REFERENTIAL SUFFIXES IN BELLA COOLA

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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)[6] 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 $\pm$ 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 pro-
pose a four-way division of [+ Referential] lexical items and their asso-
ciated 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-anatom-
ical 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 consituent of a sentence.[7] 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:

i	k'^W ti suxa tx		'The hand is big.'	Anatomical lexical suffix
i'	k'^Wak			

ii	k'^W ti kulik tx	'The top surface is big.'	Non-anatomical lexical suffix
ii'	k'^Wik		

iii	k'^W ti pakayala tx	'The box is big.'	Classifier
iii'	k'^Wał		

iv	k'^W ti cupaksta tx	'The glove is big.'	Metonym
iv'	k'^Wak		

v	k'^W ti stn tx	'The tree is big.'	Derivational suffix
v	*k'^Włp		

vi	k'^W ti λ'msta tx	'The person is big.'	Derivational suffix.
vi'	*k'^Wmx		

In the above forms, the Comment k'^W 'big' is predicated of a number of different Agents. Items i/i'-iv/iv' are paraphrases. The first of each pair, a quasi-analytic surface representation of the underlying structure, is derived without LEXICAL SUFFIX COPY; the second is the surface representation after application of the copying rule. Items v/v' and vi/vi' illustrate that although the lexical items stn 'tree' and λ'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:

vii
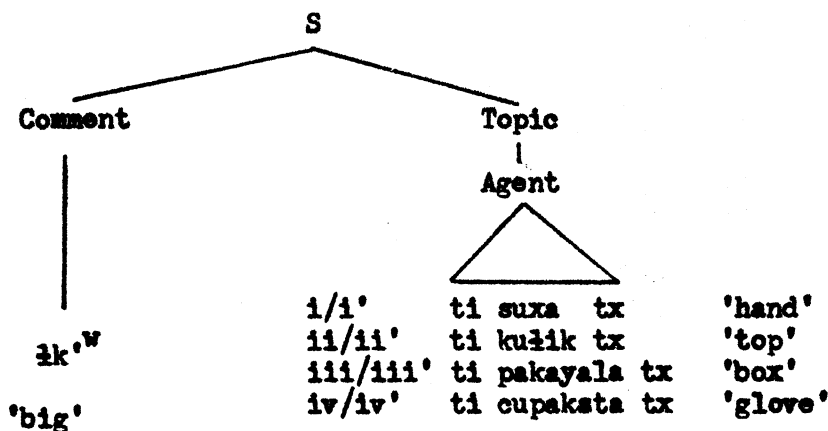
To derive the first of each pair- the quasi-analytic surface representation-
only one rule is applied. That rule, AGENT AGREEMENT, copies the information
of person and number from the Agent onto the Comment. Here the information
is third person singular, represented by the Subject pronominal suffix -ø .
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 singu ar 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:

    viii kma ti suxac tx   'My hand hurts.'   Agent copy
           kma-ak-c

    ix   cp-ic ti suxa-s tx   'I wipe his hand.'   Patient copy
           cp-ak-ic

    x   cp-ic ?ał ti suxa-c tx 'I wipe it with   Adjunct copy
           cp-ak-m-ic   my hand.'

All lexical items marked [+ Referential] undergo Agent and Patient copying.
However, only lexical items which refer to body parts undergo Adjunct copy-
ing. Consider:

    xi   cp-ic ?ał ti suk'ta tx   'I wipe it with a cloth.'
          *cp-anł-m-ic

    xii cp-ic ?ał ti cupaksta tx 'I wipe it with a glove.'
          *cp-ak-m-ic

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'stlic 'skin.' The non-anatomical lexical suffix -ik reflects the
entire semantic content of kulik 'top surface'. In the second type of re-
lationship, a single suffix reflects a portion of the semantic content of
a number of lexical items. For example, the classifier -ał 'container'
reflects only this salient feature common to: pakayala 'box', plkiwa
'kerfed box', kwanił 'spoon', ʔam'amatuc 'dish', c'la 'basket', q'ay
'cedar-bark basket', mntxʷucta 'dipper', saλ'a 'canoe', and ʔułqn
'pail', among others.

We consider the classifiers, characterized by the one-to-many re-
lationship 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 ku‡ or ʔas 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 ku‡ or ʔas.

2.3 Nominalization with /s-/.

*This is not
the case for
Cw, Ch, Cz,
at least.*

The referents of anatomical lexical suffixes which consist of the
root ku‡ 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. Comparethe pairs: ku‡u‡ik 'back' (of chair/sofa):sku‡u‡ik
upper back/thoracic region posterior aspect' and ku‡ank 'side'(of object):
sku‡ank '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: yalqúɬ 'ball', muqʷmuqʷúɬ 'gold', and stpúɬ 'mole' Here the classifier -úɬ 'round object' forms part of the referent. But, in such sentences as: ksúɬam ti t'Xta tx 'to weigh anchor', the classifier -úɬ is not part of the referent, here t'Xta 'stone/anchor'. Likewise, the classifier -aɬ 'container' is not part of many of its referents, as in: pakayala 'box,' kwaniɬ 'spoon', ʔam'amatúc '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 kuɬ 'object' and 'ʔas 'located at' plus the suffix as in: -ulmx: kuɬulmx 'floor'/'ground', -ĪXʷ:kuɬĪXʷ:ʔasĪXʷ 'head', and -lXs:kuɬlXs: ʔaslXs 'point'.[8] Some of the most common anatomical lexical suffixes have referents which contain the suffix, but are not derived with kuɬ or ʔas: -us:musa 'face', -lXs: maXsa 'nose', and -ĪXʷ: t'nXʷ. A few anatomical lexical suffixes have referents without the suffix: -ak: suxa 'hand/ arm to elbow' and -aɬ:ʔixa '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 sub-

sequent 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 yalqūł tx

                               'I am going to wipe the ball.'

    xvii cp-ūł-ic ti yalqūł tx

    xviii cp-ūł-ic   'I am going to wipe the ball/apple/
                                    orange/stone', etc.

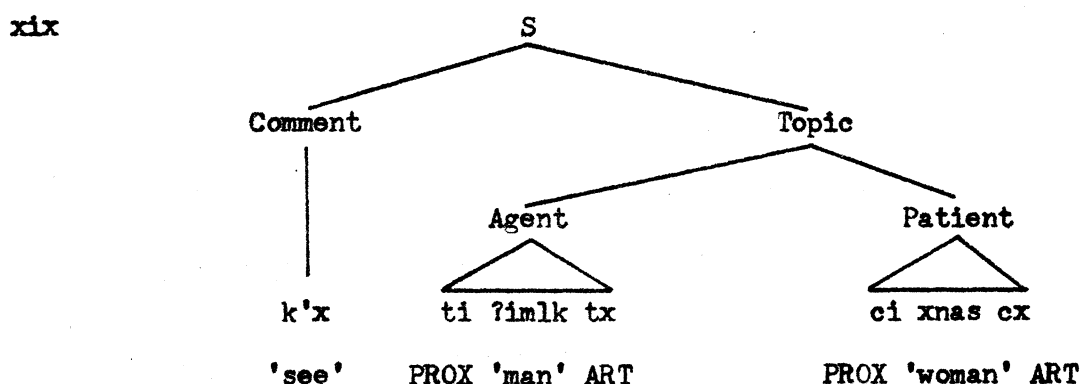where (xvi) is the surface representation without LEXICAL SUFFIX COPY.

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 DELTION 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 Genetive 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:

xix

```
                              S
            ┌─────────────────┴────────────┐
         Comment                         Topic
            │                    ┌──────────┴──────────┐
            │                  Agent                 Patient
            │                   ╱╲                     ╱╲
           k'x              ti ?imlk tx            ci xnas cx

          'see'          PROX 'man' ART          PROX 'woman' ART
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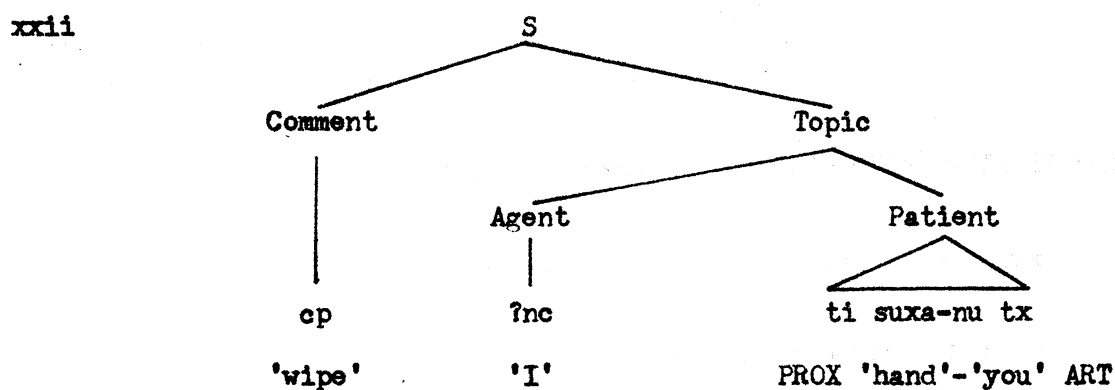
the application of AGENT-PATIENT AGREEMENT yields:

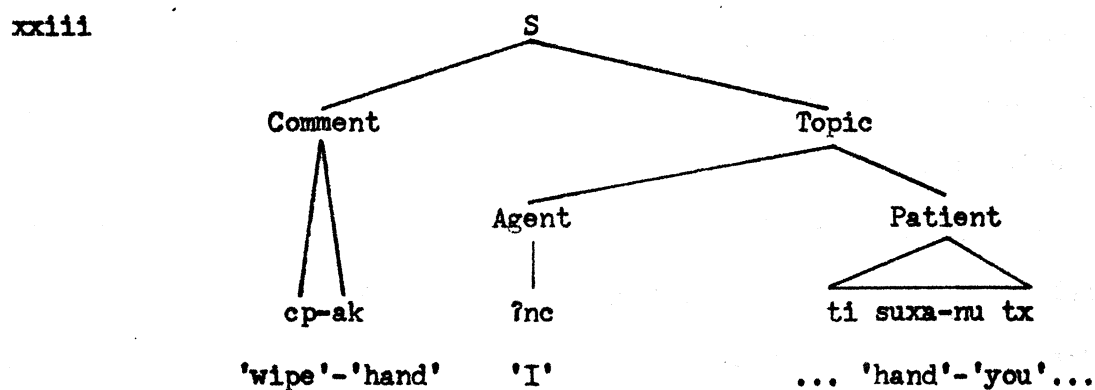xx   k'x-is   ti ?imlk tx ci xnas cx   'The man sees the woman.'

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 of the Subject-Object suffix copies not the information of person and number of the underlying object, but of its possessor. Thus
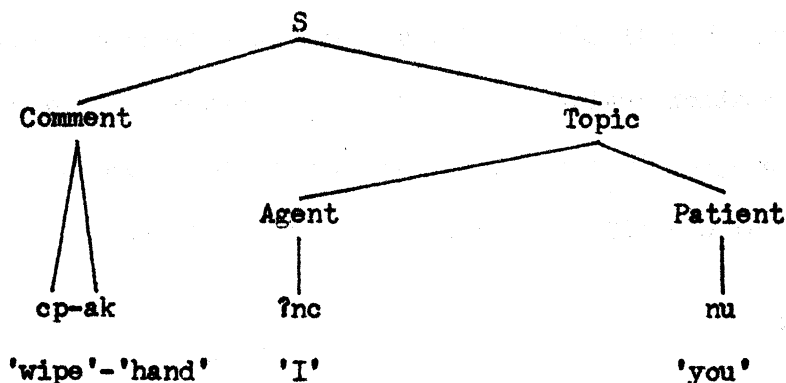
xxii

```
                              S
                 _____/ _____
           Comment                         Topic
              |                      _____/ _____
              |                  Agent              Patient
              |                    |                 /\
              |                    |                /  \
             cp                   ?nc            ti suxa-nu tx
           'wipe'                 'I'        PROX 'hand'-'you' ART
```

with the application of LEXICAL SUFFIX COPY becomes:

xxiii

```
                              S
                 _____/ _____
           Comment                         Topic
             /\                      _____/ _____
            /  \                 Agent              Patient
           /    \                  |                 /\
         cp-ak                    ?nc            ti suxa-nu tx
     'wipe'-'hand'                'I'        ... 'hand'-'you'...
```

and application of REFERENT DELETION yields:

xxiv

```
                              S
                _____/   _____
          Comment                          Topic
            /\                          ___/   \___
           /  \                   Agent            Patient
          /    \                    |                 |
          |    |                    |                 |
        cp-ak                      ?nc               nu

     'wipe'-'hand'                 'I'               'you'
```

and finally, AGENT-PATIENT AGREEMENT applies yielding:

    xxv   cp-ak-cinu   'I am going to wipe your hand.'

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

    xxvi cp-ic ti suxa-nu tx '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.
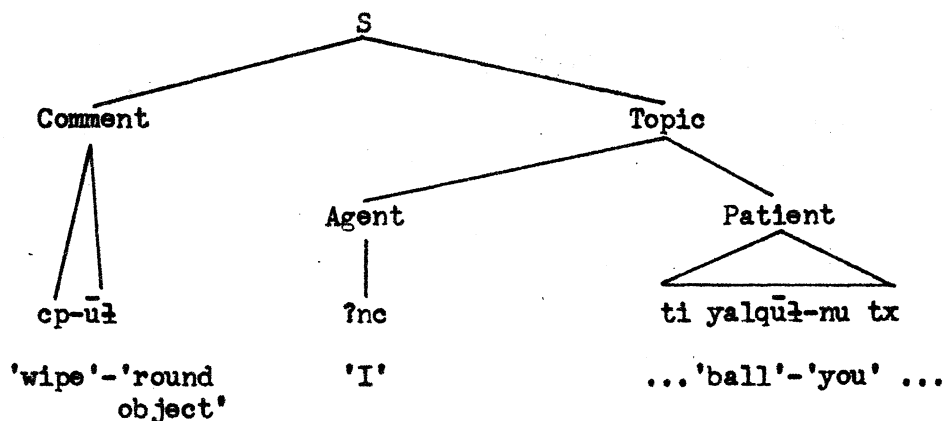
This phenomenon of genitive copying after application of LEXICAL SUFFIX COPY and REFERENT DELETION serves to differentiate anatomical lexical suffixes and metonyms from classifiers and non-anatomical lexical suffixes. For this latter group, the possessor of the referent object is never represented in 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,

xxvii

```
                              S
         _____
        |                                        |
     Comment                                   Topic
        |                          _____
        |                         |                       |
        |                       Agent                  Patient
        |                         |                 /\
        cp                       ʔnc              ti yalqui̱-nu tx
      'wipe'                      'I'              ... 'ball'-'you'...
```
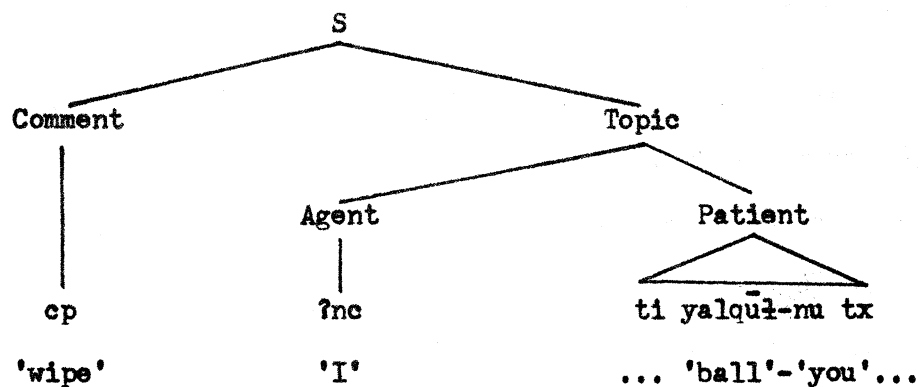
after application of LEXICAL SUFFIX COPY is

xxviii

```
                              S
         _____
        |                                        |
     Comment                                   Topic
        /\                         _____
       /  |                       |                       |
      /   |                     Agent                  Patient
     cp-ūi                        |                 /\
   'wipe'-'round                 ʔnc              ti yalqui̱-nu tx
      object'                     'I'              ...'ball'-'you' ...
```

REFERENT DELETION (assuming anaphoric context) is blocked by the specification

of a possessor of the ball and AGENT-PATIENT AGREEMENT next applies yielding:

xxix   cp-ūi-ic   ti yalqūi-nu tx 'I am going to wipe your ball.'

('wipe'-'round obj.'-'it'-'I' PROX 'ball'-'your' ART)

The form *cp-ūi-cinu   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 quⱡquⱡta tx   'I see the pencil.'
>   ('see'-it/I PROX 'pencil' ART)
>
>   xxxi   k'x-ic ti λ'msta tx   'I see the person.'
>   ('see'-he/I PROX 'person' ART)
>
>   xxxii   k'x-ic wa quⱡquⱡta c   'I see the pencils.'
>   ('see'-it/I PROX 'pencil' ART)
>
>   xxxiii   k'x-tic wa λ'msta c   'I see the people.'
>   ('see'-them/I PROX 'people' ART)

where the deictics <u>ti...tx</u> signal a singular referent Patient and <u>wa...c</u> signal a plural Patient.[9]

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

>   xxxiv   quc'aⱡ-ic   'I am going to wash his foot/feet.'
>
>   xxxv   quc'aⱡ-tic 'I am going to wash their feet.'
>
>   xxxvi   quc'aⱡ-ic ti pakayala tx 'I am going to wash the box.'
>
>   xxxvii quc'aⱡ-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 kuɬ and ʔas. 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 kuɬ and ʔas 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.

	Suffix: Referent 1:1	Mandatory Referent Deletion	Referent contains suffix	Referent with kuł- or ?as-	Genitive copying	Third Plural Object	s-Nominal- ization	Adjunct Copying
Anatomical Lexical Suffixes	+	+	±	±	+	+	+	+
Non-anatom- ical lexical Suffixes	+	+	+	+	-	-	-	-
Metonyms	-	-	±	-	+	-	-	-
Classifiers	-	-	±	-	-	-	-	-

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.

'pole'	'bottom'	'buttocks'	'seat'
/ɬmta/	/kuɬaX/	/ʔuc'aX/	/ʔamataX/
+ Referential	+ Referential	+ Referential	+ Referential
+ Salient	− Salient	− Salient	+ Salient
long object	− Body part	+ Body Part	relation with
− Body part			'buttocks'
			+Body part
-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 sibgle 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 -aqalic appears as : kmayaqalic 'toothache', ʔicaqalicm- 'to brush one's teeth' and ck'ᵂmaqalic- 'to pull a tooth'. But, such forms as musaX wa ʔica c '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'   ku‡als '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 sku‡ank/ sku‡u‡ank 'abdomen'.

3. -ānk   'side'; 'aside' Both nominal and locative forms with ku‡:
ku‡ānk 'side of ladder, tree trunk, totem pole, etc.' and
ku‡ānk- '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 :
?asan 'corner' and ?asan- '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. -āq   'bottom'   kuⱡāq 'exterior bottom'; ʔasāq 'bottom of

container/canoe.' Cf. ʔasaX̌- 'to be located on the bottom.'

7. -āX̌¹   'bottom'   ʔasāX̌- 'to be located on the bottom.'

8. -āX̌²   'behind'   kuⱡāX̌ 'area behind house'. This suffix like the

previous one appears chiefly in complex forms as a secondary

suffix. Cf. kulāX̌als 'rear wall'.

9. -ik¹   'top surface'   kuⱡik 'top surface(flat)' often used to

refer to roof, table top of box top. This suffix does not

have locative formed with ʔas.

10. -ik²   'inside a container'   This suffix generally occurs with

the prefix nu- (see -als) i.e., nu-...-ik. The nominal

referent is ʔasik 'insides'

11. -ik³   'middle';'median line'   Nominal and locative formed with ʔas:

ʔasik 'the middle' and ʔasik- 'to be in the middle.'

12. -ⱡqʷ   'capitol'   kuⱡⱡqʷ 'top end of object with long axis

of vertical orientation.' Nominal formed with ʔas , i.e.

ʔasⱡqʷ had specialized meaning 'tree top' for FW.

13. -ⱡX̌ʷ   'head'   kuⱡⱡX̌ʷ 'head of bed, valley, river etc.' Perhaps

'distal or top end of long horizontal axis.' Locative formed

with ʔas: ʔasⱡX̌ʷ- 'to be at head of river, etc.' MS and FW have

nominal form ʔasⱡX̌ʷ 'smoke hole in longhouse'.

14. -us/-ūs 'front or facing surface'   kuⱡūs 'front surface of object'

'end of box, etc. facing speaker.' No locatives in simple

forms. Nominals formed with ʔas have specialized meanings:

ʔasūs 'front wall of house' (FW) and ʔasus 'face of totem pole.'

(CS).

15. -uc   'entrance'   ʔasuc 'doorway;entrance' (MS,CS), but 'entire house front' (FW).

16. -ūc   'rim','brim';'edge'   kuɫūc 'rim','brim';'edge'. ʔasūc 'house front, including porch' (CS,MS), but just 'porch' (FW).

17. -ūɫ   'exterior'   kuɫūɫ 'exterior of an object'.

18. -ulmx   'floor, ground, land'   kuɫulmx 'floor', ground,'earth', 'land', valley floor undivided by river.'

19. -lXs   'terminus'; 'point'   kuɫlXs 'end of object, usually one with long axis',also 'point of knife, etc.' Sporadically, the form kuɫlqs contrasts with the above to differentiate 'terminus' from 'point', but usage is not consistent.

20. -nk   'base'   kuɫnk '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 ʔas: ʔasnk- 'to be located at the base.'

21. -sāX [10]   'flat part of valley'; 'tidal flats'   ʔassāX 'flat of valley'. ʔassāX- 'to be on valley flat or on tide flats.'

22. -txʷ [10]   'inside house/building'   Both nominal and locative formed with ʔas: ʔastxʷ 'inside of house' and ʔastxʷ- 'to be inside.'

23. -qa [10]   'outside'   ʔasqa 'outside a house',i.e., the space outside. ʔasqa- 'to be outside.'

APPENDIX

B

Classifiers

1. -aɬ 'container';'conveyances' <u>maskaɬiks</u> 'How many containers?'

   <u>mūsaɬ</u> 'four containers'.

2. -aX 'long object' <u>maskaXiks</u> 'How many long objects?'

   <u>mūsaX</u> 'four long objects'.

3. -aXikt 'long, flat object' <u>maskaXiktiks</u> 'How many long, flat objects?'

   <u>mūsaXikt</u> 'four long, flat objects.'

4. -ikt 'flat object' <u>maskiktiks</u> 'How many flat objects?'

   <u>mūsikt</u> 'four flat objects.'.

5. -iɬ 'hoop-like objects' <u>maskiɬiks</u> 'How many rings,hoops,etc.?'

   <u>mūsiɬ</u> 'four hoop-like objects.'

6. -uɬ 'building';'house' <u>maskuɬiks</u> 'How many houses, etc.?'

   <u>mūsuɬ</u> 'four buildings.'

7. -ūɬ 'three dimensional objects'; 'round', 'spherical' Refers with

   appropriate referent to balls, spheres of all kinds, fruit,

   bread, rocks, some tools, bundles, bee hives, etc. <u>maskūɬiks</u>

   'How many spherical, etc. objects?' <u>mūsūɬ</u> 'four spherical

   objects.'

8. -aʔɬ 'paddle-shaped object' Obtained only once from CS with reference

   to paddle-shaped stirrer used in oolichan rendering. In subse-

   quent attempts to elicit this suffix, CS used -<u>ak</u>.

APPENDIX

C

Quantifier suffixes

1. -am   'times'   maskamiks 'How many times?' mūsam '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) -amał   'distance in feet'   musamał 'four feet'

b) -amaXał   'paces'   mūsamaXał   'four paces.' Also -aXamał

c) -aXam   '___ days (time or duration) musaXam 'for four days.'

d) -tλ'uk'am   '___ months'   mustλ'uk'am 'for four months.'

e) -slanX^Wam   '___ years'   mūsslanX^Wam 'for four years.'

f) -aXałam   '___ days' travel'   mūsaXałam 'four day trip.'

g) -tλ'uk'ałam   '___ months' travel'   mūstλ'uk'ałam 'four month trip.'

h) -slanX^Wałam   '___ year travel'   mūsslanX^Wałam 'four year trip.'

i) -ałam   '___ containers' full'   mūsałam 'four spoonfuls, etc.'

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

3. -aX   'days/nights'   maskaXiks 'How many days?'

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

5. -alāXt   'connections'   maskalaXtiks 'How many connections?'

6. -alX   'hundreds'   maskalXiks 'How many hundreds?' (MS)

7. -aluł[11]   'lengths'   maskalūłiks 'How long?; How many lengths?'

8. -uʔł   'dollars'   maskuʔłiks 'How many dollars?' Obtained once

from CS.

9. -t'q   'spans'   <u>mat'q</u>   'one span'

10. -k'^Wp   'fathoms'   <u>mak'^Wp</u>   'one fathom'

11. -tλ'uk'   'months'   <u>mūstλ'uk'</u> 'four months'

12. -slanX^W   'years'   <u>maslanX^W</u>   'one year.'

13. -ao   'animate beings' <u>maskaoks</u> 'How many animate beings?'

<u>mūsao</u> '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 <u>mus wa ··· c</u> and the

quantitive interrogative would be <u>maskiks</u> 'How many

unclassified inanimate objects?'

14. nu-   'humans'   <u>numaskaoks</u> 'How many humans?' <u>numūsao</u> 'four

humans.'

NOTES

[1] May M. Edel (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).
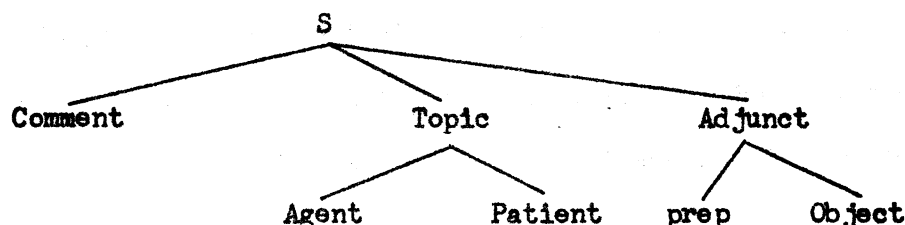
[5] The nominalizing derivational suffixes: -mx 'person,people'; -tn/-ta 'tool,implement'; and -łp 'tree,bush' are excluded from this set of referential affixes. It appears that the forms to which these suffixes are affixed are usually action verbal roots such as: paint, carve, dance, sing, etc. and 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 quantitive 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
uterrances to be of the form:

```
                            S
              ┌─────────────┼──────────────┐
           Comment        Topic          Adjunct
                         ┌──┴──┐         ┌───┴───┐
                      Agent  Patient   prep   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 kuɫ refer
to concrete objects, e.g. kuɫank- 'to be alongside/next to s.t.' and not
all forms with ʔas are locatives, e.g. ʔasik 'the middle.' Where pairs
of referents,-one formed with kuɫ, the other with ʔas- 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, kuɬ 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 kuɬ- is restricted to occurrances with lexical suffixes. The locative ʔas- occurs with yet another group of suffixes, the positionals such as ʔasnalus- 'to be between ' as well as lexical suffixes.

9
    The deictics signal more than number. Cf. Davis and Saunders (1973). ⁴ᶜ
~~footnote 3 for discussion.~~

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

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 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 kuɬ or ʔas. It looks very much like a metonymic suffix, but one etymologically derived from a quantifier.

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