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,

[Signature]

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ERRATA

p. 1, line 15- Change nisqáʔa to [nisqáʔa] untranslated stem
line 27- Should read: ...by the lizards which fled
line 31- Change ʔa:miks to ʔamiks

p. 2, line 19- Change kit spa yak's to kit spa yax's. Systematic x and x' become k and k' 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 ancmcám to an cmcám

p. 9, line 13- The rule should read:
\([-\text{cnt}] \rightarrow [+\text{cnt}] / [+\text{cns}] [-\text{cns}] [-\text{son}] [+\text{son}] [-\text{dif}] [+\text{grv}] [-\text{chk}]\]

p. 10, line 25- Should read: Nass which will spirantize q ...

p. 11, line 30- Change [ˈtuʔ cultivated] to [ˈtuʔ cultivated]

p. 12, line 2- A short note- Gitksan /yeen/ 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 [majlyáh] to indicate syllabicity
Tsimshian Comparative Vocabularies
with Notes
on Nass-Gitksan Systematic Phonology

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April, 1967

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?) occupied the Lower Nass valley. Sapir (1915:3) listed and located the four Nass tribes of the past century:

1. kit xá tán people of the fish-trap This tribe inhabited the villages of kin qúlícíx place of scalps, now Kincolith, and lax qal cap on the village, now Greenville.
2. kit kikéeynix people further upstream They occupied the village of lax an áúw' on the mountain-slide.
3. kit win kskík 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 fled the area several days in advance.
4. kit an wílikx people moving regularly from and back to their home village (Sapir's translation) They occupied the old village of kit lax tásniks people on the pond and the newer village of yús 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 ūkū** 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 qāx** people of the place of rabbits ([qāx:] 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 cikihūk'la** [gijigūk'la] people of cikihūk'la (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 Kitseguecla Creek.

4. **kit an máhaks** [git?améks] 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 yák's** [gispa'yák's] people of the hiding-place Their main village, an spa yák', 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 qaltúw** 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 Nassa 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 intertribal marriage, trade, and travel. Among the Gitksan, at least, to know and to be able to speak proper Coast Tsimshian was prestigeful. 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 prestigeful use of a second language by persons of high rank among the Gitksan 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 baseforms, 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: /ləmʊq/ vs. /nəmʊq/ spirit-being

/ˈlɪi tʊxɪ eməmcəm ləx ʃtʊp/ vs. 

/ˈnɪi tʊxɪ eməmcəm ləx ʃtʊp/. 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 Nasq-Gitksan Systematic Phonemes**

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

\[-\text{chk}] \rightarrow [+\text{tns}] / \begin{bmatrix}
+\text{cns} \\
-\text{son} \\
-\text{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:

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

\text{/kùptì/} \rightarrow [gùpì] \textit{Eat it.} (Imperative)

\text{/kùptìt/} \rightarrow [gùpdìñ] \textit{They ate it.} (Indicative)

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

\[-\text{cnt}] \rightarrow [+\text{cnt}] / \begin{bmatrix}
+\text{cns} \\
-\text{son} \\
-\text{dif} \\
+\text{grv} \\
-\text{chk}
\end{bmatrix}

\text{/qanqàn/} \rightarrow [gàngàn] or [yànyàn] \textit{trees}

In Gitksan, at least, there are a very few phonetic voiceless aspirate plain stops, as in:

\text{/kipáyìk\textsuperscript{w}/} \rightarrow [gìpáyìk\textsuperscript{w}] \textit{flew} (Sng. Indicative)

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

\begin{bmatrix}
+\text{cns} \\
-\text{son} \\
-\text{cnt} \\
-\text{chk}
\end{bmatrix} \rightarrow \begin{bmatrix}
+\text{cns} \\
-\text{cnt} \\
-\text{chk}
\end{bmatrix}

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

[tʰyáʔitx\textsuperscript{w}] \textit{thunder}

[tʰnibíwàn] \textit{your MoBr}

[tʰyáks\textsuperscript{*}] \textit{net-float}
These forms actually involve a word boundary and should be systematically represented as:
/t yáytkʷ/
/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 kʷ in certain positions in Gitksan. Most Gitksan dialects spirantize systematic k and kʷ 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 kʷ initially before systematic spirants.

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

/k'it ksán/ ---+ [gitsán] Gitksan, people of the Skeena

/hítkʷ/ ---+ [hitxʷ] be standing, be in upright position

/kámk/ ---+ [xámkʰ] be hot

/kʷálkʷ/ ---+ [gʷálkʷh] be dry

/kʷálkʷa/ ---+ [gʷálgʷa] dry

A special late phonological rule must also be written for Nass which 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 [hata'xk̓ʷ]  
Gitksan [hata'q̓ʷ] be bad  
Nass and Gitksan [hata'g̓am] or [hata'yam] bad  

Systematically, these should be represented in both dialects as:  
/hatáq̓ʷ/ be bad  
/hatáqm/ 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 q̓ 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:  

\[
\begin{align*}
  [+\text{cns}] & \rightarrow [-\text{cns}][+\text{cns}] / \text{in specified environments} \\
  -\text{son} & \rightarrow [-\text{son}][-\text{son}] \\
  -\text{cnt} & \rightarrow [-\text{cnt}][-\text{cnt}] \\
  [+\text{chk}] & \rightarrow [-\text{chk}] 
\end{align*}
\]

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:  

\[
\begin{align*}
  /\text{haná}q/ & \rightarrow [\text{haná}q^h] \text{ woman} \\
  /\text{áoo}c/ & \rightarrow [\text{áoo}c^h] \text{ Rocky Mt. whitefish} \\
  /\text{tuuk}w/ & \rightarrow [\text{tuuk}c^w] \text{ be black} \\
  /\text{qóop}/ & \rightarrow [\text{qóop}^h] \text{ or } [\text{qóop}^h] \text{ fish heart} \\
  /\text{tílc}/ & \rightarrow [\text{tílc}c^h] \text{ clitoris} \\
  /\text{ínt}/ & \rightarrow [\text{ínt}h] \text{ nit, louse egg} 
\end{align*}
\]
/ki'z/ ---) [g'i'z] red variety of sockeye salmon
/sm h ak'z=x t x y e n'/ ---) [sm'ah'z=xtye'en] It's really fogged over.
/takaluc/ ---) [takaluc^h] or [ta'galuc^h] fox

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

[+cns] ---) [-cns] / #

/qam ksi waa/ ---) [qamksiwaa] or [amksiwaa] 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 intervocally weakened q are:

/han'a'est/ ---) [han'a'est^h] the woman (present and visible)
/han'a'qm/ ---) [han'a'am] 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 [?], such as:

[g'a?a'?] I saw it. (Indicative)
[?i?ee^o] blood
[xa'z] male slave (singular)
[w'a?a'txw] 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 ? 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:
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 develops from the preglottalization of final in Gitksan, but I often hear clear transition between the stopped onset and the lateral release. Clusters of systematic t and l are quite frequent, and I invariably hear clear transition between the two segments. Phonetic plain 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:

/kakul/ ankle
/ki/ red variety of sockeye salmon
/čak/ lower lip
/tuk/ mud
/tuqac/, in Nass /qačuqac/ a wild rhubarb
/ťaa/ a man's name (Wolf Phratry)
/tqaas ní/ salmon fry, sardine

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

The systematic front velar stops k and l are regularly palatalized before non-grave vowels, as is also the systematic spirant x:

\[-flt\] $\rightarrow$ \[+shp\] /\[-cns\][-cns]; \[-son\][+son]; \[-dif\][-grv]; \[-grv\]

There are also phonetic palatalized front velars (formerly called "anterior palatais") before grave vowels in a small number of forms. Morphological considerations make it clear that these should be represented systematically as /kih\[+grv\]. Thus:
/kihóoks/ ---+ [góoks] \textit{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 \textit{float, drift}, is discussed later.

By redundancy rule, the systematic phonemic spirants \( x \) are always voiceless (unmarked for voicing):

\[
[+\text{cnt}] \rightarrow [-\text{voi}] / \begin{cases} \text{+cns} \\ \text{-son} \end{cases}
\]

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:

\[
[+\text{cnt}] \rightarrow [+\text{lng}] / \begin{cases} \text{-cns} \\ \text{+cns} \\ \text{-son} \end{cases} \begin{cases} \text{+cns} \\ \text{-son} \end{cases} \#
\]

\begin{align*}
/\text{wíl}/ & \rightarrow [\text{wíl}] \textit{fir-tree} \\
/\text{ús}/ & \rightarrow [\text{ús}s] \textit{dog} \\
/\text{áx}/ & \rightarrow [\text{áxx}] \textit{an edible root-species} \\
/\text{áks}/ & \rightarrow [\text{ákss}] \textit{water, drink}
\end{align*}

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

\begin{align*}
/\text{yúk}^w\text{á miluk}^w\text{y}/ & \rightarrow [\text{yúk}^w\á \text{milug}^w\á] \text{ I am/was dancing.} \\
/\text{yúk}^w\á miluk\á n/ & \rightarrow [\text{yúk}^w\á \text{milug}^w] \text{ You are/were dancing.} \\
/\text{yúk}^w\á miluk^w t/ & \rightarrow [\text{yúk}^w\á \text{milux}^w\á h] \text{ He is/was dancing.}
\end{align*}
The front velar spirantizing rule of Gitksan does not operate if the systematic k or k\' follows a stressed vowel. Thus:

/yúk\'wâ mîlk\'w/ ----> [yúk\'wâ mîlug\'w] We are/were dancing.
/yúk\'wâ mîlk\'w sm/ ----> [yúk\'wâ mîluk\'w sm] You are/were dancing. (plu)
/yúk\'wâ mîlk\'w tit/ ----> [yúk\'wâ mîlux\'w dit\'h] They are/were dancing.

Phonetic [y] and [w] develop regularly from organic or systematic x and x\', respectively, in intervocalic position. Thus,

/\'waax/ paddle has the following paradigm:
/\'waaxy/ ----> [\'waayi\'i] my paddle
/\'waaxn/ ----> [\'waayn] your paddle
/\'waaxt/ ----> [\'waaxt\'h] his paddle
/\'waaxm/ ----> [\'waaxm] our paddle
/\'waaxsm/ ----> [\'waaxsm] your paddle (plu)
/\'waaxtit/ ----> [\'waaxdit\'h] their paddle

This alternation requires such a rule as:

\[-cnt] \[-cnt] \[-cnt] \[-cnt]

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

/\'ix\'w/ fish with line (intransitive) has the following paradigm:
/\'yúk\'wâ \'ix\'w/ ----> [\'yúk\'wâ \'iwi\'i] I am/was fishing with line.
/\'yúk\'wâ \'ix\'w n/ ----> [\'yúk\'wâ \'iwn]
/\'yúk\'wâ \'ix\'w t/ ----> [\'yúk\'wâ \'ix\'w th]
16.

/yükʷm, ixʷm/ ----> [yükʷm, iṽm]
/yükʷm, ixʷsm/ ----> [yükʷm, iṽs̃m]
/yükʷm, ixʷtit/ ----> [yükʷm, iṽdit̃]

This alternation requires such a rule as:

\[
\begin{align*}
\text{[-son]} & \rightarrow [\text{+son}] / [\text{-cns}] / [\text{+cns}] / [\text{-cns}] \\
\text{[-dif]} & \rightarrow [\text{+dif}] / [\text{-cnt}] / [\text{+cns}] / [\text{+son}] \\
\text{[-grv]} & \rightarrow [\text{+grv}] / [\text{-cnt}] / [\text{+cns}] / [\text{+cnt}]
\end{align*}
\]

I would like to collapse the last two rules into a single rule, thus capturing the sonorantization of systematic \(x\) and \(xʷ\) 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-Gitskan 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-Gitskan. However, some of my examples are loans from Athabaskan. Examples are:

/tawí/ ----> [daw̃í] mt. sheep (Athabaskan)
/tlipá/ ----> [dibãí] mt. sheep (Athabaskan)
/sá/ ----> [sãá] day (Athabaskan?)
/ská/ ----> [sgãí] herring
/maclyá/ ----> [malyá̃í] nighthawk
/ma lú/ ----> [malú̃í] crazy

The segmentalizing rule for the inorganic h is:

\[
\begin{align*}
\text{[-cns]} & \rightarrow [\text{-cns}] / [\text{-cns}] / [\text{+son}] \\
\text{[+son]} & \rightarrow [\text{+son}] / [\text{-son}] / [\text{+cnt}] \\
\text{[-lng]} & \rightarrow [\text{-lng}] / [\text{+cnt}] \\
\text{[+stress]} & \rightarrow [\text{+stress}]
\end{align*}
\]

Phonetic intervocalic h-glides, which are often voiced [ə], are regular developments from systematic phonemic \(x\). Thus, /haséex/ shaman's rattle has the following paradigm:
/haséex/ --- [haséhe] my rattle
/haséem/ --- [haséen] your rattle
/haséext/ --- [haséext] his rattle

The gliding rule for systematic x is:

\[ [+\text{cns}] \rightarrow [-\text{cns}] / \begin{array}{c}
[+\text{son}]
[+\text{dif}]
[+\text{grv}]
[+\text{cnt}]
\end{array} \]

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:

/\text{hanáq} / \rightarrow [\text{hanáq}^h] woman
/\text{hahanáq} / \rightarrow [\text{hanáq}^h] woman
/\text{xipíaayk}^\text{W} / \rightarrow [\text{gipíaayk}^\text{Wh}] flew (sgn. Indicative)

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

/\text{lax há} / \rightarrow [\text{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.)

/\text{mis háax} / \rightarrow [\text{misáax}] daylight
/\text{qan háta} / \rightarrow [\text{ganáda}] Frogs-Raven Phratry

The plain sonorants \( m \), \( n \), \( l \), \( w \), \( y \) require no special, 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 \( y \) and \( \text{w} \) 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.
Across word boundaries, when an initial glottalized sonorant follows a final glottalized sonorant, the latter deglottalizes:

The glottalized stops and glottalized sonorants alike have deglottalized allophones in initial (wholly or partially) reduplicated bases:
/cak/ ---» [cá'k] dish
/cicak/ ---» [jicá'k] dishes
/qáp/ ---» [qá'p] part
/qapqapk'/ ---» [gapqapk'] kinsmen, relatives
/cól'k'/ ---» [jóltx'] wrinkle
/cilcól'k'/ ---» [jiljóltx'] wrinkles
/máxs/ ---» [máxs] pants
/máamáxs/ ---» [máamáxs] 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: i 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:
/iís/ ---» [iís] necklace
/éeq/ ---» [éeq'] coho salmon
/áaq/ ---» [áaq'] mouth
/móos/ ---» [móos] thumb, big toe
/múus/ ---» [múus] scabby scarred neck
/ís/ ---» [íís] urine, scapberry
/áx/ ---» [áxx] an edible root species
/ús/ ---» [uús] dog
The systematic long vowels phonetically approximate [i· e· a· o· u·].

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

/ˈt̪ən/ ---> [ˈt̪ən] Sit! (sgn)
/ˈt̪əyks/ ---> [dəyks] concoction of snow and grease
/səeykit/ ---> [səỹgith] murder

The reduction rule for long vowels is:

[+lng] ---> [-lng] / [+cns] [+cns] [+son] [+son] [+chक]

This vowel reduction rule must be ordered to apply before the x and xʷ 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 [m̃ǐn] foot, base, bottom is represented systematically as /m̃ìhin/. In the Kisgegas dialect, I recorded [m̃in] and [m̃ìhin] as free variants.

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

/pəex/ ---> [bəex] lungs
/pəexy/ ---> [bəẽxi] my lungs
/pəexn/ ---> [bəhen] your lungs
/pəext/ ---> [bəexth] his lungs

The systematic short vowels exhibit much phonetic variation; some free, some conditioned. Systematic i has variants in [i · e · i]; systematic a has variants in [e a a · a]; and systematic u has variants in [u u o o]. Thus, systematic /k̃at/ man, person freely varies as [gəth̃] · gəth̃. 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 q 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/ --- [hanístʰ] the woman (present and visible)
/cm áaqy/ --- [cmáagaʰ] in my mouth
/cm áaqn/ --- [cmáagan] in your mouth
/ceeqy/ --- [ceegaʰ] I licked it.
/ceeqn/ --- [ceegan] You licked it.
/yúkʷá wúqy/ --- [yúkʷá wógoʰ] I was sleeping.
/yúkʷá wúqn/ --- [yúkʷá wógon] You were sleeping.

Following systematic z, the epenthetic vowels appear to assimilate in quality to the preceding vowel:
/yúkʷá páxy/ --- [yúkʷá báhaʰ] I am/was running.
/yúkʷá pāxn/ --- [yúkʷá báhan] You are/were running.
/peexy/ --- [béheʰ] my lungs
/peexn/ --- [báhen] your lungs
/núrzy/ --- [nóhoʰ] my mother
/núrn/ --- [nóhon] your mother

Following all other obstruents, the epenthetic vowel is [i]:
/kúpyí smáx/ --- [gúbíʰsmáx] I ate some meat.
/kúpni smáx/ --- [gúbnísmáx] You ate some meat.
/kúptí smáx/ --- [gúbitísmáx] He ate some meat.
/yúkʷá n kúpí smáx/ --- [yúkʷá nígúpísmáx] or
/yúkʷá nígúbísmáx] 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/ --- [báasgʰ] or [báaxm] frightened
/wáaxn/ --- [waayn] your paddle
/wáaxm/ --- [waayn] 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 /wiì ʔaʔ/ \[\text{Big Slave} \] (a man's name), the presence of the word boundary is indicated by the phonetic intervocalic \(\chi\), 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 nìy qwì an spa yàx/ **\[\text{I'll go upstream to Kispiox} \]** (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 phonicetics.
be afraid: ...; x’pc’ax’ > x’pc’ax’; x’pc’ax’ > x’pc’ax’

alder tree: lúwi; ...; lúux

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

all: g’wilga; ...; k’walqa > g’alga (Note the long vowel doesn’t shorten)

be angry: á’nti; ...; á’x > ralax/ralxa-

animal: ...; ...; cák’ax’ > yacik’ (see kill) and yácisk’ > yájisk’

ankle: x’aq’arí; kakú📝 > kakó; kakú📝 > kakó

arm: nasto ‘an’an; tm qáax > tmqáax; tm qaax > tmqáax

arrow: hawá·l; ...; ha wíl > hawíl

ashes: gó·m; k’wóom > g’óom; k’wóom > g’um

back (bodypart): hakó; hakihuí > hakó’o; hakihuí > hakó’o

be bad: hátx’k; hátx’k > hátx’k; hátx’k > hátx’k

bark (of tree): má’š; máas; máas

basket (a larger berry-basket): dú’ak’; tíák’ > diák’; tíák’ > diák’

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

dóx; skí > sgi, túx > dóx

beaver: sél; címilix; címilix

belly: bán; pán > bán; pán > bán

berry, fruit: má’y; máy > máa’i; máy > máa’i

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

bird: cuuc’ > cuuc’; cuuc’ > cuuc’; cuuc’ > cuuc’

bite: bàq·~ bá’x; hác’; hác’

black, iron, knife: tú’wák’ > tū’wák’; tūwák’ > tūwák’

blanket: w’š~ w’ś; k’wá > g’wá; k’wá > g’wá

black bear: rol’; smáx; smáx
be blind: šú·ns; ...; sins

blood: ʔiłé·; iIéeW > ʔiłée'e; iIéeW > ʔiłée'e

blow: swáng- or gʷánt'-; swan or kʷánt' > gʷánt' wh; swán

bone: šáyph; cíp > cíphp; sip > siph

bow (weapon): hakʷáxk'h; ...; ha kʷtákw > hax'dák wh

breasts: mí'ís; móociks > móociks; móotiks > móotixs

breathe: ...; ...; ksi náaíí' > xsináálx w

burn (intrans): gʷálk h; mía > míí; mía > míí

button: nípala; ...; mála

canoe: xísó; máal > máal; máal > mál

caribou: ...; wíčix > wíjix; wíčix > wíjix or níí > níí

catch fish (trans): mák-h; muk'-; mák-

chest, sternum: gáykh; qíaq > qíaqh; qíaq > qííx

chief: šm'ó·git sg, šmgígát plu; sm óokit > šm'óogith, sm kikát

smgígáth; sm óokit > šm'óogith; sm kikát > smgígáth

child: łkuw'mák h sg, kábátkú'lk h plu; łku tkíxk > łgukíxk wh,

...; łku tkíxk > łgukíxk, kupa tkíxk > kábátkíx w

chin, jaw: kʰpá·w; ...; kpáw > xba'n

be clean: sák'sk h; sák'skw > sák'skw; sák'sk w > sák'sx 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: gʷát'kh ~ gʷát'kh; kʷnéeqk w > gʷnéeqkwh; kʷnéeqk w > gʷnéeqx w

dome, arrive: bóog- sg and plu; áatísk w > áátískwh, aátátkisk w

> áätátkisk wh; áatísk w > áátíxsx w, aátátkisk w > áätáiixsx w

cook (trans): ...; si ánk s- > saʔánk's; si ánk's- > saʔánk's- or

ánk'sn- > ʔánk'sn-
cook by boiling, boil (trans): jém--; cám-- jám--; cám-- jám-
be correct: hógax; húkax > hógax; húkax > hógax
cottonwood tree (see canoe): ampá'l; am 'maal > 'ammáal;
am máal > 'ammál
count: ...; ...; lícexkʷ > lícexxʷ
be crooked, bent: ężkʰ~ ężk~ ężk; lák > lákʰ; lák > lákʰ
cut: qóc--; qúc--; qúc--
be dark: sxeʰʰ; sqeeexkʷ > sqeeexkʰ; sqeeexkʷ > sqeeexxʷ
day: šeʰ; sá >sáʰ; sá > saʰ
dead: jékʰ; nuwm > nuʔum; nuwm > nuʔum
deer: wán; wán; wán
die: jég~ sg, dé~ plu; nuʷ > nuʔu, táxʷ > dáxʷ; nuʷ > nuʔu,
táxʷ > dáxʷ
dig (intrans): tgi'wə'as--; wuqiskʷ > waqiskʰ; waqiskʷ > waqisxʷ
dirt, earth: ča:čiks~ča'zə'ks; čćiks > čćiks; čćiks > čćiks
dish: gaił; cak > cak and wuws > woʔos; cak > čćkʰ and wuws > woʔos
do (intrans): wá'l; wíl; wíl
dog: hás; ús > ūss; ús > ūss
dog salmon: gənyi's; qa it > qaʔitʰ; qanis > qanis
dog woman's dress: náʔq; náʔ > náʔ; náʔ > náʔʰ
drink, water, river: ọákš; áks > ákss; áks > ákss
be dry: günkʰ; kwálkʷ > gwálkʰ; kwálkʷ > gwálkʰ
be dull: ʔó'lx; x itéeq > xidéeqʰ; x itéeq > xidéeqʰ
duat: ...; mitkʷ > mitkʰ; mitkʷ > mitkʰ
eagle: xsgí·kʰ; x̌s kāak > xsgáakʰ; x̌s kāak > xsgáakʰ
ear: ʰm'ú' (mü' earring); muxʷ; múxʷ
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Examples</th>
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<td>earth, ground, land</td>
<td>yú·pʰ; yip &gt; yipʰ; yip &gt; yipʰ</td>
<td></td>
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<tr>
<td>eat (intrans)</td>
<td>ya·wxg- sg, txó·xgʰ; yooqʰ &gt; yóoxʰ, txóoxʰ &gt; txóoxʰ; yuqʰ &gt; yóqʰ, txúqʰ &gt; txóqʰ</td>
<td></td>
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<tr>
<td>eat (trans)</td>
<td>gáb-; kíp-; kúp-</td>
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<tr>
<td>egg (of bird)</td>
<td>ʰgm·étʰ~ ʰg³metʰ; ʰkm há &gt; ʰgimá; ʰkm há &gt; ʰgimá</td>
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<tr>
<td>elbow</td>
<td>sxánis; sqáns &gt; sgáns; sqáns &gt; sgáns</td>
<td></td>
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<tr>
<td>end, tip</td>
<td>'cuwá·n; ...; 'cuwín &gt; 'cuwín</td>
<td></td>
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<tr>
<td>eye, face</td>
<td>cál; cál &gt; cál; cáʔv &gt; cáʔa</td>
<td></td>
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<tr>
<td>fall down</td>
<td>gáyna sg, lí·na plu; qínx &gt; gínx, línx</td>
<td>qínx &gt; gínx, línx</td>
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<tr>
<td>fart</td>
<td>...; máskʰ &gt; máskʰ; máskʰ &gt; másxʰ</td>
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<td>fast, quick</td>
<td>tí·ltʰ; ...; táʔvlt &gt; táʔaltʰ</td>
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<td>fat (noun)</td>
<td>yéy; híx; híx</td>
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<tr>
<td>fear (trans)</td>
<td>bá·sʰ; ...; pásaκ &gt; básaκ/básaκ</td>
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<tr>
<td>feast</td>
<td>lú·lgiᵗ; ...; ʰliʔkit &gt; ʰliʔgʰiᵗ</td>
<td></td>
</tr>
<tr>
<td>few, not many</td>
<td>ʰʔabú; ...; ʰʔipúu &gt; ʰʔibúu</td>
<td></td>
</tr>
<tr>
<td>fight</td>
<td>...; ...; tál &gt; dál</td>
<td></td>
</tr>
<tr>
<td>fire, fuel, firewood</td>
<td>lákʰ; lákʰ &gt; lákʰ; lákʰ &gt; lákʰ</td>
<td></td>
</tr>
<tr>
<td>fish (lake), trout</td>
<td>lá·w; ...; láaxʰ &gt; láaxʰ</td>
<td></td>
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<tr>
<td>fish (river), salmon</td>
<td>hó·n; hóon &gt; hóon; hóon &gt; hón</td>
<td></td>
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<tr>
<td>fish eggs, spawn</td>
<td>lá·n; lán; lán</td>
<td></td>
</tr>
<tr>
<td>fish with line (intrans)</td>
<td>ᵙᵤ·; yúxʰ &gt; yúxʰ; ᵈʰ &gt; ᵈʰ</td>
<td></td>
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<tr>
<td>fish with net (intrans)</td>
<td>ᵉ·ʰ net (noun); ʰat &gt; ᵉ·ʰatʰ; ʰat &gt; ᵉ·ʰatʰ</td>
<td></td>
</tr>
<tr>
<td>flash, meat</td>
<td>šámi; smás; smás (see black bear in Nass and Gitksan)</td>
<td>body</td>
</tr>
</tbody>
</table>

**Note:** The text above includes many linguistic terms and phrases, likely from a specific language or dialect. The translations and meanings provided are approximations based on the given information.
float (intr): ...; ... kihóoks > góoks sg, lihóoks > lóoks
flower: majagalé'; macaqalé > majagalé; macaqalé > majagalé
fly (intr): gip'häuser ge, lip'häuser plu; kípáykw > gíbaaykwh,
lipáykw > libáykw; kípáykw > gíp'áykw; lipáykw > lip'áykw
foot, leg: ?asi'; asá' > ?asá'; sá'v > sá'w
forehead: vô'px~wó'px; ... húpx > hopx
fox: nágáč'; nuqaač' > nogaacá; takalDé > ta?galúc'~takalúc'h
freeze (intr), ice: dá-w; táaw > dáaw; táaw > daw
frog, toad: ganáw; qanáw > ganáwa; qanáaw > ganáwa
be full: hólth; mítkw > mítkwh; mítkw > mítx
fur, body hair, feather: lí'; láx; láx
fur seal: 'qón; 'qón > 'qón; ...
give: kílám~kílám; kíháam > gíháam; kíhám > gíhánm-
go into, enter: 'cín- sg, lámjag- plu; 'cín, lámcax > lámjáx;
   'cín, címaxs > címaxs
go out: kšú- sg, kšó-g- plu; ksáz, kśi Kuw > kšíó'ó; ksáz,>
   xsáz, kseeq > xséeq'h
be good: ?á'm; áam > ?áam; áam > ?áam
grass: kyó'x; hápiskwh > hápiskwh; hápasx > hábasx
grase: 'qáwči; 'tilix; 'tilix
be green: mílí't'h; mílátkwh > mílátkwh; mílátkwh > mílátxw
grizzly bear: módík'h; likín'skwh > likín'skwh; likín'skw > likín'skw
grow (intr): pása'; ...; más
guts, intestines: há't'h; háat > háat'h; háat > háat'h
head: ... ; ...; caxcáx > jaxcáx
hair: gáws; qís > giśś; qís > giśś
hair seal: ʔú·la; ílx > ʔílx; ílx > ʔílx
halibut: tàng; tə́x > txóx; txúx > txóx
hand: ʔanˈón; an ʔín > ʔanˈón; an ʔín > ʔanˈón
head (see hair): ʔm gáwš; ʔm qís > ʔmə́qíss; ʔm qís > ʔmə́qíss
hear: ʔanaxmi·; ʔanə́xmi·; ʔanə́xmi- or lə̨axmi- ʔheart:
be heavy: pə̨lə̨gə̨lˈskə̨; pə̨lə̨gə̨lˈskə̨; mə̨lə̨kə̨skʷ > mə̨lə̨gə̨kə̨skʷ;
stį́n > sdį́n
hold (in hand): də̨xə̨yˈá·kʷ-; tix chúkʷ- > dixų́kʷ-; tax chúkʷ- > daxų́kʷ-
be hot: gə̨mə̨kʰ; kə̨mə̨k > gə̨mə̨kʰ; kə̨mə̨k > gə̨mə̨kʰ
house: wə̨lə̨pʰ~wə̨lˈpʰ; wə̨lə̨p > wə̨lə̨pʰ; wə̨lə̨p > wə̨lə̨pʰ
humpback salmon: stį́mˈón; stį́m hóon > sdį́mˈón; stį́m hóon > sdį́mon
hunt (intrans): ...; ...; silínaskʷ > silínasxʷ
kidney: lį̀bə̨cə̨w; takə̨cə́ > takə̨cə́; kicə̨ > gičə̨e or tə̨pə̨e > tə̨bə̨e
kill: ...; ...; cə̨kʷ-
knee: ʔə̨lə̨qə́wə̨ˈsə̨k; ʔə̨saˈə̨ > ʔə̨saˈə̨; ʔə̨si
know (trans): wə̨lə̨ˈy-; wə̨lə̨ax-; wə̨lə̨ax-
lake: tə̨ˈə̨; tə̨x > tə̨xə̨; tə̨x > tə̨xə̨
land otter: wə̨ˈçə̨; wə̨ˈcə̨; wə̨ˈcə̨
laugh: ...; ...; ˈcə̨x
leaf: ʔə̨̣ə̨nə̨; ʔə̨̣ə̨nə̨; ʔə̨̣ə̨nə̨
leave (intrans): dáə̨ˈə̨ə̨; tə̨ə̨ˈə̨ > dáə̨ə̨ lə̨; tə̨ə̨ˈə̨ > dáə̨ə̨ lə̨ sg
lie, tell a lie: ...; ...; yə̨l
lie down (intrans, takes animate subject): nó·kʰ- sg, lá·íg-plu; kéel > géel; láal; kil > gíl, láal
light (noun): góypa; quypʌx > góypa; quypʌx > góypa
lightning: č'ámtʰi~ č'ámtʰi; ...; humax > hómax
be lightweight: ʔé·pʰn; áapxn > ʔáapxn; áapxn > ʔáapxn
liver: děpʰ; táp > dápʰ; táp > dápʰ
lizard: kʰsi'ikʰ; ksíkʷ > kšíkʰ; ksíkʷ > xsíxʷ
be long: wi·nákʰ; wii ·nákʷ > wînákʰ; wii ·nákʷ > wînákʰ
louse: č'eskʰ; cískʷ > ćískʰ; tá
lungs: bé·; péex > béex; péex > béex

man (person sg): ýú·thᵃ sg; kát > gátʰ, iwxᵗ > ʔi·wxᵗʰ; kát > gátʰ, iwxᵗ > ʔi·wxᵗʰ
marten: yéni; hât > hât; hât > háʔʰ
melt (intrans): j̱j'i·lḵ̱s̱; cíls > j̱ḻks; cíls > j̱ḻks
mink: liš'yán; lis yéen > lisyéen; nis yéen > nisʔín
moon: gēmgm ʔa·tʰkʰ; ʔuqsʰm áqʷ > ʔoqsʰm áqʷ > ʔóxsm ʔáqʷ
moose: ...; xatáa > xadáa; xatáa > xadáa or kéesa > géesa, cíya moose calf (from Athabaskan?)
mountain: sxaní's; sqaníst > ʔganístʰ; sqaníst > ʔganístʰ
mt. goat: máthʰ; mátx; mátx
mt. lion: haw̱haw̱; haw̱haw̱ > haw̱aw̱; haw̱haw̱ > haw̱aw̱ or túušm
kilílix > důušm gílílix (cat of the woods)
mt. sheep: ...; ʔán caw̱x̱s > ʔán caw̱x̱s ram (one who wears shoes); tipá > dibaʰ or tawí > davíʰ
mouse: wáci·n; tipóokit > dibóogitʰ; tipóokit > dibóogitʰ
mouth: ʔmʔá·x; ʔm áaq > ʔmʔáaqʰ; ʔm áaq > ʔmʔáaqʰ
much, many: hélđ-; hált > háltʰ; hált > háltʰ
mud: ...; žóok > žóok; žóok > žóookʰ
muskrat: naqédé; naqáta > naqáda; naqáta > naqáda
nails, claws: láxs; láqs > láqs; láq > láx
name: wá • waʰ; wá > waʰ; wá > waʰ
be narrow, thin (in diameter): gáwskʰ; qískʷ > gískʷʰ; qískʷ
(see hair) > gískʷ
navel: tìqʰ; tukʷ > tuk; tìk > tìqʷʰ
neck: tm lá·ni; tm lánx > tmlánx; tm lánx > tmlánx
negative: ?álga~?ákʰa~; ...; née
be new: šú·; sii; sii
night: húp½l; áqkʷ > á̄qkʷʰ; áqkʷ > á̄qkʷ
nose: čáx; čáq; čáq
ocean (beyond sight of land): lax šú·lda; lax sílta > laxsílda;
lax sílta > laxsílda (probably a loan from Nass; note the
vowel doesn't reduce by rule)
other, strange: lîks; ...; lîks > lixs (unstressed adverbial/
adnominal clitic)
paddle: wá·y; wáax; wáax
pants: páxź; máq > máqs; máq > máx
path, road: gáyna; qínź > gínź; qínź > gínź
penis: ...; qóo (may have misheard length); qú > qó
pierce (trans): gęg·; káīkʷ·; káīkʷ
play (intrans): ...; ...; ma úš > màúš sɡ, ma ús > maas̀úss
plug (literally: act like a dog)
porcupine: ?áwtʰa~?áwtʰa; áxʷt > ?áxʷtʰ; áxʷt > ?áxʷtʰ
porpoise: jíw; cíxʷ > jíxʷ; ...
prince, princess: ɪguwá·lkšíkʰ sɡ; ɪku wílksi̇kʷ > ɪguwílksi̇kʰ
ɪku wílksi̇kʷ > ɪguwílksi̇kʷ
pull (trans): kššây-; sâk-; tâmq- > dâmgan-
push, hit, strike: tû-š-; tìs-; tis-
rabbit: štuk'ài:n; qâx > gâxx; qâx > gâxx
rain: wá-š; hay wis > haywiss; wîs > wîss
rat: gâ'kîk'h; qâkî > gâkl; qâkî > gâkl
be red (see blood): ...; iîéeë'tk'w > iîéeë'tk'wh; iîéeëVtk'w >
iîéeë'tk'w
be red (ochre color): mëšk'h; màsk'w > màsk'wh; màsk'w > màsk'w
return (intrans): wá'tg- sg, gô plu; wîtk'w > wîtk'wh, pâk'w >
come from bák'wh; wîtk'w > wîtk'w, pâk'w > bák'wh
root: hû-š; wîst > wîst'h; wîst > wîst'h
rope: hag'lw'hÚ'; ha k'lw'x'w > hag'lw'x'w; ha k'lw'x'w > hag'lw'x'w
be rotten: lôx; lûq > lôq'h; lûq > lôq'h
be rough: gôsgâ'c'h'h; sêeql > sêegal; sêeql > sêegal
rub: w'lí-l; li pâl > lîbal'; li pâl > lîbal'
run (intrans): bâ'ôa- sg, gô plu; pâx > bôx, qûl > gôl;
pâx > bôx, qûl > gôl
run away, flee (intrans): ...; këeqk'w > këeqk'wh sg, hüut >
huût'hût'; keeqk'w > këeqx'w, huût > huût'h
salt: môn; múwn > mó'ôn; múwn > mó'ôn
sand: pôw's; ñw's > pôw'ss; ñw's > pôw'ss
scratch: ...; ...; qaap-
sea-lion: tî'bn; tipn > tîbn;...
sea otter: pîô'n; pâu'n > pîô'ôn; pâu'n > pîô'ôn
see (trans): nîj-; kâ'v- > gâ'â-; kâ'v- > gâ'â-
seed: nôw'âna; an wâna'n > r'anwâna'n; an wâna'n > r'anwâna'n
sew: lû'pâš-; lîpas- > lîpas-; lîpas- > lîbas-
be sharp: šáx; ság > sáqʰ; ság > sáqʰ
be short: délpʰkʰ; tílpkʷ > dílpkʰ; túlpkʷ > dúlpkʷ
sing: lí·mi-; límx; límx
sit (be in sitting position): tás, wán plú; taa, wán;
šták, wán
skin, hide: ṣaná’s; anáas > ṣanáas; tqa
sky: lax há; lax há > laxá; lax há > laxá
sleek: xstóg-; wuí > wóqʰ; wuí > wóqʰ
be slow (see snake): lá·ltkʰ; láltkʷ > láltkʰ; láltkʷ > láltxʷ
be small: cú·skʰ; cúusk > cúuskʰ; cúusk > cúusx
smell, stink (intrans): ...; ëskʷ > ëskʰ; ëskʰ > ësxʷ
smell (trans): hú·m-; yím-; yím- or hánéeq-
smoke: piyán; mi’yén > mi’yén; mi’yén > m’in
be smooth: yéëkʰ; yáišʷ > yáišʰ; yáišʷ > yáišʰ
snake, worm: mátxalá·lt snake, lá·ltʰ worm; lált > láltʰ;
lált > láltʰ
snor: ...; núc > núc’; núc > núcʰ
snow: mó·kʰ’s snow on ground, má·dm falling snow; máak’w > máak’w, máatm > máadm; máak’w > máak’w, máatm > máadm
sockeye salmon: mis’ó; misuw > miso’ό; misuw > miso’ό
sockeye salmon (red variety): ...; kíž > giž; kíž > giłgíž
be sour: mó·lkšax; mlksax or méex; mlksax or méex
spit (intrans): pʰókskʰ; pükškʷ > búkskʰ; pukškʷ > bükšxʷ
split (intrans): ...; ...; sátq > sáqthʰ
spring salmon: yé; han k’óocym > hang’óocym spring salmon in river,
yá’v spring salmon on ocean; ýá’v > ýá’a
squeeze: dámkš-; támiks > dámkš; támiks > dámkš
squirrel: déš; čn ăık > čnắık; čn ăık > čnắık h (ăık is a loan from Athabaskan)

stand (be in upright position) (intrans): há·ytg- sg, máxšg- plu; hitk w > hitk wh, máqsk w > máqsk wh; hitk w > hitx w, liťk w > liťx w

star: btyálš; pilíst > bilíst h; pil úst > bilúst h

steelhead trout: mál·ít; milił > milí̃ł h; milíł > milí̃ł h

stone, rock: lóp h; lúwp > ló̗p h; lúwp > ló̗p h

be straight: ńačįk h; ...; pálx > bálx

suck: tó·x- ~ tó·g-; tóq-; móq-

sun: gëmk h; šúqs > šóqs; šúqs > šóqs

swell up: gí·tg-; ...; kítk w > gítx w

swim: hádíks- sg, lahá·diks- plu; hátíks > hádiks, hathátkks > há‖dikš h > há‖dikš h; hátlíks > hádlíks, hathá̃tkks > há‖dikš h

tail (of animal): ćús h; kúuk w > kúuk w; kúuk w > kúú̇k w

tail (of fish): náčiks; žáčx; žáčx
tell (trans): háw-; hi-; há-

throw: ṭóy- ~ ṭóy-; úx- > ṭóx- / ṭóy-; halá̃ltn-

be thick: ńci; ńćay > ńćȧy; ńćay > ńćȧy

be thin: háni; hánx; hánx

thunder: gal·plí·p h; t yaytk w > thyȧ̃tk w; t yaytk w > thyȧ̃tk w
tie up (trans): txál čí·b-; tqal čípk w-; tqal čípk w-
tongue: dú·la; tílx > dílx; tílx > dílx
tooth: wā·n; wēn > wēn; wēn > wēn
tree, wood; pole: gán; qán > gán; qán > gán

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

walk, go: ýá·a- sg, šą̃npwá·xš- plu; yée, húw > hó̇p h; yée, wí̇lxšs
wash (trans): yó·kš-; yúwks- > yó⁰⁰ks-; yúwks- > yó⁰⁰xs-

weasel: mákši·₂; miiksíl > miiksíl; miiksíl > miiksíl (note this

Gitksan k does not undergo the spirantizing rule)

be wet: ?ákš; núłaxkʷ > núłaxkʷh or ákst > ?ákstʰ; núłaxkʷ >

núłaxkʷ or akst > ?ákstʰ

whale (not killer-whale): ḣpú·n; ḣpín > ḣbin; ...

what: gó·; akú > ?agú; akú > ?agú

when: ...; kaxkú > gaxgú; kaxkú > gaxgú

where: ndá·; nta > ndáʰ; nta > ndáʰ

whiskers: ?imxʷ; yímq > yímqʰ; yímq > yímqʰ

be white (see snow on ground): mó·kšʰ; máakʷskʷ > máakskʰ;

máakʷskʷ > máaxsxʷ

who: ná·; ná; náa

be wide: wi·txo; wíi ōoks > wíi⁰⁰oks; wíi ōoks > wíi⁰⁰oks

wind: báškʰ; páʔvskʷ > báʔaskʰ; páʔaskʰ > báhasxʷ/βáasxʷ

wing (see arm): guqá·y; qáax; qáax

wipe oneself (intrans): ...; ...; gam íntkw > gam³intxʷ

wolf: gíba·w; kipúu > gíbuu; kipúu > gíbuu

wolverine: nó·síkʰ; nóosík; naaqíc > naagícʰ

woman: hanáqʰ ṣg, haná·nx plu; hanáq, hahanaq > haanaq;

hanáq > hanáqʰ, hahanaq > haanaqʰ

woods, forest: gílhawli upriver; ...; kilílix > gílílix

be wrong, incorrect; to miss (intrans): gí·s; kiis > giis;

kiis > giis

year: kó·z; kúuł; kúuł
**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

/ʦɪɪʃ̓ y ˈɪn/ I hit/struck you.

**Indicative intransitive:** Verb # Subject

/kʷɪ̓ pəx ˈɪn/ You ran about.

**Subjunctive transitive:** Subject # Verb + Object

/hii yúkʷ n ˈɪsn/ I am hitting/striking you.

**Subjunctive intransitive:** Verb + Subject

/hii yúkʷ kʷá pəx/ 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 I tip, we
m you (sg) m sm you (pl)
t h̓e, they

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

-y -m,
-n -sm
-t -tit
The Nass-Gitksan indicative nominative pronouns are:

\[ \text{niy} \] \[ 'nù' \]
\[ \text{nín} \] \[ 'nís'm \]
\[ \text{nít} \] \[ 'nítìt \]

The Coast Tsimshian indicative nominatives are:

\[ [\text{nú·yu}] \] \[ [\text{nú·m}] \]
\[ [\text{nú·n}] \] \[ [\text{nú·šm}'] \]
\[ [\text{nì·t}'] \] \[ [\text{dp·nì·t}'] \]

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

/hày lóon tm wil pàxy/ I told you that I would run.

The Nass-Gitksan dative pronouns are:

\[ \text{lóôy} \] \[ lóom \]
\[ \text{lóon} \] \[ lóosm \]
\[ \text{lóot} \] \[ lóotìt \]

The Coast Tsimshian datives are:

\[ [\text{?akó·y}] \] \[ [\text{?akó·m}] \]
\[ [\text{?akó·n}] \] \[ [\text{?akó·šm}'] \]
\[ [\text{disnì·t}'] \] \[ [\text{disdîpni·t}'] \]