The Diminutive in Bella Coola*

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0. The published data to date on Bella Coola consists of some texts collected by Boas (1895) and four articles by Newman based on his own fieldwork (1947, 1969a, 1969b, 1971). The study of Bella Coola is of interest for both diachronic and synchronic linguistics. Because of its geographic isolation from the other Salish languages, it is classified separately from the other branches of Salish, i.e. Coast Salish, Interior Salish, and Tillamook (Swadesh, 1950). In structure, it shares some features with both the Coast and Interior groups, and yet the exact historical relation to the other languages is still unclear. Synchronically, it presents the linguist with a variety of complex and intriguing processes, the analyses of which are not always convincing or available. These include questions of reduplication, vowel deletion,

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syllable structure, stress, verbal affixes, pronouns, words order and complex sentence structure.

In this study, I will deal with some phonological rules in Bella Coola that concern reduplication in general, and the diminutive in particular. I will begin with a synchronic analysis of the data, and then compare this with related phenomena in other Salish languages. Lastly, I will consider possible historical explanations for the development of the present day system.

1. Newman (1971) discusses reduplication in Bella Coola as representative of two grammatical categories - diminutive and continuative. While the latter consists totally of reduplication, the former also involves the use of one of four suffixes (-ni, -i, -y, ∅). The diminutive is subsequently divided into 30 word classes.

1.1. First of all, the division of the diminutive suffix into four allomorphs can be eliminated by the postulation of three general phonological rules. An examination of the 65 diminutives given by Newman reflects the following number of forms under each of the four affixes: (-ni 12, -i 40, -y 6, -∅ 7). The most frequent by and large is /-i/. Examples of forms with this suffix are: spus leaf > supusi dimin.; su·m trousers >su·sumi dimin.; t'nx̣ʷ head > t'nx̣ʷi dimin.; tpix̣ʷ cover >tpi·pqʷi dimin.. The seven forms for the /-∅/ allomorph are: x̣i·x̣i marten >x̣i·x̣i-∅ dimin.; kaɬay humpback salmon > kaɬay-∅ dimin.; ʔasa·lx̣l nape of the neck >ʔasa·lql-∅ dimin.; xll penis >xlxll-∅ dimin.; ʀʷuxani oyster > ʀʷuxani-∅ dimin.; q̓ay basket >ʔa·q̓ay-∅ dimin.; ʀʷni sealspecies >ʀʷni-∅ dimin.. The ∅ can be eliminated by postulating /-i/ as the suffix, along with the following rule:

P1: $i \longrightarrow \phi \; / \; \left\{ \begin{matrix} i \\ y \end{matrix} \right\} + \_\_\_\_ \#$

Here the suffix is deleted when preceded by a high tense unrounded vowel or glide.

The allomorph, /-y/ is attested by the following forms: saƛ'a spoon canoe >saƛ'a-y dimin.; cna stinging nettle >cna-y dimin.; ʔacaya fox >ʔa·caya-y dimin.; tu·pa novel >tupa-y dimin.; skma moose > skmkma-y dimin.; ɬqɬa knife >tɬqɬa·ɬa-y.dimin.. In each case, the segment before the suffix is the vowel /a/. This allows the possibility of assuming an underlying /-i/ suffix that becomes a glide when preceded by a low back vowel.

P2: $i \longrightarrow y \;\; / \;\; a + \_\_\_\_ \#$

This reduces the diminutive to two suffixes, /-i/ occurring 53 times in the data, and /-ni/ 12 times.

Newman remarks that the -ni suffix is always used with stems ending with the nominalyzing suffix ta-, with the vowel subsequently deleted: ʔac-ta paddle > ʔac-t-ni dimin.; ɬta·x̣-ta steering oar. Also, it occurs with other suffixes, each also ending with /a/ that is deleted: cakʷ‖wa worm >cakʷ‖w-ni dimin.; čikʷa clam >čiˑčkʷ-ni dimin.. The /-ni/ allomorph can be eliminated by assuing that the n in the suffix actually comes from the suffix to which the diminutive is added. The underlying form of the nominalizer is suggested to be /-tan/. The vowel deletion is accomplished by a rule that deletes vowels under conditions to be discussed in more detail.

P3: $a \longrightarrow \phi \;\; / \;\; \_\_ \; C + i\#$

The diminutive derivation for paddle, for example, is now ʔac-tan-i ⟶ ʔac-tn-i. In the stem, there needs to be a rule that deletes the word final n which never appears on the surface.

P4: n ⟶ ∅ / ɑ ____#

The underlying stem for paddle is ʔɑc-tɑn ⟶ ʔɑc-tɑ. This results in a single underlying suffix /-i/ for the diminutive.

There are two potential sources of evidence in favor of the postulation of an underlying /n/ at the end of the suffixes in question. The first is from comparative data which show that other Salish languages have final n in the nominalizer in particular, and other suffixes in general. Squamish (Kuipers, 1967), for example, has the nominalizing instrumental suffix -tn in place of Bella Coola -ta, and mɑ́qsn nose for Bella Coola mɑ·χsɑ nose. Bella Coola appears to differ by having lost the n finally, although it still appears in the diminutive.

A second potential source comes from a general theory of syllabicity and its implication in the analysis of some other stem-diminutive pairs in the Bella Coola data. The vowel deletion of P3 can be explained by two different ways. First of all, vowel deletion appears to be partially a result of weak versus strong morphemes. Under certain conditions, certain morphemes tend to lose their vowels while others do not. P3 could be expanded to a rule of vowel deletion which only affects predesignated weak morphemes. The rule would be something like P3A:

P3A: Vowel ⟶ ∅ / [x ___ y] under certain conditions
(x: Stem weak; y: Stem weak)

The certain conditions would include the justaposition to so-called strong morphemes and the pattern of stress placement.

A second possibility is to say that P3 is actually a distinct process from the rule that affects weak morphemes, and that it is related

to rules that generate syllabic consonants. Evidence of this sort comes from a comparison of the following two stems and their diminutive: ync driftwood > yaynci dimin.; wanč dog > wawanči dimin.. From the diminutive forms, it is apparent that both undergo a reduplicative rpocess that affects the first CV of the stem (c.f.1.2). If so, then it appears that the underlying form of driftwood is /yanc/, with subsequent vowel deletion. Also, to account for the /n/ is the diminutive of dog, it seems that one needs to posit an underlying /wanč/ with a rule P5 to apply at some point.

P5: n ⟶ ∅ / _____ c #

This also appears necessary to explain the forms sx̣icta bed > sx̣inx̣ictni dimin., which would have the following underlying structures: s-x̣inc-tan bed > s-x̣in-x̣inc-tan-i. The stem undergoes P4,P5, and the diminutive P3,P5, and root CV reduplication.

The postulation of /yanc/ and /wanč/, however, will not properly generate the forms of the former. This is because it does not undergo P5, but instead results in a syllabic consonant. This distinction can be captured by making the following claim for syllabic consonants: all syllabic consonants result from an underlying sequence əC. With this theoretical addition, the underlying form for driftwood is /yənc/, which undergoes the following rules ordered before P5:

P6A: C ⟶ ç / ə ____

P6B: ə ⟶ ∅ / ____ç

In the diminutive form of driftwood, the proposed ə in the reduplicated syllable is not subject to P6B. Instead, it undergoes Lowering (c.f. Miller, 1972).

P7: ə ⟶ a

The derivation of the diminutive of driftwood would be R-yənc-i ⟶ yəyənc-i (Reduplication) ⟶ yəyən̥c-i (P6A) ⟶ yəync-i (P6B) ⟶ yɑync-i (P7).

There are four main arguments that can be made in defense of such an analysis. For one, it explains the initial CV of the diminutive of driftwood, and the fact that it undergoes the most common reduplicative rule found. Also, it enables one to explain the retention of n in one form and its loss in another. Third, it suggests an underlying vowel system of i, a, u, ə for Bella Coola, which is found in Squamish (Knipers, 1967) and recently suggested as the Proto system for Interior Salish (Kinkade and Sloat, 1972). Last, it conforms to a theory of syllabicity that closely relates əC and Ç segments. This is supported in Salish by the number of so-called pepet vowels that occur with syllabic consonants, and provides an explanation for their occurrence. Also, if syllabic consonants are considered to develop from underlying əCs, then the underlying forms of Bella Coola become by and large CV, with very few clusters. This is consistent with the observation that Proto Salish may have had very few consonant clusters (Kinkade, p.c.).

If this analysis is followed, then the underlying form of the suffixes containing the final /n/ that attaches to the diminutive /-i/ can be said to be /-ən/. The derivation of paddle would be as follows. The stem would be: ʔɑc-tən ⟶ ʔɑc-tə (P4) ⟶ ʔac-tɑ (P7); the diminutive: /ʔɑc-tən-i ⟶ ʔɑc-təṉ-i (P6A) ⟶ ʔɑc-tṉ-i (P6B). The latter form claims that the n in words like this will have syllabicity separate from that of the vowel. This is similar to the syllabic n in the English word gluttony [glə?n̩$i] versus nonsyllabic n in Putney [pʰə?ni]. This can be empirically supported or refuted by actual utterances of these

words by Bella Coola speakers. If Bella Coola speakers do show such syllabicity, it would be evidence both in support of the underlying n as part of the stem rather than the diminutive, and the suggested theory of syllabicity. It would also show that morphological boundaries are important in determining syllabicity.

There is always the question of whether or not the analysis of the diminutive suffix as /-i/ based on historical evidence is sufficient to claim the existence of it synchronically. While I suggest this to be the case, this is not crucial for the purpose of this paper. Rather, what is important is that at some point, Bella Coola appears to have had an /-i/ suffix for the diminutive. This information becomes very relevant for comparative purposes.

1.2. The 30 classes proposed by Newman can be reduced to a much smaller number once some basic phonological processes are considered. Here I will present the major reduplicative patterns that characterize the data. In the discussion, I assume the diminutive to consist of a reduplicative morpheme R that precedes the word root, and the suffix i that follows, i.e. R- Root -i.

1.2.1. Class I. One class of forms is that one where no reduplication occurs. Examples are: xi·xi marten > xi·xi dimin.; ʔacta paddle > ʔactni dimin.; caRʷliwa worm > caRliwni dimin.; saƛ̓a spoon canoe saƛ̓ay dimin.. Forms of this class are assumed to be characterized by a feature [-Reduplication].

1.2.2. Class II. A second common pattern is one where the initial CV of the root is reduplicated. This has already been discussed above for the forms for driftwood and dog. Another example is xli penis xixli

dimin., where the underlying form is assumed to be /xəlɨ/ based on the above discussion of syllabicity. The derivation of the diminutive is xəlɨ-i > xəxəlɨ-i by CV Reduplication:

P8: R- [CVx] root
1 2 345 ⟹
34 2 345

The diminutive suffix and the second schwa are taken care of by rules P2 and P7 respectively. In addition, there is rule P9.

P9: ᵊ ⟶ i / [palatal] __ [palatal]

This rule has been discussed for Comox by Hamp (1971). Other examples of class II are xnɑs woman > xixnɑ·si dimin.; smt mountain > sasmti dimin.; ni·x̣ʷ fire > nini·qʷi dimin.; su·m trousers > su·sumi dimin..

There are also a number of forms that appear to undergo CV reduplication, followed by the deletion of the root vowel, presumably by rule P3A based on weak versus strong roots. Examples include the following: čikʷɑ clam > či·čkʷni dimin.; kɑp̓ay humpback salmon > kɑkp̓ay dimin.; qinx̣ shoe > qiqnqi dimin.; sqʷ cɑ·ls check > sqʷ-cɑcls-i dimin.; ʔɑ-suƛ wind > ʔɑ-su·sƛʷ-i dimin.; ʔɑp-suƛ house > ʔɑp-su·sƛ-i dimin.. The first and last two forms show a common pattern of having a long vowel in the diminutive but none in the stem. One possibility is that the stems in these cases have underlying long vowels that undergo final shortening.

P10: v̄ ⟶ v̆ / __ C#

Evidence for this comes from Boas' (1895) texts where the word for house, for example, is given as ɑpsūL, with the long vowel shown. There are exceptions to this, e.g. su·m trousers.

1.2.3. Class III. The last large class of items consists of those that appear to reduplicate the entire CVC of the root. Like Class II, there are items that retain the root vowel and others that lose it.

Pl1: R- [C V C X] root
1 2 3 4 5 6 ⟹
345 2 3 4 5 6

Examples of those that retain the vowel are: mnɬkʷa hair > mnɬmnɬkʷni dimin.; s-kʷuɬ|x̣ak finger > s-kʷuɬ-kʷuɬ|x̣aki dimin.; tq̓-ɬa knife > tq̓-ɬa··-ɬay dimin.; sɬ-xʷm floormat > sɬ-xʷm-xʷm-i dimin.. Those that undergo deletion of the root vowel and subsequently provide evidence for weak versus strong morphemes are: qax̣ rabbit > qax̣-qx̣-i dimin.; ma·x̣-sa nose > max̣-mq-sni dimin.; sɨlin kidney > sɨl-sɨ-in-i dimin.; kʷ-pat lever > kʷ-pa·t-pt-i dimin..

1.2.3. There are other forms that are more idiosyncratic and do not fall together in large classes as the above. One smaller class contains items that follow this pattern: ʔnc whale > nʔnci dimin.; q̓|asxʷ rope > |q̓|sxʷi dimin.. Also, there are cases like ʔinaxʷ crab > ʔ|ʔna·:xʷi dimin.. A number of problems with vowel length are left unresolved. The delineation of the above classes, however, provide a general picture of the reduplicative patterns found.

2.0. There are three major sources of information on reduplication in other Salish languages. These are Sapir (1915), Haeberlin (1918), and Hess (1966). In addition, a brief, recent comparison of five Salish languages can be found in Reichard (1959, 241-4). An examination of each of these reveals some general characteristics of Salish reduplicative patterns.

The most striking characteristic is that reduplication affects nounlike stems to mark two separate grammatical functions of diminutive and plural. The former is also referred to as the attenuative (Hess, 1966) and the latter augmentative or distributive. The most common general pattern is the reduplication of the initial CV for the diminutive and CVC for the plural. For the diminutive, there is also a frequently accompanying vowel change in the reduplicated syllable, most frequently to i. Vowel changes occasionally affect the plural, but not with the same frequency. A closer look at some selected languages can give an idea of the operation of each.

2.1. Haeberlin (1918) discusses some shared patterns of reduplication for plural and diminutive in Lillooet (Li), Thompson (Th), Shuswap (Sh), and Okanagan (OK), based on data collected by Boas, Hill-Tout, and himself. In each, one class of plurals is formed by reduplicating the CVC of the root, with the accent retained by the root: eczē'k log > ɛczukɛzē'k pl. (Li); qā'mōz marden > qumqā'moz pl. (Li); squm mountain > squmqu'm pl. (Th): spɑm campfire > spɛmpɑ'm pl. (Th); pɑ'zuɬqwɑ lake > pɛzpɑ'zuɬqwɑ pl. (Sh); nóxɛnox woman > noxnóxɛnox pl. (Sh); sqɛltɛmē'x̣ mon > sqɛlqɛltɛmé̓x̣ pl. (OK); R̄ōms eyebrow > Rumkóms pl. (OK). Although alternant patterns and exceptions exist, the common features are reduplication of the stem CVC and retention of the stress.

The most shared common pattern for the diminutive for these four languages involves the reduplication of the initial CV of the root, and the shift of stress from the root onto this new reduplicated syllable. Also, there are occasional examples of the vowel of the new syllable being an i like one: sqă̓yux man > sqɛ́qɛyux dimin. (Li); tlă̓́xutc large plate >

tlɬtl'xutc dimin (Li); squm mountain > sqóqum dimin (Th); sqáxa' dog > sqáqxă dimin. (Th); pázuɬqwa lake > pápzuɬqwa dimin. (Sh); nóxɛnox woman > núnoxɛnox dimin. (Sh); tɛ̄Rut lake > tɛ̄ʔɛ̄ʔaakut (OK); xɛ̄x̣ōtɛm girl (OK). Haeberlin provides evidence of the operation of each process through their operation on loan words, e.g. pos cat > pospós pl. > póps dimin (Th). The two are kept distinct by the syllabic structure of the reduplication and the stress placement.

An examination of the other Salish languages discussed by Haeberlin also tend to show patterns similar to those above. An interesting point is that while plurals are sometimes shown by CV reduplication, diminutives are never by CVC reduplication. The only case to do such was observed in Bella Coola. Showing only 3 diminutive forms for Bella Coola, one of which was imílk' man > imilimílk' dimin., Haeberlin states: "imilimílk' is the only diminutive form that I can cite from any Salish dialect in which reduplication includes the consonant following the stem-vowel. This type of reduplication is always characteristic of the plural" (171).

2.2. While the use of CVC reduplication to some extent characterizes plural marking, the use of CV reduplication plus a vowel change to i to mark diminutive is particularly evident in some of the coast Salish languages. Data exemplifying this are presented in both Hess (1966) for Snohomish and Sapir (1915) for Comox. Hess reports on 3 classes for the attenuative (diminutive) in Snohomish, each marked by CV reduplication: Cí-, CV́-, Cə-. The first two attract stress, similar to the process described above. Two change the vowel quality, one to i and the other to ə. Only the former attracts stress. Examples of each class are: bədáʔ offspring > bí-bədaʔ dimin.; túbš man > tú-tubš

dimin.; šíqʷ hat > šə-šíqʷ dimin..

While this pattern is similar to the previously discussed one, there is an interesting difference with the plurals in the Snohomish data. While CVC reduplication is the largest class, the stress is not found on the second syllable as noted above. Rather, it occurs either on the first syllable or else on a final suffix, determined by whether or not the root is stressed in the stem: cápa grandfather > cáp-cap-a pl.; čáɬi? heart > čáɬ-caɬ-i? pl.; bədá? offspring > bəd-bəd-á? pl.; qʷaqíq robin > qʷaq-qʷaq-íq pl.. This tendancy toward initial stress of non schwa vowels in the plural is also apparent in the other, less frequent, classes, e.g. -VC-: dí? side > dí?-i? pl.; ?íbac grandchild > ?íb-ib-ac pl.; túbš man > túb̌ub-š pl.. Hess analyses the plural as an infix which never gets stressed.

The data in Sapir (1915) show both the tendancy for an i vowel in the reduplicated CV of the diminutive, and a shift from the stress patterns of the interior Salish plurals. The majority of diminutives show a Ci reduplication that attract stress: ɬélṃ beaver > ɬéɬ̌kʷím dimin.; xápā'i red cedar > xéxpā'i dimin.; kúmāqin sea-lion > kʷíkumāqín dimin.; ɖāɬ land otter > ɖéɖēɬ dimin.. In the plurals, there are forms that show both the interior pattern of stress on the second syllable, and others that show stress on the first. The four examples just given for the diminutive show both patterns: ɬákɬəkṃ beavers; xápxəpā̆i red cedars; kumkŭmāqin sea-lions; ɖaɬ'ɖáɬ land-otters. Comox appears in some ways to be an intermediate development between Snohomish patterns where stress has shifted to the front of plurals to the Interior system where it is retained on the root.

3.0. The reduplicative patterns of Bella Coola contain both similarities and differences in relation to the other Salish languages. The striking similarity is the use of Reduplication to mark the diminutive. Also, the use of the i vowel to signify diminutive can be seen in the other languages. At the same time, there are three obvious differences. These are 1. the infrequent occurrence of reduplication to mark plurality; 2. the use of CVC reduplication in the diminutive; 3. the use of an -i suffix to mark the diminutive. It is of interest to look at the nature of these and their possible historical development.

3.1. Newman (1971) omits inclusion of plural as part of the reduplicative processes. A discussion of this is also lacking in his other articles, although in Newman (1969a), he gives the form wacuks for the plural of waċ dog (179). One might assume from this that the plural is marked by the suffix -uks. Boas (1886) briefly discusses this.

> "The plural of nouns is formed in different ways, either by reduplication of the initial sound or by the ending -uks. In some instances I found pi and tj. Frequently, the singular serves also for the plural" (218).

The occurrence of the -uks suffix for plural is unlike that of any other Salish language. Interestingly enough, an element very similar to it appears to occur in Cree, an Algonguian language of central Canada. "The Cree Nouns may be divided into two classes, the animate and the inanimate; the former takes for its plural the suffix uk, the latter a" (Hunter, 1875, 14). The possibility of borrowing is mysterious here since Bella Coola is geographically removed from Cree in particular and Algonguian languages in general. A genetic relationship would be

consistent with Sapir's (1929) inclusion of Salish and Algonguian under the same superstock. If this is true, this suffix could have been retained in Bella Coola in part due to its isolation. In any case, it is unclear where the suffix originated, if borrowed.

3.2. The occurrence of CVC reduplications in the diminutive is also unique to Bella Coola. Boas mentioned that some plurals are made by reduplication, but there is no data on this. One possibility is that some of the forms that Newman collected are plural diminutives, containing the CVC reduplication of the plural and the diminutive suffix. This would account for the Class III forms discussed above. The only data I have found that suggests this is by comparing the CVC reduplications to similar forms in Comox. One example of a CVC Bella Coola diminutive is mɑ·x̣sɑ "nose" > mɑx̣mqsnɨ dimin.. This word is Comox has the stem méqsɨn which, incidentally, provides support for the suggested underlying n in the Bella Coola word. The Comox plural is méqɨməqsɨn which is similar to the Bella Coola reduplication. The diminutive, on the other hand is mɨ̓məqsɨn̓. Otherwise, it appears that the CVC function of was lost and merged with the diminutive pattern.

3.3. The use of a final -i suffix in Bella Coola is unlike any of the other Salish language, and it is interesting to speculate on how it may have developed. There are at least three possibilities, with both historical and theoretical implications. These are: 1. that it was borrowed from a neighbouring non-Salish language; 2. that it has a similar origin as the plural suffix -uk; 3. that it developed internally from the reduplicated i vowel prefixed in other Salish languages.

3.3.1. Bella Coola is bordered on the West by Kwakiutl and on the East by two Athabaskan languages, Carrier and Chilcotin. Kwakiutl marks plurality by a variety of reduplicative patterns, with no suffix co-occurring (Boas, 1911, 519-27). In this sense, it is similar to Salish. The diminutive is marked by the suffix -əm, plus initial reduplication. The diminutives for Bella Coola and Kwakiutl would be R-ROOT-i and R-ROOT-əm respectively. The Bella Coola diminutive could be said to have been borrowed from Kwakiutl in the following way. Recall from rule P4 that word final -n is deleted before ə. This process could be assumed to be extended to -əm. Then there would only be left the postulation of the raising of the ə to i. There are problems with justifying the latter, however, since the synchronic rule suggested for final schwa, P7, lowers it. Also, whereas P7 can be considered to be a fairly natural rule (c.f. Miller, 1972), the case is not as clear with a ⟶ i. The more obvious influence could have been the pattern R-ROOT-SUFFIX. I will return to this below.

Of the two Athabaskan languages, some published information is available on Carrier in Maurice (1932). A potential source of borrowing comes from plural formation, where two endings similar to those of Bella Coola are found. "Personal nouns... have their final in -nê for the plural": mutih gentleman, chief > mitih-nê pl.; tayê native village chief > tayê-nê pl. (101). Also, Maurice comments that "this plural suffix is replaced by -ê in personal nouns that already end in -n": tsûtsen child > tsûtsenê (101). One could suggest that this suffix was borrowed into Bella Coola where it took over the function of the diminutive. There are several problems with this possibility. One obvious one is explaining the change in function from the

one language to the other. Also, the use of these two suffixes is very limited in Carrier. Most of the nouns in Carrier lack any plural marking at all. In addition, there is another suffix -khê, which is used with personal nouns, e.g. nêpa father >nêpa-khê pl.. The borrowing would have involved a relatively infrequent form. Lastly, there are independent reasons for explaining the -ni suffix internally, as already discussed.

3.3.2. A second possible source of the diminutive -i suffix is that it was always there, i.e. that it is a lasting form from the earlier stages of the language. Earlier, I mentioned the existence of a plural suffix -uk in Cree that is very similar to the -uks in Bella Coola. Cree also has a similar diminutive ending. "Nouns are made diminutive by the addition of is or oos as cheman a canoe, chemanis a little canoe" (Hunter, 1875, 14). One could argue that this ending endured losing only the final -s at some point. One would then suggest that Bella Coola broke off from the Proto-language at an earlier point than the other Salish languages and was conservative in the retention of these suffixes.

3.3.3. The last possibility, and the one with most theoretical interest, is that the i suffix developed internally in Bella Coola, and that it represents the i vowel that occurs in the initial reduplications of some of the other Salish languages. If this is the case, the question arises as to why only Bella Coola has apparently undergone this change, and what are the linguistic processes that allow it. Conversely, if Bella Coola represents the original situation, how did the other systems evolve from it? I will discuss each alternative and point out some influences that might affect each.

The pattern in the interior languages can be discribed in the following way. There are two reduplicative prefixes, Rpl and Rdim, which will undergo one of two phonological rules, the former resulting in CVC Reduplication, the latter CV Reduplication. Also, there will be a Stress Shift Rule that moves the stress from the root forward onto the diminutive morpheme. Given the existence of this rule, one might say that Rpl and Rdim differ in that the former is a weak morpheme and the latter a strong one.

In Snohomish, where one of the diminutives is of the form Cí-, this morpheme can be described as Ri-, i.e. a reduplicative morpheme with an i segment that occurs in place of the vowel of the root. It likewise is a strong morpheme that attracts stress to it. Snohomish differs from the interior languages discussed by having stress also on the first syllable of the plural reduplication. This can be explained by either saying that Rpl has become an infix and remains a weak morpheme (as suggested by Hess), or else that it is still a prefix, but that the Stress Shift Rule has generalized to plurals. In the first solution, the Stress Shift Rule would be said to have been lost. In either case, the stress situation in Interior Salish can be said to be variable, and the Snohomish one invariable. Schane (1972) has recently suggested that invariable stress is preferred in language to variable stress, since it allows the speaker to follow a perceptual strategy for segmenting words. He argues that second language learners of invariably stressed languages like Spanish and French have a much easier time segmenting sentences than English speakers. If so, then one can claim that the Snohomish system has developed from the Interior one.

This distinction can aid in understanding Comox where Rdim attracts stress, whereas Rpl sometimes does and sometimes doesn't. Comox can be said to be moving toward invariable stress on the first syllable, but that the situation is in a state of change. This change could be occurring in two ways. One, the Stress Shift Rule could be said to be generalizing to plural forms but has not yet completely done so. Second, the Rpl may be an infix in some words and a prefix in others, and that the speakers need to learn for each word which was which. This situation, of changing from one stress system to another, results in a period during which separate, somewhat arbitrary, word classes exist. This situation has recently been pointed out for the history of English (Halle and Keyser, 1971).

If the Bella Coola diminutive suffix is related to the i segment of some other Salish languages, then one might expect that it would retain some of its property for stress attraction. Newman (1947) noted a tendancy to stress the final -i.

> "In pronouncing words which had undergone certain derivational processes forming the diminutive, my main informant used a special accent with a falling tone on the doubled vowel or continuant and a high stressed tone [emphasis mine DI] on the final suffix vowel" (132).

The use of this tone, however, was inconsistent.

> "But later comparison with the speech of other informants showed that this accentual feature, though often used by them in such diminutive formations, was not stable in repeated pronunciations of the word, either in or out of context" (132-3).

Its frequent occurrence with a high stressed tone, however, suggests a relation to the same morpheme Comox and Snohomish.

If one assumes that Bella Coola R+ROOT+i developed from Ri+ROOT,

the question arises as to why this shift would occur. Descriptively, Salish as a group tends to use both prefixes and suffixes. Bella Coola, however, is predominantly a suffixing language. Newman (1969a) comments that all inflections and most deviations are done by suffixation. It can be hypothesized that Bella Coola underwent certain influences that eliminated its prefixes and moved some of them into a suffixed position. The i was then shifted to the end while the process morpheme R was unaffected. The movement of the diminutive, in this case, would just be one feature of a general movement of affixes to the suffixed position, which also affected pronominal and interrogative affixes, both of which can be found preceding the verb in some other Salish languages. The prefixing of pronouns, for example, distinguishes the Interior language from the Coast ones, which suffix them. Examples can be seen in Hoard (1971): e.g. subject pronouns 1sg. - c, 2sg - x^w, 3sg - s Bella Coola; 1sg ən-, 2sg k^w-, 3sg ∅ Okanagan. While Coast Salish languages do not prefix pronouns, they still have prefixes for other markings. Snohomish, e.g., is said to have "about an equal number of prefixes and suffixes" (Hess, 1966, 350).

It is one thing to describe Bella Coola as a suffixed language and account for the -i suffix as a result of moving prefixes, and quite another to explain why this general shift took place. As stated, the movement of -i is not suggested to be an individual incident, motivated phonologically by its own characteristics, but rather a victim of a more general change. Since this change is not phonologically oriented, its analysis and understanding are far beyond the scope of this paper. The answer, I think, lies in the universal characteristics

of languages with VO and OV word order, as suggested by Lehmann (1973), along with the known historical development of person markers, cf. Wurm (1970). Lehmann found that suffixing languages like Bella Coola typically have a OV word order. This conflicts with the surface Bella Coola order of VSO. It may be that the neighboring Athabaskan word order of SOV may have influenced it, even to the extent that the underlying order in Bella Coola is actually SOV. These remarks are given in their most tentative form here, and I hope to deal with this question further in a future study.

There is one further possibility to be suggested for the explanation of a R-ROOT-i structure in Bella Coola. This is that the R-ROOT-i structure can be considered as the underlying one in those Salish languages that have i in the diminutive, and that all but Bella Coola have a rule that moves the i into the reduplicated syllable. Bella Coola, then, would differ in that it has lost this rule, presumably under the influences that eliminated prefixes. This would claim, for example, that Comox has an underlying R-ROOT-i structure. The Comox forms for sea-lion kúmāqin > kʷíkumāqín dimin. would be derived as R-kumāqin-i ⟶ kV*-kumāqin-i (CV Reduplication) ⟶ ki-kumāqin (Diminutive Suffix Movement) ⟶ kʷi-kumāqin (Labialization). While at first this appears unmotivated, there is one piece of evidence for such a derivation. There are certain suffixes in Comox that undergo vowel harmony c.f. also Squamish, (Kuipers, 1967). An example from Sapir's data (using phonemicized vowels in the notation in place of those used by Sapir) is the word beaver ƛ̓ékum > ƛ̓ƛ̓kʷwim dimin.. Here the suffix -um is -im when the diminutive i vowel is used. This can be explained by either an underlying re-

presentation of Ri-ʧək-um or R-ʧək-i-um, the latter with the bracketing [word [stemR[root ʧəkroot] i stem] um word]. In the former, the Vowel Harmony Rule would need to follow the Vowel Deletion Rule, or else be forced to skip over the vowel of the root. Since both ways work, it appears preferable to choose Ri-Root.

The plural diminutive form, however, show that this may not be the best choice. Here the form is ʧiʧəkʷʧəkʷim pl. dimin.. This shows that Vowel Deletion does not have anything to do with Vowel Harmony. If one maintains the Ri morpheme, then Vowel Harmony has to be able to skip over morphemes to get to the appropriate vowel. This is not necessary, however, if a discontinuous R....i morpheme is proposed. Then, the underlying representation would be: Rdim-Rpl-ʧək-i-um, with Vowel Harmony preceding Diminutive Suffix Movement. If this alternative is maintained, then Bella Coola actually reflects the earlier situation.

3.4. In this section 3.0, I have discussed three features of the Bella Coola reduplicative pattern that appear to differ from other Salish languages. With each one, I have put forth alternatives concerning how they may have arisen. Since the nature of these suggestions is tentative and requires more analysis and information than presented or even available in some cases, I have not proposed one as preferable over another. Each, however, shows that the Bella Coola patterns are not as idiosyncratic as may initially be thought, but rather are probably explainable in some way to structures in either neighboring and/or related languages.

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