

Microparametric approach to prosodic variation

Case studies from Algonquian

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Current working group members

Plains Algonquian

- Blackfoot Natalie Weber (Yale)
- Cheyenne Sarah Murray (Cornell); Rachel Vogel (Yale)
- Arapaho Andrew Cowell (Boulder); Ksenia Bogomolets (Auckland)

Central Algonquian

- Plains Cree Rose-Marie Déchaine (UBC); Antti Arppe (Alberta);
Katherine Schmirler (Alberta)
- Ojibwe Chris Hammerly (UBC)

Eastern Algonquian *tbd...*

Goals of the project

- empirical goals
 - synchronic comparison of **phonology** across Algonquian languages
 - using **standard diagnostics** (distribution, phonotactics, alternations)
 - comparison of **prosodic structure** across languages with similar morphosyntax
- methodological goals
 - toolkit of **portable diagnostics** which can be applied to other languages
- theoretical goals
 - develop a **theory** of how morphosyntax can map to **prosodic structure**
 - by examining **parametric variation** in prosodic structure
 - “**micro**” = within a single family with similar morphosyntax

Research questions

Existing research: morphological template

- aimed at language comparison and reconstruction of the Algonquian family

[initial	–final] _{stem}	–suffixes	
pem	–osee	–wa	Meskwaki
pim	–ohtee	–w	Cree
pem	–oohne	–w	Menominee
pim	–ossee		Ojibwe
*pem	–ohθee	–wa	“he walks along”

(Bloomfield 1946: 111, #269; Goddard 1990)

Existing research: morphological template [Plains Cree]

- template slots named by their positions

prefix–	preverbs–	[initial	–final] _{stem}	–suffixes	
		pim	–ohtê	–w	‘s/he walks along’
	sâpo–	pim	–ohtê	–w	‘s/he walks past’
ki–	sâpo–	pim	–ohtâ	–n	‘you walk past’

(Wolvengrey 2001)

Central questions for this project

1. How does morphological template correspond to prosodic structure?
2. How does prosodic structure vary across languages?

Prosodic structure (prosody)

Definition: how templatic positions group into larger units like **words** and **phrases**

H1 ((prefixes— preverb— initial —final —suffixes)_{P-word})_{P-phrase}

H2 (prefixes— preverb— (initial —final —suffixes)_{P-word})_{P-phrase}

H3 (prefixes— (preverb—)_{P-word}(initial —final —suffixes)_{P-word})_{P-phrase}

- Generalizations hold **across prosodic units** or **at prosodic boundaries**
- Positions within the same prosodic unit should pattern alike

(Downing 1999; Inkelas 1990; Kiparsky 1982; Nespor & Vogel 1986; Selkirk 1984, 1986)

Example argumentation

Focus on the initial and preverb positions [Cheyenne]

- Roots like ame- ‘along’ may occur in multiple positions
- Existing research: preverbs are not prosodically integrated with stem

<u>prefix-</u>	<u>preverbs-</u>	<u>[initial</u>	<u>-final]</u> _{stem}	<u>-suffixes</u>	<u>Translation</u>
É-		[ame	-méohe]		‘He’s running.’
É-	amé-	[sóhp	-a'xe]		‘He ran by.’

(Cheyenne dictionary: Fisher et al. 2006)
(Preverbs: Bloomfield 1946: 103; Goddard 1990: 478)

Root in initial position [Cheyenne]

<u>pre</u> – <u>preverb</u> – <u>[initial]</u>	<u>–final]</u> _{stem}	<u>–suf</u>	<u>Translation</u>
É–	[am	–a'éno'hāme]	He is driving along.
É–	[ame	–méohe]	He's running.

Alternation: [am-] ~ [ame-] ‘along’

Generalization: Avoid CC and VV sequences between initial and final positions.

Root in preverb position [Cheyenne]

pre-preverb-[initial -final]_{stem} -suf Translation

É- **ame**- [é'kots -en] -óho He walks along with his arm around her.

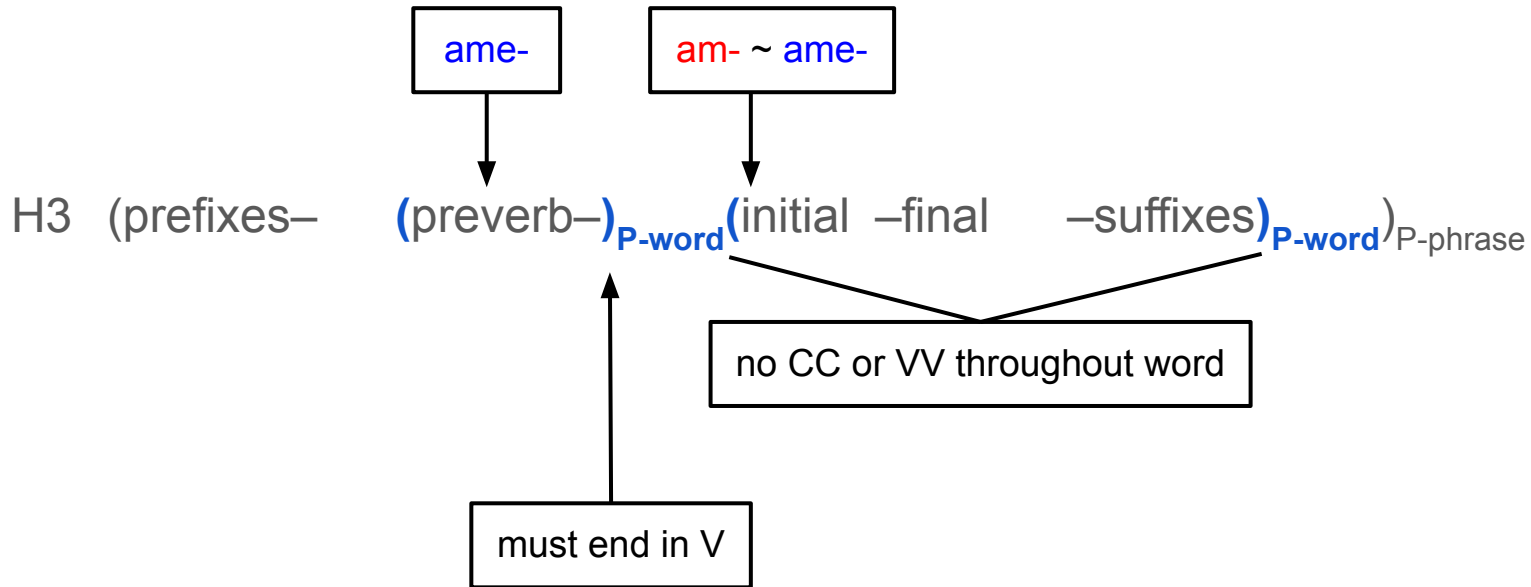
É- **amè**- [sóhp -a'xe] He ran by.

No alternation: [ame-] 'along'

Generalizations: Right edge of preverb must end in a vowel

Mapping evidence onto prosodic structure [Cheyenne]

- Cheyenne is compatible with H3 (or something like it)



Different predictions for different structures

- Generalizations hold **across prosodic units** or **at prosodic boundaries**
- Prediction: all P-words have the same generalizations

H3 (prefixes– (preverb–) **P-word** (initial –final –suffixes) **P-word**)_{P-phrase}

- restrictions on left/right edges
- minimal size constraints
- stress or tonal processes
- vowel harmony
- etc.

Different predictions for different structures

- Generalizations hold **across prosodic units** or **at prosodic boundaries**
- Prediction: all P-words have the same generalizations

H2 (prefixes– preverb– (initial –final –suffixes)_{P-word})_{P-phrase}

- irregular phonology at edges (morphophonology)
- no minimal size constraints
- no distinct phonological processes

- restrictions on left/right edges
- minimal size constraints
- stress or tonal processes
- vowel harmony
- etc.

Preliminary findings

Variation in prosodic structure

- Some languages compatible with:
 - **H2** (Blackfoot)
 - **H3** (Ojibwe, Plains Cree)*
 - uncertain (Cheyenne, Arapaho)

H2 (prefixes— preverb— (initial —final —suffixes)**P-word**)_{P-phrase}

H3 (prefixes— (preverb—)**P-word**(initial —final —suffixes)**P-word**)_{P-phrase}

*known from previous research, but so far confirmed by our project

(Branigan et al. 2005; Russell 1992, 1999; Newell & Piggott 2014; Piggott & Travis 2013; Lochbihler 2017)

Different phonological processes at a single position

- All languages have evidence for a prosodic boundary between preverb-stem
- Different processes! Incomplete list:
 1. [i]-epenthesis
 - Left edge of stem (Blackfoot)
 - Right edge of preverb (Plains Cree, Ojibwe, Cheyenne)
 2. Opaque vowel coalescence (Blackfoot, Plains Cree)
 3. (Optional?) devoicing (Cheyenne)

Single phonological process at different boundaries

Example: [t] ~ ∅ alternation

- after person prefix (Bloomfield 1946: 95; Bogomolets *forthcoming*)
 - yes = Plains Cree, Ojibwe
 - no = Blackfoot, Arapaho, Cheyenne
- after initials
 - yes = Cheyenne [t] before {a,o}, ∅ before {e}
 - yes = Plains Cree (limited set; e.g. initial *pêt-* vs. preverb *pê-* 'hither')
 - no = Blackfoot, Plains Cree, Ojibwe, Arapaho, Cheyenne

(Cowell & Moss 2008; Frantz 2017; Leman 2011; Wolfart 1973; Valentine 2001)

Structure of session

“Data blitz” session (10 minutes per language)

- Block 1

- Overview
- Blackfoot
- Q&A

- Block 2

- Ojibwe
- Plains Cree
- Q&A

- Block 3

- Arapaho
- Cheyenne

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