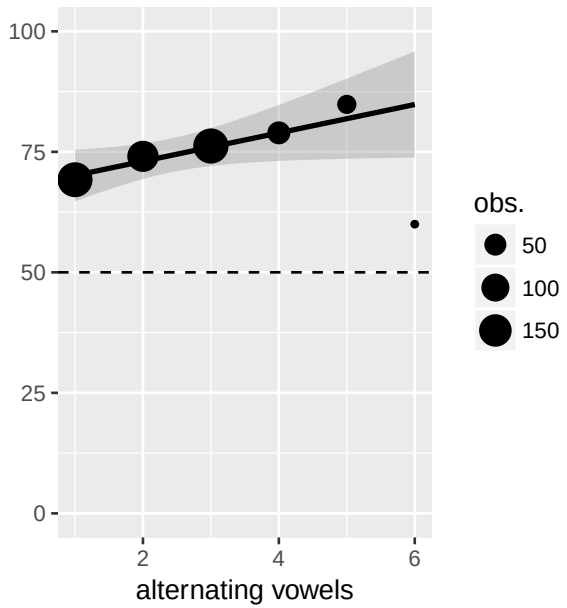
  - **n-mʌkzɪn** vs n-mɪkzɪn
- Otherwise same design as survey 2
- No participant was shown same word twice

Survey 3 Results









Survey 3 Summary

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- Speakers substantially above chance when conservative vs foil
- Vocabulary size (sig), speaker age (n.s), finally go in right direction
- Most words had conservative form selected
- Increasing vowel alternation improved conservative selection
  - Greater disambiguation from foil?

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A Rejection of Rhythmic Syncope

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- Speakers actively resist the really extensive alternations

Rhythmic Syncope → no change

- Recall prefix reanalysis

	goːd͡ʒɪn	‘He hangs’
ndʌ	goːd͡ʒɪn	‘I hang’

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‘He hangs’	‘I hang’	(T. Odawa)
/ʌgoːd͡ʒɪn/	/nɪ-ʌgoːd͡ʒɪn/	UR
—	nɪ[d]ʌgoːd͡ʒɪn	Hiatus Resolution
(ʌgóː)(d͡ʒín)	(nɪdʌ́)(góː)(d͡ʒín)	Stress
(ᵊgóː)(d͡ʒín)	(nᵊdʌ́)(góː)(d͡ʒín)	Reduction
[ᵊgóːd͡ʒín]	[nᵊdʌ́góːd͡ʒín]	SR
[góːd͡ʒín]	[ndʌ́góːd͡ʒín]	Likely Percept

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[góːd͡ʒín]	[ndʌ́góːd͡ʒín]	Likely Percept

- If you have rhythmic syncope,
  - Why not notice [ʌ] is lexically specific?
  - Why not learn that [nd-] occurs before vowels?
  - Why not keep the original alternation system?

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- Thank you

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Slavic - Havlík's Law

- Jers ([ɪ, ʊ]) deleted in right-to-left trochees (V. Kiparsky 1979).

'hermit-acc.sg'	'hermit-nom.sg'	
/otʊʃʲɪlɪt͡sʲ-a/	/otʊʃʲɪlɪt͡sʲ-ɪ/	UR
(ótʊ)(ʃʲílɪ)(t͡sʲá)	(ó)(tʊ́ʃʲɪ)(lít͡sʲɪ)	Stress
(ót_)(ʃʲíl_)(t͡sʲá)	(ó)(tʊ́ʃʲ_)(lít͡sʲ_)	Syncope
(ót)(ʃʲél)(t͡sʲá)	(ó)(tóʃʲ)(lét͡sʲ)	Lowering
[ótʃʲélt͡sʲá]	[ótóʃʲlét͡sʲ]	SR

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- Multiple vowel/zero alternations are the hallmark of rhythmic syncope.

Slavic - Havlík's Law

- "Multiple vowel/zero alternations were eliminated simultaneously with the jer-shift itself" (Isačenko 1970:96).
- Modern Russian "did not preserve *a single case* of multiple vowel/zero alternations" (but residues in prefixes, Isačenko 1970:122, emphasis original).

- Modern Russian jer deletion is cyclic and regulated by phonotactics (Gouskova 2012, Pesetsky 1979, Yearley 1995).

See Also . . .

- Britonnic (Jackson 1953).
- Mandaic (Malone 1997).
- Potawatomi (Hockett 1948:5).
- Unami (Goddard 1979; 1982).
- Aguaruna (Payne 1990, Wipio Deicat 1996, McCarthy 2008)