THIRD PERSON POSSESSIVES IN COWLITZ[1]

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1. As all Salishanists know, the third person possessive -s suffix is pan-Salish.[2] So are the canonical shapes of roots as CVC or CVCC.[3] This paper will show that Cowlitz is in general an exception to the first assumption, and that the second is probably not true at all--at least not for Olympic Salish.

Refutation of the first assumption is simple. Note the following miscellany of common Cowlitz nominals and their third person possessive forms:

| | | | | |
|---|---|---|---|---|
| 1. | mús | músi | eye | (63) |
| 2. | kʷušú | kʷušúhi | pig | (4) |
| 3. | kásiʔ | kásiʔni | star | (11) |
| 4. | q̓ʷíɬp | q̓ʷíɬapi | root(s) | (56) |
| 5. | q̓íyx̣ | q̓ayáx̣i | guts | (7) |
| 6. | kəlx | kaláxi | mat | (20) |
| 7. | tínx | tíniši | muscle, sinew | (22) |
| 8. | qálʔ | qalíʔi | water | (14) |
| 9. | qáx̣aʔ | qax̣íʔi | dog | (3) |
| 10. | scəxáʔis | scəxáy̓usi | partner | (3) |
| 11. | mə́ts | matúsi | kidney | (12) |
| 12. | lawúličən | lawúlkəni | bottle | (10) |
| 13. | scáqʷ | scaqʷíli | arrow | (6) |
| 14. | snúkʷiɬ | snúkʷiɬtawi | nephew, niece | (12) |

Given only these data, third person possessive obviously is marked by a suffixed -i, not -s, with, often, a concomitant infixed vowel and other stem changes. These changes appear to be almost completely chaotic. Presented from

this point of view, each of the above forms represents a class of words (with
several irregular forms both within and separate from each of these classes),
with from 3 to 64 members in each class (the number in parentheses following
each set of forms above indicates the number of words in each class; in addi-
tion to these, there are 11 irregular forms which fit into none of these classes;
these numbers should be considered relative, of course, but represent the total
number of third possessives I have from Cowlitz).  Class membership is deter-
mined by the infixed vowel (if any), stress placement, and variation of the
suffix (-i, -hi, -ni, -(i)li, -awi).  Although I am about to discard this whole
classification, or most of it, enough other than common infixed vowels is shared
by some of the classes to be worth pointing out.  (a) All but 13 members of
group 1 end in a single consonant preceded immediately by a stressed vowel.
Only four other nouns in this corpus meet this specification (one in class
13, two in 14, and one irregular).  (b) Three of the four members of class 2 are
loans from French via Chinook Jargon; the fourth may be a Sahaptin loan.  All
four end in vowels, a characteristic shared with only two other forms, both in
class 3 (but where the final vowel is unstressed), one of which is an English
loan.  This may be taken as indicative that Cowlitz strongly disfavors word-
final vowels (although not necessarily stem-final vowels, as will be indicated
below), except that the -i suffix is final.  Also involved here is a decision
as to whether or not aspiration that occurs finally after every vowel that would
otherwise be word-final is or is not phonemic; if it is, class 2 forms would
become part of class 1 (i.e., pig would be $k^w$ušúh), and the suffix, to be con-
sistent, would be -ih.[4]  (c) All but the two members of class 3 referred to
just above end in glottal stop preceded by an unstressed vowel (but such forms
are not restricted to this class).  The two exceptions lack the final glottal
stop.  Two other forms of this set were recorded without glottalization in the
possessed form, but these may be transcriptional errors.  (d) Class 4 is inflated
by the occurrence of several forms with the lexical suffixes -šən foot, leg,
-qs nose, front, -nk hip, hind part, -xx house (reduced from x́ax), or the nomi-
nalizer -tn.  Forms with -šən also occur in classes 1, 5 and 7, and forms with
-tn in classes 1, 6, 12 and 14.  Lexical and nominalizing suffixes each occur
predominantly in one class.  Thus -tn favors class 4; -mən (nominalizer) occurs

only in class 7 (except for one in class 14, but due to its meaning rather than
its form); -mx person and -mx plural occur only in class 7; -ičən back occurs
only in class 12; two of the three instances of -aka? hand, arm are in class 13;
and all instances of -ił offspring occur in class 13. (e) Class 14 is clearly
a special semantic class. Except for hand and branch (which may be related
forms), all members of class 14 are kin terms. Special treatment of kin terms
in plural formations also occurs in Cowlitz, Upper Chehalis, Songish, and pro-
bably elsewhere.

2. All this can be greatly simplified and regularized by discarding the
notion that CVC and CVCC are the canonical shapes of roots, a notion that forces
one into the above analysis and the impossibility of accounting for what vowel
is to be infixed in the latter part of the root or stem. Ultimately what will
probably have to be reconstructed for Olympic Salish are roots of the forms
CVCV and CVCVCV; stems will be CVCVCV and CVCVCVCV, created by compounding or
by the addition of -CV and -CVCV suffixes (there may also be suffixes with final
consonants). Final stem vowels appear only in inflected verbal forms, and are
lost otherwise. There are also apparently circumstances under which the next-
to-the-last vowel is dropped, but I have not yet been able to detect the causes.
To derive both the independent nominal and the third person possessive forms it
is necessary, then, to assume CVC, (X)CV(X)CC, and (X)CV(X)CVC bases (where X
may be additional syllables or one or more consonants). Stress may fall on any
vowel. Beginning with these forms, only a few simple rules are necessary.
There will still be a residue of irregular forms, mostly polysyllabic forms
from the previously rather simple and regular class 1, but the overwhelming
generality of these new rules and their ability to account for a wide variety
of otherwise problematic forms speaks for their preference.

Two of the eight rules necessary are specific to third possessive vs.
independent nominal stem formation. The others (with the possible exception
of Rule 4, the generality of which has not yet been determined) are general
rules necessary throughout the language to derive the correct phonetic forms.
The rules are simply listed first, and then will be discussed and expanded in
turn (to a point; the purpose of this paper is to explain vowel and stress
variations in noun stems, not to account for various automatic or semi-automatic

consonant variations).

Rule 1.   Add third person possessive -i to stem.

Rule 2.   If Rule 1 was not applied, XVC becomes XC, except monosyllables.

Rule 3.   Adjust ə:   *ə > ə́, a.

Rule 4.   Delete unstressed vowels before CCV.

Rule 5.   Vocalize y or w between consonants and in C_# position.

Rule 6.   Devoice final l.

Rule 7.   Adjust palatal consonants.

Rule 8.   Insert epenthetic ə's.

The rules are generally ordered.  Rules 3 and 4 may be in the wrong order, or their sequence may not matter; but they must follow Rule 2 and precede Rule 5. Rules 6 and 7 must only follow Rule 5 and precede Rule 8, but their order otherwise appears to be irrelevant.  Rule 8 is a very low-level rule, and is strictly phonetic; the others all affect the phonemic output.  All but Rule 1 are obligatory.

   2.1.   Given the above recognized stem types, the third person possessive can now be considered almost completely regular.  Rules 3 and 4 must be applied where applicable, and Rules 5, 7 and 8 may make minor adjustments.  -hi, -ni, -(i)li, and -awi might be considered to be variants of -i, but since no conditioning factors can be detected, forms with these variants will be considered below under irregular constructions.  Note, however, that they, and all other irregular forms, still end in -i.  Irregularities in nouns occur predominantly among forms without third person possessive -i.

   2.2.   Rule 2 derives the usual forms of nouns.  The rule is that a vowel immediately preceding a single final consonant (see Rule 4 for final consonant clusters) is deleted except in monosyllables.  If this deleted vowel is a stressed vowel, stress is shifted to the next vowel toward the beginning of the word. Thus we can derive any of the following (base form first, then independent noun, third possessive, and gloss; other rules that must apply are given in parentheses):

| | | | |
|---|---|---|---|
| *s-x̌ís | sx̌ís | sx̌ísi | flower |
| *təx̌ʷis | təx̌ʷs | təx̌ʷisi | enemy |
| *s-kátAp[5] | skátp (7) | skátapi (7) | rib |
| *ʔáx̌ʷyin | ʔáx̌ʷyən (8) | ʔáx̌ʷyini | net |

| | | | |
|---|---|---|---|
| *s-kə́tx<sup>w</sup>-əǹ | sčə́tx<sup>w</sup>əǹ (7,8) | sčə́tx<sup>w</sup>aǹi (3,7) | <u>bear</u> |
| *čsk-íyAq[6] | čskíyq (7) | čskíyaqi (3,7) | <u>ant</u> |
| *mAk<sup>w</sup>ə́-min | mak<sup>w</sup>ə́mən (3,8) | mak<sup>w</sup>ə́mini (3) | <u>awl</u> |
| *ṗn-áy̓-xax | ṗənáy̓xx (7,8) | ṗənáy̓xaxi (7,8) | <u>neighbor</u> |
| *(s-)tiqíw-lwltux<sup>w</sup> | | stiqíwəlwəltux<sup>w</sup>i | <u>barn</u> |
| | tiqíwəlwəltx<sup>w</sup> (8) | (8) | |
| *sáɫciɫ-qAs | sáɫciɫqs | sáɫcəɫqasi (4,8) | <u>dress</u> |
| *xəwál | xə́wɫ (6,7) | xawáli (3,7) | <u>road, trail</u> |
| *čučúq̓<sup>w</sup> | čučq̓<sup>w</sup> | čučúq̓<sup>w</sup>i | <u>feather</u> |
| *caɫ-xán | cáɫšən (7,8) | cɫxáni (4,7) | <u>shoe</u> |
| *masn-tə́n | másəntən (8) | məsəntə́ni (4,8) | <u>gall</u> |
| *s-k̓<sup>w</sup>upl-ús | sk̓<sup>w</sup>úpəɫs (8) | sk̓<sup>w</sup>plúsi (4) | <u>forehead</u> |
| *s-tək<sup>w</sup>yí? | stə́k<sup>w</sup>i? (5) | stk<sup>w</sup>yí?i | <u>braid</u> |

Rule 2 does not apply to forms whose base ends in two consonants (see Rule 4):

| | | | |
|---|---|---|---|
| *sá?x | šá?š (7) | šá?ši (7) | <u>liver</u> |
| *?áwt-ikn | ?áwtičən (7,8) | ?áwtkəni (4,7,8) | <u>back</u> |
| *(s-)ƛAp-ál·Axn | ƛapálaxən (3,8) | sƛapálxəni (3,4,8) | <u>armpit</u> |

Most of the exceptions (and hence problematic forms) that occur are to
Rule 2. Forms that add -hi, -ni, and -(i)li for third person possessive do
not drop the pre-consonantal vowel or shift stress for the independent nominal
form. Thus both possessed and unpossessed forms are irregular; these three
sets together contain 21 forms. An even greater problem, however, are 35 forms
to which Rule 2 does not apply. At least 7 of these are recent polysyllabic
loans, which accounts for a few, but no explanation is clear to account for
the rest of the group. A few may be recent derivations formed by analogy to
monosyllables, where no change in the stem occurs; the others could, of course,
have been reformed on this same analogy, but it is a rather large, random group
of forms, and I would hope to find some other explanation. A few of this group
are:

| | | | |
|---|---|---|---|
| *s-tiqíw | stiqíw | stiqíwi | <u>horse</u> |
| *s-ƛAláx | sƛaláš (3,7) | sƛaláši | <u>deer</u> |
| *k̓Ayə́x | čayə́š (3,7) | čayə́ši (3,7) | <u>fat, grease</u> |
| *cúmA? | cúma? (3) | cúma?i (3) | <u>crabapple</u> |
| *s-nApúl-ul | snəpúluɫ (3,6) | snapúluli (3) | <u>load</u> |

2.3. When original *ə is not deleted by Rule 2 or Rule 4, it will appear as ə́ if stress remains on it or is shifted to it; otherwise it becomes unstressed a, and is indistinguishable from a from *a. Cases above marked for the application of Rule 3 may not all be instances of it if the A actually represents *a. But since it is not always possible to determine whether A stands for *a or *ə, I have marked them all as being subject to Rule 3. Clear instances of the operation of Rule 3 (besides those given above) are:

| | | | |
|---|---|---|---|
| *cənúp | cə́np | canúpi | bed |
| *kələ́x | kə́lx (7) | kalə́xi | mat |
| *wiq̓ə́s-tən | wiq̓ə́stən (8) | wiq̓ə́stani | axe |

Note that many cases in which *ə is deleted by Rule 2, an epenthetic (and non-phonemic) ə is reinserted by Rule 8. Rule 8 seems to be pan-Salish and always phonetic (i.e., very low-level), and in instances where ə appears in a surface form where the base form also had *ə (such as axe, above), it cannot be assumed that the present [ə] is necessarily derived from *ə. In fact, many of my rules will not work if this were the case. I should also point out, however, that in most instances where I posit *ə in a base form without stress, it occurs in an environment where Rule 8 would insert [ə] (e.g., road, bed, above). But these instances of *ə are necessary to derive forms correctly, and there are a few forms in which *ə is posited where Rule 8 would not produce it (e.g., braid, above). I leave whatever this might suggest to future investigation, but recognize that it makes Rules 2, 3, 4 and 8 look a little ad hoc, although I do not think they are.

2.4. Rule 4, which deletes unstressed vowels before two-consonant clusters followed by a vowel, may be quite general. Note that this rule does not apply when the cluster is final. I suspect it applies at an earlier stage of the grammar to stem formation (cf. ant, above). Instances of the application of Rule 4 after Rule 1 and Rule 3 are dress, shoe, gall, forehead, braid, back, and armpit, above. Counterexamples occur, however, so Rule 4 is not as certain as others given here:

| | | | |
|---|---|---|---|
| *(s-)tíntin-m | tíntinəm (8) | stíntinmi | music |

where the second i should be deleted in the possessed form;

| | | | |
|---|---|---|---|
| *s-x̣á·la-m̓l | sx̣á·ləm̓l (6) | sx̣á·lam̓li | crops |

where the second a should be deleted in the possessed form.

2.5. Vocalizing y and w between consonants or finally following a consonant is a widespread Salishan rule, and need not be discussed here. For an example, see braid, above.

2.6. Devoicing of final 1 is also widespread in Salishan, but not as well recognized as Rule 5. Examples above are road and load. Not all instances of final ł are from l, however, and Rule 6 has ceased operation and does not apply to recent loans:

| | | | |
|---|---|---|---|
| *síł | síł | síłi | bullet |
| *síl | síl | síli | cloth. |

2.7. Rule 7 is a strictly Cowlitz rule, but some of its effects may be reflected in forms with k, k̉, or x in otherwise č-languages. This rule will account for the alternations of k/č, k̉/č̉, and x/š as exemplified in rib, bear, ant, neighbor, road, shoe, liver, back, deer, fat, mat, above. This is a complex rule, and will not be stated or discussed here. It will be the subject of another paper, to be read at the AAA meetings in New York City in November; copies will be distributed for next year's Salish Conference. Suffice it to say here that all six of these consonants are phonemically distinct in Cowlitz, and are in morphophonemic alternation as above.

2.8. The insertion of epenthetic ə is also a general Salishan rule that does not need and will not be given full discussion here. In general, ə is inserted before or after resonants (R): between initial RC- and between any CR cluster. This is vastly oversimplified, and does not account for instances of RR or cases where ə is not inserted when another vowel follows CR. Note that Rule 8 must apply after Rules 5 and 6.

3. There are a number of irregular forms which deserve a little discussion (other than the group discussed above at the end of 2.2). The first few of these show only minor irregularities, and undergo most of the rules given above; other irregularities cannot be explained at this time.

| | | | |
|---|---|---|---|
| *yAs?n | yasə́n | yasáni | net |

has an unexplained alternation of the stressed vowel.

| | | | |
|---|---|---|---|
| *qaxqax | qašqá·š | qášqaš | strawberry roan |
| *?ucamAc | ?ucámc | ?úcamaci | trousers |

both of which have unexplained stress shifts.

| | | | |
|---|---|---|---|
| *yənís | yə́ns | yənísi | tooth |

has an unexplained vowel loss in the third possessive form, with final application of Rule 8.   Rule 4 cannot apply, and Rule 3 would produce /a/.

| | | | |
|---|---|---|---|
| *s-nił-tən | sníłtən | sniłtə́ni | soul |

retains /i/ in the third possessive form, contrary to Rule 4.

| | | | |
|---|---|---|---|
| *yx̣alí? | yəx̣ál? | yəx̣lí?i | backbone |
| *q̓ʷʌl-aní? | q̓ʷalán? | q̓ʷəlní?i | ear |

both unaccountably delete the penultimate vowel in the third possessive form. But once this is done, the loss of the first vowel of <u>ear</u> is due to Rule 4.

| | | | |
|---|---|---|---|
| *q̓ʷʌlitk̓áṅ | q̓ʷalítk̓əṅ | q̓ʷəltk̓áṅi | skin |

has had Rule 4 applied to the third possessive form to delete the /i/, but then applied again irregularly to delete the first vowel as well.   Rule 4. does not ordinarily apply before three-consonant clusters.

| | | | |
|---|---|---|---|
| *pəs?? | pə́sa? | pasé?i | animal |
| *qax̣?? | qáx̣a? | qax̣í?i | dog |
| *qʷʌtix̣?? | qʷatíx̣a? | qʷatíx̣į?i | body louse |

unaccountably change the final base vowel.

The following eight forms are completely irregular, and no base form can be posited:

| | | |
|---|---|---|
| ł̓əqí(w)xʷ | ł̓əqiyúxʷi | belt |
| ?áls | ?álilasi | chief |
| ?itáma? | ?itáma?asi | clothing |
| slé·x̣ən | sləx̣əné?i | earring |
| tə́mx | tamíwali | earth |
| qqswé? | qaqswí?i | hoof |
| sƛ̓a?íłk̓ł | sƛ̓əl?kəli | hide, skin |
| kə́wł | kawáłani | wife |

Finally, I list the four small sets that add -hi, -ni, -(i)li, -awi:

| | | | |
|---|---|---|---|
| *pyx̣í | pyəx̣í | pyəx̣íhi | bitterroot(s) |
| *kapú | kapú | kapúhi | coat |
| *kʷušú | kʷušú | kʷušúhi | pig |
| *lalupá | lalupá | lalupáhi | ribbon |

| | | | |
|---|---|---|---|
| *ʔə́mx̣kʷu | ʔə́mx̣kʷu | ʔə́mx̣kʷuni | cedar basket |
| *xʷə́ltАmul-ičAʔ | xʷə́ltamulíčaʔ | xʷə́ltamulíčani | blanket |
| *náw-ɬ-čiʔ | náwɬčiʔ | náwɬčiʔni | body |
| *wmúsmuskiʔ | wəmúsməskiʔ | wəmúsməskini | cow |
| *mák̇iɬAʔ | máčiɬaʔ | máčiɬaʔni | flea(s) |
| *pípa | pípa | pípani | paper |
| *sík̇-lx-Ayuʔ | sík̇əlxayuʔ | sík̇əlxayuʔni | snake |
| *sáčuʔ | sáčuʔ | sáčuʔni | fish-spear |
| *kási? | kási? | kási?ni | star |
| *pАp-áy-AkAʔ | papáyakaʔ | papáyakaʔni | thumb |
| *ṗitíɫsti? | ṗitíɫsti? | ṗitíɫsti?ni | wheat |
| | | | |
| *s-cáqʷ | scáqʷ | scaqʷílɪ | arrow |
| *čAx̣íl-AkAʔ | čax̣ílakaʔ | čax̣ílkaʔli | fingernail |
| *pАp-áy-AkAʔ | papáyakaʔ | papáyakali | paw (cf. thumb, above) |
| *s-qʷAẏá-iɬt | sqʷaẏáiɬ | sqʷaẏáiɬtili[8] | baby |
| *s-qʷə́qʷ-stm-iɬt | sqʷə́qʷstmiʔɬ | sqʷə́qʷstmiɬtili | egg |
| *kwáɬ-iɬt | kəwáʔɬiʔɬ | kəwáɬiɬtili | girl |
| | | | |
| *kʷáɬ-tən | kʷáɬtən | kʷáɬtanawi | aunt |
| *kʷáɬA-mn | kʷáɬamən | kʷáɬəmnawi | uncle |
| *s-núkʷ-iɬt | snúkʷiɬ | snúkʷiɬtawi | nephew, niece |
| *(s-)tán | tán | stánawi | mother |
| *mán | mán | mánawi | father |
| *ʔímAc | ʔémc | ʔímacawi | grandchild |
| *sápAn | sápən | sápanawi | daughter-in-law |
| *nəské | né?sk | nské·wi | younger brother |
| *pesná· (?) | pé·sən | psná·wi | younger sister |
| *kúp- (?) | kʷúpaʔ | kʷúpawi | grandfather |
| * ? | kálx | kálawi | hand |
| * ? | k̇áɬx | k̇aɬáwi | branch |

Note again that this last group consists only of kin-terms, plus hand and
branch. Other kin-terms are regular, and do not add -awi. Plurals of kin-
terms are all regular.

4. There is additional evidence that the above base forms are correct and
that the basic syllable structure of Olympic Salish is CV. Comparative evidence
corroborates some of the structure of suffixes given above. In ear, the suffix
was given in the base as *-aní?, even though it normally appears as -(a)n? in
both Cowlitz and Upper Chehalis. Columbian has -(á)na? for this suffix, con-
firming its structure as -VCVC. Other cognates in various Salishan languages
confirm other expanded affix forms.

4.1. Upper Chehalis regularly adds -s to create third person possessive
forms.[9] But there are several forms that are irregular in that the third person
possessive form is bisyllabic where the independent form is monosyllabic. These
alternations are exactly parallel to those given here for Cowlitz, and are fre-
quently perfect cognates to Cowlitz forms. There are also Upper Chehalis third
possessive forms in -ns; I suggest that this extra n is the same as the n in
the Cowlitz -ni suffixes, although only one pair of cognates shares it. The
irregular Upper Chehalis forms are repeated below with the Cowlitz cognates
where available.

| Upper Chehalis | | Cowlitz | | |
|---|---|---|---|---|
| yənkʷs | : yənkʷess | yənkʷs | : yənkʷəsi | pack-rope |
| sqə́lns | : sqə́lness | sqə́ləns | : sqəlnúsi | jaw, chin |
| spókʷs | : spókʷess | -- | : -- | forehead |
| yə́ns | : yanéss | yə́ns | : yənísi | tooth |
| təmš̌ | : taméš̌s | təmx | : tamíwali | land, earth |
| qə́nš̌ | : qanóš̌s | qə́nx | : qanúsi | mouth |
| mə́ts | : matóss | mə́ts | : matúsi | kidney |
| č̌ə́lš̌ | : č̌aláš̌s | kə́lx | : kalə́xi | cat-tail mat |
| tą́ns | : tą́niss | tą́ns | : tanísi | knee |
| sxʷáys | : sxʷayóss | sxʷáys | : sxʷayúsi | hat |
| sš̌ən | : sš̌anéss | sxən | : xə́ni | husband |
| scə́s | : scaséss | k̓əsk̓s | : k̓sk̓əsi | hair |
| skʷácł | : skʷácas | skʷácł | : skʷəcíli | name |
| sq̓ʷáƛ̓ł | : sq̓ʷáƛ̓ma?s | -- | : -- | seeds |
| téxʷcł | : téxʷcas | tíxʷcł | : txʷcə́li | tongue |
| næ?sč̌e | : næ?sč̌os | né?sk | : nskéʷwi | younger brother |

| ʔémc | : ʔémacaws | ʔémc | : ʔímacawi | grandson |
|------|-----------|------|-----------|----------|
| čálš | : čaléss | kálx | : kálawi | arm, hand |
| cół | : cóles | cúł | : cúli | foot |
| čə́wł | : čawáłns | kə́wł | : kawáłani | wife |
| qáxaʔ | : qáxns | qáxaʔ | : qaxíʔi | dog |
| čóʔp̓aʔ | : čóʔpns | kʷúpaʔ | : kʷúpawi | grandfather |

4.2. Other evidence for CVCV and CVCVCV roots comes from verbal forms in both Cowlitz and Upper Chehalis, where exactly parallel forms occur. One set of completive intransitive forms adds -ł, a completive intransitive suffix, to CVC- or CVCC- stems. Continuative intransitive forms are CVC(V)- and CVCVC-plus -w- plus subject (-w- is the continuative intransitive suffix corresponding to completive -ł). Completive transitive forms are like continuative intransitives, but without the -w- and with completive object and subject suffixes. Continuative transitive forms are CVCV- and CVCVCV- plus continuative object and subject suffixes. The quality of the augmentative vowels are unpredictable. However, as from Cowlitz third person possessives, all forms can be derived by starting from full CVCV and CVCVCV bases. A few Upper Chehalis examples follow.

| ʔáp̓ł | : sʔáp̓wn | : ʔáp̓n | : sʔáp̓atn | rub, pet |
|-------|----------|---------|------------|----------|
| k̓ʷáml | : sk̓ʷámawn | : k̓ʷámn | : sk̓ʷámatn | oil(y) |
| ʔéłp | : sʔéłapn | : ʔéłapn | : sʔéłapetn | shoot with arrow |
| ʔékʷtq | : sʔékʷtaqn | : ʔékʷtaqn | : sʔékʷtaqetn | steal |
| taléč | : staléčn | : taléčn | : staléčetn | help |

Forms with lexical suffixes have similar variants:

| čésls | : | : čéslesn | : sčéslesetn | mess up hair |
|-------|---|-----------|--------------|--------------|
| tá·laqp | : stá·laqapn | : tálaqapn | : stálaqapetn | shout, call (to) |

Many other such variations occur, indicating the correctness of base forms CVCV and CVCVCV. As noted above, the final vowel of bases is lost before third person possessives and independent nominals are formed.

5. I can offer no explanation how or why the third person possessive -i developed in Cowlitz. I assume it replaced the -s common to the rest of Salish. The replacement was not complete, however. -s does occur in Cowlitz, but has a very limited distribution, the extent of which is not yet clear. It occurs with no independent nominals, but only on certain nominalized (dependent) verbal

constructions. Only a few instances have been recorded, and I can not yet state the circumstances under which it can be expected instead of -i, which also occurs on nominalized verbal constructions. They are not interchangeable. The following examples are offered without further comment:

ƛ́əx̣ɬ tet s?íɬani    he ate fast

?et x̣aƛ́énkən ?ak?íɬans .    I forced him to eat

míɬta ?acqínmicals    he doesn't like me

míɬta t ql s?ə́x̣cals    he can't see me

(s)x̣áɬxʷəms txʷtəmə́kʷp    firewood

wá t qaɬ talíčicals    help me!, who will help me?

FOOTNOTES

1.  Material for this paper was collected in the summer of 1967 under the auspices of a grant (GS-1357) from the National Science Foundation.

2.  So in Kalispel, Coeur d'Alene, Puget Salish, Upper Chehalis, and Tillamook per Gladys A. Reichard, A comparison of five Salish languages: II, IJAL 25.9 (1959), and elsewhere.

3.  See, e.g., Reichard, op. cit., part III, IJAL 25.156 (1959), and M. Dale Kinkade, Phonology and morphology of Upper Chehalis: I, IJAL 29.188 (1963).

4.  This is not a case of a shift of final -s to -h; see below.

5.  The symbol A is used in base forms for a vowel that can be either a or ə. Rule 3 makes both á and ə́ become unstressed a, but it is not possible to work backwards through this rule; i.e., given unstressed a in a surface form, it is not possible to determine if it is derived from *a or *ə unless a variant of the given morpheme can be found in which this vowel is stressed. This is often not possible.

6.  I assume that Rule 4 has previously applied to this form to reduce the root to *čsk- from *čVsk-. At least Rule 4, and probably also Rule 3, apply generally in stem formation (and are perhaps cyclical), and are necessary to derive some of the bases cited here created by compounding and affixation of roots.

7.  Rules 3 and 4 do apply to -awi suffixes forms, but Rule 2 apparently does not.

8.  Note the loss of final -t from this suffix when nothing follows; cf. Columbian -alt, a cognate with the lateral voiced, indicating that Rule 6 operates in more than just final position.

9. Kinkade, op. cit., part IV, IJAL 30.252-253 (1964).