Numerals and Lexical Suffixes in hən̓q̸̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑̑
including numerals. These LSs designate a variety of semantic domains, classifying nominal sets such as animate beings (e.g. people, animals, birds, fish); body parts (Kuipers' (1967:120) "somatic" category); things in nature (e.g. trees); culturally salient objects (e.g. canoes, paddles, net mesh, mats, baskets); characteristics of shape (e.g. long/thin); places or locations (e.g. houses); temporal domains (days, years), number sequences (ordinals, base 10, subset groupings, iterations); etc. Languages and dialects within the Salish family differ in the sets of LSs in use (see e.g. Galloway 1977), in their semantic domains (see e.g. Hinkson 1999), in their morphosyntactic properties (e.g. Czaykowska-Higgins 1998, Gerdts 1999), and in their morphophonemic behaviour (e.g. Blake 2000; see §4 below). This linguistic phenomenon therefore defines an interesting focus for a comparative investigation of cross-dialectal and cross-linguistic properties.

In his reference grammar of the downriver həq̓q̓ən̓mən dialect, Suttles (in press:258) documents nearly 150 elements which function as LSs (or LSs linked to a preceding root by a 'connective'1), many of which are quite productive. Further, in his chapter devoted specifically to the Numeral System, Suttles identifies 17 sets of LSs which attach to numerical roots, generally with the function of counting members of that set, e.g.:

(1) Numerical Root plus Lexical Suffix(es)

<table>
<thead>
<tr>
<th>Root</th>
<th>LS</th>
<th>gloss</th>
<th>Root=LS</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>tu:xw</td>
<td>=elə</td>
<td>people</td>
<td>tu:xwelə</td>
<td>9 people</td>
</tr>
<tr>
<td>=iws</td>
<td>birds, small mammals</td>
<td>tu:xwiws</td>
<td>9 birds (e.g. ducks)</td>
<td></td>
</tr>
<tr>
<td>=ət =cyə</td>
<td>times = unit of ten</td>
<td>tu:xwəcyə</td>
<td>90 (9 times 10)</td>
<td></td>
</tr>
</tbody>
</table>

Our goals in the present paper are as follows. In section 2, we foreground some issues related to language use, citing examples of options available for speakers to use either a morphological construction built on the numerical root (henceforth #Root) plus LS, or a syntactically constructed paraphrase where the #Root functions as a quantifier modifying an independent noun. Implications of these paraphrastic options for diachronic language shift and language revitalization are then discussed. Section 3 addresses the question of which #Root the LS attaches to in cases of a compound base. Data is presented which exemplifies synchronic variability in the locus of suffixation in həq̓q̓ən̓mən. Comparative data from some other Salish languages is cited.

---

1 There are a number of LSs related by a 'connective' (cf. Kinkade 1999; Suttles in press) usually of the form -VR-, whose semantics are often restrictive, but not generally transparent.
documenting various divergent strategies for suffixation of LSs in compounded numeric roots. In section 4, issues related to allomorphic alternation evidenced in these paradigms are discussed. Finally, in section 5, additional data is provided to augment some of the gaps in several of the #Root=LS paradigms recorded in the available documentation of this dialect, principally by Suttles (in press), Guerin (n.d., 1986), and previous documentation by the present authors (2001). Where there is attested variation, we also document inter-speaker differences. As well, morphophonemic or morphosyntactic properties more specifically relevant to individual paradigms are discussed. In addition, various examples are provided to contextualize the usage of these forms.

2 Language use

In the dual context of endangered language documentation and of revitalization curriculum development, there are important issues related to contexts and patterns of use of LS constructions. Of specific interest is the fact that hə́x̣əpmiʔəm speakers have available to them two possible ways of counting things: one is a morphological construction built on the numerical root (#Root) plus LS, as exemplified in (1) above, e.g. tuxwiws nine bird or animal bodies (e.g. ducks); the second is a syntactically constructed paraphrase where the #Root functions as a quantifier modifying an independent noun, e.g. tux maʔaqw nine ducks. The fact that the first kind of construction is deeply embedded in a Salishan morphological system significantly different from English, whereas the second type of construction is broadly comparable to the English pattern, combined with the fact that English has for several decades now been the dominant - indeed, to a large extent the only - language spoken in the community, together raise important questions regarding diachronic shift and bilingual/second language learning. Several of these questions are discussed in this section.

A fundamental issue is the classificatory function of the lexical suffixes. Characteristically, a LS has a generic frame of reference, rather than a specific one. For example, the LS =iws (see §5.9)\(^2\) can be used in reference to a broad variety of waterfowl, birds, or animals. Consequently, the questions in (2.a) are quite generic: the use of the LS =iws delimits the set of quantified things to members of the =iws class, but the intended referent could range from puppies to mallards. However, the question (2.b) and/or a response (2.c) can be made more narrow in referential scope by including a lexical noun. The examples here show that =iws readily attaches onto numbers for counting not only birds (e.g. hummingbirds, seagulls, ducks (generic term), mallards and other specific species of waterfowl, etc.), but also domesticated animals (e.g. dogs, cats) and even larger wild animals (e.g. bear):

\(^2\) The alternation of =iws with =iws is the systematic effect of \(\alpha\)-reduction to avoid violations of Weight-to-Stress and Stress Clash (see Shaw 2002).
Discourse context can, of course, contribute to narrowing the range of reasonable interpretive reference. For example, if someone has stated that they have been duck-hunting, as specifically entailed in the semantics of the verb payatut in (3.a) below, then the interpretation of the question in (3.b), which is identical in form to that in (2.a), will be interpretable only in reference to ducks, or some specific sub-species thereof. Similarly, any of the statements in (3.c) are possible (logically entailed) responses in the context of (3.a) and (3.b), but the utterance in (3.d) is a non sequitor (the fact that this construction is grammatically well-formed, but does not semantically follow from the given context is indicated here by the 'puzzled' face symbol ®?).

(3) a. ni? can nerh payatut I went duck-hunting.
   b. k"in=ows?
   c. txw=iws!
   d. txw=iws spe?t?

The fact that bears are not semantically entailed within the set of things which are hunted if one is engaged in the action of payatut does not mean that the response in (d) couldn’t ever occur in this kind of discourse context. Shifting out of the expected referential domain could be used, for example, as a humourous device.
particular LS, constitute profoundly interesting questions. Whereas there is wide-spread fascination in allegations of lexical distinctions which subdivide perceptions of nature more than the languages people are most familiar with (e.g. the multitude of different words for snow in Eskimo-Inuktitut,\(^4\) or for wind in Arabic, or for clams in hän̓q̓̓m̓m̓m̓̓), what is really much more interesting for cognitive science - and for ‘small’ cultures interfacing with the hegemony of voraciously dominant cultures - is the higher-order classifications which group things together that are not structured together by the formal categories of other languages. It is in categories like LSs that the structure of the language offers a fascinating window on how the hän̓q̓̓m̓m̓m̓m̓ people cognitively interpret and structure the world around them. It is these superordinate categories of language that harbour the most deeply-embedded core of cultural identity and uniqueness.

Neither culture nor language are static, of course. And the flexibility of LSs to incorporate new words for culturally innovative concepts within their classificatory domains provides strong evidence of the vitality of both the grammatical and cognitive systems underlying the LS subsystem (cf. Hinkson 1999). An excellent example of this is illustrated in hän̓q̓̓m̓m̓m̓ with the LS =oxʷət (§5.6) which traditionally offered a super-ordinate category to generalize reference to various different kinds of canoes (4.a). Slightly variant forms =əwət, =əw̓ət, =awət (4.b) are undoubtedly related, as evidenced by the occurrence of what we posit is the base form =oxʷət on the #Root when these vehicles are being counted (4.d). What is significant here is the productivity of this LS in the creation of new words for new modes of transport: as seen in (4.c) this semantic extension broadens not only to other transport on the water (battleship) but also to the sky (airplane). It also extends to modes of transport on the land: on the one hand, ka: car has been incorporated as a loanword from English and is readily quantified with =oxʷət (4.e); on the other hand, the semantic range of the generic word for canoe smoxʷət has also extended such that it is commonly used as the non-loanword to refer to a car (4.f). A sample sentence contextualizing usage of the incorporated loan in (4.e) is given in (4.g).

The evident similarity of form and meaning in examples like those in (5.b) has led Salish scholars (Egesdal (1981), Carlson (1990), Kinkade (1998), amongst others) to question the nature of the relationship between LSs and independent lexical roots. In the context of the ḥənq̓əmiʔən data in (5.b) above, the question would be: what is the lexical status of the initial m- in maqsən nose and the initial n- in s-naxʷət canoe, car? Suttles offers discussion of several relevant examples like this (in press: 259-260) along with the suggestion that initial consonants may be “dummy roots that serve no purpose other than to provide a base for the suffix”, at the same time acknowledging Kinkade’s (1998) arguments that the independent lexical stem itself may be the historical source of the LSs, i.e. that maqsən may have been derived from maqsən by truncation.

The s- here is uncontroversially the nominalizer prefix.
of the initial consonant. Another way of framing the issue, then, is whether a
stem like *maqson* or *naxʷət* is monomorphemic (cf. Kinkade) or bimorphemic,
i.e. *m=ɑqson* or *n=ɑxʷət* (cf. Suttles). The latter position entails two
consequences which are less systemically coherent in the broader context of our
research program. First, it would entail the postulation of single Consonant
roots, whereas an extensive body of research sustains the generalization that
canonical Roots throughout Salish are minimally biconsonantal. Secondly, it
would entail that the postulated m- root of *m=ɑqson* and the n- root of *n=ɑxʷət*
were obligatorily bound exclusively to these (respective) LSs with no freedom
of occurrence with any of the other LSs - or other suffixes - in the language.
Given that a high degree of flexibility and productivity is a vibrant characteristic
of the LS system, this seems a less plausible position. In the lexical
representations posited here, therefore, we assume monomorphemic status for
stems like *maqson* and *naxʷət*.

The above discussion has established that the semantic range of the
LSs is often much broader and more generic than the referential semantic
interpretation of independent lexical roots. However, as seen in (2) above, the
semantic scope can be specifically narrowed by inclusion of a particular noun
following the #Root=LS expression. Additional examples are given in (6):

(6) a.  θem=oxʷət  
     2 vehicles (cars, canoes, planes)
     2=vehicle

b.  θem=oxʷət s-nɑxʷət
     2 canoes or 2 cars
     2=vehicle nom-canoecar

c.  θem=oxʷət ka:
     2 cars
     2=vehicle car

Another option available to speakers is to use a syntactic construction with the
bare (i.e. without a LS) lexical number followed by the particular noun. Some
preliminary examples are given in (7). The examples in (7.a, b, c) are the
#Root=LS plus noun constructions, and those in (7.a', b', c') illustrate the
#Root plus bare noun construction, with no LS. (Note in the examples in (7.b)
that θem- is a suppletive allomorph of yəsələ; see §4 for further discussion.)

(7) a.  nəɕ=oxʷət tətən
     1 airplane
     1=vehicle airplane

   a'.  nəcaʔ tətən
     1 airplane
     1 airplane

b.  θem=oxʷət s-nɑxʷət
     2 canoes or 2 cars

b' yəsələ s-nɑxʷət
     2 canoes
Discussion of some of the implications of these available options is the focussed topic of the next section.

2.1 The options: morphological vs. syntactic constructions

The following pairs of examples show that certain options are available to speakers of hə́łq̓míšə̱miʔən in expressions which involve specifying the number of some set of objects being referred to. The first example in each pair illustrates the morphological construction, that is, the #Root followed by the LS, and the second example in each pair presents the corresponding syntactic phrase in which the numeral precedes the independent noun. See §5.7 house, and §5.13 years for the respective LS counting paradigms.

(8) 1a. n̓c̓=owtxʷ

one house
1=house (LS)

1b. n̓c̓aʔ  l̓eł̓ən

one house
1 house (Noun)

2a. 9̓e̓m=txʷ

two houses
2=house (LS)

2b. yə̓x̦ə̱l̓ eł̓ən

two houses
2 house (Noun)

3a. k̓ʷə̓n=owf:nxʷ

how many years?
how many=year (LS)

3b. wə̓t  k̓ in syəə̓łənəm

how many years already?
already how many year (Noun)

4a. n̓c̓aʔ=wl:nxʷ

one year
1=year (LS)

4b. n̓c̓aʔ  syəə̓łənəm

one year
1 year (Noun)

Because the Musqueam community has been immersed for several decades in an aggressively dominant (socially, educationally, politically, economically) English language context and because all but a very small
percentage of community members are monolingual English speakers, questions inevitably arise about the potential influence of English structure on specific aspects of language change in hən̓q̓əmin̓əm. In comparing hən̓q̓əmin̓əm grammar with English grammar, it is evident that the phrasal structure in the (b) examples above is transparently parallel to the comparable English structure for overt numerical quantification of a noun, whereas the morphologically derived structures in the (a) examples have no direct parallel in English. A plausible hypothesis, therefore, is that because there is a choice in hən̓q̓əmin̓əm of how to express the counting of things, and because one of these choices is comparable to the mode of expression in English, then the hən̓q̓əmin̓əm pattern that is parallel to the English pattern will likely be reinforced and, over time, its continued reinforcement may lead to the less frequent use and ultimate attrition of the less English-like pattern. Several linguists working with Salish languages over the past 30 to 40 years have in fact commented on a general decline in usage of the LS pattern with a concomitant shift to dominant usage of the English-like syntactic phrasal pattern.

With specific reference to the hən̓q̓əmin̓əm community where he began documenting the language over 40 years ago, Wayne Suttles (in press) remarks:

> I suspect that the capacity to create forms with lexical suffIxes is one that diminished early in the decline in fluency in the Coast Salish languages and that this is one basis for statements one hears about how in previous generations people spoke “the old language”.

One example of precisely this kind of shift is the two terms used in reference to what is variably called in English the bighouse, smokehouse, and most recently longhouse. The most commonly used hən̓q̓əmin̓əm designation for this is the semantically transparent phrase 6i lełəm, composed of the attributive 6i meaning big, and the independent noun lełəm, which translates as house, and is used in reference to modern houses as well. However, an older, more conservative hən̓q̓əmin̓əm term for bighouse persists, səqəwə̱wə̱. The semantics here are narrower (it would not likely be used in reference to a large modern house), but are still basically compositional: the s- is the highly productive derivational nominalizer prefix, followed by the lexical root 6i big, followed by the LS =eWtx referring to a building. As the following breakdown of the

---

6 Special thanks to Larry Grant and Wayne Suttles for discussion of this example.
7 In English, these forms are all lexicalized as compounds, as evidenced by the fact that all three have compound stress, e.g. [bɪg.həwə̱]. The lexicalized status of bighouse is further evidenced by the fact that it can be modified by the adjective ‘little’ which, as the antonym of ‘big’, would otherwise be construed as a contradiction. However, in its lexicalized compound sense, the ‘bighouse’ is a type of building invested with several layers of cultural significance. In the term ‘little bighouse’, ‘little’ refers to the literal size and ‘bighouse’ to the genre of building. Thus, ‘little bighouse’ designates the smaller of two bighouses at Musqueam.
structure of these two ways of referring to big house shows, the relative chronology of s6e:wtx and 6i leI~m, and the greater prevalence in usage of the latter conforms precisely to the choice of morphologically-derived vs. syntactically-derived structures under discussion above.

(9) a. morphologically-derived expression:
   s6e:wtx
   lit. s-6i=eWtx
   nom-Root=LS
   smokehouse, bighouse

   b. syntactically-derived expression
   6i leI~m
   lit. Adj Noun
   big house

Many members of younger generations who have not had the opportunity to grow up exposed to fluent speakers of the traditional language often wonder what specifically is meant when elders refer to the 'old' language, and how people 'used to' talk. Hopefully discussions like the present one, here focussed on the difference between morphologically- vs. syntactically-derived expressions, can help foster a deeper understanding of issues integrally linked to linguistic heritage, identity, and change.

2.2 Observations about language shift and usage across Salish

The ready availability of syntactically-derived modes of expression which may function as alternatives to the morphologically-based LS constructions has been observed in languages throughout the Salish family. Thompson and Thompson (1992:112-113) note that both these types of constructions are used by Nle’ kepmxcin (Thompson River) Salish speakers.

Parallel to complex words involving lexical suffixes, speakers also use simpler predicates, adding detail by means of complements and adjuncts ... which provide more specific identification of entities involved.

Of direct import to questions pertaining to direction and potential influences on language shift are several attestations about the declining use of LSs. Thompson and Thompson state that:

[the tendency to favor these syntactic constructions over the morphological ones with LEXICAL SUFFIXES is one of the characteristics of current usage, reflecting the influence of

\[\text{The lexical representation for big is more accurately /bii/ (see (11.e); also Suttles, in press).}\]
English and a general decline in the exploitation of the rich synthetic resources of the language" (1992: 112).

In a similar vein, M. Terry Thompson in her introduction to Haeberlin (1974) states:

... all the [Salishan] languages are rapidly approaching a state of, at best, limited use. An important characteristic of their late evolution, as they have declined from rich vehicles of communication in a cultural pattern now totally altered, is the disappearance of precisely these elements--the lexical suffixes--from the complex morphological constructions that were formerly common, replaced by full words in syntactic strings more similar to English that is now dominant through the whole area. (1974: 220)

Regarding the usage and productivity of lexical suffixes, Kinkade (p.c. to PAS) comments:

This varies from language to language, of course, particularly in regard to how far gone the language is. Their use in Columbian is certainly very rich, and they were very important for creating new vocabulary to account for all the new things brought in by Euroamerican settlers. On the other hand, their use in Cowlitz was certainly considerably diminished. One of my two informants ... often made up new words; but she didn't usually use lexical suffixes for this -- she preferred compounds or phrases.

With specific reference to the category of LSs which function as 'numerical classifiers', Galloway (1993) in his description of Upriver Halkomelem observes that:

[they] were apparently used more extensively in precontact times or even seventy years ago that they are now. Only the oldest, most fluent speakers remember many of them and use them obligatorily. (1993:213)

Hinkson's (1999) exploration of semantic properties of lexical suffixation across Salish emphasizes that they are a very old, integral characteristic of Salish languages, and offer language communities a very flexible and productive option for vocabulary-building. As such, for a speaker to have mastery of this system is highly valued. Specifically, she states:

most LSs are extremely old and can be reconstructed for Proto-Salish. Though they appear in many frozen expressions, lexical suffixes are still actively used today to coin new words. Control of the lexical suffix system is considered a mark of a fluent speaker. (1999: iii)
A major goal, therefore, of the present paper has been to extend the available documentation of morphological paradigms built on \#Root=LS constructions, to investigate various complex patterns of morphophonemic alternation, and to explore issues related to their appropriate use, so that this knowledge may be available for hən̓q̓əmin̓ıš language revitalization efforts.

It is important to consider what formal constraints may apply within the grammar itself which might limit the expressive use of the morphological as opposed to syntactic constructions. In other words, are there ways in which the expressive power of the morphological construction with LSs is restricted in comparison to what may be expressed through a syntactically-constructed option? Three specific domains of inquiry in this regard are identified in the following sections: attribution (§2.3), possession (§2.4), and conjunction (§2.5).

2.3 Attributive modification of a nominal within the scope of a LS

With respect to the question of whether nominals referenced through LSs can be attributively modified, we note the following two types of constructions.

First, as already seen above, a morphologically-derived LS construction can itself be built on an attributive root such as əθh big in (10.a). The syntactically constructed paraphrase is given in (10.b).

(10) a. tə sথe: wtəxʷ  the smokehouse, bighouse
   lit. tə s-θh:=e wtəxʷ  Det nom-big=house.LS
   Det nom-Root=LS

b. tə əθiː lelaʔm  the smokehouse, bighouse
   Det Adj Noun

Secondly, given the option of specifying an independent lexical Noun in the scope of a quantified #Root=LS expression, utterances like those in (11.a, c, e) show that this noun can be immediately preceded by a modifier. A syntactic paraphrase \(^9\) constructed with an independent #Root without a LS is given in each of (11.b, d, f) respectively.

(11) a. qeːn tə əθem=əxʷəf əθiː s-nəxʷəf he stole 2 big canoes \(^{11}\)
   steal Det 2=vehicles big nom-canoe

\(^9\) Category status is highly controversial in Salish, and is not addressed here.

\(^{10}\) Further research is necessary to determine the nature of any semantic differences between these sentences. The major point here is that the use of a LS construction does not pre-empt modification of a noun.

\(^{11}\) In the context of local oral history as to why Simon Fraser was not warmly received when he arrived at Musqueam.
These data illustrate two different ways of expressing modification in the context of LS constructions. What appears to be necessary (though this hypothesis merits further research) is that there must be an independent nominal within the scope of the #Root=LS construction for overt modification to be possible.

2.4 Possession of a nominal within the scope of a LS

A further question is whether possession can be expressed if a morphologically-derived LS construction is used. As seen in the data below, a nominal explicitly referenced after a #Root=LS form can be possessed according to the full range of grammatical means independently available in the grammar to express possession.

First, there can be overt possessive marking by affixes from the regular possessive pronominal paradigm. In the following examples, both the LS and the nominal(-ized) root within its scope are single-underlined, and the possessive suffix (here, third person (3Poss)) is double-underlined.

(12) a. one=LS.vehic1e Det nom-canoe-3Poss 3pl.indep
      They have one canoe.
Those people have two cars.

Those people have two cars. [overt plural marking on noun]

He has two houses; his two houses

If the possessor is identified by name, the possessive is marked, as is normally the case, by the oblique (obl) determiner $\exists$ preceding the proper noun, following the possessed noun:

(13) a. $\thetaem=\text{ox}^{\text{ox}} \quad \text{to} \quad s-n\text{ax}^{\text{ax}} \quad \exists \quad \text{Roddy}$

$\text{two} = \text{LS. vehicle} \quad \text{Det} \quad \text{nom-car} \quad \text{obl} \quad \text{proper.noun}$

Roddy has two cars.

b. $\text{wo ne}\ne=\text{ax}^{\text{ax}} \quad \text{?af} \quad \text{to} \quad \text{ka:} \quad \exists \quad \text{Phyllis}$

$\text{est one} = \text{LS. vehicle restrict} \quad \text{Det} \quad \text{car} \quad \text{obl} \quad \text{proper.noun}$

Phyllis has only one car.

A further type of possessive marking in ha\text{\'am}i\text{\'am} occurs with the we? construction (see Sutlles (in press); Shaw, Blake, & Campbell (1998/2001)). The following pair of sentences establish that possession functions in a fully parallel manner whether the overt nominal argument of we? (here $s-n\text{ax}^{\text{ax}}$) occurs in the scope of the LS of a #Root=LS construction (14.a) or whether it occurs independently in the counterpart construction without a LS (14.b).

(14) a. $\text{ni?} \quad s-qe:n}{W \quad \thetaem=\text{ox}^{\text{ox}} \quad \text{no} \quad s-we? \quad \text{no} \quad s-n\text{ax}^{\text{ax}}$

$\text{Aux} \quad ?-\text{steal} \quad \text{Det two} = \text{LS.car} \quad \text{IsPoss} \quad \text{nom-own} \quad \text{IsPoss} \quad \text{nom-car}$

he stole my two cars

a'. $\text{ni?} \quad s-qe:n \quad \text{kw} \quad yase\text{\'o} \quad \text{no} \quad s-we? \quad \text{no} \quad s-n\text{ax}^{\text{ax}}$

$\text{Aux} \quad ?-\text{steal} \quad \text{Det two} \quad \text{IsPoss} \quad \text{nom-own} \quad \text{IsPoss} \quad \text{nom-car}$

he stole my two cars

In summary, these data establish that a broad range of possessive strategies available elsewhere within the ha\text{\'am}i\text{\'am} grammar may also be applied with LS constructions. As was the case with modification (§2.3), however, the
delimiting hypothesis sustained by our data is that there must be an independent overt nominal within the scope of the #Root=LS construction in order for it to be possible to mark possession.

2.5 Conjunction of nominals within the scope of a LS

A third question is whether more than one nominal within the semantic scope of a LS construction can be conjoined, and what constraints might apply. The data in (15.a, b) document two alternative responses to the question previously posed in (2.a).

cf. (2) a. \( k^{in}=iws \& k^{on}= \) How many \( X \) was your catch?
how.many=iws Det-2Poss catch
[where \( X \) signifies membership in the =iws class]

(15) a. \( fX=iws \& k^{on}=s \) xanca na\( \&=iws \) ma?q? ?i? na\( \&=iws \) 3=bodies Det-1sPoss-nom catch 1=body duck Conj 1=body
Three was my catch: one duck and one seagull and one crow.\(^{12}\)
q=walitoq ?i? na\( \&=iws \) spela\( \& \)
seagull Conj 1=body crow

b. \( fixw \& k^{on}=s \) xanca na\( \&a? \) ma?q? ?i? na\( \&a? \) 3 Det-1sPoss-nom catch 1 duck Conj 1
Three was my catch: one duck and one seagull and one crow.
q=walitoq ?i? na\( \&a? \) spela\( \& \)
seagull Conj 1 crow

We conclude, therefore, that conjunction of independent nominals within the scope of a #Root=LS construction is straightforwardly possible. Interestingly, each option in (15) has fully parallel structure: in (15.a), the initial #Root occurs with a LS \((fX=iws)\), and all three subsequent #Roots mirror this construction with na\( \&=iws \). In (15.b) the initial #Root is bare \((fixw)\), as are all the subsequent ones \((na\&a?)\). It is not clear whether this manifest parallelism is a stylistic preference or is subject to any formal grammatical constraints.

2.6 Summary

The basic goal of this section has been to initiate a more systematic investigation into the generally latent question of whether there are formal

\(^{12}\) "Only the duck was good to eat" followed in the discourse.
properties within the haːxámíłk̓əm (or, more generally, Salish) grammatical system which might limit the expressive capability of lexically-suffixed constructions as opposed to alternatively available syntactic paraphrases. Although more extensive analysis of the research issues raised here would contribute substantively to clarifying the nature, scope, and possible variation in the contraints involved, the preliminary data presented here show that attribution (§2.3), possession (§2.4), and conjunction (§2.5) are all readily possible on overt nominals within the scope of a LS. Our hypothesis is that expression of these three properties is dependent on the presence of such independent nominals; intuitively, this would seem to be derivative of semantic constraints rather than of a syntactic system per se.

3 Locus of LS with compound bases

The central question in this section relates to the identification of the appropriate domain for affixation of LSs in the case of coordinate structure. As a basic frame of reference, the cardinal numbers from 1 to 10, plus the base forms for 20, 100, 200, and 1000 are given in (16)\\textsuperscript{13}.

(16) Cardinal Numbers

<table>
<thead>
<tr>
<th></th>
<th>WS:384, AP, DP, AG</th>
<th>Phonetic variants</th>
<th>Phonological processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>náčaʔ</td>
<td>[ʔiséʔa]</td>
<td>vocalization of /y/ with open [ʔ] onset</td>
</tr>
<tr>
<td>2</td>
<td>y̕oq̕e̕ʔa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>fíxʷ</td>
<td>[χaʔetən]</td>
<td>translaryngeal V-harmony</td>
</tr>
<tr>
<td>4</td>
<td>χoʔetən</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>t̕e̕c̕e̕s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>t̕e̕x̕m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>t̕aʔkʷs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>t̕e̕c̕e̕ʔ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>t̕uːxʷ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>ʔapən</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\\textsuperscript{13}Forms documented by Suttles (in press) are abbreviated WS with page references. Where he identified speaker variation by initials, that information is repeated here. The other consultants who have contributed their knowledge to this research are also identified by their initials.
The number system for counting from 11-19, 21-29, 31-39, etc., is formed by compounding the #Root for 10 (or 20, etc., respectively) with a #Root from 1 through 9. These are conjoined by the regular conjunction (Conj) ʷʔ; the second #Root (but not the first) is preceded by the determiner (Det) kʷ. Thus, 19 is constructed as follows:

(17) ʔəpən ʔiʔ kʷ tu:xʷ
     10 Conj Det 9

As discussed in §2, the use of a LS as a numerical classifier is not obligatory. Consequently, it is fully grammatical in a sentence such as (18.a) cited from Guerin (1986), for the LS =əxʷəʔl (appropriate for reference to cars), not to appear on either #Root. Similarly, in (18.b), it is not necessary for the LS =(w)i:nxʷ to be used.

(18) a. ʔəpən ʔiʔ kʷ tixʷ k-əl-i-kāː 13 small cars
     10 Conj Det 3 Dim-[pl]-car

     b. ʔəpən ʔiʔ kʷ yəsełə yəʃənəm 12 years
     10 Conj Det 2 year

However, when a speaker chooses to use a LS on compound numbers, a relevant question is: where does it go? That is, given that there are two #Roots in such constructions, the question is which #Root does a LS attach to? Or does it attach to both #Roots? There are three logical possibilities (note: the LS is underlined here, and in the egs. to follow, for ease of reference):

(19) a. #Root Conj Det #Root=LS
     b. #Root=LS Conj Det #Root=LS
     c. #Root=LS Conj Det #Root

14 This form occurs in the active productive speech of AP, as well as the ʔəsəm form.
15 Galloway (1993:407) records ʔəpən kʷs ləːcəwəc for 1000. Aside from the straightforward n:1 correspondence, note that the Upriver Halkomelem form differs from the Musqueam form in including the Det kʷs between ʔəpən to and ləːcəwəc 100. Leslie (1979:91) records the loan tawən 1000 for the Cowichan dialect.
Interestingly, all three of these possibilities are attested in our data, though the first two patterns are significantly more prevalent than the third.

The data in (20) illustrates the first pattern above, (19.a), where the LS is attached only to the second member of the compound.

(20) a. ?apon ?i? kw nōc=āph 11 trees [cf. §5.10]
    10 Conj Det 1 =tree

    10 Conj Det 2 =tree

c. ?apon ?i? kw yosē=āgon 12 baskets [cf. §5.8]
    10 Conj Det 2 =container

d. ?apon ?i? kw ṭqacs=ēnak 15 poles [cf. §5.14]
    10 Conj Det 5 =pole

It is with the LS =āgon for counting containers (baskets, buckets, etc.) that we have also recorded the third pattern, that is, where the LS is attached to only the first #Root. Thus, compare (21) below with (20.c) above.

(21) ?ōpēn=ōgon ?i? kw nōc? eleven baskets [cf. §5.8]
    10=container Conj Det 1

When counting ducks (=iws) and dollars (=as), the LS attaches to both members of the compound, as shown by the data in (22).

(22) a. ?ōpēn=iws ?i? kw nōc=iws eleven ducks [cf. §5.9]
    10=duck Conj Det 1=duck

b. ?ōpēn=as ?i? kw nōc=as eleven dollars [cf. §5.5]
    10=dollar Conj Det 1=dollar

c. ēk=ōx=as ?i? kw nōc=as twenty-one dollars
    20=dollar Conj Det 1=dollar

It is worth noting that in all of our data involving the counting of money (see §5.5 below), the LS =as ==as is consistently present on both numbers. In the related Upriver Halkomelem dialect, data cited by Galloway (1993) also shows the LS attaching to both #Roots in a compound when counting money (=as):
(23) Upriver Halkomelem (Galloway 1993:406, 408).

a. ?qapél=owes qes kʷə c 10=ñ 1=dollar $\textit{eleven dollars}$
   10=dollar Conj Det 1=dollar

cf. ?qapél qes kʷə c 1=dollar $\textit{eleven (lit. ten and the one)}$
   Conj Det 1

However, it would seem that this is not uniformly the case. When counting paddles or canoe paddlers, the LS $\textit{owes}$ appears on only the first $\#\text{Root}$, as seen in (24.a). Similarly, when counting people ($=\textit{elə}$), the LS is attached only to the first $\#\text{Root}$ (24.b)\[16\]; here the second $\#\text{Root} (\textit{one})$ undergoes reduplication, which is the independently attested form for $\textit{one person}$ (rather than $*\textit{loč} =\textit{elə}$).

(24) Upriver Halkomelem (Galloway 1993:409, 410).

a. ?qapél=owes qes to 1=loč $\textit{eleven paddles}$
   10=canoes Conj Det 1

b. ?qap=elə qes to la-loč $\textit{eleven people}$
   10=people Conj Det Redup-1

cf. la-loč $\textit{one person}$

Commentary with respect to this issue in the Northern Interior Salish languages suggest a much more restrictive pattern of use there. Thompson and Thompson (1992: 189) make the following observation for Nle'kep'mxcoil (Thompson River) Salish: LSs “are seldom used with numbers larger than ten, and when they are it is only the final unit number that appears in classificatory form.” [No data are given to exemplify this point.]

With respect to Lillooet, van Eijk states that “[i]n complex numerals, suffixes [LSs] combine with the last member (1997: 131):

(25) qəəm wi päl? = Itaz' $\textit{eleven trees, bushes} (=\textit{Itaz' tree, bush})$.

It would seem then that the documented patterns in these Northern Interior Salish languages are systematically restricted to the rightmost member of the compound. In contrast, as illustrated by the data in (20)-(22), all three of the logically possible suffixation patterns are attested in Musqueam.

\[16\] Note, as in həldəmihəm (§5.3), the apparent haplology of one of the adjacent identical syllables: $*?qapél=\textit{elə}$
Words built upon #Root=LS morphology exhibit considerable allomorphic and morphophonemic variation. Several factors undoubtedly contribute to this. On the one hand, the historical time depth of LSs within the Salish languages can contribute to greater lexicalization, irregularity and opacity. As well, the roots that these LSs are attaching to are numeric roots, and number systems themselves tend to sustain irregularity; for example, the English number system perpetuates irregularities in the lower numbers, like *first as opposed to *one-th, second as opposed to *two-th, third as opposed to *three-th, but then regularizes from four-th onwards.

One plausible factor influencing the decline in use of LS constructions across Salish and the concomitant shift to syntactically-derived constructions (as documented in §2 above) is the rich system of lexical allomorphy and morphophonemic interaction in LS-derived morphology. Consequently, if the LS systems are to be sustained in Salish grammatical systems through the current critically challenging period of language maintenance and revitalization, it is important to identify and address the learnability issues which are associated with these particular areas of more focussed lexical and phonological complexity. Often referred to as the 'extreme' of morphological conditioning is suppletion, the case where an allomorph bears no systematic predictable relationship to what may be posited to be a 'base' representation of the morpheme, or to other variant forms (or allomorphs) of that same morpheme in the language. Diachronic factors characteristically have considerable influence on the evolution of suppletive allomorphy. In contexts of precipitous language loss, the synchronic status and stability of suppletion in a grammar are of particular interest. A salient pattern of suppletive alternation within the LS constructions involving the #Root for two are the focus of the following section.

4.1 Allomorphy in the Root for two: yosefə ~ ðem-

Within the #Root=LS paradigms is an alternation between yosefə, which functions as the free-standing Root for two, as well as a fairly transparent base for suffixation of the LSs shown in (26.a) below, and a suppletive allomorph ðem-, which functions exclusively as a bound Root, occurring in conjunction with the LSs listed in (26.b). The section number in the leftmost column in these tables refers the reader to the full paradigms in §5 where each of these specific LSs is exemplified in detail. All the #Root=LS paradigms are full of alternations based on regular phonological processes of stress and schwa-reduction, which are not discussed here; the reader is referred to Shaw, Blake, Campbell, & Shepherd (1999); Shaw (2001, 2002) for detailed analysis. As well, it will be noted that some of the derivatives of yosefə occur in reduplicated form (e.g. yə-yosefə=£200); although the shape of the reduplicative prefix (Redup) conforms to regular generalizations, its presence in
these forms but not in others is not fully understood and will not be further addressed here. The e ~ a Ablaut alternation exhibited in the form yasáf=as meaning two dollars is a regular morphologically-conditioned process further exemplified and discussed in §5.5 below.

(26) a. Root-based allomorphy: *yasefa* two (free-standing Root)

| §5.3 | =əʃə | *people* | yé-ʃə=əʃə | Redup-2=people |
| §5.5 | =as | *dollars, round* | yasáf=as | 2=dollars |
| §5.5 | =əʃə | *hundred* | yə-yasáf=əʃə | Redup-2=two hundred ($) |
| §5.8 | =əqən | *containers* | yasáf=əqən | 2=containers |
| §5.9 | =iws | *birds, animals* | yəso=iws | 2=ducks, fowl... |
| §5.10 | =ətp | *trees* | yasət=ətp | 2=trees |
| §5.11 | =mat | *kinds, packs* | yəso=mət | 2=blanket packs |
| §5.14 | =eməb | *long obj.* | yə-so=eməb | Redup-2=long objects |

(26) b. Suppletive allomorphy: *θem-* two (bound Root)

| §5.1 | =et | *hundred* | θem=et | 2=hundred |
| §5.6 | =əx۸ət | *times* | θem=əx۸ət | twice, 2=times |
| §5.7 | =əx۸ət | *canoe* | θem=əx۸ət | 2=canoes |
| §5.7 | =əx۸ət | *building* | θem=tx۸ | 2=houses, buildings |
| §5.13 | =əx۸ət | *years* | θem=əx۸ət | 2=years |
| §5.13 | =əx۸ət | *nom- ordinal* | s-θem-ant-s | 2nd day, Tuesday |

First, it is important to enquire about the lexical relationship of *θem-* to *yasefa*. Given its CVC root-canonical form and its complete lack of phonological correspondence with *yasefa*, it is quite plausible that *θem-* was historically an independent Root. However, synchronically it seems more coherent to analyse the two morphs in the present day grammar as allomorphs. In support of this is the fact that *θem-* occurs in complementary distribution with *yasefa*. Interestingly, however, this distribution is not transparently predictable, either phonologically or semantically; rather, one must conclude that it is morphologically-conditioned. If so, one would predict inter-speaker and/or cross-dialectal variation, and this is indeed the case, as illustrated below.

An initial observation from comparing these two distributional sets is that there is no clear semantic cohesion in the distribution of either set of allomorphs. That is, the semantics of the LSs in (26.a) compared with (26.b) do not provide a basis for predicting which allomorph any of the LSs should co-
occur with. Nor does their phonological form offer any transparent criteria for predictability in the choice of allomorph.

However, there is very interesting intra- and cross-dialectal variability in the attested forms for 200. Within the Musqueam dialect itself, the words for two hundred (200) as opposed to two hundred dollars ($200) are constructed on different allomorphs of the Root for two. The basic form for 200 in ḥaʔqəmʔəm (see (2) above) is built on the suppletive allomorph ʔem- plus a form of the LS for hundred (normally =wac with the initial /w/ truncated, plausibly due to the adjacent labiality of the preceding [m]): ʔem=wac lit. two=hundred. The non-suppletive form yasefa nēcawac is also an active variant in the speech of our consultant: it can be freely used in the same contexts as ʔem=wac, reflecting essentially free variation.

In contrast, the money referent for $200 does not have corresponding variant forms. The term in use is not built on ʔem=wac as a base plus the LS =as =as for money; that is, neither ʔem=wac=as nor ʔem=wac=as, which are what one might expect, are attested. Rather, the word for $200 is constructed from the non-suppletive allomorph yasefa, plus the LS =was for hundred, plus a reduplicative (Redup) prefix, but with no LS for money, the result being: ya-yasefa=wac.

On the one hand, it is well documented (e.g. Kiparsky 1982, etc.) that derived forms tend to regularize, but on the other hand, it is not entirely clear here what would manifestly be characterizing ya-yasefa=wac as 'more derived': it does, certainly, have one more layer of affixation, the Redup prefix, but Redup of this shape and context is not standardly viewed as 'derivational'. Further, $200 is not overtly 'derived' by suffixation of the LS for money; consequently, the semantics of the form for $200 are correspondingly more opaque (i.e. more lexicalized) given that it doesn’t have the overt LS for money. It would seem, then, that the forms ʔem=wac for 200 and ya-yasefa=wac for $200 have simply both become quite lexicalized, each in different ways: the former with the suppletive allomorph of the Root, and the latter with the covert semantic connotation (rather than explicit LS morphological representation) of reference to money.

In terms of cross-dialectal comparison, the form for 200 that Galloway cites (Galloway 1993:407) for Upriver Halkomelem is not built from the suppletive allomorphy. Rather it corresponds directly to the non-

---

17 Suttles (in press:384) analyses this suffix as -ac or -?ac, but this does not transparently account for the presence of the [w] in 100, nēcawac. Galloway (1993:407) analyses the suffix as -wac, attributing the schwa as well as the [w] to the suffix (note the well-documented resonant deglottalization of w to w in Upriver). Our position is intermediary between these two: we hypothesize that the [w] is part of the suffix, subject to deletion after another labial, viz. ʔem=wac/ → [ʔemac], and that the first schwa belongs to the root in each case: this is transparent in yasefa 2 vis-à-vis ya-yasefa=wac 200, and straightforwardly the result of schwa-reduction from nēc? 1 vis-à-vis nēc=wac 100.
suppletive ханчимиин form yasefo nećawac. That is, it is compositionally constructed from the independent free-standing root for two phrasally concatenated with the word for 100, itself built up from the root for one plus the LS for hundred, specifically the syntactic phrasal construction: ḋisé:la lećawac lit. two one=hundred, where the Noun on the right is itself a #Root=LS. An interesting question for extended research is the extent to which the suppletive allomorph (alternatively, 'old' root) ḋem- may persist in this Upriver dialect as well as in the Island Halkomelem dialects.

In this context, a further observation based on Galloway's (1993:411) documentation of Upriver dialects pertains to the base for two which cooccurs with the suffix for counting houses. (The data are reproduced in §5.7 below.) What is important for the present purposes is that the Tait form ḋisle:wxə for two houses is not built on the suppletive allomorph for two, ḋem-, which serves as the base in all attested sources for the ханчимиин dialect, viz. ḋem-txə. For suppletion to persist in a grammar, it presumably must sustain a fairly high functional load: for example, it may be hypothesized that English went and am endure - despite their lack of phonologically predictable allomorphy - because of their pervasive use. Once usage, and the context for usage, of a word declines, suppletive allomorphy will undoubtedly be vulnerable to loss. One would expect then that the direction of diachronic change would be towards paradigm regularization. This is indeed what would seem to be reflected by the loss of the suppletive allomorph in the Tait dialect.

A final question we investigated with respect to the distribution of the suppletive allomorph was its potential participation in compound structures of the form discussed in §3 above. Specifically, given the use of the suppletive allomorph with the specific LSs identified in (26.b) above, the question was whether the suppletive allomorph plus LS would be used intact in higher order numbers built as compounds. That is, given that 2=years employs the suppletive allomorph, and given that 12 is a compound structure (see §3), then would 12 years, 22 years, etc., also allow the suppletive allomorph with the LS? Native speaker judgements rejected such constructions, as in (c) and (g) below.

(27) a. ḋem=ǐ:nxw
b. ḋapən ?i? kʷ yasefo
c. ḋapən ?i? kʷ ḋem=ǐ:nxw
d. ḋapən ?i? kʷ yasefo syəlanəm
e. ḋem=əxʷət
f. ḋapən ?i? kʷ yasefo
g. ḋapən ?i? kʷ ḋem=əxʷət
h. ḋapən ?i? kʷ yasefo sanixʷət
two years
twelve [10 Conj Det 2]
twelve years
twelve years
two canoes
twelve
twelve canoes
twelve canoes (pl)
Interestingly however, if the initial member of the compound is itself suffixed with a LS which requires suppletive allomorphy, then a suppletive #Root=LS form will surface on the right. Compare the well-formedness of (28) below with the unacceptability of (27.g) above.

(28) θém=ac ?iθ em=αxʷ=et 202 canoes

Various competing hypotheses as to why this might be so remain to be tested.

5 Paradigms of Numerical Root plus Lexical Suffixes

In this section, comparative data from various sources is presented, with the congruent goals of documenting interspeaker variation and of finding gaps in the paradigms which we have tried to contribute to filling. As well, some commentary is offered about variant form and patterns of usage, with exemplification. In the AP column, our hypotheses regarding morpheme boundaries are generally made explicit, following the Salish tradition of marking LSs with a preceding = boundary. Where morphological boundary information is uncontroversially (we hope) interpretable in other documentation, we have included that as well, with the goal of facilitating comparison across the columns of each paradigm. Although the unsuffixed ordinal system was presented in (16) as a basic frame of reference, these forms are included in the tables below (where space permits) in order to facilitate comparison across the morphophonemic changes within each paradigm.

5.1 Number of times: =et times, e.g. twice ~ two times...

<table>
<thead>
<tr>
<th></th>
<th>ROOT</th>
<th>WS:386</th>
<th>AP</th>
<th>DP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nəčaʔ</td>
<td>nəčéxʷ</td>
<td>nəč=éxʷ</td>
<td>nəčéxʷ</td>
</tr>
<tr>
<td>2</td>
<td>ʷəsefə</td>
<td>ʷəm̩e</td>
<td>ʷəm̩=e</td>
<td>ʷəm̩e</td>
</tr>
<tr>
<td>3</td>
<td>xʷʷ</td>
<td>xʷʷ=et</td>
<td>xʷʷ=et</td>
<td>xʷʷ=et</td>
</tr>
<tr>
<td>4</td>
<td>x̣ʔəθən</td>
<td>x̣ʔəθ̣ən̩=t</td>
<td>x̣ʔəθ̣ən̩=et</td>
<td>x̣ʔəθ̣ən̩=et</td>
</tr>
<tr>
<td>5</td>
<td>ṭəccəs</td>
<td>ṭəcc̣ət</td>
<td>ṭəcc̣s=et</td>
<td>ṭəcc̣s=et</td>
</tr>
</tbody>
</table>

Although our intent has been to be as broadly inclusive as possible, we welcome communication regarding documentation inadvertently not included here, as well as additional data which would contribute to filling residual gaps.
Although one and two are irregular, the LS is consistently =ét from three on in the paradigm.

Here the root Vowel deletion in three vs. the reduction to schwa in five, seven and how many follows the generalizations in Shaw (2001). It is interesting to note that the Root V in eight and ten reduces to schwa, even though it surfaces as two syllables away from the LS, and functions as a Foot head marked by secondary stress. This implies that epenthetic schwa is transparent to the lexical V-reduction triggered by =ét.

Stress throughout the paradigm is consistent with the generalizations in Shaw et. al (1999), Shaw (2001). Examples of usage follow.

(28) a. ni? ?a êxʷ wət tem-ət to Addie?
Aux Q 2sSu already call-t.tr det Name
Did you (sg) call Addie yet?

2=times det-1sPoss-nom Aux call-t.tr conj Neg answer
I called her twice & there was no answer.

5=times det-1sPoss-nom Aux call-t.tr conj Neg answer
I called her 5 times & there was no answer.

d. kʷon=éét kʷ-əθ ni? tém-ət ?
how many=times det-2sPoss Aux call-t.tr
How many times did you (sg) call her?

e. nəc=éxʷ ?əf
l=time restric
just once
5.2 Base 10 System: \( =t=sxé \) \( \sim =t=cyé \) multiples of ten, times ten

<table>
<thead>
<tr>
<th>ROOT</th>
<th>WS:384 [CC]</th>
<th>DP</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>yəsēə</td>
<td>ðk*əx</td>
<td>ðk*əx</td>
</tr>
<tr>
<td>30</td>
<td>təxʷ</td>
<td>təxʷ=ət=sxé</td>
<td>təxʷ=ət=cyé</td>
</tr>
<tr>
<td>40</td>
<td>əʔətən</td>
<td>əʔən=ət=sxé</td>
<td>əʔən=ət=cyé</td>
</tr>
<tr>
<td>50</td>
<td>təqəcs</td>
<td>təqəcs=ət=sxé</td>
<td>təqəcs=ət=cyé</td>
</tr>
<tr>
<td>60</td>
<td>təxəm</td>
<td>əxəm=ət=sxé</td>
<td>əxəm=ət=cyé</td>
</tr>
<tr>
<td>70</td>
<td>təʔkʷs</td>
<td>təʔkʷs=ət=sxé</td>
<td>təʔkʷs=ət=cyé</td>
</tr>
<tr>
<td>80</td>
<td>təqəceʔ</td>
<td>təqəc=ət=sxé</td>
<td>təqəc=ət=cyé</td>
</tr>
<tr>
<td>90</td>
<td>tə:kw</td>
<td>təːkw=ət=sxé</td>
<td>təːkw=ət=cyé</td>
</tr>
<tr>
<td>100</td>
<td>?əpən</td>
<td>nəcəwac</td>
<td>nəcəwac</td>
</tr>
</tbody>
</table>

Suttles [WS:384] records JP's form of this LS as \( =t=cyé \), this being essentially the same form attested in AP's speech. However, in AP's pronunciation, there is palatalization of the affricate /c/ to [ç] (this representing a more palatalized, but not lip-rounded articulation) before the following palatal /yl/ glide. Similarly, /s/ palatalizes to [ç] before /yl/.

Suttles [WS:257] notes 'for a few lexical suffixes a final /t/ appears as [l] before -t transitive, an alternation not observed elsewhere . . . '. What is observed in one variant of the lexical suffix here is an alternation between /t/ and [l] governed by rate of speech. In slow speech, the segment is clearly [t], but in fast speech sounds like [l].

(29) slow: \( ðxəm=ət=cyé \)
    fast: \( ðxəm=əl=cyé \)

There are a number of cases where there is multiple layering of LSs, with the sequence indicating multiples of ten followed by another LS, for e.g.:

(30) a. \( təqəcs=ət=cyé=ət \) 50 times
    \( 5=\text{times}=10=\text{times} \)

b. \( əʔən=ət=cyé=ələs \) how many tens of mesh? [WS:273]
    how many=times=10= net.mesh, eye
Suttles (WS:386) further documents ?apan i ƙw náâca? for eleven, etc., his “etc.” implying that it is the righthand member of each of the compounds from 11 to 19 that is modified by the LS construction. We were not able to obtain relevant further documentation on this from our consultants.

The following examples of sentential usage show various kinds of plural number agreement. In (31.a, b) a specified noun in the scope of the Number=LS is overtly marked with CVC- reduplication, compared with the cases in (31.c, d) where, under the focussed interpretation There are..., the noun is not reduplicated, but the Plural infix [-al-] is marked on the verb.

(31) a. ?ape:lo s-tën-tenây ní? neñi ñtem ƙw so:
        10=people nom-Redup-woman Aux go watch Det show
        Ten women went to the movies.
b. rylic=æ mayor=stem=y ni? neim ?aːt to s-naxʷət
6=people nom-Redup-woman Aux go aboard det nom-canoe
Six women got on the canoe.

c. ɤosityːo kʷə ʰa xʷolməxʷʔ-əl-aʔət kʷə ʰa s-naxʷət.
4=people det deic FN.person Redup-pl-aboard det deic nom-canoe
There are 4 people on the canoe.

d. ɤosityːo másteysəʔ-əl-aʔət kʷə ʰa s-naxʷət.
4=people person Redup-pl-aboard det deic nom-canoe
There are 4 people on the canoe.

Both Suttles (in press) and Guerin (1986) cite forms with =eləc (WS) and =eləc (AG 1986:113) as a variant LS for person. Their examples all occur with the root /qə/ many, e.g. qələc many people (WS:274), qələc səmənəyə many women [AG]. We assume that the final -c is an independent suffix, but have not been able to re-elicit such forms to explore this issue further.

5.4 C(C)VC- Reduplication at a time, plus =elə people

Whereas a CV- pattern of Reduplication is found on the derived forms for one and two in §5.3 above, a C(C)VC- pattern of Reduplication marks an independent process signifying \( \chi \) number of people at a time; by \( \chi \)s (in a line or row), as shown below. The non-reduplicated forms from the previous paradigm (5.3) are cited below following AP's speech as a frame of reference.

<table>
<thead>
<tr>
<th>ROOT</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nácaʔ, náʔiʃəʔ~náʔiʃə</td>
<td>1 person</td>
</tr>
<tr>
<td>WS</td>
<td>nəʔ-protocols</td>
<td>one by one</td>
</tr>
<tr>
<td>AP, JG</td>
<td>nəʔ-protocols</td>
<td>1 person at a time; 1 by 1</td>
</tr>
<tr>
<td>2</td>
<td>yəsəqə, yəʔys=əʔə</td>
<td>2 people</td>
</tr>
<tr>
<td>WS</td>
<td>yəsəyəʔəqə</td>
<td>2 by 2</td>
</tr>
</tbody>
</table>

---

\(^{19}\) We thank Adeline Point of xʷməθkʷəy̓əm (Musqueam) and Josephine Good of kʷikʷəƛ̓əm (Coquitlam) for their collaboration in the documentation of these forms.
Included in the table above are Suttles' (WS:386) recorded forms for one by one and two by two. The documentation of the forms for numbers above two are from our consultants. Although descriptions of other Salish languages also include reference to plurational reduplication20, what is to our knowledge unique21 within Salish about this handqəmɨłəm pattern is its form as revealed by the reduplication of numbers such as six and twenty. What is specifically interesting is the phonological shape of the reduplicant in these cases, as it sustains the initial CC- cluster of the base (see Shaw 2002 for discussion and analysis). At this point in our documentation, there remain gaps in the paradigm, specifically for five and eight, as well as for any of the compound roots.

The use of this reduplicative construction in combination with the =e:ʃa people LS conforms to Lasersohn’s (1995) characterization, within a broad range

<table>
<thead>
<tr>
<th>Number</th>
<th>Form</th>
<th>Reduplication</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>tixʷ</td>
<td>tixʷ=ʃa</td>
<td>3 people</td>
</tr>
<tr>
<td>AP, JG</td>
<td></td>
<td></td>
<td>3 people at a time; by 3s</td>
</tr>
<tr>
<td>4</td>
<td>x300i:ʃa</td>
<td></td>
<td>4 people</td>
</tr>
<tr>
<td>AP, JG</td>
<td></td>
<td></td>
<td>4 people at a time; by 4s</td>
</tr>
<tr>
<td>6</td>
<td>6xám</td>
<td>6xám=ʃa</td>
<td>6 people</td>
</tr>
<tr>
<td>AP, JG</td>
<td></td>
<td></td>
<td>6 people at a time; by 6s</td>
</tr>
<tr>
<td>7</td>
<td>7kʷw̱x</td>
<td>7kʷw̱x=ʃa</td>
<td>7 people</td>
</tr>
<tr>
<td>AP, JG</td>
<td></td>
<td></td>
<td>7 people at a time; by 7s</td>
</tr>
<tr>
<td>9</td>
<td>9xíxʷ</td>
<td>9xíxʷ=ʃa</td>
<td>9 people</td>
</tr>
<tr>
<td>AP, JG</td>
<td></td>
<td></td>
<td>9 people at a time; by 9s</td>
</tr>
<tr>
<td>10</td>
<td>?ap</td>
<td>?ap=ʃa</td>
<td>10 people</td>
</tr>
<tr>
<td>AP, JG</td>
<td></td>
<td></td>
<td>10 people at a time; by 10s</td>
</tr>
<tr>
<td>20</td>
<td>20xʷ</td>
<td>20xʷ=ʃa</td>
<td>20 people</td>
</tr>
<tr>
<td>AP, JG</td>
<td></td>
<td></td>
<td>20 people at a time; by 20s</td>
</tr>
</tbody>
</table>

21 In the context of our initial presentation of these data at the 2001 ICSNL conference, none of the participants there could attest to a CCVC- reduplication pattern documented elsewhere. We would certainly appreciate being informed of any other cases like this in Salish.
of distributive notions, of 'participant pluractionality'; that is, it characterizes an
action involving a plurality of participants, distributed in separate groups
(including a potential 'group' of one at a time), each group identifiable as
having the same number of participants engaging in essentially the same action.
For example, the construction was used in reference to canoes races, where there
were several canoes out on the water, each canoe having within it 10 people
pulling. A second example was with reference to kids from the community pre­
school going on a fieldtrip, lined up to walk along the sidewalk in groups of 3,
each group of 3 kids beside each other holding hands, but with an unspecified
number of successive groups of 3 following in the line.

5.5  =ās  ~ =ōs  Round objects, e.g. faces, money (dollars)

This particular LS is very commonly used, especially for its role in
designating money. Consequently, an additional paradigm for number beyond
1 to 10 is included below.

<table>
<thead>
<tr>
<th></th>
<th>WS:386</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nācā</td>
<td>nācōs</td>
</tr>
<tr>
<td>2</td>
<td>yāsāl</td>
<td>?isīlas</td>
</tr>
<tr>
<td>3</td>
<td>ēx̌</td>
<td>ēx̌ōs</td>
</tr>
<tr>
<td>4</td>
<td>chā工商局</td>
<td>chā工商局</td>
</tr>
<tr>
<td>5</td>
<td>ēkām</td>
<td>ēkāmōs</td>
</tr>
<tr>
<td>6</td>
<td>tēkā工商局</td>
<td>tēkā工商局</td>
</tr>
<tr>
<td>7</td>
<td>tēkā工商局</td>
<td>tēkā工商局</td>
</tr>
<tr>
<td>8</td>
<td>tēkā工商局</td>
<td>tēkā工商局</td>
</tr>
<tr>
<td>9</td>
<td>tēkā工商局</td>
<td>tēkā工商局</td>
</tr>
<tr>
<td>10</td>
<td>tēkā工商局</td>
<td>tēkā工商局</td>
</tr>
</tbody>
</table>

As noted in the form for two, this suffix triggers an Ablaut shift of e to a in the
preceding root. This same shift accounts for the a in tēkā工商局, as this is the
(predictable) ablauted form of the allomorph tēkā工商局.

The following set of forms have been documented specifically within
the domain of counting dollars.
<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$11</td>
<td>ᖇᒡᓗᓄᓂ ᒋᔅ ᖊᒧᓄ ጑ᔅ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$12</td>
<td>ᖇᒡᓗᓄᓂ ᒋᔅ ᖊᒧᓄ ፐᓐᔅ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$13</td>
<td>ᖇᒡᓗᓄᓂ ᒋᔅ ᖊᒧᓄ ፐᓐᔅ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$14</td>
<td>ᖇᒡᓗᓄᓂ ᒋᔅ ᖊᒧᓄ ፐᓐᔅ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$15</td>
<td>ᖇᒡᓗᓄᓂ ᒋᔅ ᖊᒧᓄ ፐᓐᔅ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$16</td>
<td>ᖇᒡᓗᓄᓂ ᒋᔅ ᖊᒧᓄ ፐᓐᔅ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$17</td>
<td>ᖇᒡᓗᓄᓂ ᒋᔅ ᖊᒧᓄ ፐᓐᔅ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$18</td>
<td>ᖇᒡᓗᓄᓂ ᒋᔅ ᖊᒧᓄ ፐᓐᔅ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$19</td>
<td>ᖇᒡᓗᓄᓂ ᒋᔅ ᖊᒧᓄ ፐᓐᔅ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$20</td>
<td>ᕪᓐᔅ ᕪᔪᔨᔪᖃ ᕪᔪᔨᔪᖃ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$30</td>
<td>ᕪᔪᔨᔪᖃ ᕪᔪᔨᔪᖃ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$40</td>
<td>ᕪᔪᔨᔪᖃ ᕪᔪᔨᔪᖃ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$50</td>
<td>ᕪᔪᔨᔪᖃ ᕪᔪᔨᔪᖃ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$60</td>
<td>ᕪᔪᔨᔪᖃ ᕪᔪᔨᔪᖃ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$70</td>
<td>ᕪᔪᔨᔪᖃ ᕪᔪᔨᔪᖃ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$80</td>
<td>ᕪᔪᔨᔪᖃ ᕪᔪᔨᔪᖃ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$90</td>
<td>ᕪᔪᔨᔪᖃ ᕪᔪᔨᔪᖃ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$100</td>
<td>ᕪᔪᔨᔪᖃ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$200</td>
<td>ᕪᔪᔨᔪᖃ</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: no = os suffix

As documented in §3 earlier, there is non-uniformity in ᕪᔭᐅᔨᖅᑎᒻᒥᒃ with respect to whether other LSs are marked on only the first #Root, or only the second #Root, or on both. What is of interest in this money paradigm, as seen in the forms from $11 through $19, is that the LS for dollar is consistently attached to both numerical roots in the compound structure.
5.6 Canoes  =  oxʷəɬ

Interestingly, this suffix is only attested as marked on the #Roots for one, two, and how many, but its use is very common in these contexts, as well as on non-numeric roots (as seen in several examples in §2 above).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>WS:386</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nəcəʔ</td>
<td>néeʔaxʷəɬ</td>
<td>née=oxʷəɬ</td>
</tr>
<tr>
<td>2</td>
<td>yəsełə</td>
<td>ṣəmoxʷəɬ</td>
<td>ṣəm=oxʷəɬ</td>
</tr>
<tr>
<td>3</td>
<td>ːlɪxʷ</td>
<td>yəʔɪləxʷ</td>
<td>yə-lələxʷ</td>
</tr>
<tr>
<td>4</td>
<td>ɣəʔəʔən</td>
<td>ɣəʔəʔən</td>
<td>ɣəʔəʔən</td>
</tr>
<tr>
<td>5</td>
<td>ḥəqəsəs</td>
<td>yəʔəqəsəs [CC]</td>
<td>yəʔəqəsəs [JP]</td>
</tr>
<tr>
<td>how many?</td>
<td>ʔəin</td>
<td>ʔəin=oxʷəɬ</td>
<td></td>
</tr>
</tbody>
</table>

Beyond counting two canoes, the numeric root is prefixed by yə-, often translated as moving along (cf. Suttles, in press). Representative data exemplifying the use of each of the documented #Root=LS forms follow:

(32) a. nəc=oxʷəɬ to s-oxʷəɬ-s ʔəłən.
    one=canoe Det nom-canoe-3Poss 3pl
    They have one canoe.

    b. ṣəm=oxʷəɬ to s-oxʷəɬ-s təклаɬ.
    two=canoe Det nom-canoe-3Poss deic-pl
    Those people have 2 canoes.

    c. ʔəin=oxʷəɬ to s-ə-nixʷəɬ ʔə mi tə-ʔɪʔə?
    how many=LS Det nom-Redup-canoe Aux Redup-come,ashore
    How many canoes are coming ashore?
5.7 $\omega wtx^w \sim \omega wtx^w - tx^w$ [WS], $\omega wtx^w$ [AP] house, building

<table>
<thead>
<tr>
<th></th>
<th>WS:387</th>
<th>AP</th>
<th>AG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nēčəʔ</td>
<td>nēčəwtx^w</td>
<td>nēč=ωwtx^w</td>
</tr>
<tr>
<td>2</td>
<td>yəswə́</td>
<td>ə̱̱m.tx^w</td>
<td>ə̱̱m=tx^w</td>
</tr>
<tr>
<td>3</td>
<td>ɨ̱̱x^w</td>
<td>ɨ̱̱x=ωwtx^w</td>
<td>ɨ̱̱x=ωwtx^w</td>
</tr>
<tr>
<td>4</td>
<td>چə̱̱?ə̱̱θə̱̱n</td>
<td>—</td>
<td>چə̱̱θə̱̱n=ωwtx^w</td>
</tr>
<tr>
<td>5</td>
<td>tqéccə̱̱s</td>
<td>—</td>
<td>tqécc=ωwtx^w</td>
</tr>
<tr>
<td>6</td>
<td>ɨ̱̱x̱̱m</td>
<td>—</td>
<td>ɨ̱̱x̱̱m=ωwtx^w</td>
</tr>
<tr>
<td>7</td>
<td>ɬ̱̱m̱̱ḵ̱w̱̱s</td>
<td>—</td>
<td>ɬ̱̱m̱̱ḵ̱w̱̱s=ωwtx^w</td>
</tr>
<tr>
<td>8</td>
<td>tqéccə̱̱?</td>
<td>—</td>
<td>tqécc=ωwtx^w</td>
</tr>
<tr>
<td>9</td>
<td>ɨ̱̱x̱̱m</td>
<td>—</td>
<td>ɨ̱̱x̱̱m=ωwtx^w</td>
</tr>
<tr>
<td>10</td>
<td>ʔə̱̱pə̱̱n</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>how many?</td>
<td>ɬ̱̱m̱̱ṉ̱w̱̱tx^w</td>
<td>ɬ̱̱m̱̱ṉ̱w̱̱tx^w</td>
<td>ɬ̱̱m̱̱ṉ̱w̱̱tx^w</td>
</tr>
</tbody>
</table>

Interestingly, the haŋqəmɪʔə̱ni̱ṉ form for one house is homophonous with the form for different house (see also Suttles 2000:387, 462). When the intransitive suffix -om is added, nēč=ωwtx^w-am means to go to a different house, to go visiting as shown by the following example.

(33) nəṉh con nēč=ωwtx^w-am I'm going visiting [AP]  
    go IsSu different=house-intr.

With respect to the LS $\omega wtx^w$, Galloway observes that its use in the Upriver Tait dialect is restricted to counting houses which belong to one person.

(34) Upriver Halkomelem, Tait dialect (Galloway 1993:411)
   a. ʔisə̱̱ḻə̱̱́w̱̱tx^w two houses of one person
   b. ɨ̱̱x̱̱w̱̱c̱̱ə̱̱  three houses of one person
   c. ɬ̱̱m̱̱ḵ̱w̱̱ḻə̱̱́w̱̱tx^w four houses of one person
   d. tqéccə̱̱sə̱̱w̱̱tx^w five houses of one person

This restrictive interpretation did not hold for our haŋqəmɪʔə̱ni̱ṉ consultant.
As discussed earlier in §4.1, we see in (34) that the Tait form \( ?\text{is}l\text{e:}=\text{wx}\) for two houses is not built on the suppletive allomorph for two, \( \text{t}\text{em}-\), which serves as the base in all attested sources for the \( \text{h}\text{hdq}\text{m}m\text{hdh}\) dialect, viz. \( \text{t}\text{em}-\text{bx}\).

5.8 \( =\text{aq}\text{an} \) [WS], \( =\text{aq}\text{an} \) [AP] containers, buckets, baskets

This LS is well attested in current usage, undoubtedly reflecting the continuing cultural importance of activities like basket-weaving and berry-picking. Suttles notes (in press) that it generally refers to filled containers.

<table>
<thead>
<tr>
<th></th>
<th>WS:387</th>
<th>AP (13-05-01)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>( \text{n}\text{c}\text{a}\text{?} )</td>
<td>( \text{n}\text{c}\text{aan} )</td>
</tr>
<tr>
<td>1 {Dim}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>( \text{y}\text{as}\text{e}\text{lo} )</td>
<td>( ?\text{is}l\text{e}=\text{q}\text{an} )</td>
</tr>
<tr>
<td>3</td>
<td>( \text{t}\text{ix}^\text{w} )</td>
<td>( \text{t}\text{ix}=\text{q}\text{an} )</td>
</tr>
<tr>
<td>4</td>
<td>( \text{c}\text{h}\text{a}\text{m}\text{e} )</td>
<td>( \text{c}\text{h}\text{e}\text{m}=\text{q}\text{an} )</td>
</tr>
<tr>
<td>5</td>
<td>( \text{t}\text{q}\text{e}\text{c}\text{a}\text{s} )</td>
<td>( \text{t}\text{q}\text{e}\text{c}\text{a}=\text{q}\text{an} )</td>
</tr>
<tr>
<td>6</td>
<td>( \text{b}\text{c}\text{a}\text{m} )</td>
<td>( \text{b}\text{c}\text{a}=\text{q}\text{an} )</td>
</tr>
<tr>
<td>7</td>
<td>( \text{c}\text{h}\text{a}\text{n}\text{k}^\text{w}\text{s} )</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>( \text{t}\text{q}\text{e}\text{c}\text{e} )</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>( \text{t}\text{u}\text{f}\text{x}^\text{w} )</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>( \text{t}\text{a}\text{p}\text{an} )</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Leslie (1979:92) cites the Cowichan forms for twenty to ninety containers. Comparative data is not currently available from the h\( \text{hdq}\text{m}m\text{hdh}\) dialect. Examples of current h\( \text{hdq}\text{m}m\text{hdh}\) usage of these #Root=LS forms follow.
(35) a. $\text{kWin}=\text{aqan}$  $\text{k}^w \cdot \text{awos}$
   how.many=containers Det-2sPoss bucket
   how.many buckets do you have?

b. $\text{ix|=aqan} \text{t} \cdot \text{s-ten=teny}$.
   6=containers det nom-Redup-woman
   The women have six baskets

c. $\text{ni} \text?= \text{kWin=sit} \text{t=sef}=\text{aqan} \text{sitan}$
   Aux carry-3Su Det 2=container basket
   She is carrying two baskets.

d. $\text{yose}=\text{aqan} \text{sitan kwi-kWin=net-om}$ (?o) $\text{Mary}$.
   2=container basket Redup-carry-intr (obl) det Mary.
   Two baskets are being carried by Mary.

e. $\text{kWin=net-om}$ (?o) $\text{Betty} \text{t} \cdot \text{tixw}=\text{aqan}$.
   carry-intr (obl) det Betty det 3=container.
   Betty is carrying 3 containers.

5.9 =iws 'bodies' in reference to birds, waterfowl, animals

Again as seen in the earlier discussion in §2, this LS remains highly productive and is broadly attested in #Root=LS constructions.

<table>
<thead>
<tr>
<th></th>
<th>WS:387</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ná=á?</td>
<td>ná=iws</td>
</tr>
<tr>
<td></td>
<td>ná=iws</td>
<td>ná=iws</td>
</tr>
<tr>
<td>1 {Dim}</td>
<td></td>
<td>ní-né=oáw</td>
</tr>
<tr>
<td>2</td>
<td>yose</td>
<td>á</td>
</tr>
<tr>
<td>3</td>
<td>tx=á</td>
<td>tx=á</td>
</tr>
<tr>
<td>4</td>
<td>xó=á</td>
<td>xó=á</td>
</tr>
<tr>
<td>5</td>
<td>têcás</td>
<td>têcás=á</td>
</tr>
<tr>
<td>6</td>
<td>têx=á</td>
<td>têx=á</td>
</tr>
<tr>
<td>7</td>
<td>têy=á</td>
<td>têy=á</td>
</tr>
</tbody>
</table>

22 Suttles notes in his prepublication manuscript grammar that 5 ducks should have an [s], but didn't record one. Our data clearly showed an [s].
<table>
<thead>
<tr>
<th></th>
<th>WS</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>tqéceʔ</td>
<td>tqéceʔiws</td>
</tr>
<tr>
<td>9</td>
<td>tű:xʷ</td>
<td>tű:xʷiws</td>
</tr>
<tr>
<td>10</td>
<td>ʔápon</td>
<td>ʔapénwɔs</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>ʔapén=ɔws ?ʔ kʷ nɔc=ɪws</td>
</tr>
<tr>
<td>20</td>
<td>ʃkʷxíx</td>
<td>ʃkʷxíws</td>
</tr>
<tr>
<td>how many?</td>
<td>ʃkʷín</td>
<td>ʃkʷín=ɔws</td>
</tr>
<tr>
<td>a little</td>
<td>ʃkʷín</td>
<td>ʃkʷín=ɔws</td>
</tr>
</tbody>
</table>

5.10 =ɔtp vegetation, trees

<table>
<thead>
<tr>
<th></th>
<th>WS:387</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nɔcʔ</td>
<td>snɔc=ɔtp</td>
</tr>
<tr>
<td>2</td>
<td>yasefə</td>
<td>sʔiseʔ=ɔtp</td>
</tr>
<tr>
<td>3</td>
<td>tɪxʷ</td>
<td>stɪxʷ=ɔtp</td>
</tr>
<tr>
<td>4</td>
<td>xoʔəfton</td>
<td>sxoft=tp</td>
</tr>
<tr>
<td>5</td>
<td>tqéceas</td>
<td>stqecas=ɔtp</td>
</tr>
<tr>
<td>6</td>
<td>ʃxám</td>
<td>—</td>
</tr>
<tr>
<td>7</td>
<td>tʔaʔkʷs</td>
<td>tʔaʔkʷs=ɔtp</td>
</tr>
<tr>
<td>8</td>
<td>tqéceʔ</td>
<td>tqéceʔ=ɔtp</td>
</tr>
<tr>
<td>9</td>
<td>tű:xʷ</td>
<td>tű:xʷ=ɔtp</td>
</tr>
<tr>
<td>10</td>
<td>ʔápon</td>
<td>ʔápon=ɔtp</td>
</tr>
<tr>
<td>11</td>
<td>ʔápon ?ʔ kʷ nɔc=ɔtp</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>ʔápon ?ʔ kʷ yasefə=ɔtp</td>
<td></td>
</tr>
</tbody>
</table>
This seems to be quite a productive suffix. It is used in the names of some trees, and evoked vivid memories from our consultant in the context of the use of the (b) example below:

(36) a. ɕáməŋ=ɑt̪p  
     maple
b. ɕ̱q=ɑt̪p  
     spruce: the pokey one (the one used to spank)
     ɕ̱qʷ  
     get poked, get pricked

Note, as expected from the earlier discussion in §2, that this LS can co-occur with an independent NP headed by the generic word for tree:

(37) a. Ʌwín Ʌw̓ə ɬə-ɬiqət?  
     how many?  
     how many trees?  
     Det  
     Redup-tree/pl [AP:13-05-01:0.55]

b. Ʌwín=ɑt̪p Ʌw̓ə ɬə-ɬiqət?  
     how many?  
     how many=trees  
     Det  
     Redup-tree/pl

5.11 =mat  one piece, whole, number of kinds [WS]; pieces, kinds

Our consultant related the use of this LS to counting blankets in packs tied up together, getting ready for distribution at potlatch for example. Suttles documents is use as including number of kinds, e.g. Ʌw̓ə́n=mát how many kinds?
5.12  =ole?c counting bundles

Our consultant recognized this LS in the context of talking about a load to put on a boat or a wagon, for example, a bundle of blankets.

<table>
<thead>
<tr>
<th></th>
<th>WS:387</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>=ole?c</td>
<td>=ole?c</td>
</tr>
</tbody>
</table>

As with Suttles’ documentation, we were only able to record it in the number paradigm in conjunction with the #Root for one, with a stress difference and variable vowel quality as noted above. Outside of the #Root system, our consultant used this same suffix on a derived nominal signifying a load of bundled up things to go on board some mode of transport, such as a canoe or a wagon.

(38) a. *a:* to go on board
b. *a:* =ole?c a load (noun)

5.13  =owf:nxw ~ f:nxw years

<table>
<thead>
<tr>
<th></th>
<th>WS:387</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>=owf:nxw</td>
<td>=owf:nxw</td>
</tr>
<tr>
<td>2</td>
<td>=owf:nxw</td>
<td>=owf:nxw</td>
</tr>
<tr>
<td>3</td>
<td>=owf:nxw</td>
<td>=owf:nxw</td>
</tr>
</tbody>
</table>

The following examples show that this construction can be used with two different kinds of subordinate predication:

(39) a. n~w·  θom=f:nxw ni-m  hay-nox.
    Aux-already 2=year Aux-1sSubSu finish-n.tr
    It's two years since I finished.

b. n~w·  θom=f:nxw  k~an-s  no hay-nox.
    Aux-already 2=year Det-1sPoss-nom Aux finish-n.tr
    It's two years since I finished.
Alternatively, this same type of expression can be grammatically constructed without the use of LSs, by using the independent word syəfəməm year after an unsuffixed #Root, as shown in (40).

(40) a. ṭixʷ syəfəməm kʷ-ən-s no hay-nəxʷ.
   3 year Det-1sPoss-nom Aux finish-n.tr
   It's three years since I finished.

5.14 =emətʰ =-emətʰ long objects

Suttles [WS:388] cites this as applying to poles, pilings, toothpicks, hairs, as well as to a tall person. Guerin (1986) also describes its domain of application as to 'anything long and slender' including trees. The contexts of use in our data included sticks as well.

<table>
<thead>
<tr>
<th></th>
<th>WS:388</th>
<th>AP</th>
<th>AG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 {Dim}</td>
<td>nəcəʔ</td>
<td>nəc-émaθ⁰</td>
<td>s-nəc-émaθ⁰</td>
</tr>
<tr>
<td>2</td>
<td>yətsəʔ</td>
<td>—</td>
<td>ṭaʔsaʔ-émaθ⁰</td>
</tr>
<tr>
<td>3</td>
<td>ṭixʷ</td>
<td>—</td>
<td>ṭixʷ-émaθ⁰</td>
</tr>
<tr>
<td>4</td>
<td>ɛχʔafən</td>
<td>—</td>
<td>ɛχʔafən-émaθ⁰</td>
</tr>
<tr>
<td>5</td>
<td>tʃəcənas</td>
<td>—</td>
<td>tʃəcənas-émaθ⁰</td>
</tr>
<tr>
<td>6</td>
<td>ɛχəm</td>
<td>—</td>
<td>ɛχəm-émaθ⁰</td>
</tr>
<tr>
<td>7</td>
<td>ɛnʔkʷəs</td>
<td>—</td>
<td>ɛnʔkʷəs-émaθ⁰</td>
</tr>
<tr>
<td>8</td>
<td>tʃəcəʔ</td>
<td>—</td>
<td>tʃəcəʔ-émaθ⁰</td>
</tr>
<tr>
<td>9</td>
<td>tʊxʷ</td>
<td>—</td>
<td>tʊxʷ-émaθ⁰</td>
</tr>
<tr>
<td>10</td>
<td>ʔapən</td>
<td>—</td>
<td>ʔapən-émaθ⁰</td>
</tr>
<tr>
<td>15</td>
<td>—</td>
<td>—</td>
<td>ʔapən ?ʔ kʷ tʃəcənas-émaθ⁰</td>
</tr>
</tbody>
</table>

how many? kʷin sʔkʷənəmaθ⁰
tall ḡeqt ḡeqt-émaθ⁰ ḡeqt-émaθ⁰

The following example from Guerin counts poles:

3 year Det-1sPoss-nom Aux finish-n.tr
It's three years since I finished.
5.15 s-...-s Days of the Week (... second, third, fourth, fifth)

This is a minor construction, formed by prefixation of the s-nominalizer and suffixation of an -s, whose identity is somewhat mysterious. Although not formed by Lexical Suffixation (the -s is obligatory, no syntactic paraphrase is possible), it is included in our discussion here because it entails an application of the number system to a small subset of very common forms, namely the days of the week. These are 'counted' as ordinals under the assumption that Monday is the first day of the week; however, the overt use of numbers begins only with Tuesday, the second day, and extends through Friday, the fifth day.

<table>
<thead>
<tr>
<th></th>
<th>WS:388, 434</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nsna?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>yaseko</td>
<td>sΘamants</td>
</tr>
<tr>
<td>3</td>
<td>tixw</td>
<td>stixw's</td>
</tr>
<tr>
<td>4</td>
<td>xoʔaθan</td>
<td>sxoʔaθan</td>
</tr>
<tr>
<td>5</td>
<td>tʃɛcəs</td>
<td>stʃɛcəs</td>
</tr>
</tbody>
</table>

Suttles notes that although he did not record a final [s] on the form for five that one might expect one to be there. Our data confirms its presence.

5.16 Concluding Remarks

We are only too aware of the residual gaps in these data and of many challenges in their analysis which space limitations have precluded more detailed consideration of here. However, we sincerely hope that the present effort to extend the documentation of data in this area will encourage others to help fill in information where it is lacking in our current records, as well as stimulate further cross-dialectal documentation of the LS system across the language.

---

[33] Θam-ant two days appears derived from the suppletive allomorph Θam-two, plus a reduced form of the root net night (cf. WS:182). However, compare three days tʃax-Ænt, where there is a 'connective' -Ænt between the #Root tʃax and net.
family, so that the detailed workings of this very old Salishan system may remain a vital part of contemporary Salish language use.

References:


Blake, Susan J. 2000. Lexical Suffixes are Bound Roots: Phonological Evidence from Lillooet and Sliammon, invited presentation at the Workshop on the Structure and Constituency of Languages of the Americas (WSCLA 5), University of Toronto.


