

## SOUTHERN TSIMSHIAN EXTRASYLLABIC INITIAL STOPS

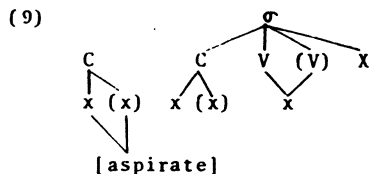
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Southern Tsimshian word initial voiceless stops are frequently extrasyllabic in the sense given by Clements and Keyser (1983). By considering all Southern Tsimshian initial voiceless stops to be extrasyllabic, i.e., by assuming that initial voiceless aspirate and glottalized stops that do not participate in phonetic level consonant clusters are in reality underlying-form clusters of the types C<sup>2</sup> and Ch, one can account for a number of apparent system inconsistencies; certain special characteristics of Southern Tsimshian phonology become system-intelligible.

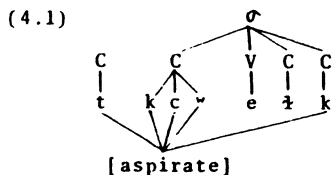
1. INITIAL EXTRASYLLABIC STOPS. The Southern Tsimshian lexical items listed here have word initial extrasyllabic stops, i.e., they "are separated from neighboring consonants by short neutral or voiceless vowels" (Clements and Keyser 1983:39):

- (1) pdal 'rib'
- (2) pts'a'n 'pole'
- (3) tg'iyət̚k 'around'
- (4) tkc'eɪk 'around' (c is ~~ts~~ ~~ʃ~~ ~~ç~~ )
- (5) kba'u 'chin'
- (6) k'da'ts 'coat'
- (7) k'dax 'hungry'
- (8) k'dun 'around'

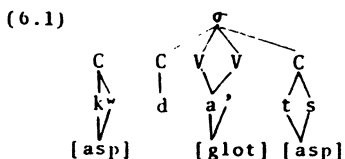
These (1 thru 8) conform to a CV three tier model as in (9):



Item (4) above, e.g., might be characterized as in (4.1):



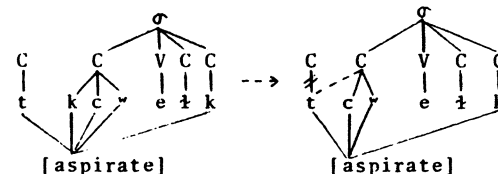
Item (6.1) can be taken to represent (6):



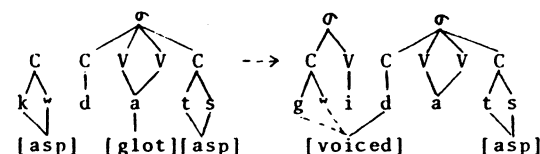
As is typical of extrasyllabic segments these initial stops are "historically susceptible to processes . . . that incorporate them into well-formed syllables by means . . . such as vowel epenthesis, [etc.]" (Clements and Keyser 1983:39):

- (4.2) tc'eɪk is a variant of (3) and (4)  
(6.2) g'ida'ts is the Coast Tsimshian variant for (6)

(4.2.1)



(6.2.1)



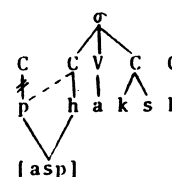
The Coast Tsimshian variant in (6.2.1) has undergone vowel epenthesis and voicing of the initial C. The change illustrated in (4.2.1) involves incorporation of the extrasyllabic element into a syllable initial coalesced affricate with maintenance of the original aspirate spread.

2. SOME APPARENT ANOMALIES. There are a few lexical entries that begin with a single voiceless, aspirate stop followed by a vowel:

- (10) paksk 'spit'
- (11) talsgmts'o'ʔxs 'stockings'
- (12) kabatgerɪk 'children' (er is a high, back, unrounded vowel)

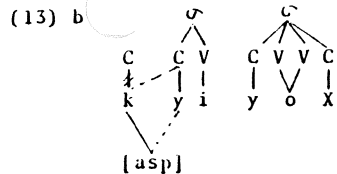
These (10 thru 12) apparently violate the general Tsimshian pattern wherein syllabic initial prevocalic stops are voiced. However, if one assumes (10 thru 12) are in underlying-form clusters of extrasyllabic C followed by h, then there is no anomaly:

(10.1)



In a similar manner one might argue that (13) has an underlying Cy cluster with extrasyllabic C:

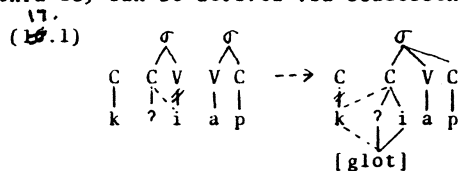
- (13) a. Kiyó·X 'grass' (K is kʷ)



An analysis deriving k from /ky/ can in a principled way account for the differences in palatalization found in items (14 thru 20).

- (14) Ka·lk 'steal'  
 (15) Ka·k 'one' (animal, flat classifier)  
 (16) Kap· 'really'  
 (17) Kap 'ten' (animal, flat classifier)  
 (18) Ka·khaer 'choke'  
 (19) Ka·k'a'n 'wink'  
 (20) Ko·xt (the Coast Tsimshian variant of (13))

The palatalization of unrounded velars has generally been considered by Tsimshianists to be a matter of assimilation to front vowels or dissimilation from back vowels. The fact that unrounded velars before front vowels palatalize in some words but not in others has been, I believe, prematurely dismissed as due to variable operation of a palatalization rule/process. In a CV phonology framework the palatalized velars in (14 thru 20) can be derived via coalescence as in, e.g., (16.1):



This analysis is especially attractive in light of the fact that words beginning with yV- have as alternant pronunciations ?iV-.

- (21) ya· ~ ?ia· 'walk'  
 (22) yax·t ~ ?iax·t 'man' (Gitksan cognate: iiwxt (Hindle and Rigsby 1973:32))

The same phenomenon occurs in Coast Tsimshian:

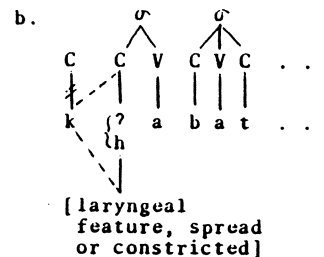
- (23) ?iwk·t·tsXn ~ yuk·t·tsXn 'eight' (long classifier)

Since this paper has shown the suitability of representing initial voiceless stops as extrasyllabic in a number of string types, CCV-, CV < ChV, KV < k?iV, one is tempted to argue that the single remaining type of initial voiceless stop, CV, is also to be considered extrasyllabic, i.e., CV < C?V. This possibility is made more attractive by several other related facts. Southern and Coast Tsimshian words with [-consonantal] onset always begin with some glide, including ? and h, i.e., there are, phonetically, no vowel initial words. Of the subset of [-consonantal] onset words that begin with laryngeal glides the h and ? sometimes substitute one for the other:

- (24) ?uwá·p ~ huwá·p 'houses'  
 (25) ?ag·wilhú· 'rope' (Coast Tsimshian variant: hag·ilhú·)  
 (26) ?aíó· 'cloth, cotton' (Coast Tsimshian variants: haíó· ~ ?aíó·)  
 (27) ?os 'dog' (Coast Tsimshian: has)

The substitutability of ? and h, coupled with the fact that some words show initial C?~Ch variation, as in (28), points to the conclusion that C?V- may indeed come from underlying C?V-.

- (28) a. Kabatgér̄tk̄ ~ kabatgér̄tk̄ 'children'



The present analysis posits vastly simplified phonological structures for both Southern and Coast Tsimshian. It strongly suggests that there may be only one consonantal series, an unmarked series that is voiceless, unaspirate, and unglottalized. Aspiration and glottalization result from coalescence. ~~There is one exceptionless voicing rule:~~  
 This is one ~~exceptionless~~ very general

- (29)  $\begin{bmatrix} +\text{cons} \\ -\text{son} \\ -\text{cont} \end{bmatrix} \rightarrow [r\text{voi}] / \_ V$

3. DICTIONARY FRAGMENTS (I). This section is a list of those lexical items with initial extrasyllabic stops, as posited above, that appear in the Southern Tsimshian data in sentential context. Entries in this list include the Coast Tsimshian variants when available. Entries use the common Tsimshian orthography.

- pts'aan [ptʂa·n] 'pole' Coast Tsimshian (CT), *ibid.*  
 Yagwat batsindit Arnold pts'aan (Arnold is raising a pole).  
 Yagwat batsgi pts'aan (He is raising a pole).  
 p'aas [pʂa·s], also p'as [pʂas] 'grow' (singular agreement form), 'formed' CT, p'as.  
 Ama p'asi yUUs'ilt (The basket is nice (well-formed)).  
 Ama p'asi ts'iřina'a (The basket is nice).  
 Ama p'asi laakws (The light is pretty).  
 Dzida siřguulksit 'a da'ařgařdim sip'aasdi (If they adopt him, will they be able to raise (cause to grow) him?)  
 t'aa [tʂa·] 'sit' CT, *ibid.* 'stay' [locative complement], 'be' [locative complement].  
 Ts'a'amsa wil t'aayu (I am staying in Victoria).  
 Nan t'a'anut asga ts'a'amsga (I formerly lived in Victoria).  
 K'ai gilhaulixi galts'abi wil t'ai ts'imt'aa (A lake is back of town.)

t'uus [t'u:s, t'u:sh] CT ibid.  
 'Eda 'agwɪt t'uusdi 'oli boat (Then the bear slowly pushed the boat).  
 t'UUS [t'ers] 'hit' CT t'uus.  
 T'UUʔ 'ei 'an'on (hit with fist).

k'a- [ka] 'really' CT k'ap- 'certainly'. See also k'ap, k'ap.  
 K'ai gilhaulixi gaIts'abi wil t'ai ts'imt'aa (The lake is certainly above the village).

k'ap- [kap] 'really, certainly' CT k'ap.  
 K'ap lu'wil siipgi goodu (I am really angry).

k'agan [kagán] 'have an accident'  
 K'agani yaxwt (The man had an accident).

k'al- [kaɫ] 'at' CT ibid.  
 K'al'oixi 'yaxwdi hana'ait 'ei ʔa't (The man threw a ball at the woman).

k'al'oix [kaɫʔɔic] 'throw at' (theme, goal complements). CT k'al'oi.  
 See k'al- above.

k'ax [kaχ] 'open' CT k'ax. See also k'ax.  
 K'axdi 'yaxwdi liksUUgait 'ei haK'aXa (The man opened the door with a key).

k'abatgUUʔk [kaɫatgérʔk] 'children' CT ibid. See also kabatgUUʔk, gabatgUUʔk.  
 K'ilamsimi ʔa'tit 'ei k'abatgUUʔk (We gave the children a ball).

k'u'Ul [kérʔ] 'act together as one; join with; act in concert with'  
 CT k'u'Ul 'once'.  
 ʔadim sagait k'u'Ulim (We are going to act together as one).  
 Baasinit 'ei ʔadim sagait k'u'Uldim (You who are afraid should join with us).

kw'a'k [kʷaʔ] 'choke' CT ky'ak.  
 Kw'a'kai ʔgu'yaxwdit (The boy is choking).  
 Dim kw'a'kinsimit (We are choking).

kw'ityauʔimx [kʷʔʔyáʔimx] 'give a message for'.  
 Kw'ityikyauʔimxu dipgwii (I am giving a message for them).

kw'o'o [kʷoʷ] 'behind' CT k'oo 'back'.  
 Nah kw'o'i ha'litai wil 'yaan (You were behind the chair).

ky'epxa [kérʔa] 'ten' (aboard-a-boat classifier) CT kapldaat.  
 ʔa ky'epxa liwandit 'ei lax boat (There were ten in the boat).

ky'i'lam [kérʔám] also ky'ilam [kérʔám] 'give' See also gi'lim.  
 CT ky'inam.  
 Ky'i'lamtga hoonit 'ei 'os (He gave the dog a fish).  
 Ky'i'lami 'yaxwdi hoonit 'ei 'os (The man gave the dog a fish).  
 Ky'ilamsimi ʔa'tit 'ei k'abatgUUʔk (You gave the child a ball).  
 Ky'ilamu 'osit 'ei hana'x (I gave the woman a dog).

k'a- [qa-] 'very'. See also k'ap-, 'ap-. CT ibid.  
 Simhaautksa'nu siipingsi K'a'amagu (I believe affection is a very good thing).

k'am- [qam] 'useless; only' CT ibid.  
 Siipgit k'amgausu (My poor head aches).

k'ap- [qap] 'very' See also k'a, 'ap. CT ibid.  
 K'ap lu'kwil gyemgit 'asda ʔagautsdi txy'UUlgisda (It is warm this afternoon).

4. DICTIONARY FRAGMENTS (II). This section is a list of those lexical items with initial extrasyllabic stops that appear in the Southern Tsimshian data without sentential context.

paksk [paksk] 'spit' CT puksk.

pdal [pdal] 'rib' CT ibid.

p'aal [pá·ɫ] 'canoe' CT xsoo 'red cedar canoe': p'aal 'cottonwood canoe' (archaic in CT); 'amp'aal 'cottonwood' ('am- 'serving for', p'aal).

p'a'alt [pá·ɫt] 'gloves' (literal: like a cottonwood canoe) CT p'aalt, p'alt.

p'iʔ'o'osk [pʔʔʔó'sk] 'a square of dried seaweed' CT p'i'isok.

p'il'o [pʔilʔó] 'break in two' CT p'o'o.

p'atsiks [pátsiks] 'wet'.

p'axs [páxs] 'grow' CT ibid.

p'iyaa [pʔiyá·n] 'smoke' CT ibid.

t'a'a [tá·ʔ] 'slap' CT t'aa.

t'aapʔ [tá·pʔ] 'pound; hammer' CT ibid.

t'axwans [táxwáns] 'adze' CT daxwans.

talsgimts'o'oxs [tálsgimtsó·xs] 'stockings' CT ibid.

tgwiyek [tgʔiyék] 'around'. Also tkwcek. CT dzagatgwiyek.

tkwcek [tkc·ék] 'around', Also tgwiyek. CT dzagatgwiyek.

t'ipxaat [tʔopxá·t] 'two' (animal, flat classifier) CT ibid.

t'UUxo'olt [tʔ·xó·ɫt] 'seven' (animal, flat classifier) CT t'ipxoolt

t'i'ik [tʔík] 'navel' CT ibid.

t'ilgo'olsk [tʔilgóʔlsk] 'think; be of the opinion than' CT t'ilgolsk.

t'iyooxʔ [tʔiyó·xʔ] 'snow' CT mooks.

t'iyooxʔk [tʔiyó·xʔk] 'white' CT mooksk.

t'oox [tʔo·x] 'suck' CT ibid.

t'u'utsk [tʔu·tsk] 'knife' CT ibid.

t'imba'a [t' ] 'hip' CT t'imbaa.  
 t'imgaʉs [t'mGáʉs] also t'imgaus [t'mGáʉs] 'head' CT t'imgaus.  
 k'a'alk [k'a'lk] 'steal' CT k'aalk.  
 k'ats [k'ats] 'cut' See also k'ots. CT ibid.  
 k'adzaʉ [k'adzâʉ] 'swallow' CT ibid.  
 k'ala- [k'ala-] 'up away from the salt water' CT bax-.  
 k'alaxyaa [k'alaçá·] 'go up away from the salt water' CT baxyaa.  
 k'alii'aks [k'ali·ʔáks] 'river' CT k'ala'aks.  
 Note: from k'ala-i-'aks (up away from salt water - connective - water)  
 k'aʉhau [k'áʉhau] 'choke' [agent complement], logical subject.  
 CT k'aʉhau.  
 k'aʉikp'ahimxs [k'áʉikp'áhmxs] 'choke' [Ø complement], logical subject.  
 CT k'aʉikp'aams.  
 k'auk'au [k'auk'au] 'crow' CT ibid.  
 k'aimgwa'a [k'áimgwa·] 'here' CT ibid.  
 kba'u [kbaʉ] 'chin' CT kbau.  
 k'imk'u'u1 [k'mk'ú·1] 'once' CT k'u'u1.  
 kw'iʉ- [k'w'iʉ-] 'across' CT kw'iʉ-.  
 kwda'ats [k'w'da'ts] 'coat' CT gwidaa'ts; gwidaats; gwidets.  
 kw'o'o [k'w'o·] 'back'. Also kw'o'-; k'o'o. CT k'oo 'backbone'  
 kw'ooʉ [k'w'o·ʉ] 'year' CT k'ooʉ.  
 kw dax [k'w'dax] 'hungry' CT kw dii.  
 kw dun- [k'w'dun] 'around' CT xʉim-; dzaga-.  
 kw duniwaap [k'w'duniwá·p] 'around the house' CT dzagawaap.  
 ky'aak [k'a·k] 'one' (animal, flat classifier) CT ibid.  
 ky'aʉky'a'a [k'aʉk'á·] 'wink' CT ky'al.  
 ky'am [k'am] 'crab' CT k'almoos.  
 ky'ap [k'ap] 'ten' (animal, flat classifier) CT ibid.  
 ky'i'oks [k'iʔoks] 'fall off' [source complement], logical subject (must  
 be human). CT ky'i'oks 'fall on' [goal complement], logical subject  
 (may be human).  
 ky'igiika [k'içíika] 'below; downstream' CT giika; geeka 'down on the  
 beach'.

kyiyoox [k'iyó·x] 'grass' CT kyooxt.  
 k'amgaʉs [q'amGáʉs] 'head' CT t'imgaus.  
 k'amksiwah [q'amkšiwáh] 'European' CT ibid.  
 k'alpgyoon [q'alpçó·n] 'lie down' CT gʉu1.  
 k'ando'olt [q'andó·lt] 'eight' (animal, flat classifier) CT ibid.  
 k'anxyikxyaa [q'ançikçá·] 'overflow' CT k'anyikyaa.  
 k'autsxy [q'autsç] 'fat' CT k'autsi.  
 k'o'iwaap [q'óiwá·p] 'house back'  
 k'oolx [q'o·lx] 'dull' CT ibid.  
 k'oʉ [q'oʉ] 'butcher fish' CT k'ots.  
 k'ots [q'ots] 'butcher meat' CT ibid.  
 See also k'ats.  
 k'o'o [q'o·] 'thimbleberry' CT k'oo.

## REFERENCES

- CLEMENTS, GEO. and SAMUEL KEYSER. 1983. CV phonology: a generative theory  
 of the syllable. Cambridge: MIT Press.  
 HINDLE, LONNIE and BRUCE RIGSBY. 1973. A short practical dictionary of the  
 Gitksan language. Northwest Anthropological Research Notes 7:1-60.