

May 4, 1967

Dear Friends and Colleagues,

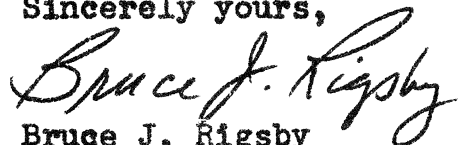
The paper enclosed is based upon my 1966 summer field research in Gitksan, which was supported generously by a National Museum of Canada contract. I prepared this paper expressly as my initial report to the National Museum. Upon Larry Thompson's invitation, I decided to submit it also as a contribution to the Second International Conference on Salish Languages this August in Seattle. We believe that its contents will be of areal interest to Salishanists. I am also sending copies to my "Penutianist" colleagues and to several Athabaskanists.

I regret that I could not mail out the third and main part of the paper now. It comprises the comparative vocabularies-forms in Coast Tsimshian, Nass, and Gitksan (the latter two in systematic phonemic and systematic phonetic representation) for approximately 400 English glosses. I'll have time to type them onto ditto masters and run them off early in the summer; I'll bring them to Seattle for distribution at the Conference.

Unless otherwise indicated, the forms cited in the second section of the paper are from Gitksan. Needless to say, the segmental symbols employed in the text have no systemic status: they are but convenient circumlocutions for distinctive-feature complexes.

Looking forward to renewing old acquaintanceships at the Conference and making new ones, I am,

Sincerely yours,



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ERRATA

- p. 1, line 15- Change $\text{nisqá}^?a$ to $[\text{nisqá}^?^a]$ untranslated stem
 line 27- Should read: ...by the lizards which fled
 line 31- Change tá:miks to táamiks
- p. 2, line 19- Change kit spa yak^s to kit spa yáx^w s. Systematic x and x^w become k and k^w before this s-suffix. This change is not discussed in the main text.
- p. 4, line 13- Strike out may have
- p. 7, lines 18 and 19- Change anemcám to an cmcám
- p. 9, line 13- The rule should read:
 $[-\text{cnt}] \rightarrow [+ \text{cnt}] / \left[\begin{array}{l} +\text{cns} \\ -\text{son} \\ -\text{dif} \\ +\text{grv} \\ -\text{chk} \end{array} \right] \left[\begin{array}{l} -\text{cns} \\ +\text{son} \end{array} \right]$
- p. 10, line 25- Should read: Nass which will spirantize q ...
- p. 11, line 30- Change $[\text{túu}^?ck^w]$ to $[\text{túu}^?cx^w]$
- p. 12, line 2- A short note- Gitksan /yéen/ fog is not subject to the rule which reduces organic long vowels before plain sonorants.
- p. 13, line 9- Should read: lateral affricate may develop ...
 line 32- Should read: ...that these latter segments should be
- p. 16, line 25- Place dot under 1 in $[\text{majlyá}^h]$ to indicate syllabicity

Tsimshian Comparative Vocabularies
with Notes
on Nass-Gitksan Systematic Phonology

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First two of three parts

The Tsimshian-speaking peoples lived in the valleys of the Nass and Skeena Rivers in northern British Columbia and along the coast from the mouth of the Nass in the north to the Milbanke Sound area in the south. Ethnographers customarily distinguish three main territorial divisions: the Coast Tsimshian or Tsimshian proper; the Nass or Niska; and the Gitksan.

In the past century, there were some fifteen Coast Tsimshian tribes (Duff 1964a:66). Each tribe occupied its own village or villages. The Coast Tsimshian villages were located along the Lower Skeena from the canyon at Terrace and below, and along the coast and adjacent islands. Duff (1964b:18-19) has listed and roughly located fourteen tribes of the Tsimshian proper.

The Nass or Niska (from nisqá^á) occupied the Lower Nass valley. Sapir (1915:3) listed and located the four Nass tribes of the past century:

1. kit xa tñ people of the fish-trap This tribe inhabited the villages of kin qúlix place of scalps, now Kincolith, and lax qal cáp on the village, now Greenville.
2. kit kikeeynix people further upstream They occupied the village of lax an lúw on the mountain-slide.
3. kit win ksíik^w people of the place of lizards This is also the name of their main village. P. J. Sims, the Fisheries Officer at Terrace, B.C., told me that he had been told the village had taken this name a few centuries ago when its inhabitants were forewarned of an impending volcanic eruption by lizards ^{which} ~~who~~ fled the area several days in advance.
4. kit an wíliks people moving regularly from and back to their home village (Sapir's translation) They occupied the old village of kit lax táamiks people on the pond and the newer village of a yáns top of the leaf.

In the nineteenth century, there were seven Gitksan (from kit ksán people of the Skeena River) tribes, each named after

its home village. The Gitksan tribes occupied the Upper Skeena valley as well as the Upper Nass valley. The Gitksan tribes are:

1. kit win íkú^l people of the narrow place Their main village is located on the Kitwancool River about 14 miles above its confluence with the Skeena.
2. kit win qáx people of the place of rabbits ([gáx:] rabbit appears to be a loanword from Athabaskan) Their main village is located on the north bank of the Skeena near the mouth of the Kitwancool River.
3. kit ciki^húk^wla [gi^ji^gúk^wla] people of ciki^húk^wla (the name of a nearby mountain for which I have no translation) Their main village is located on the south bank of the Skeena at the mouth of Kitsequecla Creek.
4. kit an máhaks [git[?]anmá:ks] people who use birchbark torches (for spearing fish at night) Their main village was located at the confluence of the Skeena and Bulkley Rivers, now the present Hazelton.
5. kit spa yá^x^ws [gispa^hyá^ws] people of the hiding-place Their main village, an spa yá^x^w, is located on the north bank of the Skeena at the mouth of the Kispiox River.
6. kit sqaqá[?]as people of the place of small white gulls Their main village, now deserted, is located on the north bank of the Babine River, some few miles above its confluence with the Skeena.
7. kit qaltú^w people of the backwoods Their main village, now deserted, was situated on the Skeena about 80 miles above Kispiox.

Americanists have customarily regarded the Tsimshian-speaking peoples as speaking a single language whose three main dialects—Coast Tsimshian, Nass, and Gitksan—correspond to the three main territorial divisions. In fact, there are two Tsimshian languages, which I propose to call Coast Tsimshian and Nass-Gitksan. I suspect that the widespread bilingualism found among speakers of the two languages, especially among the Niska and the Gitksan, led

earlier ethnographers to consider the three dialects to belong to a single language. Certainly Franz Boas, whose Tsimshian grammar in the HBAIL included parallel sketches of Nass and Coast Tsimshian, was well aware of the striking differences between the two. Interestingly, George Dorsey some seventy years ago described the relations among dialects much as I found them to be in 1966:

Boaz [sic] has divided the Tsimshian stock into dialects, those speaking the Nasqa and those speaking the Tsimshian proper.,. It is to be noted furthermore that the tribes speaking Nasqa are not confined to the territory of the Nass River, but are also found on the Skeena River. As to the distinguishing characteristics of the two dialects I had no time for investigation. But from various sources I learned that those tribes which spoke the Tsimshian dialect proper could not understand the Nasqa dialect, whereas the Nasqa tribes could understand those who spoke Tsimshian proper. It appears yet further that there are two closely related groups of the Nasqa dialect, the Nasqa and the Kitksan, the former group being confined to the Nass River, the latter to the Skeena river. (1897:277)

Linguists have usually considered mutual intelligibility of contiguous dialects to be the main criterion for their inclusion in a single language. However, mutual intelligibility may derive from a complex of factors, extralinguistic as well as linguistic (Wolff 1959). From the standpoint of the formal theory of grammar, operational attempts to quantify and measure intelligibility (Hickerson, Turner, and Hickerson 1952; Pierce 1952, 1954) have not been successful and leave much to be desired.

I interviewed informants from the three territorial divisions specifically on the matter of intelligibility. My Nass and Gitksan informants all agreed that Nass and Gitksan are readily intelligible to speakers of either dialect upon first hearing or contact. Speakers of Nass or Gitksan do not readily understand the Coast Tsimshian upon hearing it for the first time. Full comprehension evidently requires that they learn it. My younger Gitksan informants often commented that they could only understand "about half"

of what the Coast Tsimshian say, but that it was easy to learn. The Tsimshian-speaking peoples themselves recognize that the two languages are related. The relationship is fairly close, so that the task of learning the other is not difficult.

During the aboriginal period, suitable sociocultural matrices for second-language learning and bilingualism derived from inter-tribal marriage, trade, and travel. Among the Gitksan, at least, to know and to be able to speak proper Coast Tsimshian was prestigious. High-ranked persons often used the Coast language in public speeches, and many songs used in public ceremonies were in the Coast language. I would venture the hypothesis that the prestigious use of a second language by persons of high rank among the Gitksan ~~may have~~^{has} retarded the development of dialectal differences reflecting differential social ranking within village speech communities, as found among some Coast Salish groups. In these days, Nass and Gitksan people learn the Coast Tsimshian during residence on the coast while working on fishing boats and in the canneries.

The few Coast Tsimshian I talked with corroborated the lack of initial mutual intelligibility. My Kitkatla informant told me that she learned to understand Nass-Gitksan through working and talking with Nass and Gitksan women in the canneries. She usually speaks to them in Coast Tsimshian (and often in English!), while they either use their own dialect or the Coast language.

There is also motivation from synchronic typology for considering the Coast Tsimshian and Nass-Gitksan to be separate languages. Though we have as yet no formal metric of grammatical identity, I believe that the two languages are not identical at a grammatical level relevant to language classification as opposed to dialectal classification. Nass and Gitksan are grammatically identical; they differ only in phonological matrix entries for a small number of lexical items and in that Gitksan has added a few late phonological rules. Nass-Gitksan systematic phonemic base-forms, in most cases, are identical. Nass-Gitksan and Coast Tsimshian likely share many identical or similar syntactic rules, both phrase-structural (base) and transformational, but there are some

significant differences. Franz Boas (1911:349-62) long ago noted major differences in the systems of nominal determinative suffixes and syntactic connectives employed by the two languages.

* * * * *

Noam Chomsky (1964) has recently discussed three distinguishable levels of representation which might be associated with the phonological component of a generative grammar. Chomsky terms these the systematic phonemic, the taxonomic phonemic, and the systematic phonetic levels of representation. Chomsky's level of systematic phonemic representation corresponds to that of Edward Sapir's "maximally correct" phonological orthography for Southern Paiute, while his systematic phonetic level corresponds to that of Sapir's phonetic orthography (Sapir 1933). One might also say that Chomsky's three levels of representation correspond roughly to what structural linguists customarily term the morphophonemic, phonemic, and phonetic levels, respectively. I find very convincing Chomsky's arguments that the so-called taxonomic phonemic level of representation is not a necessary and significant level of representation in the phonological component of a descriptively adequate generative grammar and that certain conditions (bi-uniqueness, etc.) placed upon phonemic representation by taxonomic phonemicists are unwarranted and lead to complications of statement (see also Postal 1964).

This paper is a preliminary statement of Nass-Gitksan systematic phonology; I am yet a long ways from a completed Nass-Gitksan phonology, though I believe I have some insights into its main features. The following paragraphs attempt to state some of these insights and suggest the probable proper systematic phonemic representation of certain features of Nass-Gitksan phonology. For those who scan these comparative vocabularies for inspectional lexical resemblances with other languages, I would like to point out that the systematic phonemic representations of forms offer the most relevant material for historical comparison.

The Coast Tsimshian forms given in this paper are cast in a regularized phonetic transcription with some free variation indicated. I have not attempted even a taxonomic phonemicization of these scanty materials which were collected in two short afternoon informant sessions. It is my impression that Coast Tsimshian phonology differs from the Nass-Gitksan in several important features, notably in the allophony of the plain obstruents and in

its vowels. I am particularly uncertain of the proper underlying systematic phonemic representation of the Coast Tsimshian vowels.

The following distinctive feature matrix chart gives the initial underlying representation of the Nass-Gitksan inventory of systematic phonemes. Lexical morphemes are given such representation in the phrase-structure component of a Nass-Gitksan generative grammar. This chart recognizes four major types of phonemic segments: sonorants; obstruents; vowels; and glides. The separation of the nasals from the consonants and the postulation of a class of sonorants captures a number of phonetic and distributional similarities of the m, n, l, w, y series (cf., Postal's treatment of Mohawk; 1964:277). One of the advantages of postulating a separate class of sonorants is that one may state the difference between n and l minimally as one of the presence or absence of nasality. Some Nass-Gitksan family dialects have l where others have n in certain morphemes:

/laxnúq/ vs. /naxnúq/ spirit-being

/l^hii túxl^h ~~ax~~mcám lax stúp/. vs.

/n^hii túxl^h ~~ax~~mcám lax stúp/. The kettles are on the stove.

The advantages of such a treatment of similar segments in the Sahaptian and Salishan languages as well should be obvious.

In describing Nass-Gitksan systematic phonology, further economies can be achieved and redundancies eliminated by the postulation of morpheme-structure rules, which are the latest rules of the phrase-structure component of the grammar. Some of these morpheme-structure rules specify features predictable by sequential position of the segment in the morpheme; others fill in the blanks in the various matrix entries given here for systematic phonemes. These latter have also been called "blank fill-in" or "redundancy" rules. I will make reference from time to time of some desirable morpheme-structure rules for Nass-Gitksan.

Redundancy rules should specify that the Nass-Gitksan plain stops-affricates are voiceless (unmarked for voicing):

Distinctive Feature Representation of Nass-Gitksan Systematic Phonemes

Sonorants:

	^h m	m	^h n	n	^h l	l	^h w	w	^h y	y
consonantal	+	+	+	+	+	+	+	+	+	+
sonorant	+	+	+	+	+	+	+	+	+	+
vocalic	+	+	+	+	+	+	-	-	-	-
grave	+	+	-	-	-	-	+	+	-	-
nasal			+	+	-	-				
checked	+	-	+	-	+	-	+	-	+	-

Obstruents:

	^h p	p	^h s	s	^h ʃ	ʃ	^h c	c	^h t	t	x	^h q	q	x ^w	^h k ^w	k ^w	x	^h k	k
consonantal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
sonorant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
diffuse	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-
grave	+	+	-	-	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-
flat														+	+	+	-	-	-
continuant			+	+	-	-	-	-	-	-	+	-	-	+	-	-	+	-	-
strident					+	+	+	-	-										
lateral			+	-	+	-	-												
checked	+	-					+	-	+	-		+	-		+	-		+	-

Vowels:

	uu	ii	aa	oo	ee	u	i	a
consonantal	-	-	-	-	-	-	-	-
sonorant	+	+	+	+	+	+	+	+
long	+	+	+	+	+	-	-	-
diffuse	+	+	-	-	-	+	+	-
compact			+	-	-			
grave	+	-		+	-	+	-	

Glides:

	h	ʔ
consonantal	-	-
sonorant	-	-
continuant	+	-

[-chk] ---> [-voi] / $\begin{bmatrix} +cns \\ -son \\ -cnt \end{bmatrix}$

A later phonological rule aspirates (tenses) the plain stops-affricates in final position:

[-chk] ---> [+tns] / $\begin{bmatrix} +cns \\ -son \\ -cnt \end{bmatrix}$ #

The plain stops-affricates are voiced whenever they precede a plus voiced segment (e.g., a vowel or vocalic sonorant). This rule must not be applied cyclically:

[-chk] ---> [+voi] / $\begin{bmatrix} +cns \\ -son \\ -cnt \end{bmatrix}$ [+voi]

/kúpɬ/ ---> [gúpɬ] Eat it. (Imperative)

/kúptit/ ---> [gúpdit^h] They ate it. (Indicative)

A special optional late phonological rule should be written to derive [ɣ], a tempo variant of /q/:

[-cnt] ---> [+cnt] / $\begin{bmatrix} +cns \\ -son \\ -dif \\ +grv \\ -chk \end{bmatrix}$ ~~[+voi]~~ $\begin{bmatrix} -cns \\ +son \end{bmatrix}$

/qanqán/ ---> [gánqán] or [ɣanyán] trees

In Gitksan, at least, there are a very few phonetic ^{/intervocalic} voiceless aspirate plain stops, as in:

/kipháayk^w/ ---> [gip^háy^{wh}] flew (Sng. Indicative)

These are clearly to be represented as clusters with systematic phonemic h as the second member:

$\begin{bmatrix} +cns \\ -son \\ -cnt \\ -chk \end{bmatrix} \begin{bmatrix} -cns \\ -son \\ +cnt \end{bmatrix}$ ---> $\begin{bmatrix} +cns \\ -son \\ -cnt \\ -chk \\ +tns \end{bmatrix}$

There are also a few seemingly anomalous initial phonetic voiceless aspirate plain stops, as in:

[t^hyá¹tx^w] thunder

[t^hnibíbn] your MoBr

[t^hyáks] net-float

These forms actually involve a word boundary and should be systematically represented as:

/t yáyt^hk^w/

/t nipípn/

/t yáks/

The initial segment will have been specified as voiceless by the early redundancy rule and aspirated (tensed) by the tensing rule for final plain stops-affricates.

One of the main differences between Nass and Gitksan is the spirantizing of systematic k and k^w in certain positions in Gitksan. Most Gitksan dialects spirantize systematic k and k^w in initial position before a systematic spirant and in final position, except following a sonorant. The dialect of Kitwancool village, which is situated geographically in an intermediate position between the Nass River and the Skeena River villages, appears to be intermediate in that it does not spirantize systematic k and k^w initially before systematic spirants.

[-cnt] ---> [+cnt] /

+cns	+cns
-son	-son
-dif	+cnt
-grv	and
-chk	#, except after sonorants

/kit ksán/ ---> [gitxsán] Gitksan, people of the Skeena

/hít^wk/ ---> [hít^wx] be standing, be in upright position

/kamk/ ---> [gámk^h] be hot

/k^wálk^w/ ---> [g^wálk^{wh}] be dry

/k^wálk^wa/ ---> [g^wálg^wa] dry

A special late phonological rule must also be written for Nass which ^{will spirantize} q when followed by a plain stop. I am not at all sure of the proper context restrictions to be placed on this rule:

[-cnt] ---> [+cnt] /

+cns	+cns
-son	-son
-dif	-cnt
+grv	-chk
-chk	

Motivation for this rule can be seen in the following forms:

Nass [ha'táxk^{wh}]

Gitksan [ha'táqx^w] be bad

Nass and Gitksan [ha'tágam] or [ha'táyam] bad

Systematically, these should be represented in both dialects as:

/ha'táqk^w/ be bad

/ha'táqm/ bad

The systematic glottalized (checked) stops-affricates have both preglottalized and simultaneously or slightly postglottalized variants. In initial position and also when preceding a stressed vowel, the release of the glottal closure is simultaneous with or slightly following the release of the oral closure. In intervocalic position following primary stress, the simultaneously glottalized variants are in free variation with preglottalized variants. In Gitksan, all final systematic glottalized stops-affricates become preglottalized with aspirate release of the oral closure, actualizing as two phonetic segments. However, in Nass, only systematic q is preglottalized in final position, and this appears to be optional. The other Nass final systematic glottalized stops-affricates have simultaneous glottal release.

It seems most natural and economical to consider the simultaneously glottalized variants as the norm by marking them as plus checked in matrix entries in base-forms and to derive the preglottalized variants by later phonological rule:

$$\begin{bmatrix} +cns \\ -son \\ -cnt \\ +chk \end{bmatrix} \longrightarrow \begin{bmatrix} -cns \\ -son \\ -cnt \end{bmatrix} \begin{bmatrix} +cns \\ -son \\ -cnt \\ -chk \end{bmatrix} / \text{ in specified environments}$$

If such a rule were to be applied before the tensing and voicing rules, its outputs would be operated upon by them and the correct phonetic representation obtained:

/hanáq/ ---> [haná^hq^h] woman

/lóc/ ---> [lóc^hc^h] Rocky Mt. whitefish

/túu^wck/ ---> [túu^wck^w] be black

/qóc/ ---> [qóc^hp^h] or [qóc^hp^h] fish heart

/túl^hc/ ---> [dúl^hc^h] clitoris

/ínt/ ---> [ʔín^ht^h] nit, louse egg

/kíí/ ---> [gíʔí] red variety of sockeye salmon

/sm hák^waxtí yéen/. ---> [smháʔg^waxtíyéen] It's really fogged over.

/takálúc/ ---> [takálúc^h] or [taʔgalúc^h] fox

In both the Nass and Gitksan dialects, initial systematic q' may sometimes be weakened optionally to [ʔ]:

[+cns] ---> [-cns] / #

-son
-dif
+grv
-cnt
+chk

/qam ksi wáa/ ---> [qamksiwáa] or [ʔamksiwáa] White man, literally-completely bleached-out

This rule should also be extended in context restrictions to operate upon systematic q' intervocalically. However, it would appear that not all morphemes are subject to this rule, and we may mark them thus in the lexicon. Examples of intervocalically weakened q' are:

/hanáqst/ ---> [hanáʔ^ast^h] the woman (present and visible)

/hanáqm/ ---> [hanáʔam] woman's (attributive)

This matter of weakened intervocalic systematic q's may be relevant to a small number of forms which always appear with phonetic intervocalic [ʔ], such as:

[gáʔaʔⁱ] I saw it. (Indicative)

[ʔiléeʔ^e] blood

[xáʔ^a] male slave (singular)

[wáaʔ^atx^w] cry out (as a dog)

If these forms were to be represented with intervocalic systematic q' and marked in the lexicon as subject to the weakening rule, we could dispense with ʔ as a systematic phoneme. In all its occurrences, the glottal stop would then be inorganic or predictable, and thus non-phonemic. A morpheme-structure rule inserts the initial glottal stop of morphemes beginning with a vowel. The segmentalization rule and the weakening rule account for other occurrences of the phonetic glottal stop. However, there is some comparative evidence which argues against this proposal; I do not cite it here. For the time being, I represent these forms systematically as:

/káʔVy/
 /lɛ́eʔV/
 /xáʔV/
 /wáaʔVtkʷ/

V symbolizes a vowel archiphoneme whose quality is determined by the preceding vowel. This vowel is not epenthetic and must be entered in base-forms in the lexicon.

Despite earlier reports of its absence in the Tsimshian dialects, Nass-Gitksan does have a glottalized lateral affricate at both the systematic phonemic and phonetic levels, but not its plain unglottalized counterpart at both levels. A phonetic plain lateral affricate ^{may} ~~does~~ develop from the preglottalization of final ʔ in Gitksan, but I often hear clear transition between the stopped onset and the lateral release. Clusters of systematic t and ɬ are quite frequent, and I invariably hear clear transition between the two segments. Phonetic plain ^{voiced} lateral affricates probably also develop by deglottalization in initial (wholly or partly) reduplicated bases, but I have no examples. The glottalized lateral affricate is very rare; I have recorded only the following forms with it:

/kákʷʔ/ ankle
 /kíʔ/ red variety of sockeye salmon
 /lákʷ/ lower lip
 /lókʷ/ mud
 /lúqac/, in Nass /qaʔúqac/ a wild rhubarb
 /láa/ a man's name (Wolf Phratry)
 /tqaas níʔ/ salmon fry, sardine

I found no glottalized lateral affricates in my Coast Tsimshian work.

The systematic front velar stops k and kʰ are regularly palatalized ^(sharpened) before non-grave vowels, as is also the systematic spirant x:

[-flt] ---> [ʔshp] /
$$\begin{bmatrix} \text{+cns} \\ \text{-son} \\ \text{-dif} \\ \text{-grv} \end{bmatrix} \begin{bmatrix} \text{-cns} \\ \text{+son} \\ \text{-grv} \end{bmatrix}$$

There are also phonetic palatalized front velars (formerly called "anterior palatals") before grave vowels in a small number of forms. Morphological considerations make it clear that these ^{letter segments} should be represented systematically as /kihV^{ʔgrv}/. Thus:

/kihóoks/ ---> [góoks] float, drift (singular)

To treat these phonetic segments otherwise and postulate systematic phonemic palatalized front velars would obscure the regular palatalization of the front velars before non-grave vowels and complicate the systematic phonological statement unnecessarily. The zeroing of intervocalic systematic h, as in float, drift, is discussed later.

By redundancy rule, the systematic phonemic spirants $\pm s$ $x x^w$ are always voiceless (unmarked for voicing):

[+cnt] ---> [-voi] / $\begin{bmatrix} +cns \\ -son \end{bmatrix}$

The phonetic $[x^w]$'s, which develop in Gitksan from both systematic k^w and x^w , are only weakly labialized; often they are not labialized at all, but they are always articulated with pharyngeal constriction. Boas (1911:289-290) evidently did not hear them as labialized in Nass; he described them as "middle palatals," contrasting with "anterior palatals" and "velars."

In slow deliberate speech, the systematic spirants are phonetically lengthened as codas in short final stressed syllables:

[+cnt] ---> [+lng] / $\begin{bmatrix} -cns \\ +son \\ -lng \\ +stress \end{bmatrix} \left(\begin{bmatrix} +cns \\ -son \end{bmatrix} \right) \begin{bmatrix} +cns \\ -son \end{bmatrix} \#$

/wíł/ ---> [wíłł] fir-tree

/ús/ ---> [úss] dog

/áx/ ---> [áxx] an edible root-species

/áks/ ---> [ákss] water, drink

One should bear in mind that in Gitksan not all phonetic spirants develop from systematic phonemic or organic spirants. For example, a stem like [mílux^w] dance (intransitive) displays the following paradigmatic alternations in the subjunctive:

/yúk^wł míluk^wy/ ---> [yúk^wł mílug^wi^ł] I am/was dancing.

/yúk^wł míluk^wn/ ---> [yúk^wł mílug^wn] You are/were dancing.

/yúk^wł míluk^wt/ ---> [yúk^wł mílux^wt^h] He is/was dancing.

/yúk^w± míluk^wm/ ---> [yúk^w± mílug^wm/ We are/were dancing.
 /yúk^w± míluk^wsm/ ---> [yúk^w± mílux^wsm] You are/were dancing. (plu)
 /yúk^w± míluk^wtit/ ---> [yúk^w± mílux^wdit^h] They are/were dancing.

The front velar spirantizing rule of Gitksan does not operate if the systematic k or k^w follows a stressed vowel. Thus:

/hak^wták^w/ ---> [hax^wdák^{wh}] bow
 /yúk^w± k^wták^wy/ ---> [yúk^w± x^wdág^wi¹] I am/was shooting/ firing
 /yúk^w± k^wták^wn/ ---> [yúk^w± x^wdág^wn] a weapon. (intransitive)
 /yúk^w± k^wták^wt/ ---> [yúk^w± x^wdák^wt^h]
 /yúk^w± k^wták^wm/ ---> [yúk^w± x^wdág^wm]
 /yúk^w± k^wták^wsm/ ---> [yúk^w± x^wdák^wsm]
 /yúk^w± k^wták^wtit/ ---> [yúk^w± x^wdák^wdit^h]

Phonetic [y] and [w] develop regularly from organic or systematic x and x^w, respectively, in intervocalic position. Thus, /wáax/ paddle has the following paradigm:

/wáaxy/ ---> [wáayi¹] my paddle
 /wáaxn/ ---> [wáayn] your paddle
 /wáaxt/ ---> [wáaxt^h] his paddle
 /wáaxm/ ---> [wáaym] our paddle
 /wáaxsm/ ---> [wáaxsm] your paddle (plu)
 /wáaxtit/ ---> [wáaxdit^h] their paddle

This alternation requires such a rule as:

$$\begin{bmatrix} -\text{son} \\ -\text{dif} \end{bmatrix} \text{ ---> } \begin{bmatrix} +\text{son} \\ +\text{dif} \end{bmatrix} / \begin{bmatrix} -\text{cns} \\ +\text{son} \end{bmatrix} \left[\begin{bmatrix} +\text{cns} \\ -\text{grv} \\ -\text{flt} \\ +\text{cnt} \end{bmatrix} \right] \begin{bmatrix} -\text{cns} \\ +\text{son} \end{bmatrix}$$

Note that the intervocalic environment which triggers this sonorantizing rule results from the insertion of the epenthetic vowels which I have not yet discussed.

/íx^w/ fish with line (intransitive) has the following paradigm:

/yúk^w± íx^wy/ ---> [yúk^w± ʔíwi¹] I am/was fishing with line.
 /yúk^w± íx^wn/ ---> [yúk^w± ʔíwn]
 /yúk^w± íx^wt/ ---> [yúk^w± ʔíxt^h]

$/y\acute{u}k^w \pm \acute{f}x^w m/ \rightarrow [y\acute{u}k^w \pm \acute{f}w m]$
 $/y\acute{u}k^w \pm \acute{f}x^w sm/ \rightarrow [y\acute{u}k^w \pm \acute{f}x^w sm]$
 $/y\acute{u}k^w \pm \acute{f}x^w tit/ \rightarrow [y\acute{u}k^w \pm \acute{f}x^w dit^h]$

This alternation requires such a rule as:

$$\begin{bmatrix} -son \\ -dif \\ -grv \end{bmatrix} \rightarrow \begin{bmatrix} +son \\ +dif \\ +grv \end{bmatrix} / \begin{bmatrix} -cns \\ +son \end{bmatrix} \begin{bmatrix} +cns \\ +flt \\ +cnt \end{bmatrix} \begin{bmatrix} -cns \\ +son \end{bmatrix}$$

I would like to collapse the last two rules into a single rule, thus capturing the sonorantization of systematic x and x^w as a singulary process. However, the variable gravity of $[x^w]$ and $[w]$, but not $[x]$ and $[y]$, seems to preclude the use of an alpha-rule.

The systematic phonemic representation of the phonetic glide $[h]$ in Nass-Gitksan is fairly complex. In a number of forms, an inorganic h-offglide develops following the short vowels in final stressed open syllables. I suspect that this rule operates throughout the lexicon, but it may be restricted to forms so marked in the lexicon. Several Southern Athabaskan languages (e.g., Navaho and Chiricahua Apache) have an identical phonological rule; I am not familiar with the phonologies of any Athabaskan languages contiguous with Nass-Gitksan. However, some of my examples are loans from Athabaskan. Examples are:

$/taw\acute{f}/ \rightarrow [daw\acute{f}^h]$ mt. sheep (Athabaskan)
 $/tip\acute{a}/ \rightarrow [dib\acute{a}^h]$ mt. sheep (Athabaskan)
 $/s\acute{a}/ \rightarrow [s\acute{a}^h]$ day (Athabaskan?)
 $/sk\acute{a}/ \rightarrow [sg\acute{a}^h]$ herring
 $/mac\acute{ly}\acute{a}/ \rightarrow [maj\acute{ly}\acute{a}^h]$ nighthawk
 $/ma\acute{l}\acute{u}/ \rightarrow [mal\acute{u}^h]$ crazy

The segmentalizing rule for the inorganic h is:

$$\begin{bmatrix} -cns \\ +son \\ -lng \\ +stress \end{bmatrix} \rightarrow \begin{bmatrix} -cns \\ +son \\ -lng \\ +stress \end{bmatrix} \begin{bmatrix} -cns \\ -son \\ +cnt \end{bmatrix} / \text{---} \#$$

Phonetic intervocalic h-glides, which are often voiced $[h]$, are regular developments from systematic phonemic x . Thus, $/has\acute{e}ex/$ shaman's rattle has the following paradigm:

/haséex̣ỵ/ ---> [haséheʔⁱ] my rattle
 /haséex̣ṃ/ ---> [haséhen] your rattle
 /haséexṭ/ ---> [haséexṭ^h] his rattle

The gliding rule for systematic x is:

[+cns] ---> [-cns] / $\begin{bmatrix} -cns \\ +son \end{bmatrix} \begin{bmatrix} -son \\ -dif \\ +grv \\ +ent \end{bmatrix} \begin{bmatrix} -cns \\ +son \end{bmatrix}$

Note that I have not yet accounted for the epenthetic vowels in the first and second person forms. However, they clearly must be inserted before the x-gliding rule operates. Similarly, the epenthetics must also be inserted before the x and x^w-sonorantizing rules operate.

Nass-Gitksan does have a systematic phonemic h, which actualizes as [h] in initial position, aspirates an immediately preceeding plain stop before a vowel, and zeroes elsewhere:

/hanáq̣/ ---> [hanáʔq̣^h] woman
 /hahanáq̣/ ---> [haanáʔq̣^h] women
 /kipháayk^w/ ---> [gip^háykw^{wh}] flew (sng. Indicative)

Across word boundaries, at normal speech tempo, initial systematic h zeroes:

/lax há/ ---> [laxá] in the air, sky (note here that the word boundary prevents the x-gliding rule from operating and thus a phonetic intervocalic x develops.)
 /mis háax/ ---> [misááx] daylight
 /qan háta/ ---> [ganáda] Frog-Raven Phratry

The plain sonorants m n l w y require no special^{note}, save that l never velarizes or darkens and n never velarizes. The glottalized sonorants have glottal release preceeding the release of the oral closure or vocalic constriction. Systematic ỵ and ẉ when following a vowel and preceeding a consonant actualize as two phonetic segments: a glottal stop followed by a very short non-syllabic i or u, which assimilates in voicing to the following segment, devoicing if final.

/háʷsm/ ---> [háʷ^usm] Go home! (plu)
 /yúk^w háwtit/ ---> [yúk^w háʷ^udit^h] They are/were going home.
 /qanáaw/ ---> [qanáaʷ^u] frog, toad
 /máay/ ---> [máaʷ¹] fruit, berries

Across word boundaries, when an initial glottalized sonorant follows a final glottalized sonorant, the latter deglottalizes:

/káʷVý nín/ ---> [gáʷaynín] I saw you.

The glottalized stops and glottalized sonorants alike have deglottalized allophones in initial (wholly or partially) reduplicated bases:

/cák/ ---> [cáʷk^h] dish
 /cícák/ ---> [ʃícáʷk^h] dishes
 /qáp/ ---> [qáp^h] part
 /qapqápk^w/ ---> [qapqápx^w] kinsmen, relatives
 /cócóltk^w/ ---> [jóóltx^w] wrinkle
 /cílícóltk^w/ ---> [ʃíljóóltx^w] wrinkles
 /máxs/ ---> [máxs] pants
 /máamaxs/ ---> [máamaxs] pairs of pants

At this time, I find it necessary to recognize eight Nass-Gitksan systematic vowel phonemes. Deeper Nass-Gitksan work or further work in Coast Tsimshian may require the postulation of a different inventory. There are five organic long vowels: ii ee aa oo uu, and three short vowels: i a u. There are also short phonetic epenthetic vowels, but they are predictable and thus non-phonemic. Examples of the systematic vowels are:

/íis/ ---> [ʔíis] necklace
 /éeq/ ---> [ʔéeq^h] coho salmon
 /áaq/ ---> [ʔáaq^h] mouth
 /móos/ ---> [móos] thumb, big toe
 /múus/ ---> [múus] scabby scarred neck
 /ís/ ---> [ʔíss] urine, soapberry
 /áx/ ---> [ʔáxx] an edible root species
 /ús/ ---> [ʔúss] dog

The systematic long vowels phonetically approximate [i· ε· a·~a· ɔ·~o· u·].

In Gitksan, the systematic long vowels regularly shorten or reduce before systematic plain sonorants:

/táan/ ---> [tán] Sit! (sng)

/táayks/ ---> [dáyks] concoction of snow and grease

/séeykit/ ---> [séygit^h] murder

The reduction rule for long vowels is:

[+lng] ---> [-lng] / $\begin{bmatrix} -\text{ens} \\ +\text{son} \end{bmatrix} \begin{bmatrix} +\text{ens} \\ +\text{son} \\ -\text{chk} \end{bmatrix}$

This vowel reduction rule must be ordered to apply before the x and x^w sonorantizing rules operate, else their outputs will be incorrectly operated upon.

Phonetic long vowels before systematic plain sonorants do develop by the zeroing of intervocalic systematic h. Such a form as Gitksan [míin] foot, base, bottom is represented systematically as /míhin/. In the Kisgegas dialect, I recorded [míin] and [míhin] as free variants.

In both Nass and Gitksan, the systematic long vowels reduce before systematic x when it is followed by an epenthetic vowel:

/péex/ ---> [béex] lungs

/péexy/ ---> [béhe^ɪ] my lungs

/péexn/ ---> [béhen] your lungs

/péext/ ---> [béext^h] his lungs

The systematic short vowels exhibit much phonetic variation; some free, some conditioned. Systematic i has variants in [i ɪ e ɛ]; systematic a has variants in [ε a ɑ ʌ]; and systematic u has variants in [u ʊ o ɔ]. Thus, systematic /kát/ man, person freely varies as [gát^h ʃ gát^h]. The reduced systematic long vowels never exhibit such quality variation.

The epenthetic vowels in Nass-Gitksan are introduced to break impermissible clusters of sonorants and obstruents within word boundaries. I am not yet certain as to the proper statement of restrictions on clusters, so I will only give examples of epenthesis. Following systematic q̄ and q, the epenthetic vowel is [a], unless the preceding vowel is one of the u-series. In that

case, the epenthetic vowel is [o].

/hanaqst/ ---> [hanaʔ^ast^h] the woman (present and visible)

/cm áaqʔ/ ---> [cmʔáagaʔⁱ] in my mouth

/cm áaqn/ ---> [cmʔáagan] in your mouth

/céeqʔ/ ---> [céegaʔⁱ] I licked it.

/céeqn/ ---> [céegan] You licked it.

/yúk^w ʔ wúqʔ/ ---> [yúk^w ʔ wógoʔⁱ] I was sleeping.

/yúk^w ʔ wúqn/ ---> [yúk^w ʔ wógon] You were sleeping.

Following systematic x, the epenthetic vowels appear to assimilate in quality to the preceding vowel:

/yúk^w ʔ páxʔ/ ---> [yúk^w ʔ báhaʔⁱ] I am/was running.

/yúk^w ʔ páxn/ ---> [yúk^w ʔ báhan] You are/were running.

/péexʔ/ ---> [béheʔⁱ] my lungs

/péexn/ ---> [béhen] your lungs

/núxʔ/ ---> [nóhoʔⁱ] my mother

/núxn/ ---> [nóhon] your mother

Following all other obstruents, the epenthetic vowel is [i]:

/kúpyʔ smáx/ ---> [gúbíʔⁱ smáx] I ate some meat.

/kúpnʔ smáx/ ---> [gúbni smáx] You ate some meat.

/kúptʔ smáx/ ---> [gúbiti smáx] He ate some meat.

/yúk^w ʔ n kúpʔ smáx/ ---> [yúk^w ʔ nigúpʔ smáx] or

[yúk^w ʔ nigúbíʔ smáx] I'm eating some meat.

Stem-final systematic k palatalizes and systematic x sonorantizes when followed by a nasal:

/wákn/ ---> [wágn] your parallel sibling

/páaskm/ ---> [báasgm] or [báasxm] frightened

/wáaxn/ ---> [wáayn] your paddle

/wáaxm/ ---> [wáaym] our paddle

It would seem best in these cases to insert an epenthetic i following the systematic k or x, so that they might palatalize or sonorantize by regular rule, then zero the epenthetic by later rule.

An alternative to the postulation of the epenthetic vowels would be to enter them in the base-forms in the lexicon. They

would later be zeroed by phonological rule in specified environments. The epenthetic solution seems preferable to me for these reasons: the quality of the phonetic vowels in question is completely predictable and if one introduces them by a rule of epenthesis, there is a considerable saving of features over entering them in base-forms in the lexicon.

I have found it necessary thus far to postulate only one junctural element- the word boundary. I found that my informants could readily and consistently isolate and identify word boundaries, marking them by pauses in slow deliberate speech. At normal speech tempo, word boundaries receive no phonetic representation, though they do affect contiguous segments in certain cases. I have already mentioned the deglottalization of glottalized sonorants across word boundaries. Similarly, two identical plain sonorants or obstruents separated by a word boundary actualize as a single segment with no pause at normal speech tempo. In a form like /wii xáʔV/ ---> [wiixáʔ^a] Big Slave (a man's name), the presence of the word boundary is indicated by the phonetic intervocalic x, which would glide to [h] in its absence.

Nass-Gitksan is actually a very analytic language. Affixes are few in number; they are mostly suffixes. For the naive listener, an illusion of synthesis results from the stress pattern in Nass-Gitksan. Only heads of phrases and the second members of compounds receive primary stress. All other adverbial and adnominal elements are proclitic and unstressed.

/tm qali yée níy quw¹ an spa yáx^w/ --->

[dmqaliyéeníʔ¹goʔ⁰1ʔanspa^hyáx^w]

future-upstream-go I to-relative-place of-hiding

I'll go upstream to Kispiox (literally- "the place of hiding").

* * * * *

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Tsimshian Comparative Vocabularies
with Notes
on Nass-Gitksan Systematic Phonology

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Third of three parts

Note:

These comparative vocabularies present forms from Coast Tsimshian, Nass, and Gitksan for almost 300 English glosses. My choice of forms was guided by the Swadesh 200-word list and the forms cited by Boas in his 1911 remarks on Tsimshian comparative phonology (pp. 290-94), though I omitted numerals (which I will supply on request). The forms are given in this order: Coast Tsimshian (informant from Kitkatla); Nass (informant from Aiyansh); and Gitksan (informants from Kispiox). The Coast Tsimshian forms are in a regularized phonetic transcription with some free variation indicated. The Nass and Gitksan forms are given first in systematic phonemic representation, then in systematic phonetic representation (with no free variation indicated). If the phonetic representation does not differ significantly from the phonemic, then only the latter is given. Long segments in Coast Tsimshian are indicated by the following raised dot; long segments in Nass-Gitksan are indicated by identical symbol-clusters. See also Sapir 1915:29-30 for an accurate summary of Nass phonetics.

be afraid: ...; x p^ácáx^w > xp^ácáx^w; x p^éáx^w > xp^éáx^w

alder tree: lúwi; ...; lúux

be alive, live: dídú·ls; titíls > didíls; titíls > didíls

all: g^wílga; ...; k^wáalqa > g^wáalga (Note the long vowel doesn't shorten)

be angry: lú·nti; ...; álx > ?ála^x/?ála^x-

animal: ...; ...; cák^wask^w > jág^wasx^w (see kill) and yácisk^w > yájisx^w

ankle: xca[?]así·; kákú^l > kákó^l; kákú^l > kákó^l

arm: nasto ?an[?]ón; tm qáax > tmqáax; tm qáax > tmqáax

arrow: hawá·l; ...; ha wíl > hawíl

ashes: gó·m; k^wóom > g^wóom; k^wóom > gúm

back (bodypart): hakó; hakihú^w > hakó[?]; hakihú^w > hakó[?]

be bad: ha[?]áxk^h; ha[?]áqk^w > ha[?]áxk^{wh}; ha[?]áqk^w > ha[?]áqx^w

bark (of tree): má·š; máas; máas

basket (a larger berry-basket): dú·lk^h; tílk^w > dílk^{wh}; tílk^w > dílk^w

be on (be positioned on): skú· sg, dó· plu; skí > sgí, túx > dóx; skí > sgí, túx > dóx

beaver: sčól; cimílix; cimílix

belly: bán; pán > bán; pán > bán

berry, fruit: má·y; máay > máa[?]ⁱ; máay > máa[?]ⁱ

be big, large: wi·lé·ks; wii tís > wiitíss; wii tís > wiitíss

bird: cúw^c~cú[?]u^h; cúuc > cúuc; cúuc > cúu[?]e^h

bite: bá[?]q-~bá[?]x; háč-; háč-

black, iron, knife: tú·wč^h~tú·[?]u^hč^h; túuck^w > túu[?]ck^{wh}; túuck^w > túu[?]cx^w

blanket: wáš~wéš; k^wlá > g^wlá^h; k^wlá > g^wlá^h

black bear: ?ól·; smáx; smáx

be blind: šú·nš; ...; síns

blood: ʔilé·; iléeʔV > ʔiléeʔ^e; iléeʔV > ʔiléeʔ^e

blow: swáns- or g^Wántg-; swán or k^Wántk^W > g^Wántk^{wh}; swán

bone: šáyp^h; ʔíp > ʔíp^h; síp > síp^h

bow (weapon): hak^Wdák^h; ...; ha k^Wták^W > hax^Wdák^{wh}

breasts: míʔis; móoʔiks > móoʔiks; móotiks > móotixs

breathe: ...; ...; ksi náaak^W > xsináaax^W

burn (intrans): g^Wálk^h; míl > míl; míl > míl

button: nupála; ...; mála

canoe: xšó; máal > máal; máal > mál

caribou: ...; wicíx > wiǰíx; wicíx > wiǰíx or ncíł > nǰíł

catch fish (trans): mák^h-; múk^W-; múk^W-

chest, sternum: gáyk^h; qílq > qílq^h; qílq > qíl

chief: šmʔʔ·git sg, šmgigát plu; sm óokit > smʔóogit^h, sm kikát
smgigát^h; sm óokit > smʔóogit^h, sm kikát > smgigát^h

child: ɬkuwó·mák^h sg, kʌbatkú·ɬk^h plu; ɬku tkíłk^W > ɬgutkíłk^{wh},
...; ɬku tkíłk^W > ɬgutkíłx^W, kupa tkíłk^W > kubatkíłx^W

chin, jaw: k^hpá·w; ...; kpáw > xbaʔ^u

be clean: sák^hsk^h; sáksk^W > sáksk^{wh}; sáksk^W > sáksx^W

cloud, fog: yé·n; yéen > yéen; yéen > yéen (Note this vowel doesn't shorten)

coho salmon: ʔé·x; éeq > ʔéeq^h; éeq > ʔéeq^h

be cold: g^Wát^hk^h ~ g^Wát^hk^h; k^Wnéeqk^W > g^Wnéexk^{wh}; k^Wnéeqk^W >
g^Wnéeqx^W

come, arrive: béčg- sg and plu; áatíksk^W > ʔáatíksk^{wh}, aatáatíksk^W
> ʔatáatíksk^{wh}; áatíksk^W > ʔáatíxsx^W, aatáatíksk^W > ʔatáatíxsx^W

cook (trans): ...; si ánk^Ws- > saʔánk^Ws; si ánk^Ws- > saʔánk^Ws- or
ánk^Wsn- > ʔánk^Wsn-

cook by boiling, boil (trans): jém-; cá-m- > jám-; cá-m- > jám-

be correct: hógəx; húkəx > hógəx; húkəx > hógəx

cottonwood tree (see canoe): ʔampá·l; am máal > ʔammáal;

am máal > ʔammál

count: ...; ...; lícxk^w > lícxx^w

be crooked, bent: lək^y ~ lək ~ lək; lək > lək^h; lək > lək^h

cut: qóc-; qúc-; qúc-

be dark: sxét^h·k^h; sqéexk^w > sqéexk^{wh}; sqéexk^w > sqéexx^w

day: šé^h; sá > sá^h; sá > sá^h

dead: jék^h; núwm > nú^um; núwm > nú^um

deer: wán; wán; wán

die: jég- sg, dé· plu; núw > nú^u, táx^w > dák^w; núw > nú^u,
táx^w > dák^w

dig (intrans): tgi·wóʔa-; waqísk^w > waqísk^{wh}; waqísk^w > waqísx^w

dirt, earth: čá:čáks ~ čáʔa³čáks; čáčiks > čáčiks; čátiks > čátixs

dish: gáyž; čak > čak and wúws > wóʔ^s; čak > čáʔk^h and wúws >
wóʔ^s

do (intrans): wá·l; wíl; wíl

dog: háš; ús > ʔóss; ús > ʔúss

dog salmon: gayní·s; qa ít > qaʔít^h; qaníis > ganíis

woman's dress: náʔ^a; náq > náq; náq > náʔq^h

drink, water, river: ʔákš; áks > ʔákss; áks > ʔákss

be dry: gú·nk^hs; k^wálk^w > g^wálk^{wh}; k^wálk^w > g^wálk^{wh}

be dull: qó·lx; x ltéeq > xldéeq^h; x ltéeq > xldéeq^h

dust: ...; mítk^w > mítk^{wh}; mítk^w > mítx^w

eagle: xsǵí·k^h; xs káak > xsǵáak^h; xs káak > xsǵáak^h

ear: čm·ú· (mí· earring); múx^w; múx^w

earth, ground, land: yú·p^h; yíp > yíp^h; yíp > yíp^h

eat (intrans): yá·wxg- sg, txó·xg^{plur}; yóoqk^w > yóoxk^{wh}, txóoqk^w
> txóoxk^{wh}; yúqk^w > yóqx^w, txúqk^w > txóqx^w

eat (trans): gáb-; kíp-; kúp-

egg (of bird): ɬgm·ét^h ~ ɬg^əmét^h; ɬkim há > ɬgimá; ɬkim há >
ɬgimá

elbow: sxáns; sqáns > sgáns; sqáns > sgáns

end, tip: ʔuwá·n; ...; ʔuwín > ʔuwín

eye, face: ʔál; ʔál > ʔál; ʔáʔv > ʔáʔ^a

fall down: gáyna sg, lí·na plu; qínx > gínx, línx,
qínx > gínx, línx

fart: ...; másk^w > másk^{wh}; másk^w > másx^w

fast, quick: tí·lt^h; ...; táʔVlt > táʔalt^h

fat (noun): yéy; híx; híx

fear (trans): bá·ś-; ...; páask- > báask-/báasx-

feast: lú·lgít; ...; lílíkit > lílígit^h

few, not many: ʔAbú·; ...; ɬipúu > ɬibúu

fight: ...; ...; táł > dál

fire, fuel, firewood: lák^h; lák^w > lák^{wh}; lák^w > lák^{wh}

fish (lake), trout: lá·w; ...; láax^w > láax^w

fish (river), salmon: hq·n; hoon > hoon; hoon > hón

fish eggs, spawn: lá·n; lán; lán

fish with line (intrans): ʔú-; yúx^w > yúx^w; íx^w > ʔíx^w

fish with net (intrans): ʔá·t^h net (noun); áat > ʔáat^h; áat
> ʔáat^h

flesh, meat: šámi; smáx; smáx (see black bear in Nass and Gitksan)
body

float (intrans): ...; ...; kihóoks > góoks sg, lihóoks > lóoks

flower: mǎjagalé·; macaqalée > mǎjagalée; macaqalée > mǎjagalée

fly (intrans): gip^há·yg- sg, lip^há·yg- plu; kipáayk^w > gibaayk^{wh},
lipáayk^w > libáayk^{wh}; kipháayk^w > gip^háy^{wh}, lipháayk^w >
lip^háy^{wh}

foot, leg: ʔaśí·; asáy' > ʔasáʔⁱ; sáʔV > sáʔ^a

forehead: wó·px~wó·px; ...; húp_x > hóp_x

fox: nagaččé·; nuqaacá > nogaacá; takalúc > taʔgalúc^h~takalúc^h

freeze (intrans), ice: dá·w; táaw > dáaw; táaw > dǎw

frog, toad: ganáw; qanáaw' > ganáaʔ^u; qanáaw' > ganáaʔ^u

be full: hóltk^h; mítk^w > mítk^{wh}; mítk^w > mítx^w

fur, body hair, feather: lí·; lǎx; lǎx

fur seal: qó·n; qóon > qóon; ...

give: kílám~kílám-; kinám- > gínám-; kinám- > gínám-

go into, enter: cín- sg, lámjag- plu; cín, lámcax > lámjax;
cín, címaxs > címaxs

go out: kśú- sg, kśó·g- plu; ksáx^w, ksi lúw' > ksilóʔ^o; ksáx^w, >
xsáx^w, kséeq > xséeq^h

be good: ʔá·m; áam > ʔáam; áam > ʔám

grass: kyó·x; hápisk^w > hápisk^{wh}; hápask^w > hábasx^w

grease: qáwčí; tílix; tílix

be green: mǎlí·t^hk^h; mǎlát^w > mǎlát^{wh}; mǎlát^w > mǎlát^x

grizzly bear: mǎdí·k^h; likínsk^w > likínsk^{wh}; likínsk^w > likínsx^w

grow (intrans): páš-; ...; más

guts, intestines: há·t^h; háat > háat^h; háat > háat^h

hail: ...; ...; caxcǎx > ǎxǎcǎx

hair: gǎws; qís > gíss; qís > gíss

hair seal: ʔú·la; ílx > ʔílx; ílx > ʔílx

halibut: txáw; txúx > txóx; txúx > txóx

hand: ʔanʔón; an ún > ʔanʔón; an ún > ʔanʔón

head (see hair): tm gáwš; tm qís > tmǵíss; tm qís > tmǵíss

hear: naxnú·-; naxná-; naxní- or laxní-

heart: gó·t^h; qóot > góot^h; qóot > góot^h

be heavy: pálgek^hsk^h ~ pálgek^hsk^h; málkaksk^w > málgaksk^{wh};

stín > sdín

hold (in hand): daxyá·k^w-; tix yúk^w- > díxyúk^{wh}-; tax yúk^w-
> daxyúk^w-

be hot: gémk^h; kámk > gámk^h; kámk > gámk^h

house: wá·lp^h ~ wá·p^h; wíl̥p > wíl̥p^h; wíl̥p > wíl̥p^h

humpback salmon: stmhó·n; stím hoon > sdímóon; stím hoon >
sdímón

hunt (intrans): ...; ...; silínask^w > silínasx^w

kidney: l̥bečáw; taká'ée > taká'ée;

ki'ée > gi'ée or tapée > tabée

kill: ...; ...; cák^w-

knee: qalqáyštk; qísaʔV > qísaʔ^a; qísi

know (trans): wilá·y-; wiláax-; wiláax-

lake: tá·; táx > táxx; táx > táxx

land otter: wáč^ha; wácx; wácx

laugh: ...; ...; cálx

leaf: yénš; yáns; yáns

leave (intrans): dá·wł^{sg}-; táawł > dáaʔ^oł sg; táawł > dáaʔ^oł sg

lie, tell a lie: ...; ...; yál

lie down (intrans, takes animate subject): nó·k^h- sg, lá·lg-

plu; kéel > géel; láal; kíl > gíl, láal

light (noun): góypa; quypax > góypax; quypax > góypax

lightning: čamt^hi ~ čamt^hi; ...; húmax > hómáx

be lightweight: ʔé·p^hn; áapxn > ʔáapxn; áapxn > ʔáapxn

liver: dép^h; táp > dáp^h; táp > dáp^h

lizard: k^hśí·lk^h; ksílk^w > ksílk^{wh}; ksílk^w > xsílx^w

be long: wi·ná^hk; wii ná^w > wiinák^{wh}; wii ná^w > wiinák^{wh}

louse: čésk^{wh}; čísk^w > čísk^{wh}; tá

lungs: bé·; péex > béex; péex > béex ^{sg}

man (person sg): yú·t^ha sg; kát > gát^h, íwxt > ʔíʔxt^h; kát > gát^h, íwxt > ʔíʔxt^h ^{plu}

marten: yéni; hát > hát; hát > háʔ^h

melt (intrans): jłjł·lkš-; cílks > jílks; cílks > jílks

mink: lłšʔyá·n; lis yéen > lisyéen; nis yéen > nisʔín

moon: gémgm ʔá·t^hk^h; lúqsm áqk^w > lóqsm ʔáxk^{wh}; lúqsm áqk^w > lóxsm ʔáqx^w

moose: ...; xatáa > xadáa; xatáa > xadáa or kéesa > géesa,

ciya moose calf (from Athabaskan?)

mountain: sxańí·s; sqańíst > sqańíst^h; sqańíst > sqańíst^h

mt. goat: mát^hi; mátx; mátx

mt. lion: hawháw; hawháw > hawáw; hawháw > hawáw or túusm

kilílix > dúusm gilílix (cat of the woods)

mt. sheep: ...; an cáwaxs > ʔancáwaxs ram (one who wears shoes); tipá > dibá^h or tawí > dawí^h

mouse: wí·cí·n; tipóokit > dibóogit^h; tipóokit > dibóogit^h

mouth: čmʔá·x; čm áaq > čmʔáaq^h; čm áaq > čmʔáaq^h

much, many: héd-; hált > hált^h; hált > hált^h

mud: ...; 'lók > 'lók; 'lók > 'lók^h

muskrat: naqéde; naqáta > naqáda; naqáta > naqáda

nails, claws: lāxs; lāqs > lāqs; lāqs > lāxs

name: wá·~wá^h; wá > wá^h; wá > wá^h

be narrow, thin (in diameter): gówsk^h; qísk^w > gísk^{wh}; qísk^w
(see hair)
> gísx^w

navel: tí'ík^h; túk^w > túk^w; tík^w > tík^{wh}

neck: tm lá·ni; tm lánx > tmlánx; tm lánx > tmlánx

negative: 'álga-~'ák^ha-; ...; née

be new: šú·; síi; síi

night: húpil; áqk^w > 'áxk^{wh}; áqk^w > 'áqx^w

nose: 'cax; 'cax; 'cax

ocean (beyond sight of land): lax šú·lda; lax síilta > laxsíilda;

lax síilta > laxsíilda (probably a loan from Nass; note the vowel doesn't reduce by rule)

other, strange: l^hks; ...; liks > lixs (unstressed adverbial/
adnominal clitic)

paddle: wá·y; wáax; wáax

pants: pāxš; máqs > máqs; máqs > máxs

path, road: gáyna; qínx > gínx; qínx > gínx

penis: ...; qóo (may have misheard length); 'qú > 'qó

pierce (trans): gélg-; káik^w-; káik^w-

play (intrans): ...; ...; ma ús > ma'úss sg, ma usús > maas'úss

plu (literally: act like a dog)

porcupine: 'áwt^ha~'áwt^ha; áx^wt > 'áx^wt^h; áx^wt > 'áx^wt^h

porpoise: jíw; cíx^w > jík^w; ...

prince, princess: lguwá·lkšilk^h sg; lku wílksilk^w > lguwílksilk^{wh};
lku wílksilk^w > lguwílksilk^w

pull (trans): kššáyk-; sák-; támqn- > dāmgan-

push, hit, strike: tú.š-; tís-; tís-

rabbit: štuk^Wlí.n; qáx > gáxx; qáx > gáxx

rain: wá.š; hay wís > haywíss; wís > wíss

rat: gá.kl^hkl; qák^h > gák^h; qák^h > gák^h

be red (see blood): ...; ilée^oVtk^W > ^oilée^otk^{wh}; ilée^oVtk^W > ^oilée^otx^W

be red (ochre color): méšk^h; másk^W > másk^{wh}; másk^W > másx^W

return (intrans): wá.tg- sg, gó plu; wít^W > wít^{wh}, pák^W > come from bák^{wh}; wít^W > wít^Wx, pák^W > bák^{wh}

root: hú.š; wíst > wíst^h; wíst > wíst^h

rope: hag^Wl^hhú.; ha k^Wlúx^W > hag^Wlúx^W; ha k^Wlúx^W > hag^Wlúx^W

be rotten: lóx; lúq > lóq^h; lúq > lóq^h

be rough: gašgá.č^hkl; séeq^l > séegal; séeq^l > séegal

rub: w^llí.l-; lí pá^l- > líbá^l-; lí pá^l- > líbá^l-

run (intrans): bá^oa- sg, qól- plu; páx > bák, qúl > gól;
pák > bák, qúl > gól

run away, flee (intrans): ...; kéeq^W > kéex^{wh} sg, húut > húut^h; kéeq^W > kéeq^Wx, húut > húut^h

salt: món; múwn > mó^on; múwn > mó^on

sand: ^oáws; áws > ^oáwss; áws > ^oáwss

scratch: ...; ...; qáap-

sea-lion: tí.bn; típn > tíbn, ...

sea otter: pló.n: plúwn > pló^on; plúwn > pló^on

see (trans): ní.j-; ká^oV- > gá^oa-; ká^oV- > gá^oa-

seed: n^hwána; an wána^oV > ^oanwána^o; an wána^oV > ^oanwána^o

sew: lú^opšš-; lípas- > lípas-; lípas- > líbas-

be sharp: šáx; sáq > sáq^h; sáq > sáq^h

be short: délp^hk^h; tílpk^w > dílpk^{wh}; túlpk^w > dúlpk^w

sing: lí·mi-; lím^x; lím^x

sit (be in sitting position): tá- sg, wán plū; táa, wán;
táa, wán

skin, hide: ?aná·s; anáas > ?anáas; tqa

sky: lax há; lax há > laxá; lax há > laxá

sleep: xstóg-; wúq > wóq^h; wúq > wóq^h

be slow (see snake): lá·ltk^h; láltk^w > láltk^{wh}; láltk^w > láltx^w

be small: cú·sk^h; cúusk > cúusk^h; cúusk > cúusx

smell, stink (intrans): ...; ísk^w > ?ísk^{wh}; ísk^w > ísx^w

smell (trans): hú·m-; yím-; yím- or hanéeq-

smoke: piyán; mi yéen > miyéen; mi yéen > mi?ín

be smooth: yáik^h; yáik^w > yáik^{wh}; yáik^w > yáix^w

snake, worm: mítxalá·lt snake, lá·lt^h worm; lált > lált^h;
lált > lált^h

snot: ...; núc' > núc'; núc' > núc^h

snow: mó·k^hš snow on ground, má·dm falling snow; máak^ws > máak^ws,
maatm > maadm; máak^ws > máax^ws, maatm > maadm

sockeye salmon: mís·ó; misúw > misó^o; misúw > misó^o

sockeye salmon (red variety): ...; kíł' > gíł'; kíł' > gíłgíł'

be sour: mó·lkšax; míłksax or méex; míłksax or méex

spit (intrans): p^hókš^h; púksk^w > búksk^{wh}; x púksk^w > xbúksx^w

split (intrans): ...; ...; sáqt > sáqt^h

spring salmon: yé; han k^wóoy^m > hang^wóoy^m spring salmon in river,
> ya^a
yá^av spring salmon on ocean; yá^av > yá^a

squeeze: dámkš-; támi^ks > dámik^s; támi^ks > dámix^s

squirrel: déšx; 'cn lík > 'cnlík; 'cn lík > 'cnlíʔk^h (lík is a loan from Athabaskan)

stand (be in upright position) (intrans): há·yṭg- sg, máxšg-
plu; hítk^w > hítk^{wh}, máqsk^w > máqsk^{wh}; hítk^w > hítx^w,
lítk^w > lítx^w

star: býálš; pílíst > bílíst^h; píł úst > bíłúst^h

steelhead trout: mál·í·t; mílít > mílít^h; mílít > mílít^h

stone, rock: lóp^h; lúwp > lóʔ^op^h; lúwp > lóʔ^op^h

be straight: ʔáčtk^h; ...; pálx > bálx

suck: tó·x- ~ tó·g-; tooq-; mooq-

sun: gémk^h; lúqs > lóqs; lúqs > lóxs

swell up: gí·tg-; ...; kít^w > gít^w

swim: hádikš- sg, lahé·diks- plu; hátiks > hádiks, hathátiks
> hat^hádiks; hátiks > hádixs, hathátiks > hat^hádixs

tail (of animal): cú·p^h; kúuk^w > kúuk^w; kúuk^w > kúuʔk^{wh}

tail (of fish): náčtkš; lácx; lácx

tell (trans): háw-; hí-; há-

throw: ʔóy- ~ ʔóy-; úx- > ʔóx-/ʔóy-; haláltñ-

be thick: xčí; xčáy > xčáʔⁱ; xčáy > xčáʔⁱ

be thin: háni; hánx; hánx

thunder: galtplí·p^h; t yáyt^w > t^hyáʔⁱtk^{wh}; t yáyt^w > t^hyáʔⁱtx^w

tie up (trans): txal čí·b-; tqal čípk^w-; tqal čípk^w-

tongue: dú·la; tílx > dílx; tílx > dílx

tooth: wá·n; wéen > wéen; wéen > wín

tree, wood, pole: gán; qán > gán; qán > gán

vomit (intrans): xší·d-; xsít > xsít^h; xsít > xsít^h

walk, go: yáʔa- sg, šʌʔapwá·xš- plu; yée, lúw > lóʔ^o; yée,
wílaxs

wash (trans): yó·kš-; yúwks- > yóʔ^oks-; yúwks- > yóʔ^oxs-

weasel: mikší·ł; miksíl > miksílł; miksíl > miksílł (note this

Gitksan k does not undergo the spirantizing rule)

be wet: ʔákš; núulxk^w > núulxk^{wh} or ákst > ʔákst^h; núulxk^w > núulxx^w or akst > ʔákst^h

whale (not killer-whale): łpú·n; łpín > łbín; ...

what: gó-; akú > ʔagú; akú > ʔagú

when: ...; kaxkú > ɣaxgú; kaxkú > ɣaxgú

where: ndc-; nta > ndá^h; ntá > ndá^h

whiskers: ʔí·mx; yímq > yímq^h; yímq > yímq^h

be white (see snow on ground): mó·k^hš^h; máak^wsk^w > máaksk^{wh}; máak^wsk^w > máaxsx^w

who: ná·-; náa; náa

be wide: wi·txó; wíí óoks > wííʔóoks; wíí óoks > wííʔóoks

wind: báš^h; páʔVsk^w > báʔask^{wh}; páhask^w > báhasx^w/báasx^w

wing (see arm): ɣaqa·y; ʔaax; ʔaax

wipe oneself (intrans): ...; ...; ɣam íntk^w > ɣamʔíntx^w

wolf: ɣí·bá·w; kipúu > ɣíbúu; kipúu > ɣíbúu

wolverine: nó·šik^h; nóosik; naaqíc > naagíc^h

woman: hanáʔ^a sg, haná·n^x plu; hanáq, hahanáq > haanáq;

hanáq > hanáʔq^h, hahanáq > haanáʔq^h

woods, forest: ɣulháwli upriver; ...; kilílix > ɣilílix

be wrong, incorrect; to miss (intrans): ɣí·s; kíis > ɣíis;

kíis > ɣíis

year: kó·ł; kúul; kúul

Tsimshian Personal Pronouns:

The Tsimshian languages both display an ergative pronominal syntax: the subjects of intransitive verbs and the objects of transitive verbs are formally identical, while the subjects of transitive verbs are formally distinct. Following traditional usage, one may then speak of nominative and ergative pronouns, respectively. However, in both Tsimshian languages, mood is an obligatory grammatical category, and the ordering of pronouns in the indicative mood differs from that of the subjunctive. E.g., an indicative ergative is formally identical with a subjunctive nominative. The pronominal schema in Nass-Gitksan are as follows:

Indicative transitive: Verb ÷ Subject # Object

/tísy' nín/ I hit/struck you.

Indicative intransitive: Verb # Subject

/k'w₁ páx nín/ You ran about.

Subjunctive transitive: ... Subject # Verb ÷ Object

/hií yúk' n tís'n/ I am hitting/striking you.

Subjunctive intransitive: ... Verb ÷ Subject

/hií yúk'w₁ k'w₁ páx'n/ You are running about.

In Nass-Gitksan, selection for mood is strongly related to clausal subordination; subordinated clauses are always in the subjunctive.

The Nass-Gitksan subjunctive ergative pronouns are:

n	<u>I</u>	tip,	<u>we</u>
m	<u>you</u> (sg)	m sm	<u>you</u> (pl)
t	<u>he, they</u>		

The Nass-Gitksan indicative ergative and subjunctive nominative pronouns are:

-y	-m
-n	-sm
-t	-tit

The Nass-Gitksan indicative nominative pronouns are:

níy	núm
nín	nism
nít	nítit

The Coast Tsimshian indicative nominatives are:

[nú·yu]	[nú·m]
[nú·n]	[nú·šmʔ]
[ní·t ^h]	[dɪp ní·t ^h]

Both languages also have a set of dative pronouns. An exemplary sentence from Nass-Gitksan is:

/háy lóon tm wil páxy/ I told you that I would run.

The Nass-Gitksan dative pronouns are:

lóoy	lóom
lóon	lóosm
lóot	lóotit

The Coast Tsimshian datives are:

[ʔakó·y]	[ʔakám]
[ʔak ^w án]	[ʔak ^w šmʔ]
[dɪsní·t ^h]	[dɪsdɪpní·t ^h]