

# Fixing up our Hul'q'umi'num' Pronunciation

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Representing the Hul'q'umi'num' Language Academy

The logo for Simon Fraser University, featuring the letters 'SFU' in white on a dark red background.

SIMON FRASER UNIVERSITY  
ENGAGING THE WORLD



University  
of Victoria

## Elders/speakers

Delores Louie, Ruby Peter, Thomas Jones, George Seymour

## Language learners/SFU students

Chris Alphonse, Rosie George, Martina Joe, Kathleen Johnnie,  
Thomas Johnny, Donna Modeste, Tracey Norris, Sharon  
Seymour

## Linguists

Sonya Bird, Marion Caldecott, Phil Howson, Janet Leonard,  
Tess Nolan, Maida Percival







Hul'q'umi'num' Language &  
Culture Collective



Social Sciences and Humanities  
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(Sonya Bird, University of Victoria, PI): “Hul'q'umi'num' phonetic structures: Exploring paths towards fluent pronunciation”

Hul'q'umi'num' Language & Culture Society

# Importance of Pronunciation

- The learners are caretakers of cultural knowledge, language teachers, and materials developers for the future generations

# Challenging sounds

	Labial	Dental	Alveolar	Lateral	Palatal	Velar	Lab. Velar	Uvular	Lab. Uvular	Glottal
stop	p		t			k	kw	q	qw	ʔ
Glott. stops	pʔ		tʔ				kwʔ	qʔ	qwʔ	
affricates		tth	ts		ch					
Glott. affricates		tthʔ	tsʔ	tlʔ	chʔ					
Fricatives		th	s	lh	sh		hw	x	xw	h
Resonants	m		n	l	y		w			
Glott. resonants	mʔ		nʔ	lʔ	yʔ		wʔ			

- 37 consonants, 21 not in English



# Pronunciation challenges

- Glottalized resonants and ejectives
- Laterals (tl', lh)
- Dentals (tth', tth, th)
- Velar (kw, kw', k, hw) vs. uvular (qw, qw', q, q', xw, x)
  
- Consonant clusters: long strings of consonants
  - **tst**amut 'what did x do?'
  - **hw**tth'**xw**uw'i'**tst** 'washing someone's back'
  - **sh**tslh**equn**' 'palate, roof of the mouth'
  - **ts**'**tw**a' 'perhaps, might'
  - **tl**'**sh**hw**im**el**u** 'go to the store'
  
- Rhythm and intonation

# What we usually do

- Working with elders (repeating after, either one-on-one or in groups, making stories, practicing transcription)
- Fluency work (poems, games, repetition)
- Learning phonetics (in-person classes and workshops)



# What we did this summer

**Goal:** Improve pronunciation of both individual segments and overall intonation and ready a final recording of a performance of a personal story created and told in summer 2019

We could not meet to do our usual sort of work, so we have tried out a new paradigm of pairing students and phoneticians (one-one-one) to work in Praat in weekly virtual classes with break-out sessions on Zoom.

**Step 1: Students re-record the story**, listen through it and do a **self-evaluation**  
(Not listening to the old recording (**version 1**) first.)



**Step 2:** Then, **students paired with phoneticians:**

- a. **Listen** to the summer **2019** and summer **2020** recordings, look at words and phrases from it in Praat, and make notes about elements of the student's pronunciation that they think need fixing
- b. Compare the 2019 and 2020 recordings. What is different? Is there improvement? How?
- c. Complete a checklist of elements that still need fixing up.
- d. Listen to a **recording of an elder's telling of the story**, for comparison, using Praat to help visualize as needed
- e. Receive and go through an **elder's feedback/notes** on their pronunciation of the story, using Praat to help visualize as needed
- f. **Practice** words and phrases that were difficult in the story and **re-record** them

- ① xixin nupsunt
- ② tsut tse tsulahrtun
- ③ mustimuhw
- ④ sh tsawet kwath tselhtun  
stswet kwus tselhtun
- ⑤ shayath
- ⑥ tewat - (shewat)
- ⑦ tey tsul' uhtun - stsetsul'tun
- ⑧ apun skwel - skreyul
- ⑨ kwats toetsulahrtun
- ⑩ humpkun = tlungun

- ⑪ mukw = mukw
- ⑫ lhim = tlim
- ⑬ lhtsiw = lhtsiw
- ⑭ lha kwathut = lha qzathat
- ⑮ sh luthiu =
- ⑯ tput = tput
- ⑰ xteum =
- ⑱ sla'p = shap'
- ⑲ qux qux =
- ⑳ hwa kwuats = gwa'xwiats
- ㉑ tha thu hnam = tth' tth' hnam
- ㉒ lhatu kwam = lha'ee qvium
- ㉓ epalutstun = q'pe'tuts'tun
- ㉔ xous = xhas

- ㉕ xipt = lhayt
- ㉖ solum = silush
- ㉗ hwtsul = hwtsel
- ㉘ lshwimelu =
- ㉙ mey roudtun, me'palt'chun
- ㉚ tumuhw =
- ㉛ xixunius talom = xixalux shabun
- ㉜ xixalutal =
- ㉝ tthu kw = tthu'
- ㉞ the'tore = lhatst'ud
- ㉟
- ㊱ tsamiet yuhv = stamiet yuhv
- ㊲ tselhtuniat = tselhtuniat
- ㊳ the kw' = sttha' qwi'
- ㊴ shwun' q'ban = sh hwin' eant'gan
- ㊵ xelutut' tsu = lha'elutut' tsu
- ㊶ chut' ten = ch'ut' ten
- ㊷ skw =

### Check list for assessing speech (HLA)

Does the learner have all the sounds? (Circle the ones that the learner has trouble with)

	Labial	Dental	Alveolar	Lateral	Palatal	Velar	Labial/velar	Uvular	Labialized uvular	Glottal
Stops	p		t			k	kw	q	qw	'
Glottalized stops	p'		t'				kw'	q'	qw'	
Affricates		tth	ts		ch					
Glottalized affricates		tth'	ts'	t'	ch'					
Fricatives		th	s	lh	sh		hw	x	xw	h
Resonants	m		n	l	y		w			
Glottalized resonants	m'		n'	l'	y'		w'			

Does the learner have any of these common errors? (Put a check mark next to errors that the learner has)

#### Sound changes

- lh pronounced th
- q or k pronounced qw or kw
- hw pronounced kw
- w pronounced before hw, xw, kw, qw, kw', qw' (during vowel)
- ts pronounced as ts'
- tth' pronounced tth
- kw pronounced kw'
- qw pronounced qw'
- q pronounced q'
- unuhw missing (from m' n' l' y' w' - especially at ends of words) missing unuhw after resonants and vowels
- unuhw too weak
- ejectives too weak
- \_\_\_\_\_ th pronounced lh
- \_\_\_\_\_ qw or kw pronounced q or k
- \_\_\_\_\_ ts' pronounced ts
- \_\_\_\_\_ kw' pronounced kw' hw
- \_\_\_\_\_ q' pronounced qw
- \_\_\_\_\_ q' pronounced qw
- \_\_\_\_\_ unuhw too strong
- \_\_\_\_\_ ejectives too strong

#### Clusters

- deletion of a consonant within a cluster
- insertion of a vowel within a cluster
- kwthu pronounced as kwthu
- kws pronounced as kwus

#### Word level stress

Are words pronounced with stress in the right place?

Are all sounds given their own space? lengthening vowels (given too much space)

#### Intonation

- Does the learner use the right pitch movements?
- Does the learner use the right speed? choppy speed
- Does the learner link the clitics to the right words when they speak?

Sample of elder's notes

Sample checklist

**Step 3:** Present their findings on their pronunciation to the class and elders, showing examples in Praat and retelling part of their story for the class

# Strategies

- General strategies we explored in our groups:
  - Really thinking about how the articulation feels
    - e.g. for laterals, keeping tongue really flat [rather than pointy at the front]; where the air comes out
    - Smiling (to help think about what one's doing with one's teeth and lips)
  - Breaking the word up
    - Breaking into sounds or parts of sounds:  
ex. Going from /l/ to /lh/ to /tl'/ in sequence
    - Breaking into syllables, and pronouncing in reverse:  
ex. muhw > hwulmuhw > lhhwulmuhw > ts'lhhwulmuhw
  - Listening a lot

# Strategies cont:

- Strategies specific to using Praat:
  - Identifying visual differences between manners of articulation and glottalization in Praat spectrograms
  - Making a text grid to help keep track of each sound (or part of a sound) in a word
  - Selecting and playing the specific parts of the word which cause trouble
  - Comparing a mispronunciation to a model pronunciation both in terms of what we can see and what we can hear
  - Rerecording the word with Praat's built-in recorder and seeing if it better approximates the model
  - Using Praat's pitch tracker to see differences in intonation or to help identify short vowels that have been inserted into clusters
  - Cutting out extra sounds added to approximate how a word should sound or adding or removing silence to help show where glottalization is missing or added



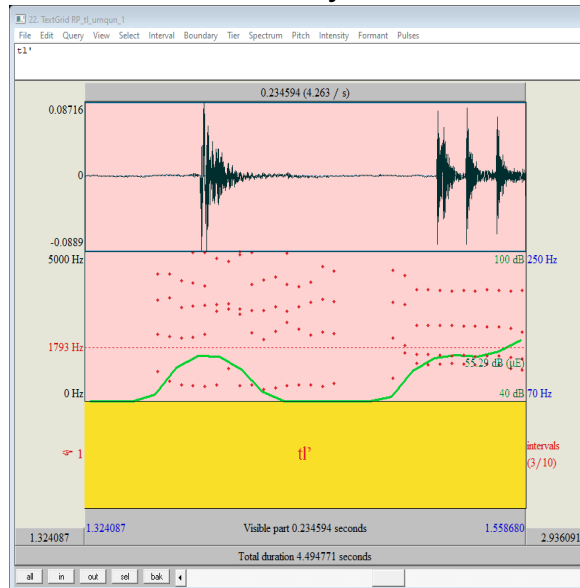
# Things that didn't work

- Mostly just technical issues:
  - Occasionally Praat wouldn't play or was crackly over Zoom
  - Praat doesn't have an autosave function built in and text grids can get accidentally deleted
  - Sometimes longer recordings don't play well unless they are opened as "long sound files"
  - It was harder to communicate over Zoom (the usual... background noise, not being able to see what people were doing beyond what can be viewed over screen share)

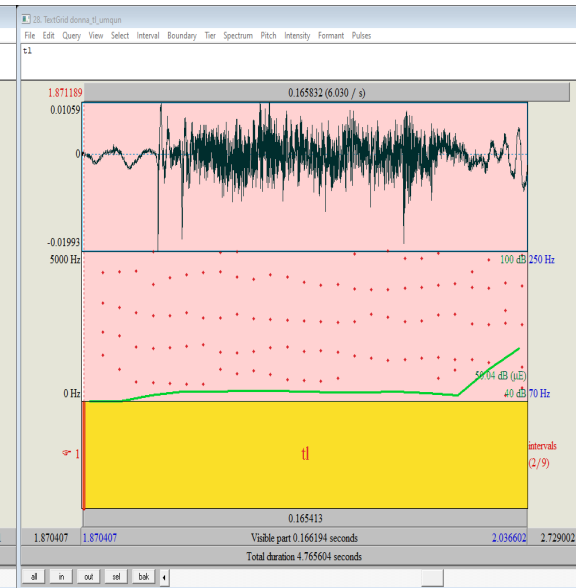
# Donna Modeste

- Laterals: tl' /tʰ/ as t-lh [t]-[tʰ] or lh [tʰ] lh /ʰ/ as th /θ/
  - In *tl'umqun*, tl' /tʰ/ as t-lh [t]-[tʰ] or lh [tʰ]
  - In *tsetsul'ulhtun* : lh /ʰ/ as th /θ/

Ruby



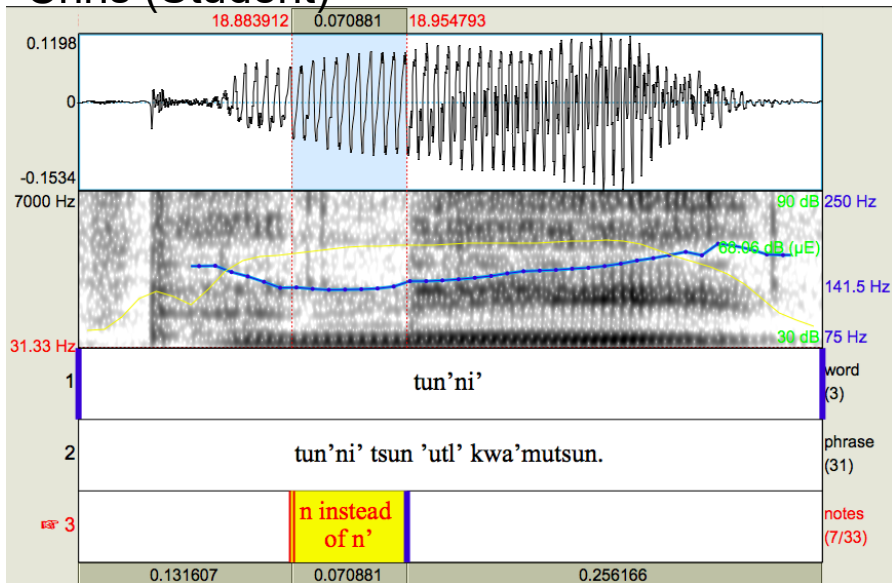
Donna



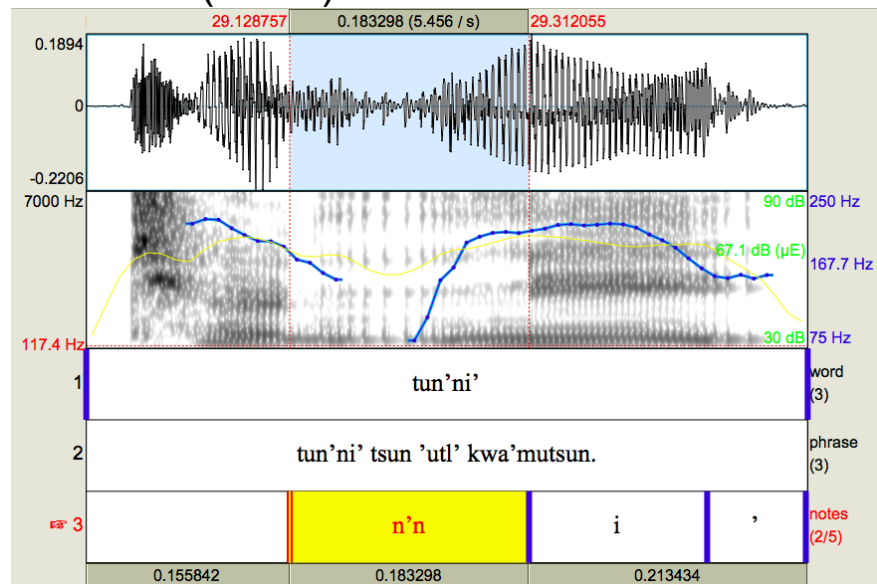
# Chris Alphonse

- Worked on vowels, glottalization, velars/uvulars
- Glottalization example:

Chris (Student)

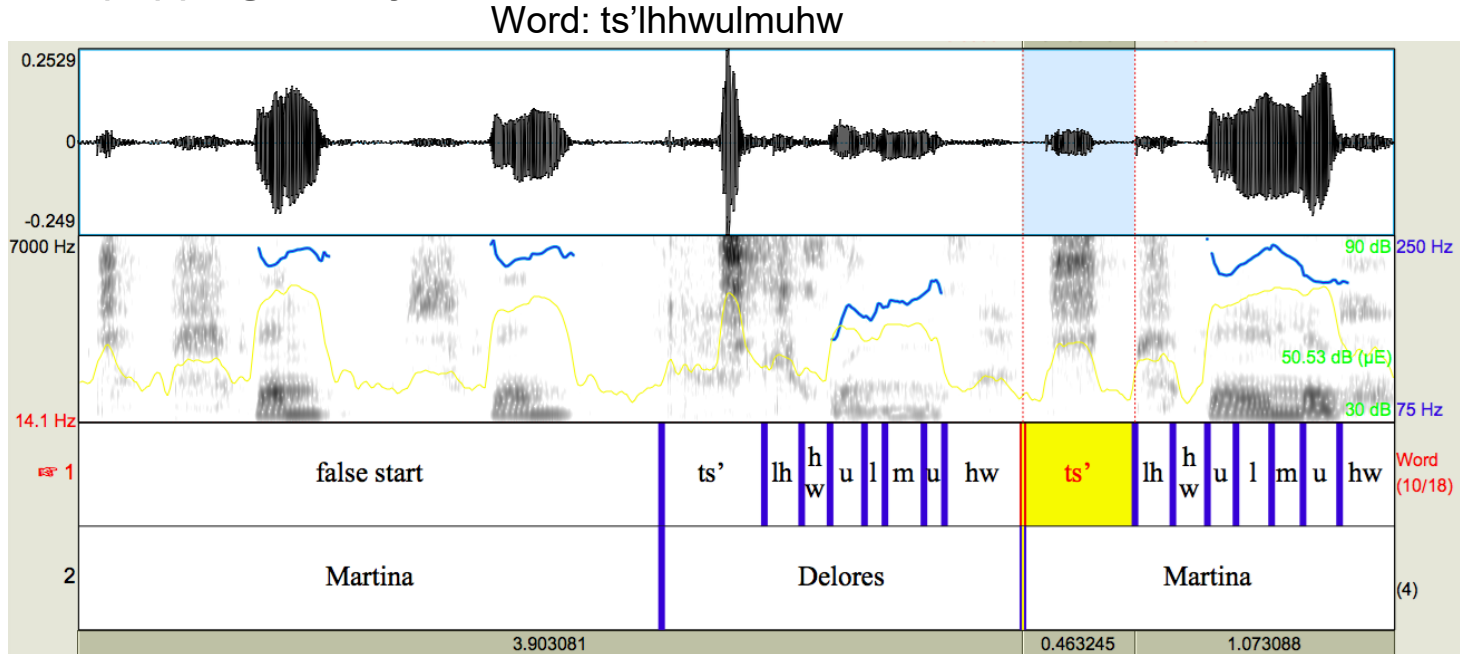


Delores (Elder)



# Martina Joe

- Focus on: clusters, fricatives, glottalized resonants
- False start, then improved the cluster after an elder models it, but at the expense of not “popping” the ejective ts’

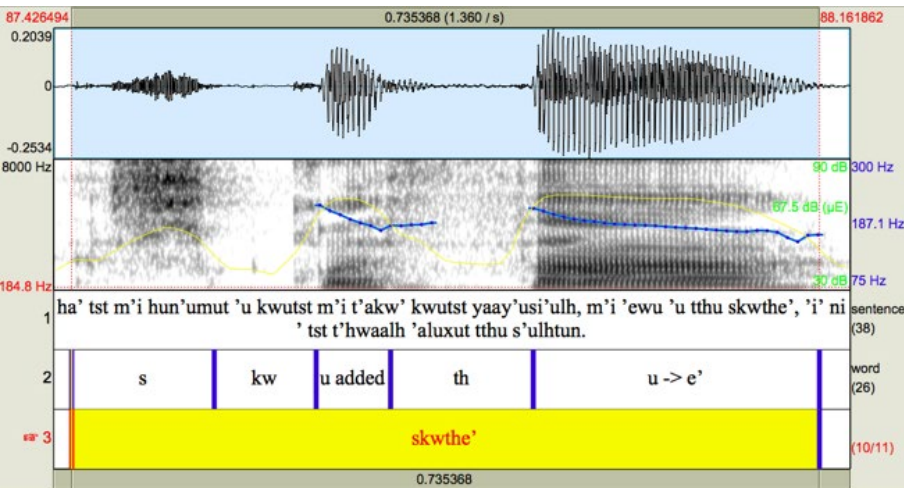


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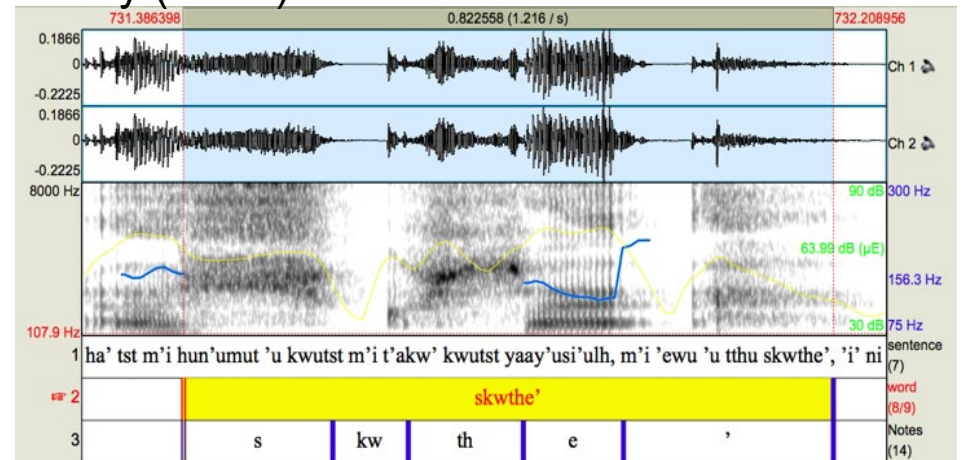
# Tracey Norris

- Consonant clusters
- Inserted a schwa between two consonants in a consonant cluster:

## Tracey (Student)

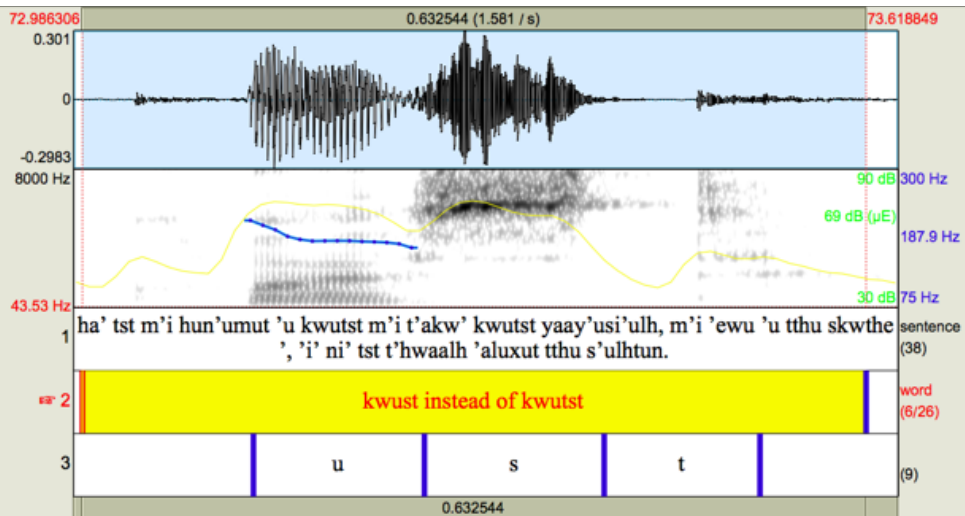


## Ruby (Elder)

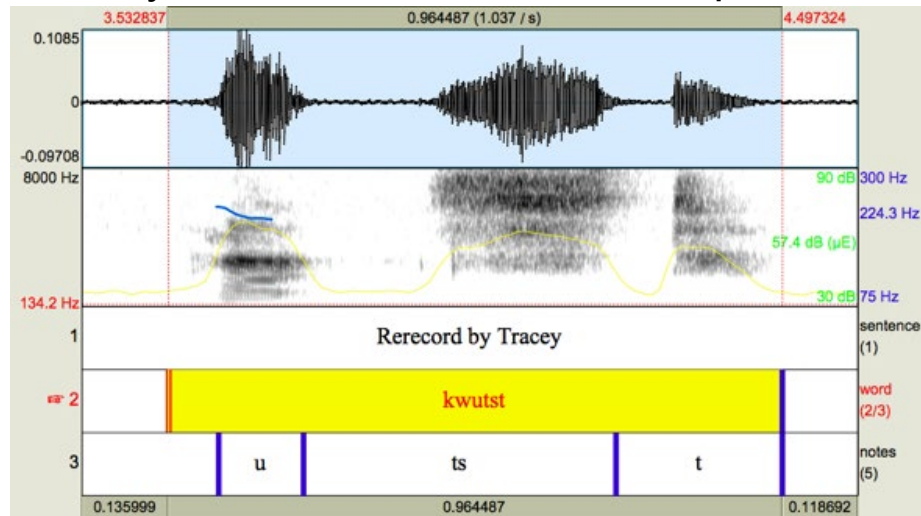


- Had some sound replacements in a consonant clusters
- Pronounced [s] instead of [ts] as simplification of a [tst] cluster:

Tracey - original

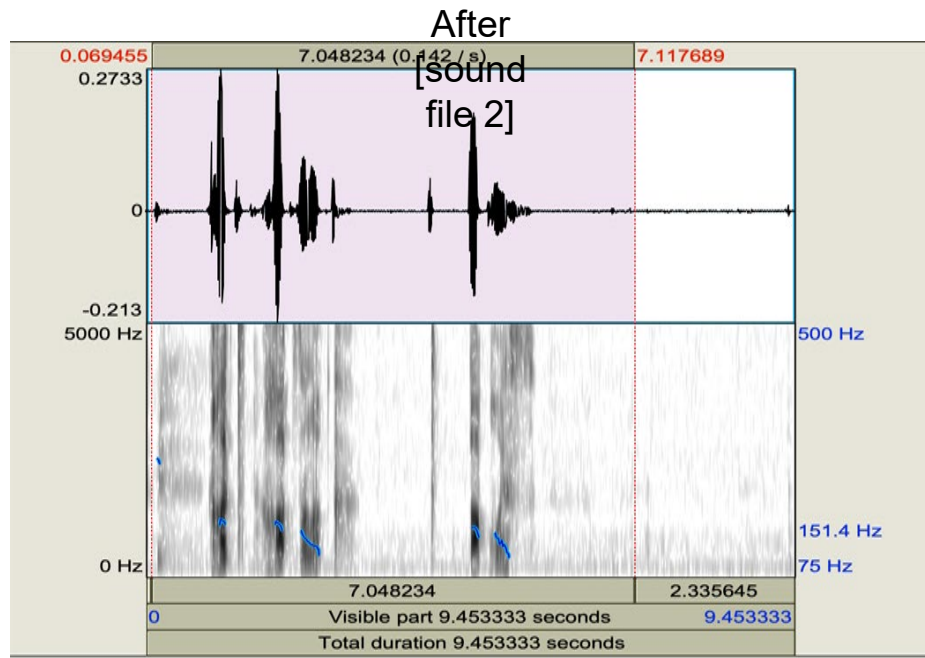
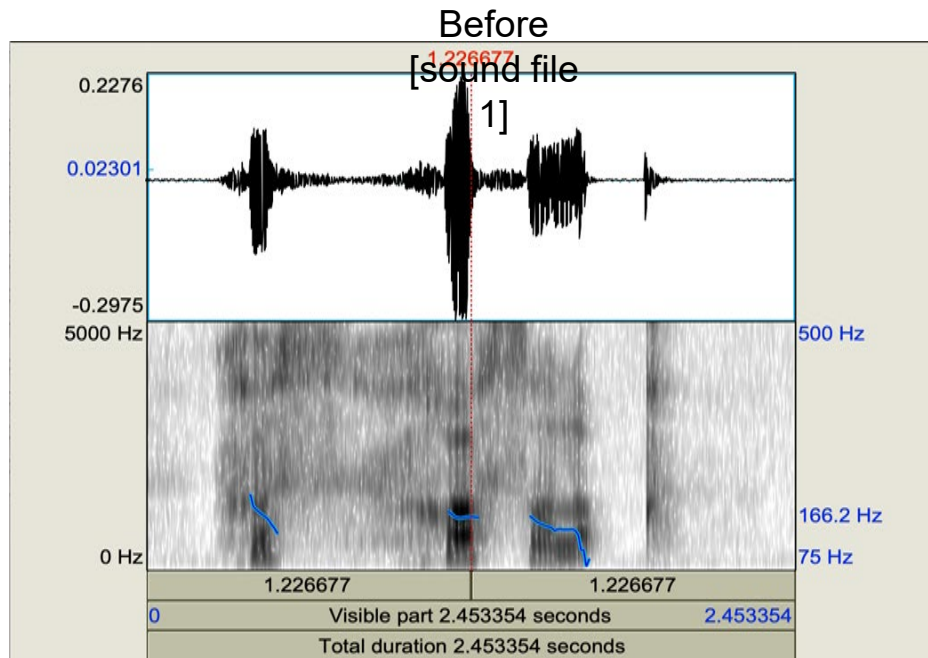


Tracey - rerecorded in Praat after practice



# Sharon Seymour

- Sharon: trouble word-medially
- Important sound, in father's name xutth'xatth'uluq (PN)



# Conclusion

## Praat reflections:

- Donna: really helpful; really shows where pronunciation is different from Elders'
- Chris: Helpful to see flow of words; glottal stops in words; to see how some k/qs aren't pronounced, and to try and copy the way Aunties pronounce the words - to copy the same sound wave. Also, if I can pronounce properly, then I can spell properly - that will be really helpful
- Martina: It helps visually. But having trouble with sound, so had to go back and forth with google drive to hear it
- Tracey: Praat's helping me hear and see mistakes, and notice things and fix them. Comparison with elders has really helped me. Starting working with Praat will teach myself to get better at recording and transcribing; it has taught me to really listen to and understand the sounds of the words
- Sharon: Using Praat has raised my awareness that although I could say tth' at the beginning of the word, I could not say it in the middle. This knowledge helped me to decide where I needed to focus my pronunciation practice.



# Resources

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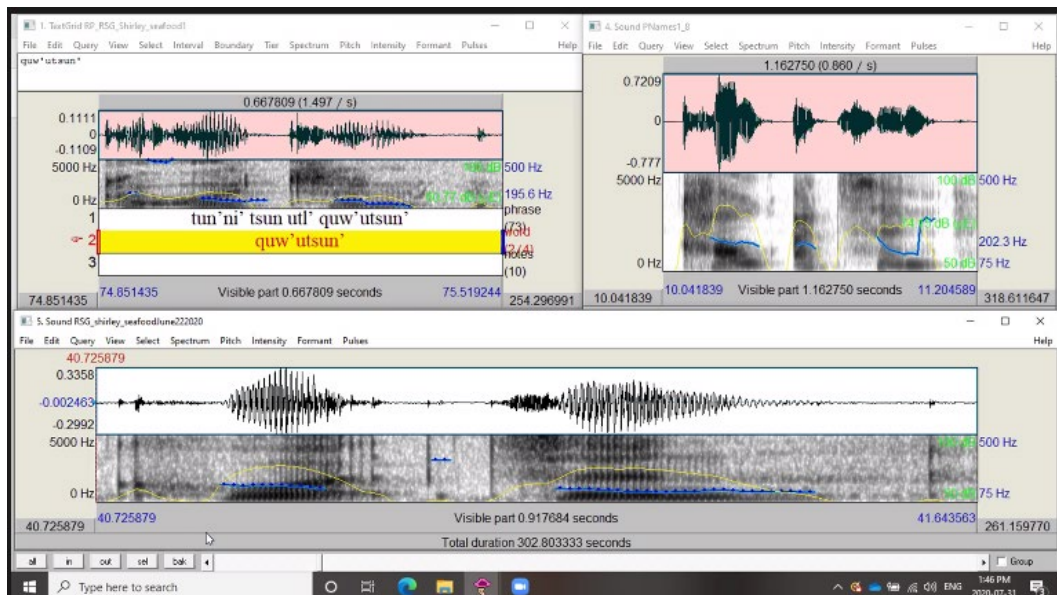
Nolan, Tess. (work in progress). Candidacy paper. Working title: Pronunciation labs in the ILR context: Participant preferences.

Percival, Maida. (work in progress). Dissertation. Working title: The production and perception of ejectives across languages.

ta'ulthun sqwal, Learning the Sounds: <http://sqwal.hwulmuhwqun.ca/learn/learning-the-sounds/>

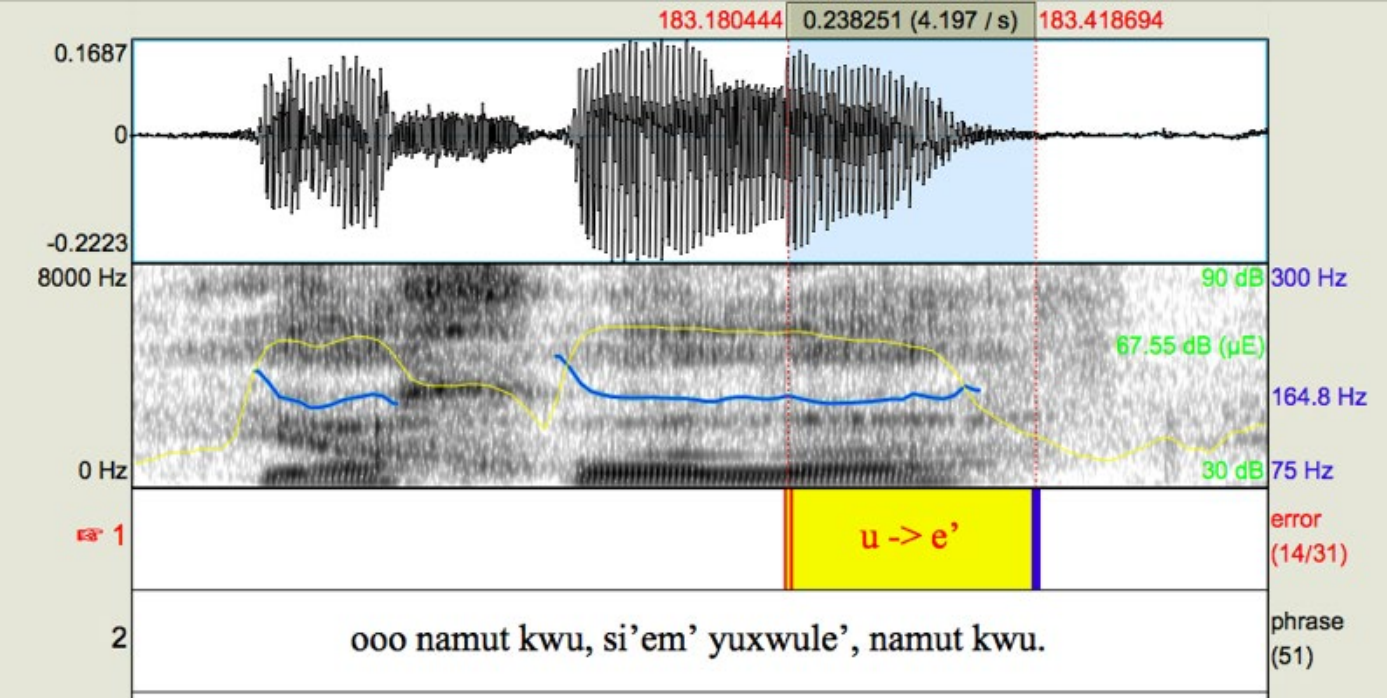
# Rosie George

- Glottalization
- How much space the first vowel takes up: two vs. three syllables
  - Ruby and Delores: 3 clear syllables (quw-'uts-un)
  - Rosie: almost just two, with very reduced first vowel

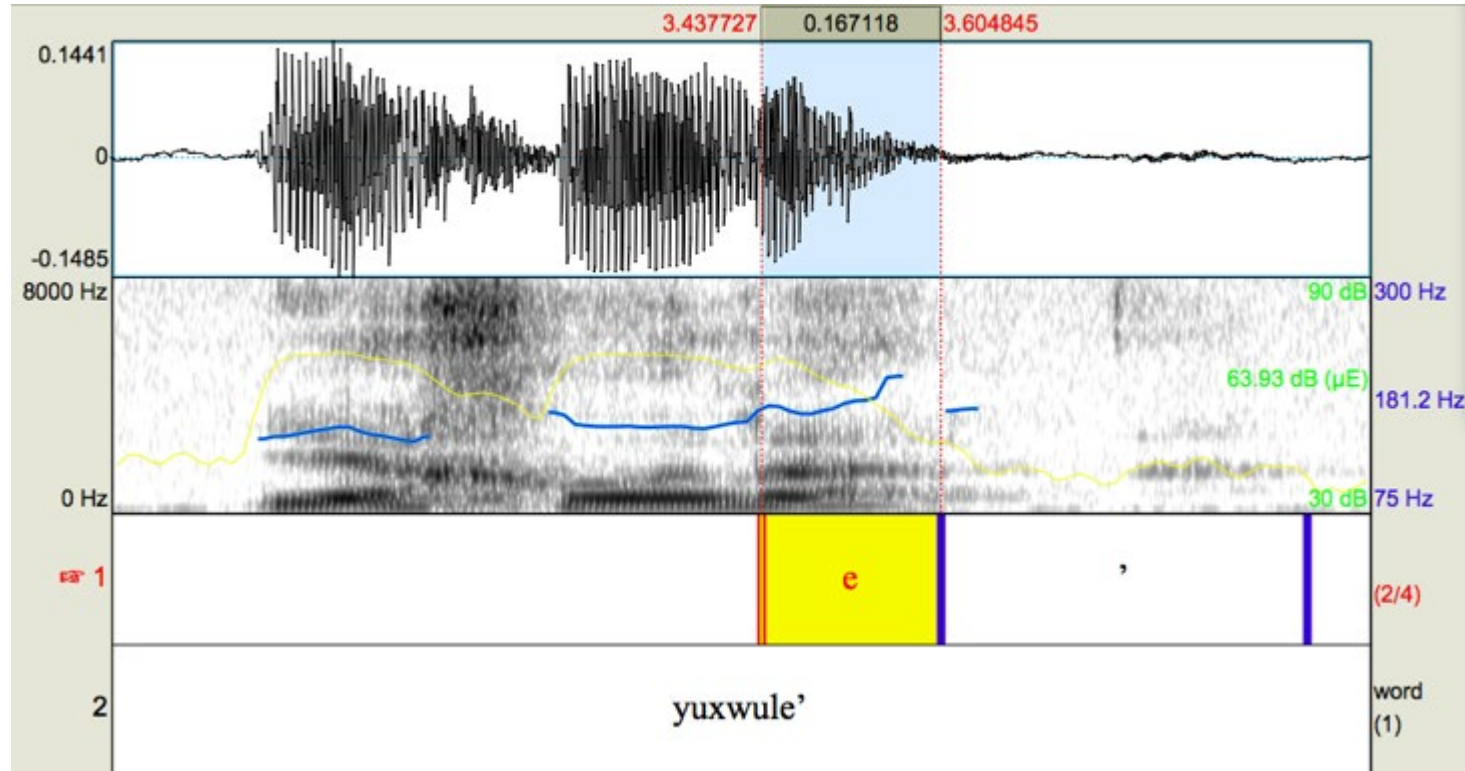


**Word: quw'utsun'**  
Top left: Rosie  
Top right: Delores  
Bottom: Ruby

# Chris Maybe not use?



# After practicing and rerecording in Praat: Fixed!



# Martina maybe not use

