

Describing the Accent System of Listuguj Mi'gmaq*

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44th Algonquian Conference, Chicago
27 October 2012

Goals of this Talk:

1. To describe the **accent system** of Listuguj Mi'gmaq within the framework of Metrical Theory [Hayes, 1995] (section 2)
2. To describe the **behaviour** of schwa (ə) in relation to this system (section 3)
 - Draws heavily from LeSourd's *Accent and Syllable Structure in Passamaquoddy* [LeSourd, 1993]
3. To briefly **compare** the accent system of Mi'gmaq with the systems of other Algonquian languages (section 4):
 - Passamaquoddy (from [LeSourd, 1993]), Delaware (from [Goddard, 1979]), Penobscot (from [Quinn, 2002])
 - Nishnaabemwin, Minnesota Ojibwe, Odawa (from [Valentine, 2001, Piggott, 1980])

1 Introduction to the Literature

1. Fidelholtz (1968)
 - Stress occurs on “the second mora from the end of the word (perhaps not counting a short final syllable)” [Fidelholtz, 1968]
 - How this short final syllable is counted is vague
 - Data included (when marked for stress) indicate that:
 - All long vowels receive stress. The rightmost receives primary stress [Fidelholtz, 1968]¹:

jā wāli	‘a chew (of tobacco)’
‘nāgoḡom	‘a skate’
wíḡu‘ām	‘tepee’
jě nūḡ	‘giants’

¹Special thanks for this presentation goes to my consultant Janine Metallic for her advice and patience with this project. Thanks also to Conor McDonough Quinn for pointing me towards resources on other Eastern Algonquian languages and discussion. This work was initiated as a final project for the Field Methods in Linguistics course offered in the Fall of 2011 at McGill University taught by Jessica Coon and Michael Wagner, and was supported by a SSHRC Connection grant to these two professors. All remaining errors are my own.

²Orthography used in [Fidelholtz, 1968]

- The second vowel from the end of a word without long vowels receives primary stress (secondary stress is not transcribed in these words) [Fidelholtz, 1968]

‘sipu	‘river’
‘jěnu	‘giant’
‘lāḡōl	‘cord (of wood)’
‘māḡos	‘pocket’

2. Bragg (1976)

- Stress occurs frequently on long and tense vowels² [Bragg, 1976]:

majā‘zik	‘it moves about’
tiyá‘m	‘moose’
sibáyek	‘valley’
súppm	‘bowl, ladle’
- “Long vowels receive the stress and every second syllable before or after a long vowel is given a secondary stress except when adjacent to another stressed syllable” [Bragg, 1976]:

mālsanóḡwom	‘store, shop’
pòktesqá‘zi	‘room’
kiskajóltijik	‘they are ready to leave’
wābuskwégadi	‘rabbit country’

2 Describing the Accent System

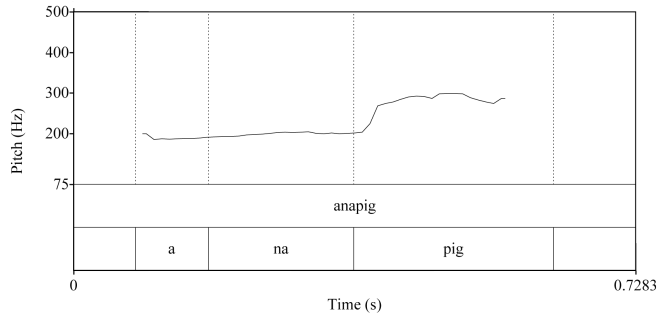
2.1 Preliminaries

1. Why an “Accent System”?
 - **Secondary “stress”** in Mi'gmaq sounds similar to **stress** in other languages with stress systems
 - Possibly marked by increase in length, loudness
 - Works within stress assignment principles
 - **Primary “stress”** is marked almost entirely by a **high pitch**
 - All other stresses remain on a *level pitch*
 - Seems to behave more like a *pitch-accent* system in this respect (see Figure 1)
 - Seems to parallel Penobscot in this respect [Quinn, 2002]
2. What Counts as a Word?
 - **Stems** count as words in relation to the accent system
 - Unbound **preverbs** also count as words in relation to the system (much as they are in Passamaquoddy [LeSourd, 1993])³

²Phonetic alphabet used in [Bragg, 1976]

³Bound preverbs are (at least) those preverbs which *must* appear at the beginning of a word: for example, one could not say simply *-anguat, ‘he or she is shopping’ without specifying how the subject is shopping. A preverb, such as *ali-*, ‘around’ (to form *alanguat*, ‘he or she is going around shopping’), or (*e)ti-*, ‘in the process of’ (to form *ettanguat*, ‘he or she is in the process of shopping’), is necessary.

Figure 1: Pitch contour of *anapig*, ‘it (inanimate) leans toward’ (Data redorded by consultant)



3. Syllable Types

- **Light:** Any open syllable with a *short vowel* or *syllabic sonorant*⁴. Under this analysis, these syllables have a *single mora*
- **Heavy:** Any syllable with a *long vowel* or any *closed syllable* (cf. [Barkhouse, 1998]). Under this analysis, these syllables have (at least) *two moras* – that is, coda consonants are *moraic*, much as they are in Delaware [Goddard, 1979]
- Example (moras only) [Mi’gmaq Online, 2012]⁵:
 $na_{\mu}.qa_{\mu}.ni'_{\mu\mu}.get_{\mu\mu}$ ‘he or she bails out water’

4. Notation

- All words will be written in the **Listuguj Orthography**, with the exception of schwa (written ə)⁶
- Accent marking:
 - **Secondary** accent will be marked with a *grave* accent (è)
 - **Primary** accent will be marked with an *acute* accent (é)
- **Syllable divisions** will be marked with a period (.)
- **Moras** will be written at the right edge of a syllable with a subscript mu ($_{\mu}$)
- **Feet** will be grouped by parentheses ()

⁴It is unclear whether a syllabic sonorant is underlyingly a syllabic sonorant (such as *n*), or a schwa-sonorant sequence (such as *(an)*). I will not discuss this further in this paper.

⁵This form comes from the *Mi’gmaq Talking Dictionary*, which can be found at miknaqonline.org [Mi’gmaq Online, 2012]. All remaining Mi’gmaq forms are taken from this dictionary unless noted otherwise.

⁶The Listuguj Orthography only writes schwa when it is *not* predictable by rule. It is often written with an apostrophe (‘) when it is written. Further notable differences include use of an apostrophe (‘) to mark contrastive vowel length and the letter *g* for the phoneme /k/.

2.2 Derivations

1. Example Derivation: *naqani’get*, ‘he or she bails out water’

Syllabify $na_{\mu}.qa_{\mu}.ni'_{\mu\mu}.get_{\mu\mu}$
Parse $na_{\mu}.qa_{\mu}.ni'_{\mu\mu}(get_{\mu\mu})$
 $na_{\mu}.qa_{\mu}(ni'_{\mu\mu})(get_{\mu\mu})$
 $(na_{\mu}.qa_{\mu})(ni'_{\mu\mu})(get_{\mu\mu})$
 $\times \quad \times \quad \times$
Assign general accent $(na_{\mu}.qa_{\mu})(ni'_{\mu\mu})(get_{\mu\mu})$
 $\times \quad \times \quad \times$
Assign primary accent $(na_{\mu}.qa_{\mu})(ni'_{\mu\mu})(get_{\mu\mu})$
Surface form **$nàqani'gét$**

- Other forms like this:
 $(\grave{a}_{\mu}.ga_{\mu})(sè'_{\mu\mu})(wít_{\mu\mu})$ ‘he or she enlists’
 $(èn_{\mu\mu})(mì_{\mu}.gì_{\mu})(áq_{\mu\mu})$ ‘the tide recedes’
 $(nè_{\mu}.su_{\mu})(péj_{\mu\mu})$ ‘triplet’
 $(tèt_{\mu\mu})(pàq_{\mu\mu})(tég_{\mu\mu})$ ‘it (inanimate) is straight’

2. Example Derivation: *apajiaq*, ‘it (inanimate) comes back’

Syllabify $a_{\mu}.pa_{\mu}.jì_{\mu}.aq_{\mu\mu}$
Parse $a_{\mu}.pa_{\mu}.jì_{\mu}(aq_{\mu\mu})$
 $a_{\mu}(pa_{\mu}.jì_{\mu})(aq_{\mu\mu})$
 $(a_{\mu})(pa_{\mu}.jì_{\mu})(aq_{\mu\mu})$
 $\times \quad \times \quad \times$
Assign general accent $(a_{\mu})(pa_{\mu}.jì_{\mu})(aq_{\mu\mu})$
 $\times \quad \times \quad \times$
Assign primary accent $(a_{\mu})(pa_{\mu}.jì_{\mu})(aq_{\mu\mu})$
Surface form **$àpàjiáq$**

- Other forms like this:
 $(mè_{\mu})(nà_{\mu}.gwi_{\mu})(sìng_{\mu\mu})$ ‘he or she is wobbly or unbalanced’
 $(gè'_{\mu})(sì_{\mu}.pì_{\mu})(ét_{\mu\mu})$ ‘he or she is itchy’
 $(jì_{\mu})(jìj_{\mu\mu})$ ‘insect’
 $(\grave{a}_{\mu})(lù'_{\mu\mu})(sát_{\mu\mu})$ ‘he or she is skinny’

3. Summary:

- Parse **moraically binary** feet from **right to left** across the word
 - All syllables must be parsed into feet. This means that degenerate feet are **allowed**
- Feet are **trochaic**
- Primary accent is located on the **final stressed syllable** of a word

2.3 Caveats

1. What happens in a word which contains the sequence “heavy-light-heavy”?

- The light syllable is incorporated into the foot of the preceding heavy syllable:

(tàq _{μμ} .ta _μ)(lòq _{μμ})	‘salamander’
(à _μ)(tù _μ .tu _μ)(éj _{μμ})	‘squirrel’
(Lis _{μμ} .tu _μ)(gúj _{μμ})	‘Listuguj’
(mà _μ)(qis _{μμ} .qo _μ)(nát _{μμ})	‘he or she has a big nose’

2. What happens to word-final short vowels?

- Word-final short vowels behave much like long vowels – they behave as if they are heavy:

(à _μ .pà _μ)(pí _{μμ})	‘rope’
(mè _μ .ní _μ)(gú _{μμ})	‘island’
(sàs _{μμ} .qa _μ)(tú _{μμ})	‘flying squirrel’
(mí _μ)(tí _{μμ})	‘aspen or poplar’

- We do not say that word-final syllables are always heavy, however, since syllabic sonorants do not always behave this way:

(à _μ)(gwé _μ .sɲ _μ)	‘hat’
(gè _μ)(gú _μ .pɲ _μ)	‘hilltop’
(gú _μ .jɪm _μ)	‘outside’
(sòq _{μμ})(pá _μ .tí _μ)	‘he or she chews it (animate)’

3 The Behaviour of Schwa

3.1 Schwa in Passamaquoddy [LeSourd, 1993]

1. Most schwas in Passamaquoddy are inherently **invisible** to the stress system, or **unstressable**⁷

- This is also true of other vowels, like *i* and *o*
- Some schwas *do* behave as most other vowels – that is, they are *stressable*

2. An **unstressable** (or invisible) schwa may become **stressable** (or visible) when:

- It is the last vowel in a word
- It follows a consonant cluster other than /hC/
- It follows the cluster /hl/
- It is in the environment /s_hs/
- It is the *first* schwa in the form # (C) ə [+sonorant] ə⁸
- It is in an *even-numbered* syllable (counting from left to right) in a sequence of unstressable schwas.

3. Unstressable (invisible) schwas are also subject to **syncope**

⁷In LeSourd’s analysis, this means that they are not connected with a V-slot in the skeletal tier.

⁸The second schwa must not be stressable

3.2 Schwa in Mi’gmaq

1. Are Schwas in Mi’gmaq Invisible to Stress Placement?

- **Yes!** Some schwas are invisible to stress placement:

(a _μ .mí _μ .pə)(teg _{μμ})	‘it (inanimate) is slightly warm’
(à _μ .tə.là _μ .sə)(mù _μ .te _μ)(gét _{μμ})	‘he or she takes a rest’
(à _μ)(pí _μ .gə.nà _μ)(jít _{μμ})	‘February’
(à _μ .tə.nà _μ)(qán _{μμ})	‘checker’

- Under this analysis, these schwas are not assigned a mora

- This can also be true of other vowels:⁹

(à _μ .mí _μ .pu)(tóq _{μμ})	‘he or she rubs something inanimate’
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- Some schwas are inherently **visible**:

(a _μ)(su _μ .tə _μ)(mat _{μμ})	‘he or she prays’
(è _μ)(jì _μ .gə _μ)(là _μ)(sít _{μμ})	‘he or she goes away’

2. Can Invisible Schwas Become Visible?

The answer is also **yes!**. They may in the following environments:

- When it is the last vowel in a word:

(è _μ)(nòg _{μμ})	‘he or she loses it (inanimate)’
(è _μ)(làq _{μμ})(sòg _{μμ})	‘it (inanimate) flies toward’
(gàq _{μμ})(sòg _{μμ})	‘it (inanimate) is burned’
(ə _μ)(sòt _{μμ})	‘all’

- When preceded by a consonant cluster:

(àt _{μμ})(gə _μ .ne _μ)(wét _{μμ})	‘he or she deals (cards)’
(àp _{μμ})(sə _μ .sì _μ)(tát _{μμ})	‘he or she has small feet’
(àp _{μμ})(təs _μ)(qàq _{μμ})	‘he or she locks it (inanimate) up’
(èn _{μμ})(mə _μ .lə _μ)(gát _{μμ})	‘he or she walks home’

But what about other environments?

- In the sequence # (C) ə [+sonorant] ə:

Does exist in the following form (the only one present in the Talking Dictionary [Mi’gmaq Online, 2012])

(tə _μ .mət _μ)(gì _μ)(góm _{μμ})	‘scissors’
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- As the first vowel of a word:

More widespread, but still debatable:

(gə _μ .me _μ)(túg _{μμ})	‘beside’
(gə _μ)(nég _{μμ})	‘soon’
(gə _μ .pə _μ)(tái _{μμ})	‘ceiling’

3. Are Invisible Schwas Subject to Syncope?

Yes, although instances in the dictionary are rare:

(à _μ .gə.mi _μ .tə)(mù _μ .ə _μ)(təl _{μμ})	[ägəmdmùadl]	‘he/she tells him/her (obviative) something’
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⁹In this example, it could also be the case that the *u* is the vowel with the mora.

4 Putting Things in Perspective

1. Review: Comparison with Passamaquoddy [LeSourd, 1993]

	Mi'gmaq	Passamaquoddy
Foot formation	Trochaic	Trochaic
Parsing	R → L	R → L
Degenerate feet	✓	✓
Heavy syllables	-V', -VC	✗
Invisible schwa	✓	✓
Schwa becomes visible when it is:		
... the last V	✓	✓
... after CC	✓	✓
... after /hl/	✗	✓
... in /s.hs/	✗	✓
... first in # (C) ə [+sonorant] ə	Extended?	✓
... in an even-numbered syllable	?	✓
Syncope	Marginal	✓

2. Comparison with Other Eastern Algonquian Languages

- **Delaware** [Goddard, 1979]:
 - As in Delaware, primary accent is marked on the last accentable syllable in Mi'gmaq
 - Furthermore, *syllable weight* is identical in these two languages
- **Penobscot** [Quinn, 2002]: Mi'gmaq seems to mark accent much as in Penobscot - a primary accent is marked as stress is marked, plus high pitch, while a secondary accent is marked simply as stress

3. Comparison with Ojibwe

- Stress pattern of Nishnaabemwin and Minnesota Ojibwe [Valentine, 2001]¹⁰:
 - Syllables with **long vowels** are considered heavy
 - Feet are **iambic** and are built from left to right
 - Degenerate feet are **allowed**
 - Primary stress falls on the **antepenultimate** stressed syllable, or the first syllable if the word has two syllables or less
- This pattern seems to use the **reverse** of the parameters in Mi'gmaq
- On syncope:
 - Unstressed vowels in Nishnaabemwin are syncopated (similar to Passamaquoddy [LeSourd, 1993])
 - Unstressed vowels are subject to either reduction or syncope in Odawa [Piggott, 1980]

¹⁰This description is made using the vocabulary from [Hayes, 1995]

5 Conclusion

1. The accent system of Listuguj fits in nicely with what we know of other Eastern Algonquian languages

- The accent system itself and behaviour of schwa fits in nicely with what we know of Passamaquoddy [LeSourd, 1993]
- The behaviour of syllables with respect to the system fits in well with how syllables behave in Delaware [Goddard, 1979]

2. Questions for further research:

- What is the difference between schwa-sonorant sequences and syllabic sonorants?
- How does this system work over entire sentences? How does it function in casual speech?
- How closely does the accent system of Mi'gmaq parallel that of Passamaquoddy and other Eastern Algonquian languages? What innovations does it show evidence for?

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Additional data collected in conjunction with the LING 415 Field Methods in Linguistics course at McGill University, Fall 2011