0.0 Introduction

In Bella Coola, as in the other Salish languages, there is a set of suffixes, variously called etymological\(^1\), nominal\(^2\), field\(^3\), or lexical suffixes.\(^4\) Members of this set - regardless of the name chosen for it - characteristically do not express the usual grammatical categories, e.g. aspect, mode, etc.; their function is more lexical or semantic, having to do with semantic properties of roots. In past papers (Davis and Saunders 1972; Davis and Saunders 1973 and Saunders and Davis 1973), we adopted the term 'lexical suffix' and used it to label a set of suffixes within which we recognized a two-way division (Davis and Saunders 1973:231-2). We now propose a more detailed division of this class into four suffixal types.\(^5\)

Such subclassification is not new. Kuipers (1967) also divided an analogous set of suffixes into five types: somatic, non-somatic, formatives, lexical suffixes with specific referents and lexical suffixes with class referents, the latter two types occurring only with numerals. Unlike most other divisions of the set of lexical suffixes based on semantic criteria, Kuipers provides a grammatical basis for at least some of his divisions. It is our purpose in this paper to present evidence, basically of a syntactic
nature, which supports a four-way division of the set of 'lexical suffixes' of Bella Coola.

0.1 Referential Suffixes

Before we begin our discussion, there are some terminological adjustments we should like to make. In Davis and Saunders (1972) we introduced our definition of a 'lexical suffix' as

"... one which reflects the semantic content of lexical items. It marks not syntactic properties, (say, of arbitrary noun classes) but copies a portion of the semantic content of some term in construction with the form to which it is affixed."

The thrust of previous papers was to demonstrate that there is a specifiable relationship between 'lexical suffixes' and lexical items characterized as having fixed gender (i.e., nominals) and that the affixation of 'lexical suffixes' to forms without fixed gender (i.e., verbs or Comments) occurs in the syntactic component of the grammar via a copying rule which we called LEXICAL SUFFIX COPY. However, not all lexical items with fixed gender have a corresponding lexical suffix and there appears to be no semantic criterion or feature of these lexical items which differentiates them from those having an associated lexical suffix. For this reason, we propose an arbitrary syntactic feature + Referential that is part of the specification of fixed gender lexical items. Lexical items marked [+ Referential] have corresponding suffixes and participate in some manner in the copying rule; those marked [- Referential] do not
have corresponding suffixes and do not participate in the copying rule. At this point we shall abandon the name 'lexical suffix' as the cover term for suffixes which have a relationship to lexical items marked [+Referential] in favour of the new term 'referential suffix'. We shall retain the term 'lexical suffix' in two of the divisions of referential suffixes.

0.2 Types of Referential Suffixes

On the basis of the evidence to be presented in this paper, we propose a four-way division of [+Referential] lexical items and their associated referential suffixes. The first division consists of those lexical items which refer to body parts and their associated suffixes, called 'anatomical lexical suffixes'; the second consists of a set of non-anatomical referents and their associated suffixes called 'non-anatomical lexical suffixes'; the third division consists of a set of lexical items whose associated suffixes we call 'classifiers' and finally, the fourth division which consists of lexical items whose associated referential suffixes are those of the class of anatomical lexical suffixes used metonymically. We shall forego defining the suffixal types until the conclusion of the paper. With the exception of the anatomical lexical suffixes and their metonymic extensions which have been treated extensively in Saunders and Davis (1973), the suffixes of each type are listed under the appropriate heading in the Appendix.
This four-way distinction is predicated upon differential syntactic behavior of [+Referential] lexical items in Bella Coola. The typological divisions of referential suffixes in terms of the names which we have appended to them have no place in the grammar per se and it is to the referents of the various suffixal types that we must look to account for the basis of this differential syntactic behavior. For the purpose of this paper we adopt along with Chomsky et al the view that lexical entries consist of a phonological shape and a set of associated syntactic and semantic features. It is the arbitrary syntactic feature [+Referential] which characterizes the referents of all referential suffixes. But, within the class of [+Referential] lexical items we will argue that the four varieties of syntactic behavior (and hence the four-way distinction between lexical items and their respective referential suffixes) are not arbitrary but follow from semantic properties of the lexical items themselves.

1.0 Copying

[+Referential] lexical items are subject to the optional application of LEXICAL SUFFIX COPY. As originally conceived this rule had two parts. First it produced a replica (in the form of a referential suffix) of a lexical item that occupied the Agent, Patient, or Adjunct constituent of a sentence. Secondly, it deleted the copied lexical item. For the purposes of this paper, we have decided to split LEXICAL SUFFIX COPY into its parts. The first part we shall still refer to as LEXICAL SUFFIX COPY; the second we shall call REFERENT DELETION.
1.1 LEXICAL SUFFIX COPY

Consider the following:

1. \( \text{\(\text{i}\) \(\text{\(\text{ik}^{\prime}w\) ti suxa tx}\)} \) 'The hand is big.' Anatomical
lexical suffix
1'. \( \text{\(\text{\(\text{ik}^{\prime}wak\)}\)} \)

ii. \( \text{\(\text{\(\text{ik}^{\prime}w\) ti kulik tx}\)} \) 'The top surface is big.' Non-anatomical
lexical suffix
ii'. \( \text{\(\text{\(\text{ik}^{\prime}wik\)}\)} \)

iii. \( \text{\(\text{\(\text{ik}^{\prime}w\) ti pakayala tx}\)} \) 'The box is big.' Classifier
iii'. \( \text{\(\text{\(\text{ik}^{\prime}wa\)}\)} \)

iv. \( \text{\(\text{\(\text{ik}^{\prime}w\) ti cupaksta tx}\)} \) 'The glove is big.' Metonym
iv'. \( \text{\(\text{\(\text{ik}^{\prime}wa\)}\)} \)

v. \( \text{\(\text{\(\text{ik}^{\prime}w\) ti stn tx}\)} \) 'The tree is big.' Derivational
suffix
v'. \( \text{\(\text{\(\text{ik}^{\prime}w_{p}\)\)} \)

vi. \( \text{\(\text{\(\text{ik}^{\prime}w\) ti \(\lambda^{\prime}msta\) tx}\)} \) 'The person is big.' Derivational
suffix
vi'. \( \text{\(\text{\(\text{ik}^{\prime}wx\)\)} \)

In the above forms, the Comment \( \text{\(\text{ik}^{\prime}w\) 'big'} \) is predicated of a number of
different Agents. Items \(\text{\(i/i^{\prime}-iv/iv'\) are paraphrases. The first of each pair,}\)
a quasi-analytic surface representation of the underlying structure, is de-
duced without LEXICAL SUFFIX COPY; the second is the surface representation
after application of the copying rule. Items \(\text{\(v/v'-vi/vi'\) illustrate}\)
that although the lexical items \(\text{\(\text{stn 'tree'}\) and \(\lambda^{\prime}msta 'person'}\) have
associated suffixes, these suffixes are not referential suffixes in that
their use in LEXICAL SUFFIX COPY yields ungrammatical sentences.
Items i/i'-iv/iv' have the underlying structure:

```
S
   Comment
   |
   Topic
     |
     Agent
   \---/\---/
     i/i' ti suxa tx 'hand'
     ii/ii' ti kušik tx 'top'
     iii/iii' ti pakayala tx 'box'
     iv/iv' ti cupakata tx 'glove'
```

To derive the first of each pair—the quasi-analytic surface representation—only one rule is applied. That rule, AGENT AGREEMENT, copies the information of person and number from the Agent onto the Comment. Here the information is third person singular, represented by the Subject pronominal suffix -g. To derive the second member of each pair, LEXICAL SUFFIX COPY first applies producing the appropriate replica of the lexical item under Agent to the right of Comment. Subsequently, REFERENT DELETION applies deleting the copied lexical item and then AGENT AGREEMENT, which, in the absence of any lexical item under Agent produces a third person singular pronominal affix to the right of the replica.

1.2 Copying and grammatical categories

LEXICAL SUFFIX COPY is not restricted in its applicability to structures with lexical items under Agent. In Bella Coola, the rule also applies when
lexical items occur under Patient and Adjunct. Consider:

\[
\begin{align*}
    & \text{viii} \quad \text{kma ti suxac tx} \\
    & \quad \text{kma-ak-c} \\
    & \quad \text{"My hand hurts."} \\
    & \quad \text{Agent copy} \\
    & \text{ix} \quad \text{op-ic ti suxa-s tx} \\
    & \quad \text{cp-ak-ic} \\
    & \quad \text{"I wipe his hand."} \\
    & \quad \text{Patient copy} \\
    & \text{x} \quad \text{op-ic ?al ti suxa-c tx} \\
    & \quad \text{cp-ak-m-ic} \\
    & \quad \text{"I wipe it with my hand."} \\
    & \quad \text{Adjunct copy}
\end{align*}
\]

All lexical items marked \([+ \text{Referential}]\) undergo Agent and Patient copying. However, only lexical items which refer to body parts undergo Adjunct copying. Consider:

\[
\begin{align*}
    & \text{xi} \quad \text{op-ic ?al ti suk'\text{ta tx}} \\
    & \quad \text{*cp-an\text{\text{-}a-}m-ic} \\
    & \quad \text{"I wipe it with a cloth."} \\
    & \text{xii} \quad \text{op-ic ?al ti cupaksta tx} \\
    & \quad \text{*cp-ak-m-ic} \\
    & \quad \text{"I wipe it with a glove."}
\end{align*}
\]

where the application of LEXICAL SUFFIX COPY to non-anatomical lexical items under Adjunct yields ungrammatical sentences.

Adjunct copying is restricted to anatomical lexical items and their associated anatomical lexical suffixes.

2.0 Referents

There are three phenomena associated with referents which serve to differentiate the suffixal types. They are the relationship between a suffix and its referent, the derivation of referents, and s- nominalization.
2.1 Suffix:Referent relationships

Two types of relationships exist between referential suffixes and their referents. The first is a one-to-one relationship which characterizes the suffixes we now call lexical suffixes. For example, the anatomical lexical suffix -lic reflects the entire semantic content of the lexical item sk'istik 'skin.' The non-anatomical lexical suffix -ik reflects the entire semantic content of kušik 'top surface'. In the second type of relationship, a single suffix reflects a portion of the semantic content of a number of lexical items. For example, the classifier -ač 'container' reflects only this salient feature common to: pakayal 'box', plkiwa 'kerfed box', kwanič 'spoon', t'am'amatuc 'dish', c'la 'basket', q'ay 'cedar-bark basket', mntx'ucta 'dipper', sač'a 'canoe', and kulon 'pail', among others.

We consider the classifiers, characterized by the one-to-many relationship between suffix and referent, to be copying only a portion of the semantic content of lexical items. On the other hand, we consider the one-to-one relationship exhibited by both types of lexical suffixes to indicate that they copy the complete semantic content of their referents.

The remaining group of suffixes, the metonymic extensions of lexical suffixes (henceforth called 'metonyms') exhibit the one-to-many relationship between suffix and referent characteristic of classifiers. Thus, for example, the metonym -ak etymologically derived from the anatomical lexical suffix -ak 'hand' copies the salient feature of some connection or association
always have that referent formed with either ku₄ or ɪ₄s or both plus
the suffix. Complex anatomical lexical suffixes likewise have referents
formed with these roots, while simple anatomical lexical suffixes may
have referents formed without them. The referents of classifiers and
metonyms are never formed with ku₄ or ɪ₄s.

2.3 Nominalization with /s-/.

The referents of anatomical lexical suffixes which consist of the
root ku₄ plus the suffix always occur with the nominalizing prefix /s-/. This appears to signal the difference between homophonous anatomical and
non-anatomical lexical suffixes as the referents of the latter never occur
with the prefix. Compare the pairs: ku₄u₄ik 'back' (of chair/sofa); ku₄u₄ik
upper back/thoracic region posterior aspect' and ku₄₄ank 'side' (of object);
ku₄₄ank 'flank'/'side' (of animal/human).

3.0 Rules

In addition to the differential behavior of suffix types noted in
section 1.2, there are three syntactic phenomena which also exhibit differences
among the suffixes. The first concerns the applicability of REFERENT DELETION,
the second and third concern details of a rule called AGENT-PATIENT AGREEMENT.

3.1 REFERENT DELETION

Under specific circumstances, all suffix types may have their referent
deleted after application of LEXICAL SUFFIX COPY. The rule which accomplishes
with the hand of lexical items such as gloves, sleeves, various tools and implements as well as activities of a manual nature.

2.2 Referent shape

The referents of classifiers and metonyms sometimes include the suffix as in: yalqū 'ball', muq'muq'ū 'gold', and stpu 'mole'. Here the classifier -ū 'round object' forms part of the referent. But, in such sentences as: kūum ti t'xta tx 'to weigh anchor', the classifier -ū is not part of the referent, here t'xta 'stone/anchor'. Likewise, the classifier -a 'container' is not part of many of its referents, as in: pakayala 'box', kwānī 'spoon', ʾam'amatūc 'dish', and c'la 'basket.'

The referents of lexical suffixes, however, generally contain the suffix. All non-anatomical lexical suffixes and most anatomical lexical suffixes have associated referents which consist of one or both of the roots kū 'object' and ʾas 'located at' plus the suffix as in: -ulmx: kūulmx 'floor'/'ground', -ixkūlIx'; ʾasix; 'head', and -lxkūlLx; ʾaslLxs 'point'. Some of the most common anatomical lexical suffixes have referents which contain the suffix, but are not derived with kū or ʾas: -usimuxa 'face', -lxs maxsa 'nose', and -ix; t'nx. A few anatomical lexical suffixes have referents without the suffix: -ak: muxa 'hand/arm to elbow' and -a; ixa 'foot/leg'.

In summary, classifier and metonymic suffixes may have the suffix as part of their referents; lexical suffixes usually have the suffix embedded in their referents. Lexical suffixes of a non-anatomical referent
this is called REFERENT DELETION. Consider the following:

xiii cp-ic ti suxa tx
xiv cp-ak-ic *'I am going to wipe the hand.'
xv *cp-ak-ic ti suxa tx

where (xiii) is the surface representation of the sentence without application of LEXICAL SUFFIX COPY; (xiv) the surface form with application of LEXICAL SUFFIX COPY and REFERENT DELETION; and (xv) demonstrates that for lexical suffixes the application of LEXICAL SUFFIX COPY without subsequent application of REFERENT DELETION yields an ungrammatical surface representation of the sentence. In our opinion, this mandatory deletion of the copied referent constitutes additional evidence for our contention that lexical suffixes copy the entire semantic content of their referents.

Classifiers behave somewhat differently. Consider:

xvi cp-ic ti yalqûa tx 'I am going to wipe the ball.'
xvii cp-û-it-ic ti yalqûa tx
xviii cp-û-it-ic *'I am going to wipe the ball/apple/orange/stone', etc.

where (xvi) is the surface representation without LEXICAL SUFFIX COPY. This form is believed to be only marginally grammatical. Informants appear to be uncomfortable with it, preferring the more usual (xvii) which is the form after application of LEXICAL SUFFIX COPY. The form (xviii) is grammatical only under certain circumstances, namely in an anaphoric context where the specific referent has previously been made explicit in the discourse. As new information only (xvi) and (xvii) are grammatical.
The metonyms behave in this regard exactly as do the classifiers.

In summary, the lexical suffixes -anatomical and non-anatomical- are characterized by the mandatory application of REFERENT DELETION after LEXICAL SUFFIX COPY has applied. The classifiers and metonyms are characterized by the optional application of REFERENT DELETION after copying, but only in anaphoric situations.

3.2 Genitive copying

The so-called Subject-Object pronominal suffixes of Bella Coola copy onto the Comment of the matrix sentence the information of person and number of the Agent and Patient constituents via a rule labelled AGENT-PATIENT AGREEMENT. Thus, given the underlying form:

```
xx
```
```
S
   Comment
     Agent
       k'x
     Topic
       Patient
         ti ?imlk tx
         ci xnas cx

'see' PROX 'man' ART PROX 'woman' ART
```

the application of AGENT-PATIENT AGREEMENT yields:

```
xx k'x-is ti ?imlk tx ci xnas cx 'The man sees the woman.'
```

If in the underlying representation the Agent or Patient or both are manifested by a pronoun, it is deleted yielding sentences such as:

```
xxi k'x-is 'He sees her.'
```
When LEXICAL SUFFIX COPY applies to a sentence with an underlying representation analogous to (xxii), the patient, or object, component of the Subject-Object suffix copies not the information of person and number of the underlying object, but of its possessor. Thus

\[
\text{xxii}
\]

\[
S
\]

\[
\text{Comment} \quad \text{Topic}
\]

\[
\text{Agent} \quad \text{Patient}
\]

\[
cp \quad ?\text{nc} \quad \text{ti suxa-mu tx}
\]

\[
'\text{wipe}' \quad 'I' \quad \text{PROX 'hand'-'you' ART}
\]

with the application of LEXICAL SUFFIX COPY becomes:

\[
\text{xxiii}
\]

\[
S
\]

\[
\text{Comment} \quad \text{Topic}
\]

\[
\text{Agent} \quad \text{Patient}
\]

\[
cp-ak \quad ?\text{nc} \quad \text{ti suxa-mu tx}
\]

\[
'\text{wipe}'-'\text{hand}' \quad 'I' \quad \ldots \quad '\text{hand}'-'\text{you}'\ldots
\]

and application of REFERENT DELETION yields:
and finally, AGENT-PATIENT AGREEMENT applies yielding:

\[ \text{cp-ak-cimu} \quad 'I\ am\ going\ to\ wipe\ your\ hand.' \]

If AGENT-PATIENT AGREEMENT applies directly to an underlying structure such as (xxii), the result would be:

\[ \text{cp-ic ti suxa-mu tx} \quad 'I\ am\ going\ to\ wipe\ your\ hand.' \]

where the patient (object) component of the fused pronominal suffix has copied the information of person and number of the head of the construction under Patient.

This phenomenon of genitive copying after application of LEXICAL SUFFIX COPY and REFERENT DELETION serves to differentiate anatomical lexical suffixes and metonymy classifiers and non-anatomical lexical suffixes. For this latter group, the possessor of the referent object is never represented in the pronominal suffixes. In the case of classifiers, the specification of a possessor of the referent in the underlying representation of a sentence precludes the application of REFERENT DELETION even in an anaphoric situation. Thus,
after application of LEXICAL SUFFIX COPY is

REFERENT DELETION (assuming anaphoric context) is blocked by the specification of a possessor of the ball and AGENT-PATIENT AGREEMENT next applies yielding:

The form *cp-úi-cimu could never be the surface representation of (xxvii).
3.3 Third person plural object

In section 3.2, we said it was the function of the fused Subject-Object pronominal suffixes to represent in the Comment the information of person and number of the Agent and Patient constituents. The data below appear to indicate that for lexical items which do not refer to animate beings or body parts, there is no third person plural component of the Subject-Object suffixes. Instead, the third person singular object component serves for referents of both singular and plural number. See

xxx  k'x-ic ti qukūtą ta tx  'I see the pencil.'
     ('see'-it/I PROX 'pencil' ART)

xxx i  k'x-ic ti ɬ'msta tx  'I see the person.'
     ('see'-he/I PROX 'person' ART)

xxx ii  k'x-ic wa qukūtą c  'I see the pencils.'
     ('see'-it/I PROX 'pencil' ART)

xxx iii  k'x-tic wa ɬ'msta c  'I see the people.'
     ('see'-them/I PROX 'people' ART)

where the deictics ti...tx signal a singular referent Patient and wa...c signal a plural Patient.⁹

This difference is continued when a referential suffix is copied into a Comment. See

xxx iv  quc'ał-ic  'I am going to wash his foot/feet.'

xxx v  quc'ał-tic  'I am going to wash their feet.'

xxx vi  quc'ał-ic ti pakayala tx  'I am going to wash the box.'

xxx vii  quc'ał-ic wa pakayala c  'I am going to wash the boxes.'
where (xxxiv) and (xxxv) demonstrate that even when genitive copying occurs with lexical items referring to animate beings and body parts, singular and plural are distinguished for the possessor of the referent. Forms (xxxvi) and (xxxvii) illustrate that the distinction is not made when classifiers are copied into the Comment.

4.0 Conclusion

From Figure 1 we see that the anatomical lexical suffixes and non-anatomical lexical suffixes share four characteristic syntactic behavior patterns. As a set they differ from metonyms and classifiers chiefly by their one-to-one suffix:referent relationship; the fact that after application of LEXICAL SUFFIX COPY, their referents are obligatorily deleted; and the formation of referents with kuš and làš. Earlier we alluded to these syntactic phenomena as reflecting the complete copying of the semantic content of their referents by suffixes of these two types. Conversely, we viewed the many-to-one relationship; the deletion of referents only in anaphoric contexts within the discourse; and the total prohibition on forming referents with kuš and làš to reflect the fact that classifiers and metonyms copied not the complete semantic content of their multiple referents, but only a salient feature common to all referents associated with any given suffix. We believe it is the semantic feature [+Salient] that is part of the specification of [+Referential] lexical items which explains the common behavior of anatomical and non-anatomical lexical suffixes on the one hand and that of classifiers and metonyms on the other.
<table>
<thead>
<tr>
<th>Suffix: Referent</th>
<th>Mandatory Referent</th>
<th>Referent contains suffix</th>
<th>Referent with \textit{full} or \textit{fus}-</th>
<th>Genitive copying</th>
<th>Third Plural \textit{e}-Nominal-isation</th>
<th>Adjunct Copying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomical Lexical Suffixes</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Non-anatomical lexical Suffixes</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Metonymy</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Classifiers</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 1. Summary of syntactic behavior associated with various referential suffix types. ‘+’ indicates that phenomena of heading is always characteristic of the suffix type; ‘-’ indicates that it is never characteristic; and ‘+’ indicates that the phenomenon is not characteristic of all members of the suffix type.
Lexical items marked [+ Salient] will have associated classifiers or metonymic suffixes; those marked [- Salient] will have associated lexical suffixes.

The differential behavior of anatomical lexical suffixes and non-anatomical lexical suffixes with regard to genitive copying, s-nominalization, Adjunct copying, and the plural number of third person objects in the Subject-Object pronominal suffixes appears to be related to a semantic feature [+ Body Part]. This same feature can be used to explain the differential behavior of metonyms and classifiers with regard to genitive copying. It also serves to indicate the etymological relationship between metonyms and anatomical lexical suffixes.

4.1 Definitions

We can now define our referential suffix types in terms of the syntactic and semantic features of their referents. An anatomical lexical suffix is one whose referent is marked [+Referential], [-Salient] and [+Body part]. A non-anatomical lexical suffix is one whose referent is marked [+ Referential], [- Salient], and [- Body part]. A metonymic suffix is one whose referents are marked [+ Referential], [+ Salient], and [+Body part]. A classifier is an affix whose referents are marked [+ Referential], [+ Salient], and [- Body part]. In addition to these semantic features, the lexical items associated with classifiers and metonyms -- those marked [+ Salient] -- will have the particular salient feature specified in the lexical entry.
4.2 Lexical entries

To illustrate the lexical entries of referents of the various referential suffixes we have chosen a set of lexical items, whose associated suffixes are homophonous.

<table>
<thead>
<tr>
<th>'pole'</th>
<th>'bottom'</th>
<th>'buttocks'</th>
<th>'seat'</th>
</tr>
</thead>
<tbody>
<tr>
<td>/imta/</td>
<td>/ku1aX/</td>
<td>/?uc'aX/</td>
<td>/?amataX/</td>
</tr>
<tr>
<td>+ Referential  + Referential  + Referential + Referential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Salient    - Salient    - Salient    + Salient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>long object  - Body part  + Body Part relation with 'buttocks' +Body part</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Body part  - - - - - -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

-ax  -ax  -ax  -ax

We believe these feature specifications of lexical items also help to explain some apparent inconsistencies in our data, notably those where a single lexical item has different referential suffixes associated with it. The paradigm example is 'tooth' where for the majority of cases where LEXICAL SUFFIX COPY applies, the anatomical lexical suffix -agalic appears as: kwayagalic 'toothache', ?icaagalic- 'to brush one's teeth' and ok'wagalic- 'to pull a tooth'. But, such forms as musa? wa ?ica o 'four teeth' also occurred. It appears that the specification [+Body part] depends on an actual connection or continuing association with the body. The above example -- 'four teeth' -- was obtained with reference to teeth no longer in the mouth. Apparently, a speaker can not refer to body parts whose connection has been discontinued as body parts, but only by their salient feature, here the teeth as long objects.
APPENDIX

A

Non-anatomical lexical suffixes

1. -als  'wall'  kužals  'wall of house or container'. Usually non-specific as to orientation, but, if front and back walls specified, then -als refers to 'side walls.' This suffix co-occurs with the prefix nu- the combination meaning 'inside of container or house'. The nominal referent of the combined form is ?asals which in addition to the above meanings also means 'ceiling'. ?asals- is also a locative meaning 'to be inside.'

2. -ank  'front'  ?asank- 'to be located directly in front.' Nominal form never obtained, but see skužank/ skužužank 'abdomen'.

3. ānk  'side'; 'aside' Both nominal and locative forms with kuž: kužānk 'side of ladder, tree trunk, totem pole, etc.' and kužužānk- 'to be next to', 'alongside'. Locative formed with ?as has specialized meaning: ?asānk- 'to be in front, but off to one side.'

4. -an  'corner'; 'angle' Both nominal and locative formed with ?as: ?asān 'corner' and ?asān- 'to be in a corner.'

5. -almx  'one side of valley floor divided by body of water.' Both nominal and locative formed with ?as: ?asalmx  'one side of of valley floor.' and ?asalmx- 'to be on one side of valley floor.'
6. -äq 'bottom' kuäq 'exterior bottom'; ?asäq 'bottom of container/canoe.' Cf. ?asä- 'to be located on the bottom.'

7. -äx 1 'bottom' ?asäx- 'to be located on the bottom.'

8. -äx 2 'behind' kuäx 'area behind house'. This suffix like the previous one appears chiefly in complex forms as a secondary suffix. Cf. kulëxals 'rear wall'.

9. -ik 1 'top surface' kuik 'top surface(flat)' often used to refer to roof, table top of box top. This suffix does not have locative formed with ?as.

10. -ik 2 'inside a container' This suffix generally occurs with the prefix nu- (see -alg) i.e., nu-...-ik. The nominal referent is ?asik 'insides'

11. -ik 3 'middle'; 'median line' Nominal and locative formed with ?as: ?asik 'the middle' and ?asik- 'to be in the middle.'

12. -ïx 1 'capitol' kuïx 'top end of object with long axis of vertical orientation.' Nominal formed with ?as , i.e. ?asïx had specialized meaning 'tree top' for FW.

13. -ïx 2 'head' kuïx 'head of bed, valley, river etc.' Perhaps 'distal or top end of long horizontal axis.' Locative formed with ?as: ?asïx- 'to be at head of river, etc.' MS and FW have nominal form ?asïx 'smoke hole in longhouse'.

14. -us/-üs 'front or facing surface' kuüs 'front surface of object' 'end of box, etc. facing speaker.' No locatives in simple forms. Nominals formed with ?as have specialized meanings: ?asüs 'front wall of house' (FW) and ?asus 'face of totem pole.' (CS).
15. -uc 'entrance' ṭasuc 'doorway; entrance' (MS, CS), but
'entire house front' (FW).
16. -ūc 'rim', 'brim'; 'edge' kūūc 'rim', 'brim'; 'edge'. ṭasuc
'house front, including porch' (CS, MS), but just 'porch'
(FW).
17. -ūl 'exterior' kūūl 'exterior of an object'.
18. -ulmx 'floor, ground, land' kūūlumx 'floor', ground, 'earth',
'land', valley floor undivided by river.'
19. -lXs 'terminus'; 'point' kūlXs 'end of object, usually one
with long axis', also 'point of knife, etc.' Sporadically,
the form kūlgs contrasts with the above to differentiate
'terminus' from 'point', but usage is not consistent.
20. -nk 'base' kūŋk 'base of object usually with a long
axis'. This form also used to refer to the non-operative
end of implements such as the handle end of an ax, adze,
or knife; the feather end of an arrow, or the non-pointed
end of a pencil or pen. Locative is formed with ṭas: ṭasnk-
'to be located at the base.'
21. -saX ṭassāX 'flat of
'flat part of valley', 'tidal flats' ṭassāX 'flat of
valley'. ṭassāX- 'to be on valley flat or on tide flats.'
22. -tx ṭastx 'inside of house/building' Both nominal and locative formed
'inside house/building'. Both nominal and locative formed
with ṭas: ṭastx 'inside of house' and ṭastx- 'to be inside.'
23. -qa ṭasqa 'outside a house', i.e., the space
outside. ṭasqa- 'to be outside.'
APPENDIX

Classifiers

1. -až  'container'; 'conveyances'  maskažiks  'How many containers?'
   mūsaž  'four containers'.
2. -aX  'long object'  maskaXiks  'How many long objects?'
   mūsaX  'four long objects'.
3. -aXikt  'long, flat object'  maskaXiktiks  'How many long, flat objects?'
   mūsaXikt  'four long, flat objects'.
4. -ikt  'flat object'  maskiktiks  'How many flat objects?'
   mūsikt  'four flat objects'.
5. -iž  'hoop-like objects'  maskižiks  'How many rings, hoops, etc.?'
   mūsiž  'four hoop-like objects'.
6. -už  'building'; 'house'  maskužiks  'How many houses, etc.?'
   mūsuž  'four buildings'.
7. -ūž  'three dimensional objects'; 'round', 'spherical'  Refers with appropriate referent to balls, spheres of all kinds, fruit, bread, rocks, some tools, bundles, bee hives, etc.  maskūžiks  'How many spherical, etc. objects?'  mūsuž  'four spherical objects'.
8. -a?ž  'paddle-shaped object'  Obtained only once from CS with reference to paddle-shaped stirrer used in oolichan rendering. In subsequent attempts to elicit this suffix, CS used -ak.
APPENDIX

C

Quantifier suffixes

1. -am 'times' maskamiks 'How many times?' musam 'four times.'
   This suffix also occurs in a number of complex quantifiers
   which are used with numbers for measuring length, distance
   and duration. Cf.
   a) -amal 'distance in feet' musamal 'four feet'
   b) -amala 'paces' musamala 'four paces.' Also -ala
   c) -aalam '___ days (time or duration) musaalam 'for four days.'
   d) -tuk'am '___ months' musuk'am 'for four months.'
   e) -slam '___ years' musslam 'for four years.'
   f) -aalam '___ days' travel' musaalam 'four day trip.'
   g) -tuk'aalam '___ months' travel' musuk'aalam 'four month trip.'
   h) -slam'aalam '___ year travel' musslam'aalam 'four year trip.'
   i) -aalam '___ containers' full' musaalam 'four spoonfuls, etc.'

2. -alus 'pieces' maskalusiks 'How many pieces?'

3. -ax 'days/night's' maskaxiks 'How many days?'

4. -aq'ws 'holes' maskaq'wsiks 'How many holes?'

5. -alaxt 'connections' maskalaxtiks 'How many connections?'

6. -alx 'hundreds' maskalxiks 'How many hundreds?' (M8)

7. -alul 'lengths' maskaluliks 'How long?; How many lengths?'

8. -u?'a 'dollars' masku?'aiks 'How many dollars?' Obtained once
   from CS.
9. -t'q  'spans'    mat'q  'one span'
10. -k'w  'fathoms'  mak'w  'one fathom'
11. -th'uk'  'months'  musth'uk'  'four months'
12. -slanx'  'years'  maslanx'  'one year.'
13. -ao  'animate beings'  maskaoks  'How many animate beings?'
        musao  'four animate beings.' This is really the third person
        plural Subject pronominal suffix. It further illustrates the
        point made in section 3.3 where it was claimed that the
        plural number of the third person is restricted to lexical
        items referring to animate beings. Four unclassified
        inanimates would have the form mus wa ... c and the
        quantitative interrogative would be maskiks  'How many
        unclassified inanimate objects?'
14. nu-
        'humans'  numaskaoks  'How many humans?'  numusao  'four
        humans.'
NOTES

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1 May M. Bdel (1939).
2 Gladys A Reichard (1938).
3 Hans Vogt (1940).
4 Presently 'lexical suffixes' is the most common name for these suffixes. For an array of definitions cf. Kinkade (1963); Hess (1967); Newman (1968); Pidgeon (1970); Carlson (1972); Mattina (1973); Thompson and Thompson (1973); and, for the clearest explication, Raffo (1972).
5 The nominalizing derivational suffixes: -mx 'person, people'; -tn/-ta 'tool, implement'; and -tp 'tree, bush' are excluded from this set of referential affixes. It appears that the forms to which these suffixes are affixed are usually action verbal roots such as: paint, carve, dance, sing, etc. and the resultant stem is always marked [+N]. In Saunders and Davis (1973b) we treated the derivation of body part nominals in the syntactic component and it is possible that these suffixes are added to action Comments via a copying rule where the underlying structure is a relative clause. On the other hand, these affixes do not exhibit the range of copying
functions of referential suffixes. They are restricted to Agent copying and as we stated earlier only with action verbal Comments.

Another set of suffixes excluded from the referential suffixes are listed in the Appendix under the heading Quantifiers. Members of this set have not been exhaustively investigated, but it appears that they usually occur with quantitative Comments. A number of these 'quantifiers' appear to have no independent referents. They occur always bound to a numeral in lexical items marked [+N].

6 Cf. Davis and Saunders (1973:8) for the discussion concerning the marking of lexical items as [+N]. The characterization of these lexical items as exhibiting fixed gender occurs in Davis and Saunders (1974).

7 We consider the elemental underlying structure of all Bella Coola utterances to be of the form:

\[ S \]

\[ \text{Comment} \]

\[ \text{Topic} \]

\[ \text{Adjunct} \]

\[ \text{Agent} \]

\[ \text{Patient} \]

\[ \text{prep} \]

\[ \text{Object} \]

where Patient under Topic and Adjunct under S are optional. Discussion of the basis of this particular structure as the elemental underlying one are to be found in Saunders and Davis (1974b).

8 Several remarks are pertinent here. First, not all forms with kuž refer to concrete objects, e.g. kužâŋk- 'to be alongside/next to s.t.' and not all forms with ?as are locatives, e.g. ?asîk- 'the middle.' Where pairs of referents, one formed with kuž, the other with ?as- occur, the difference is usually, but not always object:locative. Sapir (1911:19) noted the presence of several similar stems in Nootka and Kwakiutl which he termed
'empty stems' their function apparently to join with lexical suffixes to form nominals. Kinkade (1967) treated a series of analogous forms in Upper Chehalis as essentially prefix-suffix compounds, entirely lacking a root or stem. In Bella Coola, kuł appears to be devoid of semantic content. Whatever semantic content forms with it have is completely dependent on the lexical suffixes which occur with it. the root kuł-is restricted to occurrences with lexical suffixes. The locative fas-occurs with yet another group of suffixes, the positionals such as fasnalus- 'to be between' as well as lexical suffixes.

9 The deictics signal more than number. Cf. Davis and Saunders (1973).

Footnote 3 for discussion.

10 These suffixes may be positional suffixes rather than non-anatomical lexical suffixes. They do not range of copying functions as the others. For example, none of them may occur with quantitives or qualitatives.

11 This suffix or a homophonous suffix is used very much as a non-anatomical lexical suffix referring to 'ropes' and 'canoes. It differs from other non-anatomical lexical suffixes, if that is what it is, in that it does not have a unique referent - refers to both rope and canoe- and by the fact that neither of its referents is formed with kuł or fas. It looks very much like a metonymic suffix, but one etymologically derived from a quantifier.
REFERENCES


Davis, Philip W. and Ross Saunders 1972. 'Object and instrument copying in Bella Coola lexical suffixes.' Paper presented to the VII International Conference on Salish Languages.

Davis, Philip W. and Ross Saunders 1973a. 'Bella Coola Syntax.' Paper presented to the VIII ICSL.

Davis, Philip W. and Ross Saunders 1973b. 'Lexical suffix copying in Bella Coola.' Glossa 7:231-52.

Davis, Philip W. and Ross Saunders 1974(a). 's-nominalization in Bella Coola.' Paper to be presented to the IX ICSL.


Edel, May M. 1939. 'The Tillamook Language.' LAL 10.


Kinkade, M. Dale 1963. 'Phonology and morphology of Upper Chehalis.', LAL 29:345-56.


Newman, Stanley 1968. 'A comparative study of Salish lexical suffixes.' Paper presented to the III ICSL.


Saunders, Ross and P.W. Davis 1973(a). 'Bella Coola lexical suffixes.' Paper presented to the VIII ICSL.

Saunders, Ross and P.W. Davis 1973b. 'The internal syntax of Bella Coola lexical suffixes.' Paper presented to the XII Conference on American Languages. To appear in IJAL.
