

Nuuchahnulth

Barry F. Carlson, John H. Esling & Katie Fraser

Department of Linguistics, University of Victoria,
Victoria, BC
esling@uvic.ca

Nuuchahnulth (*Nuučaan'ul* /nu:tʃa:ʔnuʌ/), often referred to in the literature as Nootka, is a Wakashan language spoken by people living on the west coast of Vancouver Island in British Columbia, Canada. Each of thirteen Nuuchahnulth bands represents a different dialect group. Nitinaht (*Diitiidath*) is usually included in the Nuuchahnulth group, but it is divergent enough to be considered a separate language. The data in this illustration represent the Ahousaht (*ʕaaḥuusʔath* /ʕa:ħu:sʔatħ/) dialect.

Nootka Texts by Edward Sapir & Morris Swadesh (1939) is the standard reference on the language; *Kyuquot Grammar* by Suzanne Rose (1981) is the most comprehensive modern description. The language's sound system and morphology are among the world's most complex and have been the source of several studies and citations (see, for example, Swadesh 1933, 1937, Jacobsen 1969). Stonham (1999) is a thorough overview of the Nuuchahnulth phonological system and its contribution to the development of phonological theory.

Phonemic writing was introduced by Sapir (1911), building on the earlier transcriptions of Boas (ca. 1895), and in later years Sapir's consultant, Alex Thomas, worked with Eugene Arima to develop a system that could be typed (Thomas & Arima 1970). Some Nuuchahnulth write the language in the phonetically-based orthography used in this illustration, which was adopted in the 1970s by native speakers enrolled in the University of Victoria's Native Indian Language Diploma Program.

This illustration presents the Nuuchahnulth phonetic system with particular attention to the treatment of pharyngeal and laryngeal phenomena. The data are provided by Katie Fraser, who spoke her language regularly in her family and community while growing up on Flores Island, British Columbia, in the 1940s and 1950s. Our description of these sounds is based not only on auditory evaluation but also on visual observation of the articulatory production of Nuuchahnulth sounds using laryngoscopic technology (Carlson & Esling 2001).

Consonants

Nuuchahnulth has a full spread of consonants: labials, denti-alveolars, apico-alveolars, postalveolars, plain and labialized velars, uvulars, and pharyngeals, as well as glottals. Stops, affricates and resonants (nasals and approximants) show contrastive glottalization. Although glottalized resonants are represented here with a preceding glottal stop and the ejectives are represented with an apostrophe, they are arguably conceptually

the same (Sapir 1933) and are both written with a following apostrophe in the orthography. Voiced obstruents are lacking, as are r-type phonemes. There are three laterals: two affricates and a fricative, but no plain [l].

	Bilabial	Denti- alveolar	Apico- alveolar	Post- alveolar	Palatal	Velar	Uvular	Pharyn- geal	Glottal
Plosive	p	t				k k ^w	q q ^w		ʔ
Nasal	m		n						
Fricative		s		ʃ		x x ^w	χ χ ^w	ħ	h
Affricate		ts		tʃ					
Lateral Fricative			ɬ						
Lateral Affricate			tɬ						
Approximant					j	w		ɣ	
Ejective Stop	p'	t'				k' k' ^w			
Ejective Affricate		ts'		tʃ'					
Ejective Lateral Affricate			tɬ'						
Glottalized Resonants	ʔm		ʔn		ʔj	ʔw			

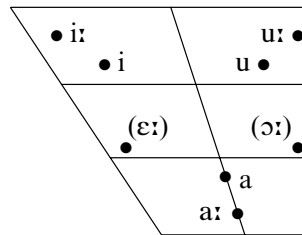
p	pu:ʔi:	'the gun'	k	ka:ʔa	'give it to me'
p'	p'u:ʔi	'halibut'	k'	k'a:ʔin	'crow'
m	mu:	'four'	ʔm	ʔmutʃ'itʃtup	'clothes'
t	taʔiɬ	'sick'	k ^w	k ^w a:tʃitɬ	'motion backwards'
t'	t'at'u:s	'stars'	k ^w '	k ^w 'atʃitɬ	'to break'
n	naqʃitɬ	'to drink'	ʔn	ʔna:s	'day'
			q	qawi:	'berry, salmonberry'
			q ^w	q ^w ini:	'seagull'
s	saja:	'far'	x	xa:ʔamin	'ladder'
ʃ	ʃa:pʃitɬ	'open up, flare out'	x ^w	x ^w akak	'swollen'
ts	tʃa:qapi	'upside down'	χ	ʔwiχju:	'something shaved'
ts'	ts'aʔak	'river'	χ ^w	χ ^w inχ ^w aʔni:tsʔa	(woman's name)
tʃ	tʃaʔak	'island'	ħ	ħaʔwiɬ	'chief, wealthy'
tʃ'	tʃ'aʔak	'water'	ɣ	ɣaʔuk	'meadow'
ɬ	ɬu:tsma	'woman'	h	ha:	'yes'
tɬ	tɬuɬ	'good'	ʔ	ʔi:ħ	'big'
tɬ'	tɬ'u:ʔatɬ	'forgot'			
j	ja:ʔak	'sore, to love someone'	ʔj	ʔja:q	'long'
w	wi:ʔu:	'nephew'	ʔw	ʔwiχʔitap	'to clearcut'

Vowels

There are six contrastive vowels, /i, a, u, i:, a:, u:/. Mid vowels [ɛ:] and [ɔ:] are marginal phonemes found in vocative forms and ceremonial expressions. The peripheral vowel positions show variants that are influenced by surrounding consonants. In

general, the rich system of back consonants conditions lower, more back allophones; while higher, more front allophones, are found in the environment of front consonants. A short open vowel following a glottalized sonorant can be realized as schwa, e.g. /ʔmaʔʔaʔs/ [ʔməʔʔaʔs] ‘cold water’.

i:	wi:ʔi:k	‘stingy’
i	ʔjimʔa:	‘to become ashamed’
u:	ʔhu:	‘over there’
u	ʔjuk ^w i:qsu	‘younger sibling’
a:	ʔuma:	‘water from a spout’
a	tuχwi:ʔa	‘breathless’
ɛ:	tʔɛ:kə:	‘thank you’ (ceremonial)
ɔ:	ɔ:	‘uh huh, yeah’



Stress

Stress is on the first or second vowel of the word. In general, syllable weight determines the placement of stress within this domain; a long vowel receives stress. A syllable with a short vowel and closed by a nonglottalized resonant also counts as heavy. With a sequence of long vowels, or when there are no long vowels present, the default is to stress the first vowel. Particularly in citation forms, it is easier to determine vowel quantity differences than to make judgements about relative prominence. Loudness may coincide with length as a marker of stress, while pitch may vary independently of length and loudness.

Conventions

The two pharyngeals, /h/ and /ʕ/, are pervasive in the morphemes of the language. This is due in part to their historical development. /h/ developed from the merger of /χ/ and /χ^w/; /ʕ/ from /qʔ/ and /q^wʔ/. The result is a large set of root and suffix morphemes containing pharyngeals. The earlier sounds /qʔ, q^wʔ/ are now absent; and /χ/ and especially /χ^w/ are comparatively rare. /h/ and /ʕ/ are extremely constricted, taking more than two times longer than the average segment to achieve as articulatory events, with consequent coarticulatory effects. Words with multiple pharyngeals often have a constricted quality spreading across the entire form. This effect is distinctive enough to have generated legends among the neighbouring Salish people that explain how the Nuuchahnulth people came to sound the way they do. A popular analogy is to choking on food, which reflects the physiological operation of the laryngeal sphincter as a sound-producing mechanism (viz. Sapir 1915; Esling 1996, 1999a). /ʕ/ is typically realized as an epiglottal stop, gliding as a pharyngeal approximant into a following retracted-tongue-root vowel, as in [ʔʕuma:] ‘water flowing from a spout’. For many speakers, there can be a pharyngealized schwa transition between close vowels and a pharyngeal, as in [ʔi:ʔh] ‘big’ and /ʕini:ʔtʔ/ [ʔʕi:ʔni:ʔtʔ] ‘dog’.

Glottalized resonants are characterized by glottal stop closure which precedes the consonantal stricture. Initial glottalized resonants can take nearly two times as long as an average single segment to produce. The accompanying glottal stop is identical phonetically to /ʔ/ but behaves differently phonologically. Vowels preceding and following glottalized resonants can carry laryngealization as a phonetic realization of consonantal constriction in addition to glottal stop, e.g. /ʔjaʔma/ [ʔjʌʔmʌ] ‘salalberry’. Laryngealization can also occur on vowels preceding and following pharyngeals, and adjacent to ejective stops and affricates as in /ʔatʔa/ [ʔʌtʔʌ] ‘thick’. Further reductions

of these forms to [ʔj_Δm_Δ] and [ʔ_Δt_Δ] have been reported to occur in some speaking contexts (Rose 1977). The spread of laryngealization to neighbouring vowels creates an overall creaky-voice effect.

Aspiration of plosives is light. The velars, especially /x/, may be quite fronted. There is a regular labialization of back consonants following rounded vowels. A schwa transition occurs between close front vowels and a following uvular stop.

Audio data

Audio files of the words and phrases transcribed in this illustration are available on the web and may be downloaded from the following address: <http://web.uvic.ca/ling/ipa/jipa>

Transcription of recorded passage

The narrative is constructed in order to illustrate the framework of the beginning and ending of a traditional fable. The intonation reflects the melodic style of traditional storytelling. The story is modelled on the style of Katie Fraser's mother, *k^waanaxxuʔuq^wa*, of Clayoquot (*ʔaʔuuk^wiʔath* /tʃaʔu:k^wiʔath/) origin.

ʔa:qɪqɪwɪu:sɦs himwits'a ʔu:qɪwɪu:sɦs himwits'a
 ku:ku:ʃɪʔatɪqu:tʃ t'a:tnaʔis ʔijiki:ʔiʃamuʔux^wa
 himwits'a nitniʃʔa:ʃ jaquk^witin ʔumʔi:qsu ts'itkpiʔaʃk^win
 nu:ʔiʔatɪqu: q^wimats'uk^ʔwit' asʔitq
 huɦtakʔatɪk^win ja:qmats'uk^ʔwit'asʔitq
 nu:ʔiʔatɪqu ʔahʔa:
 hawi:ʔatɪʃiʔatɪqu: xi:mts xi:mts wa:ʔatɪqu:
 q^wa:ʔatɪk^win q^wa:ʔi:itqʔa:ʃ t'a:tnaʔis tʃ^wi^ʔnuqtɪap hawi:ʔatɪ himwits'a
 ʃa:kʃa:k^wa wikqu: hawi:ʔatɪʃitɪ

Orthographic version (with translation)

ʔaaqɪqɪwɪu:sɦs himwic'a ʔuuqɪwɪu:sɦs himwic'a
 kuukuuʃiʔaʃquuʃ t'aatnaʔis ʔiyikiiʔiʃamuʔux^wa
 himwic'a nitniʃʔaaʃ yaquk^witin ʔumʔiiqsu c'itkpiʔaʃk^win
 nuuʔiʔaʃquu q^wimac'ukw'it'asʔitq
 huɦtakʔaʃk^win yaaqmac'ukw'it'asʔitq
 nuuʔiʔaʃquu ʔahʔaa
 hawiiʔaʃsiʔaʃquu xiimc, xiimc waaʔaʃquu
 q^waaʔaʃk^win q^waaʔiitqʔaaʃ t'aatnaʔis ʃ^win'uuqtɪap hawiiʔaʃ himwic'a
 ʃaakʃaak^wa wikqu hawiiʔaʃsiʃ

What story shall I tell. This is the story I shall tell:
 'When ʔiyikiiʔiʃamuʔux^wa began to steal the children.'
 Our late mother used to tell us bedtime stories when we went to bed.
 She would sing what story she would tell.
 We would know the plot and name of the story she was going to tell.
 She would sing that one.
 When she was finished, 'xiimc, xiimc' is what she would say.
 We would be like any other children, not wanting her to end the story.
 Begging not to stop now.

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