

PROTO-CENTRAL SALISH PHONOLOGY AND SOUND CORRESPONDENCES

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O. Introduction. This article began as a preliminary look at Nooksack and Proto-Central Salish sound correspondences. It was preliminary because I began only looking for cognates with the 189 Nooksack words given in Amoss (1961). The purpose of the article was to find especially those correspondences which separate Nooksack from its neighbors, Halkomelem, Straits Salish, and Lushootseed (Puget Salish). This should provide a starting point for a series of in-depth studies I plan to do of the unpublished materials and tapes of Nooksack gathered by Pamela Amoss, Laurence Thompson and Barbara Efrat and their predecessors.

Mr. Sindick Jimmy, the last fluent speaker of Nooksack, died July 12, 1977. He, like all the other speakers of whom we have tapes, and like many speakers of Nooksack for the past 150 years, was fluent also in the Chilliwack dialect of Halkomelem and the Skagit dialect of Lushootseed. As Thompson (1976) points out:

The custom of importing wives from other communities contributed to the early obsolescence of the distinctive language [Nooksack] originally spoken there [the Nooksack speech area]; by the time of White contact this process seems to have been at an advanced stage, so that now only a few persons recall the time when a number of old men in the villages spoke among themselves 'the old language,' while for general purposes other languages were in use--primarily Chilliwack Halkomelem and Skagit. It is now difficult to determine very surely what the original Nooksack language was like, because the materials that have been collected all bear marks of borrowing from the neighboring languages, especially from Halkomelem.

In order to sort out what linguistic data is Nooksack and what is not, several levels of apparent language variation will have to be separated: language-switching (informant error), legitimate diffusion or borrowing (at various time depths),

incomplete sound changes, features of language death (for example loss and inconsistencies), and normal variation within and between speakers. Figuring out the cognates and sound correspondences between Nooksack and its neighbors will allow us to isolate cases of language-switching. The other cases of language variation should yield to the application of internal reconstruction and comparative reconstruction. It should also be kept in mind that as the descriptive analysis of the Nooksack materials becomes complete the sound correspondences here should be re-examined and revised where necessary. Also at that point many more cognates will be available, and they can be added to those provided by Kuipers (1970, 1981), Thompson, Thompson and Efrat (1974), Haerberlin (1974), and other published cognate sets.

It was difficult to keep from adding cognate sets for which there was no Nooksack equivalent in Amoss (1961). At last I gave in to the temptation when I saw that the correspondences could be made fairly complete with additions from languages poorly represented or diagnostic of different correspondences. The additional 100 cognate sets (190-289) are incomplete in themselves; I have not searched all the sources as I did for 1-189 to find cognates in all the Central Salish languages. Thus while reconstructions could be made from 190-289 for the sound correspondences for which they are diagnostic and for those which are always one-to-one, reconstructions of the other proto-phonemes in these cognates (especially vowels) are best postponed till the cognate sets are as complete as for 1-189. Similarly no attempt is made to discuss reflexes from sets 190-289 in section 3, except for the correspondences these sets were chosen to fill in or illustrate.

At first it seemed that the irregularities and exceptions were just a tedious headache, as I tried to understand and account for them. But it soon became apparent that they not only prove the rules but also are the evidence of some of the most interesting historical processes in Central Salish phonolo-

gical history. They are also sometimes the crucial evidence for explanation of the regular correspondences. After a while I came to seek them out. They also show the network of borrowings with Central Salish; intrafamilial influence is one of the hardest elements to grapple with in Northwest Coast historical linguistics. Some irregularities show connections between sound correspondences (parallel shifts). Some show intermediate stages of development preserved. And many show the individuality of each language and dialect.

Since Nooksack terms are central and present in every cognate set which follows (till 190), they are listed first; then cognates are presented from the languages proceeding north from Halkomelem to Comox, then from Nooksack proceeding generally south and west (Lushootseed, Twana, Northern Straits, Southern Straits). Thus some contiguous sound shifts may be seen and some priority can also be given to Nooksack's immediate neighbors. Transcriptions from the various sources have been standardized. The languages (from north to south) from which data is presented have the following abbreviations and phonemic systems (sources listing the phonemes are given here; comments on resonant-glottal stop clusters are given because some analyses show glottalized resonants as phonemes; no statements are implied about occurrence of glottal stop before or after other consonants):

Mainland Comox (Cx): Davis (1970) gives /p, p', m, (t<sup>θ</sup>), t<sup>θ</sup>, (normalized from here on as <θ'>), θ, t, t', n, s, λ, λ', ʔ, (l), č, č', ʃ, ʃ', (k), (k'), g [g<sup>y</sup>], y, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x̣, q<sup>w</sup>, q'<sup>w</sup>, x̣<sup>w</sup>, ʔ, h, i, ε, e, o, a/; ['] is predictable (first syllable); /t<sup>θ</sup>/ occurs in one morpheme only, a first person singular pronoun affix; rare phonemes are parenthesized. Bouchard (1971a) has the same consonants but treats resonant + ʔ clusters as glottalized resonants; his vowel inventory is /i, i·, a, a·, u, u·, e/ with [ε] under /i/ and [o] under /u/.

Pentlatch (Pt): Kinkade's (1980) and Davis's (1981) reconstitution of Boas's Pentlatch field notes (n.d.) include the follow-

ing (in parentheses are likely additional phonemes): /p, (p'), m, t<sup>θ</sup>, θ, t, t', n, c', s, λ', ɬ, l, č, č', ʃ, š, y, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x, (q<sup>w</sup>), q'<sup>w</sup>, x<sup>w</sup>, ʔ, h, i, e, u, a, ' /; /t<sup>θ</sup>/ again probably occurs in one morpheme only, a first person singular pronoun affix.

Sechelt (Se): Beaumont (1976), Timmers (1977), and Bouchard (1971b) show nearly the same inventory: /p, p', m, t, t', n, c, c', s, č, č', š, λ', ɬ, l, k, k', x, y, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x, q<sup>w</sup>, q'<sup>w</sup>, x<sup>w</sup>, ʔ, h, i, e, u, a, ' /; Bouchard omits /x/ and he and Timmers add /m', n', l', y', w'/ where Beaumont has clusters /lʔ, ʔy/ and perhaps others; Timmers also adds /' /; incidentally, the symbols c and c' stand for č and č' respectively throughout this article except in Halkomelem, q.v.

Squamish (Sq): Kuipers 1967b has /p, p', m, t, t', n, c, c', s, č, č', š, λ', ɬ, l, k, k', y, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x, q<sup>w</sup>, q'<sup>w</sup>, x<sup>w</sup>, ʔ, h, i, e, u, a, ' /; he also gives a rare /î/[ε· - I·] which doesn't appear in the sets here; Kuipers writes clusters of ʔ + resonant and resonant + ʔ with all resonants.

Halkomelem (Hk), Chilliwack dialect group (Ch): Galloway (1977) gives /p, p', m, θ' [t<sup>θ</sup>'], θ, t, t', c, c', s, λ', ɬ, l, (k), (k'), x<sup>y</sup>, y, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x, q<sup>w</sup>, q'<sup>w</sup>, x<sup>w</sup>, ʔ, h, i, ε, e, a, u, o, ·, ', ` /; Ch throughout stands for all the upriver dialects (Tait, Pilalt, Chilliwack/Sardis, and Chehalis); they agree lexically in all but a few cases and those are noted; /c/ and /c'/ have allophones [č, č] and [č', č'] respectively; /k/ and /k'/ occur only in borrowings and a few pet names; /' / and /` / are respectively high and mid pitch-stress or tone (low tone is unmarked); sporadic clusters of ʔ + resonant or resonant + ʔ occur only as a rare result of reduplication, unlike the case in downriver (Ms) and island (Cw) dialects; /é/ is usually [æ].

Halkomelem, Musqueam dialect (Ms): Elmendorf and Suttles (1960) list the same phonemes as I have for Ch except than /n/ is added, /k'/ is omitted, /·/ is marginal (probably best parenthesized), and [`] is probably not phonemic; resonants can be preceded or followed by ʔ and such clusters are frequent.

Halkomelem, Cowichan dialect (Cw): Elmendorf and Suttles (1960) list the same phonemes as I have for Chilliwack except that /n/ is added, /k'/ is omitted, /š/ replaces /x<sup>y</sup>/, /·/ is marginal; resonants can be preceded or followed by ? and frequently are; Leslie (1979: 9) lists /t<sup>θ</sup>/ (appears in one morpheme only, a demonstrative article) and /m', n', l', y', w'/ but mentions that "glottalized resonants ... are posited not on phonetic, but on morphophonemic grounds."

Nooksack (Nk): Amoss (1961) gives /p, p', m, t, t', n, c, c', s, č, č', š, y, ɬ', ɬ, l, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x, q<sup>w</sup>, q'<sup>w</sup>, x<sup>w</sup>, ?, h, i, ə, e, o, ' /; resonants can be preceded or followed by ?; a significant note is found in Amoss (1961: 9): "The free variation in tongue grooving occurred only in the idiolect of George Swanaset. George Swanaset frequently realized /s/ as [θ], /c/ as [θs] and /č/ as [c]; he consistently produced /š/ as [x<sup>y</sup>]. Because Sindick Jimmy's pronunciation was consistent it has been taken as the norm for phonemic writing."

Lushootseed (Ld): This includes two major dialect groups (Hess 1976: xi-xiv), Northern Lushootseed (NLd) (Skagit, Snohomish) and Southern Lushootseed (SLd) (Snoqualmie, Suquamish, Duwamish, Muckleshoot, Puyallup, Nisqually, and Sahewamish). Hess (1976) gives the Ld phonemes /p, p', b, t, t', d, c, c', d<sup>z</sup>, s, č, č', j (rare), y, (y'), ɬ', ɬ, l, (l'), k, k', g, k<sup>w</sup>, k'<sup>w</sup>, g<sup>w</sup>, x<sup>w</sup>, w, (w'), q, q', x, q<sup>w</sup>, q'<sup>w</sup>, x<sup>w</sup>, ?, h, i, e, u, a, ' /; glottalized resonants are realized ? + resonant or resonant + ? depending on syllabification.

Northern Straits (NST), Lummi dialect (Lm): Charles, Demers, and Bowman (1978) give /p, p', m, t, t', n, c, c', s, č, č', š, y, ɬ', ɬ, l, (k), ŋ, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x, q<sup>w</sup>, q'<sup>w</sup>, x<sup>w</sup>, ?, h, i [i, e], e [ɛ, ə], ə, a [a, ɔ], u [u, usually ɔ], ' /; /c/ is rare, occurring in the demonstrative article cognate with Cw /t<sup>θ</sup>/ and a few other words; ? can precede or follow resonants. Thompson, Thompson, and Efrat (1974) replace /u/ with /o/.

Northern Straits, Saanich dialect (San): Bouchard (1971c) gives /p, p', m, m', θ' [t<sup>θ</sup>'], θ, t, t', n, n', s, č, č', š, y, y',

ʔ, ɬ, l, l', (k), ŋ, ŋ', k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, w', q, q', x, q<sup>w</sup>, q'<sup>w</sup>, x<sup>w</sup>, ʔ, h, i, i', ε, ε', e, u, u', a, a', ' /; Bouchard (1974) writes /ɕ, ɕ' / as /c, c' /. Pidgeon (1970) agrees with Bouchard (1971c) but adds /m/ and omits long vowels and glottalized resonants, treating the latter as resonant-glottal stop clusters; Pidgeon replaces /ε/ with /e/.

Northern Straits, Songish dialect (Sg): Raffo (1972) gives /p, p', m, t, t', n, c', s, ɕ, ɕ', ʃ, y, ʔ, ɬ, l, (k), ŋ, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x, q<sup>w</sup>, q'<sup>w</sup>, x<sup>w</sup>, ʔ, h, i, e, e, a, u, ', ` , · /; Raffo notes that /u/ is usually [o], and Mitchell (1968) replaces it with /o/; considering Mitchell (1968) and Thompson, Thompson, and Efrat (1974) it is clear that /c/ must be added, although rare (occurring, as in Lummi, in the article cognate with Cw /t<sup>θ</sup>e/ and in a small number of other words); Thompson, Thompson, and Efrat suggest LmSg c < \*ts and Cw t<sup>θ</sup> < \*tθ (clusters) as late developments. /k/ is rare as usual. Mitchell (1968) has /i', e', a' / instead of listing /· / separately, replaces /x<sup>w</sup> / and /x<sup>w</sup> / both with /x<sup>w</sup> /, and adds /k' / (rare); Mitchell's two morphemes with /k' / are mistranscriptions however, so /k' / is probably absent (unlike in Ch where it originates in borrowings from Interior Salish). From Raffo and Thompson, Thompson, and Efrat it is clear that Mitchell's /x/ should be /x/ everywhere and that her /x<sup>w</sup> / should be sometimes /x<sup>w</sup> / and sometimes /x<sup>w</sup> /; these are clear from the cognate sets (except once) and are so corrected; when Raffo was checked for these, Sg had /x<sup>w</sup> / with the rest of St. Sg also has ʔ before and after resonants, and Raffo specifically gives reasons why these are not glottalized resonants.

Northern Straits, Sooke dialect (So): Efrat (1969) gives /p, p', m, t, t', n, c, c', s, ɕ, ɕ', ʃ, y, ʔ, ɬ, (l), ŋ, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x, q<sup>w</sup>, q'<sup>w</sup>, x<sup>w</sup>, ʔ, h, i, e, e, u, a, ' /; [w] and [y] are treated here as allophones of /u/ and /i/ but as /w/ and /y/ in the later Thompson, Thompson, and Efrat (1974); /a/ is [ɔ]; Thompson, Thompson, and Efrat (1974) replace /a/ with /o/ (probably also [ɔ]). /l/ is rare.

Southern Straits (SSt), Clallam (Cl): Thompson and Thompson (1971) give /p, p', m, t, t', n, c, c', s, č, č', š, y, ɬ', ɬ, (l), (k), ŋ, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x̣, q<sup>w</sup>, q'<sup>w</sup>, x̣<sup>w</sup>, ʔ, h, i, e, ə, u, a, ' , ˘/; ʔ + resonant and resonant + ʔ both occur; l is rare.

Twana (Tw): N. Thompson (1979) gives the following broad phonetic inventory [p, p', b, (m), t, t', d, (n), c, c', (d<sup>z</sup>), s, č, č', ʃ, š, y, ɬ', ɬ, l, (k), (k'), (g), k<sup>w</sup>, k'<sup>w</sup>, (g<sup>w</sup>), x<sup>w</sup>, w, q, q', x̣, q<sup>w</sup>, q'<sup>w</sup>, x̣<sup>w</sup>, ʔ, h, i, I, e, ε, ə, ə, a, u, U, o, ɔ, ˘, ']; ʔ can precede or follow resonants (l, w, and y are then said to be glottalized) and can precede b and d (as well as other consonants); m and n are rare (mainly diminutive forms of b and d); other parenthesized sounds occur only in borrowings; /i/ includes [i, I, e], /e/ includes [e, ε, ə], /u/ includes [u, U, o], /a/ includes [a, ɔ] (probably). Thus the Twana phonemic inventory appears to be /p, p', b, (m), t, t', d, (n), c, c', s, č, č', ʃ, š, y, ɬ', ɬ, l, k<sup>w</sup>, k'<sup>w</sup>, x<sup>w</sup>, w, q, q', x̣, q<sup>w</sup>, q'<sup>w</sup>, x̣<sup>w</sup>, ʔ, h, i, e, u, a, (˘), ' / with /d<sup>z</sup>, k, k', g, g<sup>w</sup>/ in borrowings.

Other Salish language abbreviations used: Ti (Tillamook), BC (Bella Coola), Ts (Tsamosan branch, including UC Upper Chehalis, Cz Cowlitz, LC Lower Chehalis, and Qn Quinault); IS (Interior Salish branch) includes: Li (Lillooet), Th (Thompson), Sh (Shuswap), Cm (Columbian), Ok (Okanagan), Ka (Kalispel), CA (Coeur d'Alene); PCS (Proto-Central Salish), PIS (Proto-Interior Salish), PTs (Proto-Tsamosan), PS (Proto-Salish). CJ is Chinook Jargon.



1. Cognate sets. In the cognate sets which follow, the omission of a cognate for a given language can mean that no terms within semantic range to be cognates were found in the sources examined or that the terms within semantic range in the sources were not cognate. Where only one gloss is given at the end, all cognates share exactly the same gloss. Initials after a word show it attested only in the speech of one person. Reconstructed PCS forms are given first, where reconstructable.

(1) Nk xq'áey alder bark basket.

(2) ? \*ííq always. Nk ííq always, (Hk) Ch possibly ííeqey glacier; Mt. Cheam (possibly always + -ey covering), Sq ííq' (do) always.

(3) Nk ííyè angry.

(4) \*ʔú/éq<sup>w</sup>el<sup>y</sup>ač ~ \*ʔeq<sup>w</sup>el<sup>y</sup>íč back (esp. of the body). Nk ʔóq<sup>w</sup>elèč back, Ch ʔóq<sup>w</sup>elec ~ ʔéq<sup>w</sup>elec back of body, Sq s-t-áyʔč back, Ld sʔeq<sup>w</sup>elíč back of body, Sg ʔeq<sup>w</sup>eléc to be behind.

(5) \*sqel(?)áwʔ beaver. Nk sqeláʔwlyè Beaver, Ch sqeléʔw beaver, MsCw sqeléʔ beaver, Sq sqláwʔ beaver, Cx [q<sup>w</sup>ówit] probably /q<sup>w</sup>úwet/ or /q<sup>w</sup>úwit/ beaver, San sqel'áwʔ beaver, Sg sqel'éwʔ beaver, So sqíʔuʔ [sqéʔawʔ] beaver.

(6) \*múʔ(u)q<sup>w</sup> duck (generic), waterfowl. Nk móʔòq<sup>w</sup> bird, ChMsCw máʔq<sup>w</sup> duck (generic), Ch also large bird, Ld búʔq<sup>w</sup> waterfowl, Tw [bóʔq<sup>w</sup>] duck (generic), waterfowl, San máʔaq<sup>w</sup> any duck, Sg máʔeq<sup>w</sup> bird, duck, chicken, poultry, Cl múʔeq<sup>w</sup> duck.

(7) \*-q'íx (bound form requiring affix) black. Nk čq'íx, ChMsCw c'-q'íx, Sq qíx, LmSanSo Cl (Suttles 1965) ne-q'íx, Sg ne-q'éx black.

(8) \*t'q-ús to be blind in one eye ("be bruised/purple in the face"). Nk st'qós blind in one eye, Ch st'k<sup>w</sup>ás (AD) one-eyed, cf. Ch t'íq-el get bruised and Ch s-t'ít'eq-á·les have a black eye, bruised eye (contrast Ch qíx-es blind with deglottalization < q'íx- black + -es ~ -á(·)s in the face), cf.? Sq t'áqaʔ-áyus have a black eye, Ld t'qós (IG) blind in one eye, SLd t'ésqus blind. Cf. 205 also for root and gloss.

(9) a) \*púh-t/-(u)n to blow (with breath), b) \*peh-ál/l<sup>y</sup>s to blow (of wind), c) \*púx<sup>w</sup>-ut to blow on someone (an Indian doctor

on a patient), d) \*ph-ų... - \*px<sup>w</sup>-ų... to blow on something. Nk póhn blow, ChMsCw pá·t blow (with breath), Ch páx<sup>w</sup>-et blow on someone (shaman on a patient), Ch peh-é·ls to blow (of wind) (cf. 160), Sq puh- - peh- blow, swell, Se pút to blow with the mouth, Se páls - palís to blow (wind), Pt phá<sup>?</sup>-k<sup>w</sup>up or perhaps better ph-á<sup>?</sup>k<sup>w</sup>up to blow up a fire (cf. Ch -él-cep fire(wood), Ld -ál<sup>?</sup>-čup fire(wood) and esp. Ld -a<sup>?</sup>k<sup>w</sup>-čup group of firewood viewed distributively where -a<sup>?</sup>k<sup>w</sup> is group viewed distributively) Cx púh-t blow (a whistle for ex.), Cx púx<sup>w</sup>ut blow (with mouth), Ld pú<sup>?</sup>-ud blow (it out), Tw puhú(?)d blow it (with mouth), Lm px<sup>w</sup>ét blow it!, San páx<sup>w</sup>et to blow (with mouth), Sg páx<sup>w</sup>et to blow, inflate; to blow on the chest (for ex. by curing ritualist, person with power), Sg spx<sup>w</sup>éle wind, So páx<sup>w</sup>- to inflate, So páx<sup>w</sup>-et blow it up, inflate it.

(10) \*k<sup>w</sup>áy(?) bluejay. Nk k<sup>w</sup>áy bluejay, Ch k<sup>w</sup>é·y bluejay, Ld káykay Steller's jay; one who talks too much (cf.? Ld ʔes-káykay<sup>o</sup>b sky blue, azure).

(11) Nk čphós light brown.

(12) \*k<sup>w</sup>ás to get burned (of skin), be hot. Nk q<sup>w</sup>és burned (of animates), Ch k<sup>w</sup>és get burned, Ch k<sup>w</sup>és-ces get burned on the hand, Ch k<sup>w</sup>ák<sup>w</sup>es be hot, MsCw k<sup>w</sup>és burn (of wood or finger), Sq k<sup>w</sup>ás be hot, burn, scald, Sq k<sup>w</sup>ás-ač burn one's hand, SeCx k<sup>w</sup>ás hot, Ld k<sup>w</sup>ás burn body, roast, barbecue, Tw k<sup>w</sup>as-ád scorch it (of skin esp.), San k<sup>w</sup>ás to burn, scald (Bouchard 1974a), San k<sup>w</sup>és to burn, San k<sup>w</sup>s-íq<sup>w</sup>-en burned head, Sg k<sup>w</sup>é<sup>?</sup>ls be hot, warm, Sg s-k<sup>w</sup>és sweat, Sg q<sup>w</sup>és be burned to death, So k<sup>w</sup>és to burn, be burned, Cl k<sup>w</sup>ás get burned, Cl k<sup>w</sup>é<sup>?</sup>us hot (of fire for example).

(13) Nk káemič , Ch képec, Cx képeč cabbage. From CJ or English; Nk possibly via Ld, thus m < Ld b.

(14) a) \*p'íč't charcoal, b) \*páyč'-em - \*píč'-em to spark. a) Nk p'íč't charcoal, Cw (Bouchard 1974b) p'éc't charcoal, Sq p'íč't charcoal, Sg č'íc'et to char, turn to charcoal; to blacken with charcoal; black face paint ; b) Ch pé·yc'-em to spark, Sq píč'm to spark, Se pič'-ím spark, Tw p'áyčeb spark, sparkling.

(15) \*q<sup>w</sup>x<sup>w</sup>-úl<sup>y</sup>-x<sup>y</sup>en toenail, \*-x<sup>y</sup>en ~ \*-x<sup>y</sup>in (on the) foot, leg. Nk q<sup>w</sup>hólšín claw, Ch q<sup>w</sup>x<sup>w</sup>-él-x<sup>y</sup>el toenail, claw, Ms q<sup>w</sup>x<sup>w</sup>élx<sup>y</sup>en toenail, Cw q<sup>w</sup>x<sup>w</sup>élšén toenail, Sq q<sup>w</sup>x<sup>w</sup>-uy- claw, nail, Sq q<sup>w</sup>x<sup>w</sup>úy<sup>?</sup>q<sup>w</sup>uy<sup>?</sup>šn toenail, Se qep'-iq<sup>w</sup>-úy-šn-tn toenail, Ld q<sup>w</sup>áx<sup>w</sup>šed toenail, Tw q<sup>w</sup>éx<sup>w</sup>šid (i here [I]) toenail; claw, San q<sup>w</sup>x<sup>w</sup>álušen toenail, Sg q<sup>w</sup>x<sup>w</sup>á<sup>?</sup>lo<sup>?</sup>-čes finger nail, Sg -šen (on the) foot, leg, contrast So č'sáysn toenail and Cl č'š-úy-cs finger nail and Cl čx<sup>w</sup>-úy-sen toe (split + rounded element + foot) where only the suffixes are cognate, cf. also Se -šn ~ -šín foot, leg, Ch -x<sup>y</sup>en on the foot, on the leg, Pt -šen leg, Cx -šín leg, foot, Cx (Suttles 1965) -šen foot, Tw (Suttles 1965) -šed foot, Lm -sen leg, SgCl (both Suttles 1965) -sen ~ -šen foot, So (Efrat 1969: 117, 118, 129) -sen ~ -šen leg, foot (-sen may be more productive).

(16) ? \*cq-íl<sup>y</sup> to climb, go vertically. Nk cqíl climb, (see 183, compare Ch θéq steep, Ch θqé't tree, MsCw θqét tree, Sq s-céq tree, log, stick, wood (material), Se ceqát-t to put up (as pole)), Tw cq'íl climb, San θ'qéneq to climb (a hill); the basic meaning of the root is probably vertical if Nk -íl is cognate with Ch -íl go, come, get (for the Sq suffix cognate -iy see 32 below).

(17) \*sx(ə)p'ám cockle clam. Nk sxp'ám, Ld sxep'áb, Tw sxp'áb cockle clam.

(18) \*ʔáy(ə)t cod (especially grey cod). Nk ʔáyt codfish, Ch ʔé·yt ling cod, Cw (Bouchard 1974b) ʔéyet grey cod, Sq ʔáyat black or grey codfish, San ʔéyet grey cod, Sg ʔéyet cod, So ʔéyet cod.

(19) Nk xák<sup>w</sup> cold.

(20) \*stiqiw-úlš colt (\*stiqíw horse probably < CJ), \*-(ʔ)úlš young, (\*słeney-ʔúlš young (pre-teen) girl). Nk stiqíyówš colt, Ch stiqiw-á·lš colt, Cw (Bouchard 1974b) -(ʔ)álš young (as in sméyeθálš fawn, słeniʔálš young girl), Sq staqiwúlš colt, Se s-teyqíw horse, Se -álš young as in sčewit-álš son-/daughter-in-law, Cx [té·tqaygo·š]/tí·tqaygu·š/ foal, Ld stítqíw pony, foal, Tw stiqíwaš colt, San stiqíw horse, San -áleš offspring of, young,

Sg stiqiwáleł colt, So steqiwáyeł colt, So steqíw horse, Cl stiqíw? horse, Cl -úył - -ú?ił young, (cf. also Lm -ó'ł - -ól'ł, San -á'ł - -ál'ł, Sg -áleł - -ál'ł, So -óyeł young as in Lm słenečó'ł, San słenečá'ł, Sg słenečáleł, So słenečóyeł, Cl słna'čúył pre-teen girl and Lm sečól'ł, SanSg sečál'ł, Cl sa'č-ú?ił non-adult younger sibling). The root stiqíw may be from Chinook proper (before the advent of CJ) or may < CJ kíwtən (or qíwtən) horse, which in turn (Johnson 1978: 344-345) < Chinook proper -kíwtən (Boas 1904: 137) horse (in turn possibly diffused < Spanish caballo [kaβáyo] horse). It is unclear at present whether CJ had k or q here, but as pronounced by Central Salish speakers one might expect q. It is also unclear whether CJ added the t(i)- before it reached Central Salish speakers or after; Chinook proper, if the source, has a set of five prefixes, one of which must be used with each noun, and one of which is plural (Boas 1904: 128).

(21) Nk weníl come forth.

(22) Nk mósms, Ch músmes, Sq músmes, Cx mú'šmus, Lm músmus, Sg mósms, So mú'smes - mú'smes cow. From CJ músmus cow.

(23) \*q<sup>w</sup>e?úp crabapple. Nk k<sup>w</sup>?óp, ChMsCw q<sup>w</sup>e?áp, Sq q<sup>w</sup>u?úp, Se q<sup>w</sup>e?úp, Sg q<sup>w</sup>á?ap, (possibly So qé'ex<sup>w</sup>, Cl qá'ex<sup>w</sup>) crabapple.

(24) ?\*q<sup>w</sup>ím-al/l<sup>y</sup>s to get credit (borrow with promise to repay). Nk k<sup>w</sup>íməls credit, Ch q<sup>w</sup>ím-əls get credit (Pilalt dialect), Sg q<sup>w</sup>ínele to borrow.

(25) \*pésq<sup>w</sup>/k<sup>w</sup>-(e)t to insult someone (by making fun of his body). Nk pspésk<sup>w</sup>ətem curse, [from context of the text: he got cursed repeatedly by insults to his body], Ch pésq<sup>w</sup>-t make fun of someone's body, insult someone about his body, Ch pásq<sup>w</sup>-tel a descriptive body part term (insult or joke usually).

(26) \*łíč'- to cut, get cut, (cut across), (\*leč'-ím?(-) to comb, \*łáč'-ten a knife). Nk łíc' cut cattails, ChMsCw łíc'-et cut something, Ch (s-)łec'-í'm-el a comb, Ch łéc'-tel a knife, Sq łíč' be cut, Sq łíč'-it cut, shear (transitive), Sq łáč'-tn knife, Se łáč'-ten knife, Cx łíč'im to comb one's hair, Ld łíč'-cut, Ld łíč'ib cut cattails for mat-making, cut grass for making

something, Tw ɬéč' sharp, Lm ɬíc'et to cut it, San ɬíθ'et to cut something, Sg ɬíc' to cut, Sg ɬíc'et to cut (something), So ɬc'f- to cut, So ɬc'íq-n a comb, Cl ɬíc' get cut (for ex. Cl ɬc'é'q<sup>w</sup>, LmSgSo ɬc'f'q<sup>w</sup>, San ɬθ'f'q<sup>w</sup> cut on the head), Cl (Suttles 1965) ɬíc't cut across.

(27) \*cá't darkness. Nk cát dark, Ch θé't dark, darkness, Ms θé't dark (as of night).

(28) a) \*s-k<sup>w</sup>áy-l day, sky, b) \*k<sup>w</sup>áy-fl<sup>y</sup> get light, become dawn. Nk sk<sup>w</sup>áy<sup>l</sup> day, ChMs swéyel day, sky, Ch wéyel to be day, Cw sk<sup>w</sup>éyel day, Sq sk<sup>w</sup>áy<sup>l</sup> day(light), sky, Se k<sup>w</sup>áy<sup>l</sup> day, sky, Se k<sup>w</sup>f' - k<sup>w</sup>íy dawn, Cx k<sup>w</sup>íy morning (\*sk<sup>w</sup>áy<sup>l</sup> > \*sk<sup>w</sup>áyy > \*sk<sup>w</sup>éyy > \*sk<sup>w</sup>íy > (with loss of all initial s-) Cx k<sup>w</sup>íy), Ld (Skagit) k<sup>w</sup>áčil dawn, tomorrow, Lm sk<sup>w</sup>áy<sup>l</sup> - sk<sup>w</sup>éyel day, Lm k<sup>w</sup>éčíl early in the morning, San sk<sup>w</sup>éčel day, sky, Sg sk<sup>w</sup>éčel day, Sg k<sup>w</sup>éčíl be morning (-íl become, get, inceptive in most Central Salish languages), So sk<sup>w</sup>éčí? day, So k<sup>w</sup>éčí? to be day, morning, So ʔes-k<sup>w</sup>éčí? daylight, daytime, So k<sup>w</sup>čí? daybreak, Cl (Suttles 1965) sk<sup>w</sup>áci daylight.

(29) a) \*x<sup>w</sup>áy to perish together, die (of several), b) \*q<sup>w</sup>úy? to die (of one). Nk x<sup>w</sup>áy die, Ch x<sup>w</sup>éy (/é/[é], as usual) die (many people), perish together, Sq x<sup>w</sup>áy perish; become senseless, faint, Se x<sup>w</sup>áy(?) already dead, Se x<sup>w</sup>áyat kill them (two) on purpose, Cx x<sup>w</sup>áy everybody's dead, several perish, So x<sup>w</sup>éy they are dead, So x<sup>w</sup>éč-t wipe them out, So x<sup>w</sup>éč-t-ŋ they were slaughtered, killed off; b) Ch q'á.y die, be paralyzed, Ch q'á.y-t kill someone (on purpose), MsCw q'áy die, ChMs q'áq'ey sick, dying, Cw q'áq'ey dead, Sq q<sup>w</sup>úy die, be paralyzed, Se q<sup>w</sup>úy die (one), Se (Suttles 1965) q<sup>w</sup>éy die, Se q<sup>w</sup>úy-ut to kill a person, Cx (Suttles 1965) q'éy(?) die, San q<sup>w</sup>éy die, Sg q<sup>w</sup>éy die, Sg (Suttles 1965) q<sup>w</sup>áy die, So q<sup>w</sup>áy to die, kill, Cl q<sup>w</sup>úy die, Cl (Suttles 1965) q<sup>w</sup>účt kill, compare also Sq ʔes-q<sup>w</sup>úy sick, dead, Sq s-q<sup>w</sup>úy sickness, Ld s-q<sup>w</sup>út-ab disease, sickness, Ld s-q<sup>w</sup>íc' widow, widower, and Ld ʔu-q<sup>w</sup>íc'-il just lost a spouse (the Ld shows q<sup>w</sup>íc' - < \*q<sup>w</sup>úy?-c where \*-c is spouse as in 171 \*swáqe-c husband [man/male + spouse], q.v.).

(30) \*λ'f' difficult, to be difficult. Nk λ'f' difficult, Ch λ'f' difficult, to be difficult, expensive, Sq λ'f' difficult, dear, dangerous, San λ'f' difficult, Sg λ'f' to be difficult.

(31) \*sq<sup>w</sup>emáy? dog. Nk sq<sup>w</sup>emáy, Ch sq<sup>w</sup>emé·y, MsCw sq<sup>w</sup>méy, Sq sq<sup>w</sup>máy?, Ld sq<sup>w</sup>ebáy?, Tw sq<sup>w</sup>ebáy?, Lm sq<sup>w</sup>emáy? dog. The word seems to derive (in Ch at least) from a root, q<sup>w</sup>em- soft + -é·y (\*-áy?) covering, bark + s- nominalizer, referring perhaps to the dogs raised for their wool which was prized and spun.

(32) \*wúq<sup>w</sup> drift downstream, \*wu/eq<sup>w</sup>-íl<sup>y</sup>(-em) go downstream. Nk wóq<sup>w</sup> drift, Ch wóq<sup>w</sup> drift downstream; drown, Ch woq<sup>w</sup>-í·l-em go downstream, Ms (Suttles 1965) weq<sup>w</sup>ílem go downstream, Sq wúq<sup>w</sup>-i go downstream, Tw wúq<sup>w</sup>- drift, Lm weq<sup>w</sup>-íl-en (go) downstream; south, Sg k<sup>w</sup>éq<sup>w</sup> meaning unidentified in Mitchell (1968) but an example, k<sup>w</sup>éq<sup>w</sup> ?e ce stá'lo? downriver shows k<sup>w</sup>éq<sup>w</sup> is probably (be/go) downriver (?e ce stá'lo? the river [object of intransitive verb]), this is confirmed by Cl (Suttles 1965) k<sup>w</sup>éq<sup>w</sup>i go downstream.

(33) \*q<sup>w</sup>íc drift. Nk q<sup>w</sup>íc drift, Ld q<sup>w</sup>íc (travel) downstream. The PCS gloss is very tentative, chosen to perhaps complement that of 32, but perhaps it should be the same as in 32; more cognates within the same semantic domain are needed.

(34) ? \*xák<sup>w</sup>/p to be dry. Nk xák<sup>w</sup> dry, possibly the root in Ld ?es-xápdup scab (?es- stative, cf. -(i-)dup ground (dirt), floor in 35, i.e. scab < ? dried + dirt), Lm xéč dry, San xéčen dry, San xéčenenek<sup>w</sup> dry ground, Sg xéčen to dry, Sg sxéč dried smoked food, So xéč-ŋ it is dry, Cl (Suttles 1965: 15) xá'čen dry.

(35) \*s-qel<sup>y</sup>-núp dirt; weed, underbrush ("bad ground"), \*qél<sup>y</sup> bad, \*-núp ground. Nk sqelnóp' dust, Ch sqel·ép garbage, a lot of dirt, weeds, Cw šqél' underbrush, Sq qéy bad, Sq nsqí' underbrush, Sq šwáy-nup weeds has an unrelated root but cognate suffix, Ld -(i-)dup ground, floor, Tw weeds has root qel- bad but its full form is not listed.

(36) \*q<sup>w</sup>élan?(i) ear. Nk k<sup>w</sup>lén, Ch q<sup>w</sup>ó·l, Ch -é·lí·ye,

MsCw q<sup>w</sup>í·n?, Sq q<sup>w</sup>él-a?n, Se q<sup>w</sup>elána, Cx q<sup>w</sup>éwa?ane, Ld q<sup>w</sup>eládi?, Tw q<sup>w</sup>eládi, Lm q<sup>w</sup>élen (n sic? for n), SanSg q<sup>w</sup>élen, Sg (Suttles 1965) q<sup>w</sup>élen?, So q<sup>w</sup>éyn? [q<sup>w</sup>áye'n?], Cl (Suttles 1965) q<sup>w</sup>áyen? ear.

(37) \*temíx<sup>w</sup> ~ \*témex<sup>w</sup> earth, land, ground. Nk temíx<sup>w</sup> earth, Ch téméx<sup>w</sup> earth, land, MsCw témex<sup>w</sup> earth, Sq tmíx<sup>w</sup> earth, land, Tw tebíx<sup>w</sup> earth, land, country, Lm ténex<sup>w</sup> land, San ténex<sup>w</sup> land, earth, Sg ténex<sup>w</sup> earth, fields, garden, So ténex<sup>w</sup> earth, ground, So ténx<sup>w</sup>- to be dirty.

(38) a) \*ʔílen ~ \*ʔílen to eat, b) \*ʔíʔlen ~ \*ʔíʔten eating. Nk ʔílen eat, Ch ʔéltel eat a meal, Ch ʔíʔtel eating a meal, Ms ʔéltén eat, Sq ʔíln eat, Se ʔílen to eat, Pt ʔílen eat, Cx (Davis 1970) [ʔéltén]/ʔílen/ eat, Cx (Davis 1981) ʔílen eat, Ld ʔéled eat, Tw ʔílad eat, all St ʔílen eat, all NSt ʔíʔlen eating, Cl ʔéʔlen eating.

(39) \*wú/álam? ~ \*walám? to echo. Nk wúlæʔæm, Ch welé'm, Sq wálam to echo.

(40) \*mán father, \*má? Father (vocative), Dad. Nk mæn, Ch mél ~ mè'l, MsCw mæn, SqSe mán, Pt mán, Cx mán, LdTw bád, LmSan SgSo mæn father; Cw (Bouchard 1974b) mé? father, Pt má? father, Cx mäh father (vocative), Sg mé? father (vocative).

(41) \*sx<sup>y</sup>él/l<sup>y</sup>c' feather. Nk ššélc' feather, Ch sx<sup>y</sup>élc' feather, Ld ššélc' a type of horsetail ~ yarrow.

(42) \*céx to find (be found). Nk céx find, Ch ʰex-léx<sup>w</sup> find someone.

(43) \*c'éxat fine gravel, pebbles, gravelly beach. Nk c'éxet fine gravel, ChMs ʰ'éxet fine gravel, Cw ʰ'xét fine gravel, Sq c'éxt gravel beach, Se cacxíls pebbles, Tw c'éxat sand; a type of fish, Sg cxét to be stony, covered with pebbles; to be in a stony place, beach.

(44) \*láy?- (Douglas fir (root requires prefix or suffix)). Nk l'áeyáy fir tree, Ch lé·y-ełp Douglas fir, Ch s-lé·y Douglas fir bark, MsCw lé·y?-ełp Douglas fir, Sq ʔil-il-ay? (stress unknown) young fir trees.

(45) \*hún (to make) fire, to burn. Nk hón fire, Ld húd(u)-

fire, firewood, burn, light as in húdu-d burn it and héd warm, hot, Cl húnuc make fire, Cl súnuc (< s-húnuc) fire.

(46) \*k'eqt- (before suffix with stressed vowel) to have long, to be long. Nk k'qtíwen flat-butted, Ch k'eqt-íwel long-rumped, Ch -íwel in the rump, anus, insides, Sq k'eqt-k'áqt-šn long-legged, Sq k'eqtúyt overcoat, Se k'aqt-álu tall (person), San k'eqt-ámet long sheet, So k'eqt-éʔɪ big-boned person.

(47) \*p'fl- ~ \*p'fɪ- flat, to be flat. Nk p'flæk<sup>w</sup>s flat-nosed (k<sup>w</sup> sic? for q), Ch s-p'élɪ-qsəl flat-nosed, Ch p'fɪ-et flatten it, Sq p'élɪk'- be crushed, squashed, Se s-p'íɪ-ít flat, Ld p'fl(i)- flat, broad, Tw ??perhaps p'il- spread (of water only) or p'es- flat, most of Central Salish share -qs nose (see Haeberlin 1974).

(48) \*mús four. Nk mós four, Ch (a few Tait dialect speakers) s-mós Thursday ("fourth day"), Se mús four, Cx mús [mós] four, Cx (Suttles 1965) mós four, Ld búus four, Ld (Suttles 1965) bós four, Tw búus- four, Tw (Suttles 1965) búsas four, Lm nós four, SanSg(Suttles 1965)So nás four, Sg nés four, Sg s-nés Thursday, So s-nés-ɪ-nét Thursday, Cl nús four.

(49) \*lʲéč' ~ \*(ʔe)s-lʲíč' full, to be full (usually inanimate). Nk néč' full, ChMsCw s(e)líc' full, Ch lec'-ét fill it, Sq yéč' ~ siʲíč' full, Sq yíč'-it fill it, Se léč' full, Se (Suttles 1965) léč'it full, Pt léč' [líč'] full, Cx yéč' [yíč'] full, Ld léč' full, fill (container), Lm ʔes-léc'-eɪ full, San sléθ'eɪ full, Sg ʔes-léc'-eɪ full, Cl ʔes-yác'-ɪ full.

(50) \*q'áʔmiy teenaged girl, maiden. Nk q'éməy girl, Ch q'é(·)mi(y) adolescent girl, MsCw q'émeyʔ adolescent virgin girl, Sq q'áʔmay maiden, Ld q'ábeyʔ maiden, Tw q'áʔbi a young unmarried woman (about 20 for ex.), Lm q'éʔni teen-aged girl, San q'én'i maiden, So q'éʔniʔ female teenager, Cl q'áʔniʔ teen-age girl.

(51) \*ʔúx<sup>w</sup>(e)s- to give away, (possibly \*ʔúx<sup>w</sup>-xʲit to give away to somebody), \*ʔáx<sup>w</sup>-et ~ \*ʔex<sup>w</sup>áʔ-t to hand to someone, give (by hand) to someone. Nk ʔóx<sup>w</sup>šlt give away, Ch ʔáx<sup>w</sup>es-t give to someone (as informal gift), Ch ʔéx<sup>w</sup>-et give to someone (hand to), (Ch yéxč-et give to someone (as a gift) in contrast), Sq ʔex<sup>w</sup>áʔ-t



hand to, give to (destined object), Sq  $\text{'ix}^w$ -n give, make a present of (transitive), Sq -šit indirect transitivity, to/for someone, Tw  $\text{'ux}^w$ š- (not glossed) as in  $\text{s'ux}^w$ šeb upper class marriage wealth exchange or feast and  $\text{bi'ux}^w$ šeb he's buying a woman (giving money or property to her parents), So possibly  $\text{'ax}^w$ -t bring to (someone) (probably < So  $\text{'ax}^w$  to go to). This set may well be related to the next (52) with  $\text{*x}^w$  -  $\text{*x}^w$ .

(52)  $\text{*'ux}^w$  to go to. Nk  $\text{'óx}^w$  go, Ld  $\text{'ux}^w$  go, Tw  $\text{'ax}^w$ - (going) to, toward, So  $\text{'ax}^w$  to go to, Cl  $\text{'ux}^w$  go on, go (to).

(53) Nk hãmmó go on (to storyteller).

(54) a)  $\text{*há?}$  to be good, b)  $\text{*'áy?}$  -  $\text{*'iy?}$  to be good. Nk há?š, SqLd há?š good; the other languages have the second root: Ch [ $\text{'éy}$ ]/ $\text{'éy}$ / or / $\text{'iy}$ / (phonemic overlap here), MsCw  $\text{'áy?}$ , Se  $\text{'iy}$ , Cx  $\text{'í}$ : [ $\text{'í}$ : -  $\text{'éy?}$ ], Tw  $\text{'áy}$ , LmSanSoCl  $\text{'áy?}$  good, (to be good).

(55)  $\text{*k}^w$ en-át to hold something, grab something. Nk  $\text{k}^w$ ná? grab, take, Ch  $\text{k}^w$ el-ét hold something in one's hand(s), (cf. Ch  $\text{k}^w$ él·ex<sup>w</sup> //  $\text{k}^w$ él-l-ex<sup>w</sup> // happen/manage to get it, Ch  $\text{k}^w$ út take/get something on purpose), MsCw  $\text{k}^w$ enét hold, Sq probably  $\text{k}^w$ én begin doing something, begin being possessed, Se  $\text{k}^w$ én-at grab something (with hands), NLd  $\text{k}^w$ edát take, get, hold, SLd  $\text{k}^w$ éd(et) take, get, hold, Tw  $\text{k}^w$ ed- take, get, hold, Tw  $\text{k}^w$ edáb hold, take hold of, Tw t- $\text{k}^w$ edád he took it, Lm  $\text{k}^w$ énet take it, San  $\text{k}^w$ énet grab (it) with hands, take it, Sg  $\text{k}^w$ enét to hold, fasten, Sg  $\text{k}^w$ énet to hold, take, find, So  $\text{k}^w$ en- to take, get (can be followed by -é resultative and -t directed transitive [purposeful control transitivity]), So  $\text{k}^w$ én-et take it, So  $\text{k}^w$ én-ŋ get grabbed.

(56)  $\text{*mí't'}$  blue grouse. Nk blue grouse, ChMsCw  $\text{mí't'}$  blue grouse, Sq  $\text{múm'tm}$  blue grouse, San  $\text{ní'tit'}$  blue grouse, Sg  $\text{ní'tet}$  grouse (Tetraonidae).

(57)  $\text{*(?a/i)š-séq'}$  half,  $\text{*séq'(-)}$  to split/crack in half. Nk  $\text{'əš-séq'}$  half, ChMsCw  $\text{š-séq'}$  half; half-dollar; half-breed, Ch  $\text{seq'-ét}$  to split, crack in half, Sq  $\text{'e(s)-seq'}$  half (split off), Cx  $\text{séq'}$  split, crack; half, Tw  $\text{'iš-séq'}$  half; half dollar, San  $\text{š-séq'}$  half, (perhaps Sg  $\text{'əščéx}$  to be half of, cut in half, Sg  $\text{ščéx}$  half; 50-cent piece, So  $\text{'əščéx}$  to halve).

# Summary of Sound Correspondences

PCS	Nk	Ch	Ms	Cw	Sq	Se	Pt	Cx	Ld	Tw	Lm	San	Sg	So	Cl	Environments (PCS)
*p	p	p	p	p	p	p	(p)	p	p	p	č	č	č	č	č	
*p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	/_u and St < borrowings
*p'	p'	p'	p'	p'	p'	p'	(p')	p'	p'	p'	č'	č'	č'	(č')	č'	
*p'	p'	p'	p'	p'	p'	p'	(p')	p'	p'	p'	p'	p'	p'	p'	p'	/_u and St < borrowings
*m	m	m	m	m	m	m	m	m	b	b	ŋ	ŋ	ŋ	ŋ	ŋ	
*m	m	m	m	m	m	m	m	m	b	b	m	m	m	m	m	/_u and St < borrowings
*m?n	m	m	m?		m?	mn			d?		n	n?	n?	n?	n?	
*n	n	l	n	n	n	n	n	n	d	d	n	n	n	n	n	
*c	c	θ	θ	θ	c	c	θ	θ	c	c	s	θ,s	s	s	c	(Island Cx s)
*c'	c'	θ'	θ'	θ'	c'	c'	c'	θ'	c'	c'	c'	θ'	c'	c'	c'	(Island Cx c')
*l	l	l	l	l	l	l	l	y,w	l	l	l	l	l	y	y	Cx w /_u, u_
*l <sup>y</sup>	l	l	l	l	y	l	l	y,w	l	l	l	l	l	y	y	Cx w /_u, u_
*t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	
*t'	t'	t'	t'	t'	t'	t'	t'	t'	t'	t'	t'	t'	t'	t'	t'	
*ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	ɬ	
*ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	ɬ'	
*s	s	s	s	s	s	s	s	s,θ	s	s	s	s	s	s	s	Cx θ /#_C
*s	š	s[š	s[š	š	s	s	s	s,θ	š,s	s	š	š,s	š,s		s	/_x <sup>w</sup> Cx θ /#_x <sup>w</sup>
*s	š	s	s	s	s	s	s	θ	s	(s)	s	s	s	s	s	/#_x <sup>y</sup> ,wi,wa,q <sup>w</sup> a
*x <sup>y</sup>	š	x <sup>y</sup>	x <sup>y</sup>	š	š	š	š	š	š	š	s	s	s	s	s	
*x <sup>y</sup>	š	x <sup>y</sup>	x <sup>y</sup>	š	š	š	š	š	š	š	s	š	š,s	š,s	š,s	(borrowings into St?)
*č	č	c	c	c	č	č	č	č	č	č	s	s	s	s	c	
*č'	č'	c'	c'	c'	č'	č'	č'	č'	č'	č'	č'	č'	č'	č'	č'	/#_,_# in St
*č'	č'	c'	c'	c'	č'	č'	č'	č'	č'	č'	c'	θ'	c'	c'	c'	/medial in St

PCS Nk Ch Ms Cw Sq Se Pt Cx Ld Tw Lm San Sg So Cl Environments (PCS)

PCS      Nk      Ch      Ms      Cw      Sq      Se      Pt      Cx      Ld      Tw      Lm      San      Sg      So      Cl

\* $\dot{V}_a ? (V_a)$      $\dot{V}_a ? V_a$      $\dot{V}_a$      $\left\{ \begin{array}{l} \dot{V}_a \\ (\dot{V}_a ? V_a) \end{array} \right.$      $\left\{ \begin{array}{l} \dot{V}_a \\ (\dot{V}_a ? V_a) \end{array} \right.$      $\dot{V}_a ? (\circ ?) \dot{V}_a$         $\dot{V}_a$      $\dot{V}_a [.]$         $\dot{V}_a ? V_a$      $\dot{V}_a ? V_a$      $\dot{V}_a ? V_a$      $\dot{V}_a ? V_a$

PCS	Nk	Ch	Ms	Cw	Sq	Se	Pt	Cx	Ld	Tw	Lm	San	Sg	So	Cl	Environments (PCS)
*?R	?S R <sup>-S</sup>	•R	{?R}{?R} {(wR?)}{(wR?)}	R?	R?			R	?R	{?R} {?b}	?R	R?	R?	?R	?R	/V_V
*R?	R	R	R?	R?	R?	R			R?		R?	R?	R?	R?	R?	/V_V
*m?n	m	m	m?		m?	mn			d?		n	n?	n?	n?	n?	/V_V
*l?n		l.			l?n						ln	l?n				/V_V
*R?	R	•R	R?	R?	R?	R?	R	R	R?	?R	R,R?	R?	R?	R?	R?	/V_#
*R?	R	R	R?	R?	R?	R		R?	R?	R	R?	R?		R?	R?	/V_#
*R?	R	•R	R?	R?	R?		R		?R	R	R,R?	R?	R?	R?	R?	/V_C
*ú	ó	á	á	á	ú	ú	ú	ú	ú	ú	ó	á	á	á	ú	
*u	ò	e	e	e	u,e	u	u	u	u	u	e	e	e	e	e	
*á	æ	é	é	é	á	á	á	á	á	á	é	é	é	é	á	
*á	æ	é	é	é	á	á	(á)	(á)	á	á	ó	á	á	á/ó	ú	/Q <sup>w</sup> ,K <sup>w</sup> ,w_,_Cu,Q <sup>w</sup> ,w
*a	æ	e	e	e	a	a	a	a	a	a	e	e	e	e	e	
*í	í	í	í	í	í	í	í	í	í	í	í	í	í	í	í	
*i	ì	i,e	i,e	i,e	i	i,e,y	e	i	i,e	i	i	i	i	i	i	
*é	é	é	é	é	é	é	é	é	é	é	é	é	é	é	é	
*e	æ	e	e	e	e	e	e	e	e	e	e	e	e	e	e	/áC(C)_,_C(C)á, others
*e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	
(*ú-*	é	ó	ó,é,á	é	é	ú			á		e		é	é	é	
(*á-*	é	æ	é,é	é,é	é	á,é	é	(é)	é,á	é,á	é,á	(é)	é,é	é	é	
(*á-*	í	(æ)	é	á,é	á	í	í		í	á	é	é	(é)	é	é	
(*a-*	i	æ	e,e	e,e	e	i	i,e	i,e	i,e	i	i,e	e	e,e	e	e	
(*í-*	é	í,é	é,í	é,í	é,í	é,í	é,í	é	é	í,é	í,é	é	é,í	é	é	
(*í-*	e	í	e	e	e	í	í	e,e,í,i	í,i	í,i	í,i	e	e	e	e	
(*i-*	e	ì,e	e	e	e	i,ø	i,ø	e	i	e,i	i	e	e,i	e	e,ø	perhaps belongs under *i

The Proto-Central Salish sound reconstructed here can be summarized in the following table:

*p	*t	*c	*č		*k <sup>w</sup>	*q	*q <sup>w</sup>	*ʔ
*p'	*t'	*c'	*č'	*ɬ'	*k' <sup>w</sup>	*q'	*q' <sup>w</sup>	
		*s		*x <sup>y</sup>	*ɬ	*x <sup>w</sup>	*ɬ	*x <sup>w</sup>
*m	*n		*y	*l <sup>y</sup> , *l	*w			
			*i					
					*e	*u(*o)		
					*a			

From this structural arrangement it can be seen that there are structural reasons (à la Martinet) for some of the historical developments which took place. PS \*k k' > PCS \*č č' begins a fronting movement which pulls \*x<sup>y</sup> into the č slot (and sometimes into s for St), pulls PCS \*c c' into HkPtCxSan θ θ' (except Pt c' remains), pulls PCS \*č č' into Hk c c', and pulls \*l toward \*y; perhaps connected with this is the fronting of vowels: PCS \*ú (really \*ó by PCS) > HkSanSgSo á, PCS \*á > NkHkNSt é/é/é, PCS \*éy > í, PCS \*u and \*a > HkSt e. Compensating for the vowel fronting are \*i > Hk (and others) e (- i), also \*ú > u, \*í > i, \*á > a, \*é > e, and vice versa (\*u > ú, etc.) with stress shifts which are frequent; stress variation must have been fairly common in PCS also. The only source of ú/ó is \*éw between consonants, which is less common than a shift from a single vowel; thus u and o are rare (depleted) in all the daughter languages today.

Returning to the consonants, the table and all such two-dimensional tables obscure some structural connections which are also quite strong. For example, in physical reality there is no reason why the row with \*y and \*w could not be directly adjacent to the top row. This explains \*y > Cx ʃ Ld d<sup>z</sup> St č and \*w > Cx g Ld g<sup>w</sup> St k<sup>w</sup> (except Lm). Similarly a three-dimensional chart could also show an adjacent labial-labialized connection explaining PCS \*p p' m > Proto-St \*k<sup>w</sup> k'<sup>w</sup> ŋ<sup>w</sup> (except before labial \*u. The two-dimensional chart is adequate to show the \*k k' ŋ gap which \*k<sup>w</sup> k'<sup>w</sup> ŋ<sup>w</sup> then filled by losing labialization. Then

as in the PS > PCS fronting cycle, so Proto-St \*k k' > St č č'.

There may have been glottalized resonants from PS left in PCS, but it seems more likely, as shown above, that clusters \*ʔR occurred /ʔV and \*Rʔ occurred elsewhere. As is speculated in Thompson (1979: 717), the occlusion of semivowels may have opened the gate for \*m n to also fill the voiced-stop holes in the pattern by > LdTw b d (this in turn spreading to Quileute, Makah and Nitinat); it also happened sporadically in Ch and Cx (Davis 1970: 34), as mentioned above. In Hk and (phonetically) some other languages, length < \*ʔ and also < preconsonantal \*h and functions in the slot shown filled above by \*'. Velars vs. uvulars, glottalized vs. non-glottalized, and labialized vs. non-labialized remain quite distinct throughout, but there are rare sporadic cases of five types of deviation or irregularity in individual words (either innovated or preserved): C'-C, K-Q, C-C<sup>w</sup>, ʔ'-t', and ʔ-l correspondences (the last two very rare)(C is consonant, K is velar stop/spirant [with and without labialization], Q is uvular stop/spirant, C<sup>w</sup> is labialized consonant). And there are numerous cases of borrowing and influence between adjacent languages (a major source for St p p' m).

Further research could profitably do several things:

- a) add to the number of cognates, especially with alternate sets for the same glosses which may influence each other (I have shown a few cases of such influence but have largely omitted all alternate sets which were not cognate with the Nk forms); considering the high percentage found here of cognates for a fixed set of 189 words in a given language and considering the large numbers of cognates I noted in scanning dictionaries of Ld and Sq, for example, there are perhaps several thousand cognates reconstructable for PCS at the very least.
- b) Compare PCS, PIS, and PS cognate sets already found with dictionaries of immediately adjacent non-Salish languages to trace extra-familial borrowings (this has been started for Bella Coola by Nater 1977).
- c) Compare PCS cognate sets with BC, Ti, Ts, and IS to complete the full exposition of PS sound correspondences.
- d) Reconstruct

an increasing number of semantic domains so that we can be sure of the glosses of our reconstructions (as studied by lexical fields in Europe) and so that with flora and fauna terms we can reconstruct the proto-homeland.