

A Paper Prepared for the Second International Conference on  
Salish Languages, University of Washington, August 28-29, 1967.

## WORD TABU AND CHANGE RATES: TESTS OF A HYPOTHESIS <sup>1/</sup>

William W. Elmendorf  
The University of Wisconsin

### Problems and Argument

In some Salish languages a form of word tabu operated as a special sociocultural process which produced specific linguistic effects. The mode of operation and some of the effects of this tabuing custom have been discussed by this writer for the Twana speech community of western Washington (Elmendorf 1951; 1960:391-396). A result of the Twana tabuing custom was seen as possible acceleration of "normal" lexical item replacement.

A subsequent study (Elmendorf 1962) attempted to show, through analysis of lexical-relation models, that apparent phylogenetic relations inferred from percentages of shared cognates might not correspond to the true relations, if lexical change rates had been affected by Twana-type word tabuing. In particular, the lexical relations among three remotely related Salish languages, Bella Coola, Twana, and Columbia, were interpreted in terms of two different change-rate models, either of which would account for the cognate percentages actually observed. <sup>2/</sup>

In one of these models lexical change rates in all three languages were assumed to have been equal and constant since the period of their mutual divergence, resulting in the (approximately) equally remote lexical relations among them at present. In the other model it was assumed that lexical change, through replacement

of lexical items in basic semantic areas, had operated at a faster rate in the lines leading to Bella Coola and Twana than in that leading to Columbia; further, that the speeded rate in Bella Coola and Twana had resulted from word tabuing. It was shown that this model could be reconciled with the attested lexical relations only if Bella Coola and Twana had begun to diverge after the separation of Columbia. In other words, this second implication assumes a closer phyletic relation of Bella Coola and Twana than of either to Columbia.

Thus, two principal problems of relationship are suggested if this last interpretation be accepted: (1) Does any evidence, linguistic or ethnolinguistic, show closer relations between Bella Coola and Twana than that implied by their shared cognate percentage? (2) Has operation of the ethnographically attested custom of word tabuing in Twana actually skewed in any way the relations of the Twana lexicon? There are certain specifiable sets of linguistic and ethnographic conditions which would be expected results of the assumed word-tabu process, and which could be tested in support or disproof of the hypothesis that Bella Coola and Twana have diverged from one another in lexicon relatively rapidly as a result of word tabuing. Such testable conditions would include the following:

(a) There would occur special similarities, morphological, lexical, or other, between Bella Coola and Twana, not shared with Columbia, and demonstrably due to shared innovation.

(b) A higher proportion of compound or derivative lexemes of descriptive meaning would be found in the basic word list in Bella Coola and Twana than in Columbia. Such lexemes would correspond as cognates in a significantly lower proportion of cases than with the basic list as a whole. These seem predictable

features of terms substituted for tabued words (see Elmendorf 1951:207; 1960:395).

(c) A higher proportion of meaningless adult names, the precipitating causes of word tabu, would occur among the Bella Coola and Twana than among the Columbia. Columbia names would contrast in being more often meaningful, translatable, or semantically analyzable to a native speaker. This condition would be a hypothetical consequence of the operation of word tabu in the first two languages, and of its absence in the last.

It is here proposed to consider these conditions, as tests of the hypothesis that word tabu, in those Salish speech communities practicing it, has actually altered the rate of lexical change and consequently skewed the lexical relationships in these languages. Available data bearing on these points will be discussed in summary, missing but needed data pointed out, and conclusions drawn regarding the basic problems above.

#### Shared Innovations

A morphological similarity representing a shared innovation would furnish perhaps the most definitive argument. Any feature shared exclusively by two of the three languages considered, not representing mutual retention of a trait in the proto-language, and not due to diffusion, would indicate a separate common history of the sharing languages. Thus, if Twana and Bella Coola should prove to share a feature which can be demonstrated to meet this criterion, we can then conclude that these two languages are in fact phylogenetically closer to each other than either is to Columbia. Such a conclusion would be forced, regardless of the relative degree of lexical sharing between these two languages in comparison to Columbia.

We may also shift the terms of this argument to state, that if it is correct that Bella Coola and Twana have diverged

relatively rapidly from one another in lexicon owing to the operation in both of some such special factor as word tabu, then these two languages should show a residue of specially resemblant features of morphology, representing innovations inherited from their relatively more recent phylogenetic connection, while Columbia should differ more markedly, but to an equal degree from both.

It is to be noted that mere occurrence of a trait in two of the languages, but not in the third, does not in itself demonstrate a special history of joint development; such is indicated only if the shared trait can be shown to represent an innovation inherited by the two languages from a period of common ancestry in which the trait first appeared. It is not always easy to adduce evidence that a shared trait is an innovation. <sup>3</sup>✓

As a possible example we may cite the system of particles indicating gender and location, used with nouns and nominalized verbs, which occurs in probably all languages of the Coast Salish division, including Twana. This system, as developed in one Coast Salish language (Halkomelem), is described by Elmendorf and Suttles (1960:10-13). Interior Salish languages, including Columbia, apparently lack the gender-location system.

How to interpret this situation diachronically depends on first answering two basic questions: (1) Is the gender-location system an innovation, or is its absence in Interior Salish the result of dropping an archaic proto-Salish feature? (2) Does Bella Coola share gender-location particles with Coast Salish, or does it lack them, like Interior Salish? Obviously, if the gender-location particles are an innovation, not a retained proto-Salish feature, and if Bella Coola shares them with Coast Salish, then Bella Coola and Coast Salish have had a common

history after separation of Columbia (and the other Interior Salish languages). For definite answers to such questions we need reasonable adequate phonological and morphological analyses.

Unfortunately, adequate structural accounts of these three languages are not yet accessible in published form. Newman has, presumably, the requisite information on Bella Coola, but has published only on phonology (Newman 1947). Gaberell Drachman has abundant lexical and grammatical materials on Twana and has prepared a sketch of the language as a dissertation. I have a moderate quantity of Twana lexical material, but only a slight amount of grammatical data. For Columbia I have rather meager lexical information, collected as a by-product to brief ethnographic work, but this has been superceded by much superior data obtained in the field during the past few years by Kinkade. Krueger's (1967) recent paper on this last language is entirely lexical. It is much to be hoped that Newman's, Drachman's, and Kinkade's grammatical information will be made available in the near future.

It should be stressed that evidence of a shared trait representing a retained archaic feature would not settle the present argument. For example, one interesting phonological trait is shared by Bella Coola and a group of Interior Salish languages which includes Columbia. This is the presence of stops and spirants of a palatal k-series, where Coast Salish consistently shows affricates and spirants of a mediopalatal č-series, or further developments from such a series. (See Boas and Haeberlin 1927:119 (map), 120, 123, 127). We have almost certainly to interpret this as a shared retention, and the Coast Salish condition as an innovative shift. <sup>4</sup> The sharing of a k-series by Bella Coola and some Interior languages does not, therefore, demonstrate a separate special history for these languages. Nor does it disprove

a possible joint period of development for Bella Coola and the Coast division languages, although it does show that the latter innovated (by their shift to a č-series) after their separation from Bella Coola.

### Sharing and Innovating in Kinship Terms

Although evidence to settle the question of innovative morphological sharing seems at present insufficient, a special case of shared lexical and social-culture patterns may in fact point to a period of either common innovative change or of major interinfluence for Bella Coola and Twana kinship terminologies.

I have described and analyzed the situation for Salish terminologies generally in an earlier study (Elmendorf 1961), and there pointed out evidence suggesting that Interior Salish terminologies are in general type archaic, that Coast Salish terminologies are derived from a proto-Salish type similar to some Interior systems, and that Bella Coola agrees generally in system and in terms with Coast rather than with Interior terminologies. However, the evidence also suggests that the systemic resemblance between Bella Coola and Coast Salish is possibly due to parallel but independent innovations in Bella Coola and in several different groups of Coast Salish languages. Thus, a common linguistic history of Bella Coola and Twana is not definitely demonstrated by the above analysis of kinship data.

Nevertheless, Bella Coola and Twana (as representative of the Coast Salish division) do seem to show a special lexical resemblance in their kinship terms, in comparison with Columbia. Bella Coola terms here are drawn from McIlwraith's ethnographic account (McIlwraith 1948, v. 1:150-156). A comparison of these with the Southern Okanagan system given by Walters (1938:88-90), with material in Boas and Haeberlin (1927), with Krueger's (1967) recent Columbia vocabulary, and my own ethnographic field notes

for Twana, Wenatchee-Columbia, Lakes, and Spokane, shows 10 Bella Coola terms seemingly cognate with terms in other Salish languages. Of these apparent cognates, six appear in Coast Salish languages only (five of these in Twana), and four in Coast and Interior languages. None appear to be shared exclusively with Interior Salish languages. The comparative data follow, with orthography of the sources slightly modified to conform with present usage.

Bella Coola terms showing cognates in Coast Salish languages only: 1 mán father (Twana, Puget Sound bád, Halkomelem mén). 2 stán mother (Puget Sound tád in derivatives, Halkomelem tén). 3 mína child (Twana, Puget Sound bódé, Halkomelem mén'a). 4 kwámasc (Newman 1947:131, k'wmc) husband (Twana k'tá'bac). 5 emc sibling's child, slenc grandchild (Twana íbac, Halkomelem ?íncé, both grandchild). 6 saxi younger sibling (Bella Coola so'axe younger brother in Boas and Haeblerlin 1927:136, Twana sú'k'ay man's younger brother).

Bella Coola terms showing cognates in both Coast and Interior languages: 1 kukpi parent's father (S. Okanagon sxáxpá, Columbia sxéxápe, Spokane sxéps, all father's father; also cognates in Olympic branch dialects according to Boas and Haeblerlin 1927:136). 2 kik<sup>y</sup>a (Boas and Haeblerlin 1927:123 ki'kia) parent's mother (Twana káya grandmother, Columbia kékíya mother's mother, Krueger 1967:9 qqiye, Boas and Haeblerlin 1927:123 grandmother, Spokane čičiyé mother's mother). <sup>5</sup> 3 sisai parent's brother (Squamish sésé parent's brother in field notes of Wayne Suttles, S. Okanagon sésí mother's brother or cousin, Spokane sisí' mother's brother). 4 stekao (Boas and Haeblerlin 1927:121 staka'o sister-in-law) spouse's sibling, sibling's spouse other than male-to-male (Upper Chehalis (í) sčá'u, Columbia ška'u, both sister-in-law in Boas and Haeblerlin 1927:121; according to this source the word seems general in

Interior Salish languages, Lillooet, Thompson, Okenagon, Spokane, Columbia, Coeur d'Alene, but is cited only for Bella Coola and Olympic branch dialects on the coast). <sup>6/</sup>

A rapid inspection of this kind, probably not based on full or complete data, is suggestive rather than definitive, but it does at least point to the possibility that Bella Coola may, on more systematic investigation, turn out to show historically significant resemblances to languages of the Coast Salish division. Perhaps, though, in dealing with kin terms we are on slippery ground; such lexical items are certainly culture bound, and we do not know that their shared appearance in, say, Twana and Bella Coola is due to purely linguistic processes.

However, an additional link between Bella Coola and Coast Salish groups is provided by the structure of their kinship systems. These are clearly of the type designated as lineal, in all systems reported (see Elmendorf 1961). In a lineal system collateral relatives in ascending generations are not terminologically distinguished by sex of connecting lineal relatives, although they may be distinguished by their own sex. Such a system does not distinguish father's brother from mother's brother, or father's father from mother's father. This is in contrast to the bifurcate collateral system general among Interior Salish groups. In this latter system father's brother is distinguished from mother's brother, father's father from mother's father.

Again, we must be cautious in observing this cultural similarity not to assume that it automatically demonstrates relatively recent historical connections between Coast Salish languages and Bella Coola. It is merely an additional bit of evidence which points in that direction, but which could also be due to other factors, such as relatively recent diffusional influence among groups not specially related linguistically, or to the operation



of similar sociocultural factors not related to linguistic history. ✓7

### Compound Lexemes

On the proportion of compound or derivative terms in the Twana, Bella Coola, and Columbia vocabularies, the requisite information is lacking for the last two. Some knowledge of morphology is of course necessary to identify and analyze such compound morphemes. For Twana I feel moderately confident in submitting the following list of 15 words which (a) fall into the 100-word basic lexicostatistic test vocabulary given by Swadesh (1955), and (b) seem obviously compound or derivative: ✓8

- 1 s<sup>q</sup>el·áp ashes (q<sup>é</sup>l cook, roast). 2 sdex<sup>w</sup>qó<sup>1</sup>l blood (qó<sup>1</sup> Water). 3 dex<sup>w</sup>áa<sup>1</sup>áysebed eye (dex<sup>w</sup>...bed instrument, áa<sup>1</sup> strong, -yes eye). 4 sílad fish (ílad eat, s<sup>1</sup>ílad food). 5 q<sup>w</sup>íá<sup>1</sup>óy leaf (-ay plant, vegetation). 6 scká·pséb neck (-pséb neck). 7 íé·léce<sup>1</sup>yes· star (íé<sup>1</sup> sharp, ícáy<sup>1</sup>es sharp eye). 8 q<sup>w</sup>el<sup>1</sup>i<sup>1</sup>las stone (q<sup>é</sup>l cook, roast, -i<sup>1</sup>las round object; post-1860, earlier term s<sup>1</sup>catás tabued). 9 líl<sup>1</sup>px<sup>w</sup>šdeb swim (not analyzed but obviously composite). 10 q<sup>w</sup>íl<sup>1</sup>úpsēbed tail (-ups rump, rear, -bed object). 11 dex<sup>w</sup>q<sup>w</sup>álab hot, warm (q<sup>é</sup>l cook, roast). 12 dex<sup>w</sup>bútbed female breast ("suckling instrument"). 13 k<sup>w</sup>áx<sup>w</sup>čí/k<sup>w</sup>áx<sup>w</sup>šed claw (fore and hind foot). 14 k<sup>w</sup>pél<sup>1</sup>alxp knee (-alxp possibly knot, lump). 15 slúk<sup>w</sup>elēb moon (lúk<sup>w</sup>ál sun).

These Twana terms seem all of the type substituted for tabued words. It is by no means suggested that all of them are due to this factor; we simply do not know the incidence of "normal" compounds or derivatives in the Twana lexicon. However, it is probably significant that the above little subset of that lexicon shows lower than expected cognate densities in comparison with sets from two other Coast Salish languages, Halkomelem (Musqueam dialect) and Puget Sound (Squamish dialect). ✓9

Comparative vocabularies follow, for Musqueam (first form cited) and Suquamish (second form cited). Numbers are keyed to the above Twana list.

- 1 Ashes šx<sup>w</sup>həyʔq<sup>w</sup>éle (háyʔq<sup>w</sup> fire, -éle container), péčt.  
 2 Blood sēéθiyen, stóleg<sup>w</sup>ed (stólek<sup>w</sup> river). 3 Eye qélem, qélob.  
 4 Fish scéiten (ʔéiten eat), ---. 5 Leaf scáaiaʔ, scóia. 6 Neck  
 tópsəm, scəkápsəb. 7 Star k<sup>w</sup>ásen, čósad. 8 Stone smént, čéáa.  
 9 Swim x<sup>y</sup>əx<sup>y</sup>k<sup>w</sup>ém, tét. 10 Tail ššépəlʔec, scópč. 11 Warm/hot  
 k<sup>w</sup>ák<sup>w</sup>es, sq<sup>w</sup>ál. 12 Female breast sqéməʔ, sqéboʔ. 13 Claw  
 q<sup>w</sup>x<sup>w</sup>élʔces, ---. 14 Knee šqááləeten, ---. 15 Moon iqélc, siok<sup>w</sup>áleb.

For the 100-word basic test list, of which the above 15 items are a subset, shared cognate percentages between these three languages are: Twana-Musqueam 36, Twana-Suquamish 36, Musqueam-Suquamish 37. For the subset cognate percentages are: Twana-Musqueam ZERO, Twana-Suquamish (12 items) 17, Musqueam-Suquamish 33. The subset items identified as cognates are: between Twana and Suquamish nos. 6 and 15, between Musqueam and Suquamish nos. 3, 5, 7, and 12. In other words, Musqueam shares about as many of these subset items with Suquamish as we might expect on grounds of statistical probability, Twana shares fewer than expected with Suquamish, and Twana shares none of them with Musqueam. The last finding is the striking one; we might expect distributional probability to give at least five Halkomelem cognates for items in the 15-word Twana list.

Especially interesting in the Twana-Halkomelem comparison are the instances where the semantically correspondent Halkomelem term seems morphemically unanalyzable in contrast to the compound term in Twana. Examples include nos. 3, 5, 7, 8, 12, 15. It is tempting to see here retention of an original term, perhaps a proto-Salish or proto-Coast Salish reflex, in Halkomelem where Twana has innovated through tabu-replacement. It is to be noted that Suquamish shows cognates with Halkomelem for four of these items (nos. 3, 5, 7, 12).

These results suggest that we may, very tentatively, accept word tabu as a factor which has modified the Twana basic lexicon, and that further comparative research in line with this problem is justified.

### Personal Names

On meaningless (or uninterpretable) versus meaningful personal names, I can submit only the following few facts and suggestions for further inquiry. Twana adult names, in contrast with child names or nicknames, are meaningless in the sense that they can not be translated into English or referred to other meaningful morphemes in Twana. They are treated as kin-line property, are held by one individual at a time, and are inherited only from blood relatives. The situation is described in Elmendorf 1951:205, 207; 1960:372-397.

There is evidence that meaningless adult personal names were likewise characteristic of other Coast Salish societies.

There appear to be several processes by which personal names, if once meaningful, might become meaningless or uninterpretable through reference to other morphemes in the language of the society employing them. Three such are:

(1) Borrowing the name from another language, in which it might have been meaningful. Thus "Peter" has no reference to rock in English, but it did have in its Greek original form.

(2) Special analogic, hypocoristic, or other changes undergone by the onomastic part of a lexicon, which change these items formally away from any recognizable connection with other morphs--including other onomastic morphs with which they might once have been connected. Thus, many English speakers do not associate "Molly" with "Polly," or either of these with "Mary."

(3) Alteration of phonologically or semantically resemblant non-onomastic items in a lexicon, as the result of tabu based on a particular personal name as model. This is the process which we

have attested for Twana, where the name affords a phonological model, on the basis of which a specific lexeme may be discontinued and replaced by a substitute coinage, usually a descriptive derivative.

Of course, these three processes are not mutually exclusive, and all three of them may have operated, in varying combinations and degrees, among Coast Salish speech communities with meaningless personal names. But we should note that the consequences of the third process, above, are not merely to empty the names themselves of analyzable semantic reference, but also to produce derivative coinages as substitute-forms for various lexemes affected by the name-resemblance tabu. This is the effect tested above, in a comparative analysis of Twana compound lexemes.

Thus, the presence of meaningless names is not, in itself, necessarily a consequence only of word tabuing. However, we can say that meaningful or semantically ~~un~~analyzable names in a society are a probable indication that the type of word tabuing practice known for the Twana could not have been operative, at least over any long continued period.

In Twana, personal names are, as remarked, untranslatable. They are not, however, in many cases linguistically unanalyzable. Many Twana names appear to have been composite forms with two or more constituents. In a few cases one of the constituents is an interpretable morpheme, as in the ending -íca blanket on several female names. In more frequent cases constituents seem analytically separable, but without any assignable meaning, as in the male names láx<sup>w</sup>qédeb, náyxqédeb, dáy<sup>w</sup>qédeb, láx<sup>w</sup>cut, čá<sup>w</sup>wicut, qéxcut. In some further cases the name is monosyllabic, unanalyzable, and uninterpretable. These conditions will probably be found to hold true for adult names among other Coast Salish groups.

For the Bella Coola McIlwraith (1948, v. 1:121-130) presents data which illustrate the importance of names as hereditary prerogatives of the "ancestral family." However, he gives no information that I can find on linguistic features of names, on usages regarding names of the dead (such as utterance tabu), or on tabuing of words resembling names of dead persons. Plural names were usual among the Bella Coola (McIlwraith 1948, v.1:33), and this may have interfered with the operation of word tabu, at least in recent times. (We are of course assuming that this factor did affect the Bella Coola vocabulary at some past period.)

I know of no ethnographic information on Columbia names. In some other Interior Salish societies adult names were, normally, meaningful in the sense discussed. This is true of the Spokane and Lakes Salish (senáyckstx) according to field data of the writer, and applies in these groups to family-inherited names. I could find no informant among these peoples who had ever heard of any such custom as word tabu, although names of recently dead persons were not spoken. Teit's information on names among the Okanagon, Coeur d'Alene, and tribes of the Flathead group shows that inherited names were often meaningful; he does not mention word tabuing (Teit 1930:159-161, 277, 379). For the Southern Okanagon Mandelbaum (1938:104-107) indicates that adult names were family-inherited, that nicknames formed a special class, that no definite utterance tabus were observed, and that inherited names were most often meaningful.

Ray (1932:113-114) gives a somewhat different picture for the Sanpoil, northern neighbors of the Columbia. Although separate linguistically only as a dialect community from the Okanagon and Lakes, in this group inherited names "had long since lost any meaning they may ever have possessed," although names conferred by guardian spirits were meaningful. "For approximately a year after a person's death his name was not mentioned," but

"the objection to speaking the name of the recently deceased did not...cause words of similar phonetic pattern to be avoided or changed" (Ray 1932:154).

These observations indicate that McIlwraith's Bella Coola data need to be supplemented, in regard to names and naming practices, with information germane to a hypothesis of lexical alteration through name-resemblant word tabuing. They further indicate that inherited names in Interior Salish speech communities were probably most often meaningful, although Ray's Sanpoil information raises the possibility that the Columbia may have had meaningless names. The available ethnographic data certainly suggest absence of word tabuing, on the Twana pattern, among Interior Salish speakers most closely related linguistically to the Columbia. It might be added that the Twana practice appears better integrated, functionally, with attitudes and practices regarding status typical of Northwest Coast societies, than with the rather different social values and emphases of Plateau area societies.

### Conclusions

This study has sought to uncover specific lines of evidence bearing on problems of lexical change and lexical evidence for linguistic relationship. Specifically, it has concentrated on possible detectable effects of word tabuing customs and has attempted to see if any such customs have affected the lexical relations, measured by lexicostatistic techniques, among three distantly related languages of the Salish stock.

Lines of evidence examined, and conclusions drawn from these, may be summarized as follows.

(1) Comparative grammatical analysis of Bella Coola, Twana, and Columbia is needed to seek for exclusively shared innovative features in two of these. Such a demonstration would prove that

these two languages are more closely related phyletically to each other than either of them is to the third. It would also imply that the approximately equal lexical relations among them must be due to some special disturbing or skewing factor operating on lexical change.

(2) If such a demonstration showed special relationship between Twana and Bella Coola, this would strongly support a hypothesis of special accelerated change in their basic vocabularies from the operation of word tabu.

(3) A gender-location particle system, present in Twana and other Coast Salish languages, would be a promising feature for investigation as an innovative feature possibly shared with Bella Coola.

(4) Exclusive sharing of a set of lexemes denoting kinship relations between Bella Coola and Twana (and other Coast Salish languages) possibly, but not conclusively, points to a common history of these two languages.

(5) Exclusive sharing of a common kinship terminology system between Bella Coola and Twana (and other Coast Salish languages) is not definitive evidence for a common linguistic history, since development of such a system appears due to operation of common sociocultural factors which may have affected the two speech communities independently.

(6) Word tabuing has produced a detectable effect on the basic vocabulary of Twana, and may have caused replacement by descriptive coinage of up to 15 percent of the 100-word basic test list in that language. In this portion of the basic list cognate agreement with related languages is distinctly less than in the total list. Similar analyses for Bella Coola and Columbia are needed.

(7) Personal names appear to be meaningless or uninterpretable in most Coast Salish languages, including Twana, but meaningful in most Interior Salish languages, possibly including Columbia. This situation is hypothetically a consequence of the operation of word tabu in the former group of languages and its absence from the latter. Pertinent data for Bella Coola seem lacking, and are needed.

Thus, such evidence as is at hand does not contradict a hypothesis of relatively rapid change from word tabuing in the Twana and Bella Coola vocabularies, but rather tends to support it. Relatively simple lines of research, as defined above, could supply missing data bearing on this hypothesis. Such data would be of general importance to linguistic change theory and to our understanding of the role of sociocultural factors in linguistic change.

The University of Wisconsin  
Madison, Wisconsin  
May 20, 1967



## NOTES

1 A version of this paper was presented at the Second International Conference on Salish Languages, University of Washington, Seattle, Washington, August 28-29, 1967.

2 Columbia, here and throughout, is used as a term of convenience for the group of closely similar dialects spoken (or formerly spoken) in eastern Washington by the Wenatchee, Entiat, Chelan, Moses Columbia, and (probably) Methow. The shared cognate percentages among the three languages treated were given by Swadesh (1950) as Bella Coola-Columbia 12, Bella Coola-Twana 15, Twana-Columbia 19. It is assumed that the largest difference here, of 7 percent between the Bella Coola-Columbia and the Twana-Columbia figures, is probably not significant for a difference of phyletic relationship. Swadesh later (1952) used these figures in an attempted proof that word tabu could not have significantly altered the lexical change rate in Twana.

3 Criteria for identifying and interpreting shared innovations have been discussed and applied by Eric P. Hamp (1958) and George W. Grace (1959).

4 An interpretation along these lines is presented for one Coast Salish language, Halkomelem, in Elmendorf and Suttles 1960:5-6. The later shift, there noted, of mediopalatals (č-series) to dental-alveolar consonants (c-series) is a special Halkomelem innovation, possibly shared with some other languages of the South Georgia branch.

5 The Twana k-initial is unexplained, as Boas and Haeblerlin remark; I also recorded it so. If the word is truly cognate with the others cited, it should show an initial č-. Krueger's (1967) recording of q- in the Columbia word may be in error for k-; I recorded k-, which seems called for as the correspondence of č- in the Spokane form.

6 Again, Krueger (1967) records the Columbia word with a q, as nešqáu, but I recorded a cognate word in Spokane as ʔsčéu woman's sister-in-law. Both the Spokane and the Upper Chehalis forms point to a k in the Columbia word.

7 The last conclusion seems more or less indicated by the evidence analyzed in Elmendorf 1961. However, if the coastal lineal system is a single innovative cultural "shift" from a bifurcate collateral system, then the sharing of lineal terminology by Bella Coola and Coast Salish groups indicates special historical relationships between them.

8 "Descriptively derivative" might be a better designation for the criterion of selection of these terms. All are polymorphic, and all seem to refer to the semantic referent by some form of simile or metaphor. Thus term 1 is tentatively analyzable as: s- nominal, q'él cook by open fire, -ap tail, rear. As a description it might be paraphrased, at a guess, as "what is left behind after open-fire cooking." This seems to parallel "red foot" (hóʔobšəd) for mallard duck, substituted for an earlier xátxat. The last term is not analyzable as a descriptive derivative, although it may be of onomatopoeitic origin.

9 Vocabularies are drawn from Elmendorf and Suttles 1960: 13-67 (Musqueam) and from Warren Snyder, who very kindly made available a basic list in Suquamish. Cognates are checked as morpheme-to-morpheme; thus Twana item 4 is not counted as cognate with Musqueam although both forms seem derivative from a verb-stem eat, and similarly for Twana-Suquamish item 11 warm/hot.

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