Pronunciation in the context of language revitalization

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Introduction

• Existing literature: sound change OR attitudes towards it, but not both:
  • **Sound change** in Indigenous minority languages, under the influence of majority languages (King et al. 2009; Stanford & Preston 2009)
  • **Attitudes** towards sound change by community members (Dorian 1994; King et al. 2009)

• Our study – incorporation of both:
  • Attitudes towards pronunciation across SENĆOŦEN speakers of different generations and fluency levels
  • Pronunciation across these same speakers

• Goal of our project:
  • What role should pronunciation take in the context of language revitalization, and teaching SENĆOŦEN to the new generation?
SENĆOTEN

• SENĆOTEN: the language of the W̱SÁNEĆ people
  • Coast Salish
• Four communities: BOḰEĆEN, Sḵwx̱wú7mesh Ţstulh Maskwaxmi, W̱JOḰEḴP, W̱SÍḴEM
  • some speakers of Hul’q’umi’num’ (Coast Salish) also reside in W̱SÁNEĆ.
  • BOḰEĆEN has chosen Hul’q’umi’num’ as its official language.
• Unique orthography:
  • developed by the late PENÁĆ (David Elliott Sr.)
  • adopted as standard by the W̱SÁNEĆ School Board, 1984
SENĆOTEN Language Status

- Approximately 20 speakers (FPCC, 2008), including:
  - **Elders**: acquired SENĆOTEN fluently as children
  - **Understanders**: heard the language as children and are re-awakening as speakers
  - **Teachers**: learned SENĆOTEN as young adults and have taught the language at ŁÁU,WELNEW School for many years
  - **Language Apprentices**: younger adults
    - learned SENĆOTEN through Mentor-Apprentice programs and are now part of the teaching staff at ŁÁU,WELNEW School

- Vibrant language revitalization program, including a language nest and a growing immersion school.
- Language Apprentices beginning to raise their families in SENĆOTEN.
# SENĆOTEN consonant chart

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Lateral</th>
<th>P o s t - alveolar</th>
<th>Velar</th>
<th>Uvular</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stops</strong></td>
<td>p p’</td>
<td>t t’</td>
<td></td>
<td></td>
<td></td>
<td>(k)</td>
<td>q q’</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>kʰ k’w</td>
<td>qʰ q’w</td>
<td></td>
</tr>
<tr>
<td><strong>Affricates</strong></td>
<td></td>
<td>tʰ’</td>
<td></td>
<td></td>
<td></td>
<td>tʰ</td>
<td>tʰ’</td>
<td></td>
</tr>
<tr>
<td><strong>Fricatives</strong></td>
<td></td>
<td>s</td>
<td></td>
<td></td>
<td></td>
<td>xʰ</td>
<td>xʰ’</td>
<td>h</td>
</tr>
<tr>
<td><strong>Nasals</strong></td>
<td>m m’</td>
<td>n n’</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Resonants</strong></td>
<td></td>
<td></td>
<td></td>
<td>l l’</td>
<td>j j’</td>
<td>w w’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Questions

• Two questions:
  1. What attitudes/perceptions do community members have about the (changing?) pronunciation of SENĆOŦEN?
  2. To what extent do these attitudes/perceptions correspond to the reality of SENĆOŦEN pronunciation, across generations and fluency levels?

• To answer these questions
  1. Interviews with 13 SENĆOŦEN speakers
  2. Word-list recordings with 12 speakers
Interviews:
Perception of pronunciation variation among community members
Methodology

• **Speakers**: 3 fluent elders; 3 understanders; 3 teachers; 4 apprentices = 13 speakers

• **Survey**:
  
  *All interviewees*
  
  • General feelings about the importance of pronunciation
  
  • Awareness of variation in pronunciation
  
  • Awareness of variation in pronunciation in language learners
  
  • Variation in pronunciation in individuals’ speech

  *Learners only*
  
  • Difficulties in pronunciation (learners)
  
  • Causes of difficulties (learners)
  
  • Pronunciation teaching (learners)
Results - Variation

• **Variation** = at the moment vs. **change** = over time

• Familial or sub-dialectal variations:
  • E.g. ṢIɬɬEM ‘bird’: [t̓ι̊t̓ʔət̓əm ] vs. [tsitsətsəm]

• Free variation
  • E.g. SḴAXE ‘dog’: [sqeχə?] vs. [sqeχə?]  

• Respecting elders: knowing their way of speaking and speaking like them
Results - Change

All participants agreed: SENĆOŦEN is changing.

On the one hand...

• **Elders:**
  • “Mostly the new generation that’s making the changes.”
  • Important to sound as similar to the Elders as possible. (3 responses)
  • Concerned about mispronunciation, but reluctant to correct people. (3 responses)

• **Apprentices:** Think of their proficiency as limited to school contexts right now

But on the other hand...

• “Remember that language is a living thing.”
  -- YELḴÁTŦE, quoted by STOLȻEȽ

• Remember that individual Elders spoke differently from each other (accent, dialect, specialized vocabulary). (1 response)
Results - Change

• Most common reasons suggested:

  • Lack of fluent Elders to speak to: speeding up language change. (6)

  • Influence of English (through the orthography) (2)
    • E.g. WJOŁEŁP: [sartlip] instead of [xʷtʃʼəɬp]
    • Need to develop “SENĆOŦEN muscles”

  • Influence of Hul’q’umi’num’. (2)
    • Elders / Understanders: Notice mixing of SENĆOŦEN and Hul’q’umi’num’

  • The world is changing; contexts SENĆOŦEN is spoken in are changing. (2)
    • (Sound related) changes in the natural world:
      • have changed WSÁNEĆ people’s listening habits
      • have made it more difficult to hear distinctive sounds of SENĆOŦEN.
Second language learners: Children

- Younger children master the “difficult” sounds of SENĆOŦEN more easily than adult learners! (6 responses)
  - especially <Ƚ X X> [tʃ ʃ w]
  - Concerns: sound substitution, mixing of SENĆOŦEN and English (+ mumbling)

- Sounds of concern:

<table>
<thead>
<tr>
<th>Orthography</th>
<th>IPA</th>
<th># responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>C, Ć, Q, Ń, Ľ, K, Ŧ</td>
<td>k, kʷ, kʼʷ, q, qʷ, qʼ, qʼʷ</td>
<td>3</td>
</tr>
<tr>
<td>Ī</td>
<td>ʕʼ</td>
<td>3</td>
</tr>
<tr>
<td>Ť ~ Ī</td>
<td>ɬ~θ</td>
<td>2</td>
</tr>
<tr>
<td>Ć ~ J</td>
<td>tʃ ~ tʃʼ</td>
<td>1</td>
</tr>
<tr>
<td>X ~ X ~ W</td>
<td>χ ~ χʷ ~ χʼw</td>
<td>1</td>
</tr>
<tr>
<td>S</td>
<td>s</td>
<td>1</td>
</tr>
<tr>
<td>Vowel sounds</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Consonant clusters (adding vowels to break them up)</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
Second language learners: Adults

- Praise for adult second language learners’ progress (3 responses)

- Sounds of concern:

<table>
<thead>
<tr>
<th>Orthography</th>
<th>IPA</th>
<th># responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>B (English influence, via orthography)</td>
<td>p’</td>
<td>2</td>
</tr>
<tr>
<td>D (English influence, via orthography)</td>
<td>t’</td>
<td>1</td>
</tr>
<tr>
<td>C, Ł, Q, Ŷ, K, K &gt; collapse to C</td>
<td>k, kʷ, k’ʷ, q, qʷ, q’, q’ʷ</td>
<td>1</td>
</tr>
<tr>
<td>N̄ (Hul’q’umi’num influence)</td>
<td>ŋ</td>
<td>1</td>
</tr>
<tr>
<td>W̱ ~ X</td>
<td>xʷ ~ χʷ</td>
<td>1</td>
</tr>
<tr>
<td>T</td>
<td>χ’</td>
<td>1</td>
</tr>
<tr>
<td>T’</td>
<td>ts’ ~ tθ</td>
<td>1</td>
</tr>
<tr>
<td>Ł</td>
<td>†</td>
<td>2</td>
</tr>
<tr>
<td>Consonant clusters (adding vowels to break them up)</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Glottal stop (presence vs. absence)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intonation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Results – Language Learners

How to get to sounding like the Elders ...

• **Apprentices:** Maintain contrasts in minimal pairs. (3 responses)
• Listen to connected speech:
  • archival recordings
  • public speakers at community events
• Try to remember how the Elders spoke.
• Keep connections to how the language used to be used.
• Experiential learning; making language learning fun.
• Keep striving for accuracy.
• Role of literacy?
  • Writing helps with pronunciation.
  • Speaking first: Don’t let learners start writing too soon.
  • Naming the letters of the SENĆOŦEN alphabet?
  • Listening / transcription exercises?
Discussion

• How much does pronunciation matter in the context of language revitalization?
  • Finding the balance between staying true to the elders vs. letting the language evolve

• Listening to the community:
  • Acknowledge and accept:
    • Dialectal variation: ꔹ
    • Free variation: vowels

• Study and teach:
  • Ejectives: B, D
  • The K series: C, K, Ɂ, K, ɋ, Q
  • Intonation (Apprentices)
Word-List Elicitation:
Ejectives
Ejectives

• In particular [p’ t’]

• Montler (1983):
  “obstruents are usually lenis but never voiced. The glottalized obstruents are ejective but weakly so. It is often difficult, especially in the anterior consonants, to perceive the contrast.”

• Concern:
  • [p’ t’] pronounced as [b d], under the influence of English orthography
    • [p’ t’] are written <B D>
Methodology

- **Speakers**: 3 fluent elders; 3 understanders; 3 teachers; 3 apprentices = 12 speakers
- **Materials**: wordlist created by community member RA to elicit ‘difficult’ sounds
  - Initial focus: ejectives

**Table 1**: Total number of tokens analysed, by word position. Target ejective bolded

<table>
<thead>
<tr>
<th>Word-initial (onset)</th>
<th>#</th>
<th>word-final (coda)</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>/t'ájəm/ is on</td>
<td>31</td>
<td>/ŋíʔət'/ blue grouse</td>
<td>30</td>
</tr>
<tr>
<td>/t'il'əq/ strawberry</td>
<td>34</td>
<td>/kw'ánət'/ porpoise</td>
<td>35</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>65</td>
<td><strong>TOTAL</strong></td>
<td>65</td>
</tr>
</tbody>
</table>
Methodology

- Data analysis
  - *Auditory analysis*: transcription
    - Range of pronunciations
  - *Acoustic analysis*
    - Acoustic properties of these different pronunciations

Table 2: Range of pronunciations of word-initial and word-final ejectives

<table>
<thead>
<tr>
<th>Word-initial</th>
<th>Word-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>[t’]</td>
<td>/t’il’əq/</td>
</tr>
<tr>
<td>[tʰ]</td>
<td>/t’ájəm/</td>
</tr>
<tr>
<td>[t~d]</td>
<td>/t’il’əq/</td>
</tr>
<tr>
<td>[t̡]</td>
<td>/t’il’əq/</td>
</tr>
<tr>
<td>[t’]</td>
<td>/ŋíʔət’/</td>
</tr>
<tr>
<td>[t’]</td>
<td>/kw’anət’/</td>
</tr>
<tr>
<td>[d]</td>
<td>/kw’anət’/</td>
</tr>
<tr>
<td>[d̡]</td>
<td>/kw’anət’/</td>
</tr>
</tbody>
</table>

[Audio symbols for pronunciation examples]
# Results

(A = apprentice; U = understander; T = teacher; E = elder)

### Table 3: /t'/ realization in word-initial (onset) position, across speakers

<table>
<thead>
<tr>
<th>Speaker</th>
<th>[t']</th>
<th>[tʰ]</th>
<th>[t]</th>
<th>[t’']</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>6</td>
<td></td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>A2</td>
<td>6</td>
<td></td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>A3</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>U1</td>
<td></td>
<td>6</td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>U2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>U3</td>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>T1</td>
<td>5</td>
<td></td>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>T2</td>
<td>3</td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>T3</td>
<td>3</td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>E1</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>E2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>E3</td>
<td>5</td>
<td></td>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>4</td>
<td>17</td>
<td>3</td>
<td>65</td>
</tr>
</tbody>
</table>

### Table 4: /t'/ realization in word-final (coda) position, across speakers

<table>
<thead>
<tr>
<th>Speaker</th>
<th>[t']</th>
<th>[d']</th>
<th>[d’']</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>1</td>
<td>4</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>A2</td>
<td>6</td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>A3</td>
<td>6</td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>U1</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>U2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>U3</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>T1</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>6</td>
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<tr>
<td>T2</td>
<td>6</td>
<td>6</td>
<td></td>
<td>6</td>
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<tr>
<td>T3</td>
<td>6</td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>E1</td>
<td>6</td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>E2</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>E3</td>
<td>3</td>
<td></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>17</td>
<td>1</td>
<td>65</td>
</tr>
</tbody>
</table>
Discussion

• Most frequent pronunciation: [t’]
  • In particular among people actively involved in language revitalization (apprentices, teachers, and elders)
• Infrequent, but occurring: [t[ᵻ] ~ d’ ~ d]
  • In particular among understanders (and elders)
• Montler’s (1983) description of ejectives based on work in the 1970s: weak ejectives (Kingston 1985) = [t[ᵻ] ~ d’ ~ d]

• Ejectives are changing but not in the direction that people think
  • Becoming more distinct from their plain counterparts
  • Reflects awareness among speakers/learners that ejectives are “special”
General discussion
Tying it all together

• Pronunciation attitudes
  • Acknowledgment/acceptance of variation and change
  • But also study/teach/learn pronunciations of elders
    • K series, ejectives, intonation

• Pronunciation details
  • Discrepancy between perceived pronunciation and actual pronunciation
    • Ejective contrast: increasing salience

• So what do we do?
  • (Continue to) raise awareness about:
    • natural variation/change
    • perceptions vs. reality
  • Focus on areas of concern within communities
    • Study pronunciation, to know the facts
    • Use findings to help guide pronunciation teaching/learning
General discussion
Methodology and hindsight...

• **Survey:**
  • Ask fewer, more open-ended questions.
  • Group interviews?

• **Phonetic study:**
  • Ask participants to read or retell a story which includes the words to be studied, so they can pronounce them in context.
    • This will also let us study intonation.
  • Or for a word list task, ask participants to read the numbers in SENĆOŦEN too.
  • Collect examples of “easy” sounds as well as “difficult” sounds.
  • Allow pairs of participants to work together?

• Linguists as hitchhikers (L. Grenoble’s plenary)
  • “We are a part of the language community too” – various participants noted that their opinions on language change had been influenced by what they had learned from Sonya, Janet, and/or Tim.
References


