

Numeral classifiers in Halkomelem

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Of the over one hundred lexical suffixes in Halkomelem Salish, around thirty function as numeral classifiers. This paper discusses the syntax and semantics of Island Halkomelem numeral classifiers. The combination of numeral plus classifying lexical suffix yields a form that can be used attributively or anaphorically. We outline the classificatory system, discussing the meaning of each suffix and the nouns that it classifies. Specific lexical suffixes classify key elements of Salish culture, including people, fish, waterfowl, plants, houses, and canoes. However, most inanimate objects are classified on the basis of their shape. New items get added to the system according to their shape or function.

1 Introduction¹

This paper focuses on lexical suffixes used as numeral classifiers in Halkomelem, a Central Salish language.² As has been noted for other Salish languages, Halkomelem uses a sub-set of lexical suffixes as numeral classifiers. Of the approximately 120 lexical suffixes in this language, around thirty are used as classifiers. They attach to numerals and quantifiers ('how many', 'many') but not to articles or demonstratives:³

¹ We would like to Wayne Suttles for sustained advice on the semantics of lexical suffixes. Thanks also to Alexandra Aikhenvald, Michelle Parent, and Charles Ulrich for comments and corrections. Remaining errors are our own responsibility. A shorter version of this paper is published as section 2 of Gerds and Hinkson (to appear), which also discusses the historical original of the Halkomelem classifying suffixes.

² Halkomelem is spoken in the vicinity of Vancouver, British Columbia, and on Vancouver Island. Unless otherwise indicated, data come from our field research on the Island dialect of Halkomelem. We would like to thank the speakers who have helped us with this project: Wilfred Aleck, Cecelia Alphonse, Leonard Edwards, Hazel Good, Arnold Guerin, Margaret James, Ruby Peter, Dora Sampson, Steve Sampson, Sr., Wilfred Sampson, and especially Theresa Thorne. Funding for our research has come from Jacobs Fund, SSHRC, Simon Fraser University, and the University of Victoria.

³ Abbreviations used in this paper are: ASP aspect, AUX auxiliary, BEN benefactive, CON connective, CS causative, DT determiner, EMPH emphatic, ERG ergative, EVID evidential, FUT future, LCTR limited control transitive, MID middle, NEG negative, NM

- (1) t̥q̥ɛ́s=əm̩ə́t̥^θ ʃeɪ
 four=long road
 ‘four roads’
- (2) k̥ʷi n=əqən ʃθəm?
 how.many=container box
 ‘How many boxes are there?’
- (3) ni? ʔəw̩ qəʃ=mat kʷθə ləʃʷtən ni? t̥əyər̩m-t-əxʷ
 AUX Q.CN lot=part DT blanket AUX stick-TR-2SSUB
 ʔə kʷθə ʃxʷʔam̩ət-s tən̩ siɪə?
 OBL DT bed-3POS DT:2POS grandparent
 ‘Did you put a lot of blankets on your grandmother’s bed?’

There are three dialects of Halkomelem—Island, Downriver, and Upriver. This topic has been previously addressed in Island Halkomelem by Leslie (1979), who briefly illustrates six suffixes, and Hukari & Peter (1995), who give an extensive list of lexical suffixes and illustrate many of them with numerals. Suttles (in preparation) identifies seventeen suffixes appearing on numerals in Downriver Halkomelem and gives partial paradigms, and Shaw et al. investigate a sub-set of Suttles’ suffixes, but give complete paradigms, commenting on details of phonology. Galloway (1993) identifies twenty suffixes in Upriver Halkomelem and sets up a useful typology of features. For example, he asks for each suffix : can it also be used on noun and verbs; can it be used with *kwi:l* ‘how many?’; what numbers can it be used with, and is it optional or obligatory?

This paper reports on our on-going research on lexical suffixes in Halkomelem. It is the first systematic look at the topic from the typological point of view of a classificatory system. Like previous researchers, we collected examples of the use of numeral classifiers from texts and then elicited paradigms and sought information about the sort of meanings the classifiers convey. In addition, we worked backwards from a list of nouns (both native and borrowed) to see how each fit into the classifier system. Also, we used a catalog of pictures designed to elicit subtleties in the use of classifiers. We worked with individual speakers and groups of speakers. What we found is that our consultants had excellent control of the classifier system. They unhesitatingly knew whether a classifier should be used or not and if so which one, even for modern objects that they had never heard referred to in Halkomelem. They were almost always in agreement about what classifiers could be used for a noun in a particular context and had a clear sense of the semantic nuances when options were available. They could easily count out a paradigm with a classifier extending to

nominalizer, OBJ object, OBL oblique, PAS , passive, PL plural, POS possessive, PR prefix, Q interrogative, SSUB subordinate subject, SUB subject, and TR transitive.

numbers as high as ninety-nine though they also commented on the unlikelihood of a situation arising that would require precisely counted higher numbers of certain objects. There was, however, some phonological differences between speakers, manifested in differences in vowel quality, stress, and length, and also in the glottalization of resonants. We put aside phonological aspects of this domain for future research.

In this report, we first briefly illustrate the range of functions of lexical suffixes, situating numeral classification with respect to other uses of the suffixes. An important point that we feel has been overlooked in previous studies is that all suffixes that appear on numerals are not in fact classifiers. This is in part what the typology of Galloway reveals. Once we delineate a class of true classifiers, we can make much more precise comments about the morphosyntax (section 2) and the semantics (section 3) of numeral classifiers. The system that emerges from the investigation of the meaning of the suffixes and the nouns that they classify matches our expectations of classificatory systems based on cross-linguistic typology.

1.1 Compounding and classifying lexical suffixes

Lexical suffixes are bound forms with the meanings of nouns (Kinkade 1963:352). Today they usually bear little or no resemblance to free-standing nouns of the same or similar meaning:⁴

(4)	=aləs	‘eye’	qələm	‘eye’
	=šən	‘foot, leg’	sšəhə	‘foot’
	=ešən	‘arm, wing’	ʔeləw	‘arm, wing’
	=ewtx*	‘building, room’	leləm	‘house’
	=eyət	‘baby, child’	qeɣ	‘baby’

However, comparative evidence shows that lexical suffixes derive historically from nouns (Egesdal 1981, Mattina 1987b, Carlson 1990, Kinkade 1998).

⁴ Each suffix appears in a variety of phonological shapes: with and without a full vowel (correlating with stress), with and without glottal stops or glottalization of resonants, with and without a connective morpheme between the stem and the suffix. In addition, there are sometimes truncated forms used in older, frozen contexts. So, for example, the suffix meaning ‘mouth, edge, blade’ variously appears as =aʔaʔθ, =aʔθ, =aʔθən, =θən, =θin, or =θ. We will represent the Halkomelem suffix by its simplest form, and we will not segment the connective elements—*Vj*, *Vl*, and *Vw*—when representing the Halkomelem data.

While we have found considerable variation both within the speech of individuals and across speakers, certain phonological processes generally take place. Many lexical suffixes of the shape =VCVX trigger vowel reduction or loss in CVC roots. This is may be stress conditioned although a detailed study is yet to be carried out. Lexical suffixes of the shape =CVX generally trigger vowel reduction (as opposed to loss).

Lexical suffixes developed from nominal roots used as the right-hand member of a compound. The historical picture in Salish is that the second element in a compound was phonologically shortened and eventually became a bound form. New, longer, free-standing forms were invented; these often themselves contain the original form, which is now a lexical suffix.

Gerdts and Hinkson (1996), propose that the functions of lexical suffixes can be organized according to the following cline: **compounding lexical suffix > classifying lexical suffix**. The lexical suffix has the lexical and semantic properties of a noun when used in compounding functions, but it becomes acategorical and semantically bleached when used as a classifier. Thus the suffixes grammaticize from a lexical entity to a grammatical one. We see these two types of function at work in the use of lexical suffixes today.

The most transparent use of lexical suffixes occurs when they are suffixed to a noun, verb, or adjective root to derive a noun.⁵

(5)	saχ ^w əl=e ^w tx ^w	'barn'	[grass=building]
	təχ ^w a [?] c=əlp	'yew tree'	[bow=plant]
	ti ^w əyəl=e ^w tx ^w	'church'	(pray=building)
	?itət=əlwət	'pajamas'	(sleep=garment)
	p̄q̄=e ⁿ x ^w	'a white flower'	(white=flower)
	x ^w -χ̄əqt=nəc	'cougar'	(PR-long=tail)

This use is still productive and is a common means for creating vocabulary to accommodate new items.

Lexical suffixes also commonly appear in complex predicates. That is, they are attached to a verb stem and the resulting compound functions syntactically as the main predicate of a clause. They can express a theme (6) or an oblique relation, such as locative or instrument (7).

(6)	q ^w s=e ^y ən	'set a net'	(go.into.water=net)
	səw̄q̄=i ^w s	'search for a lost person'	(seek=body)
	l̄c̄=əlqən	'shear wool'	(cut=animal hair)
(7)	q̄t=aθən	'walk along (a shore etc.)'	(go along=mouth)
	q̄ət=nəc	'go around end of lake'	(go along=bottom)
	q̄a=šin-t	'accompany him'	(add=foot-TR)

Lexical suffixation of the theme leads to an intransitive construction that parallels compounding noun incorporation (Gerdts 1998).

⁵ Throughout this paper, we assume, following Suttles (in preparation), that Halkomelem has the categories noun, verb, and adjective. See Czaykowska-Higgins & Kinkade (1998:35-37) for a history of the debate concerning categories in Salish. Also see Montler (2001) for a presentation of the evidence for the category adjective in the nearby language Klalam.

- (8) ni? cən škʷ=əyəł.
 AUX 1SUB bathe=baby.
 'I bathed the baby.'

Halkomelem person marking follows a split ergative pattern. First and second person subjects in main clauses are marked by clitics in Wackernagel's position while objects are marked by verbal suffixes. Third person subjects in transitive main clauses determine ergative agreement:

- (9) ni? šakʷ-ət-əs ɬə sɬeni? ɬə qeq.
 AUX bathe-TR-3ERG DT woman DT baby
 'The woman bathed the baby.'

Word order is usually VSO, though VOS is also possible. Subject and object noun phrases are not marked for case. Determiners mark deixis and gender.⁶ Transitive verbs are marked with one of several suffixes: -ət 'control transitive', -n(əxʷ) 'limited control transitive', -st(əxʷ) 'causative', etc. We see that the clause in (9) is surface-transitive since the verb is marked for transitivity, the two noun phrases appear without case, and the subject determines ergative agreement. The parallel clause with lexical suffixation is intransitive:

- (10) ni? škʷ=əyəł ɬə sɬeni?
 AUX bathe=baby DT woman
 'The woman bathed the baby.'

The verb in the above example lacks a transitive suffix and an ergative agreement suffix.⁷

We refer to the above uses of lexical suffixes as compounding. In each of the above cases, the lexical suffix stands in for a noun, either as a head of a compound, as in (6), or as a noun argument of the verb, as in (7).

Lexical suffixes can also be used as classifiers. When lexical suffixes are used as classifiers on nouns or adjectives, the base, not the lexical suffix, is the head of the resulting word.

- | | | | |
|------|--------------|--------------------|--------------------|
| (11) | s-ǫʷxʷam=əws | 'body odor' | (PR-odor=body) |
| | šəqt=e mətʰ | 'tall' (of people) | (long=long.object) |
| | c-ǫʷxʷ=elč | 'black-haired' | (PR-black=hair) |
| | ?iy=əs | 'happy' | (good=face) |
| | xʷ-θi=qən | 'loud' | (PR-big=throat) |

⁶ The determiners include: *tʰə* 'general in view' *kʷθə* 'general out of view', *θə* 'feminine singular in view', *ɬə* 'feminine singular out of view', *kʷ* 'indefinite', and *š* 'proper noun' (oblique case only).

⁷ Sometimes the intransitive verb may have a syntactically active theme manifested as the oblique object of an intransitive. This is not addressed in this paper.

Lexical suffixes can also be used as classifiers on verbs. In a classifying construction, the verb takes a transitive suffix, and a free-standing object that references the same entity as the lexical suffix.

- (12) niʔ tʰəʃ=wil-t-əs tʰə ləpat.
 AUX wash=vessel-TR-3ERG DT cup
 ‘She washed the cups.’

This is a surface-transitive construction, as evidenced by the third-person ergative agreement, and thus contrasts with the example of compounding lexical suffixation in (10) above. See Gerdts and Hinkson (1996) for further discussion on this construction.

In sum, we see that lexical suffixes are used in two types of constructions—compounding and classifying. Most lexical suffixes can appear in either type of construction, though a few suffixes are restricted to only one type or the other.

1.2 Numerals and suffixes

Our research has shown that most of the lexical suffixes that are used on verbs or adjectives can also be used on numerals, if a context can be provided to make sense out of the resulting combination. It is important to note, however, that the resulting constructions do not all constitute classifier expressions. Many of these combinations are simply compounds, that is, the polysynthetic equivalent of a phrase consisting of a numeral and a noun, which are then used as noun phrases, attributively as modifiers, or as quantifying expressions (often referred to as measure words). So our first task, before proceeding, is to set criteria for telling compound numeral suffixes from classifying numeral suffixes. Aikhenvald (2000:114–120) provides the methodology for doing this.

First, we can exclude all suffixes designating mathematical concepts and measure words: for example, =ətʃeʔ ‘ten’, =et ‘times’, =əleʃən ‘yard’, =tel ‘fathom’, and =əwu:nxʷ ‘year’ (from ‘fish run’, ‘season’).

- (13) ni-i-iʔ ʃəθən=eɪ kʷəs ʃaxʷəkʷəm tʰəw̃niʔ niʔ
 AUX four=times DT swim-IMP DT AUX
 ʔə tʰeý nəčəʔ ʃacaʔ.
 OBL DT one lake
 ‘He bathed four times at this one lake.’

- (14) wəɪ tʰəkʷs=əwu:nxʷ ceʔ ʔiʔ nəm cən skʷul-stəxʷ.
 now seven=year FUT and go 1SUB school-CS
 ‘I’ll send him to school when he is seven years old.’

Second, we can exclude all suffixes that never appear in a sortal or mensural relation with a free-standing noun. By this criterion, we can exclude several somatic suffixes: =cəs 'hand'⁸, =aləwɔcəs 'finger', =ʃən 'foot', =alqɔsən 'nose' (used in counting points), =aʃən 'side' (used in describing shapes, e.g. a triangle), and =aɣaʔθ 'mouth, edge' (used in counting prongs on spears).

- (15) ɪxʷaɣaʔθ tʰə sʔənəms tʰə swiwləs naʔət yəʔiməð.
 three=edge DT spear-3POS DT young.man there PR-walk-IMP
 'The young man going by has a three-pronged spear.'

It is clear that these suffixes are used as compounding lexical suffixes. The thing being counted is the suffix itself and not the noun referred to by the suffix. For example, in (16), 'tires' (> 'feet') not 'cars' are being counted.

- (16) tɪxʷ-ɪxʷ=ʃən ʔaɪ tʰə snəxʷət.
 only-three=foot only DT canoe
 'The car only has three tires.'

A parallel construction in English would be one like 'four-legged animal'.

In contrast, in the case of a sortal classifier, the noun has the same referent as the suffix:

- (17) ɪxʷ=əqən ʃθəm
 three=container box
 'three boxes'

In many instances, the lexical suffix emphasizes one feature of the noun, but the construction nevertheless refers to the noun as a whole:

- (18) ɪqəɛs=əmətʰ ʃət
 five=long road
 'five roads'

Lexical suffixes can also be used in mensural expressions. Mensural classifiers are determined by the quantity of the object or the arrangement that it occurs in.

- (19) ɪxʷ=əqən sqewθ
 three=container potato
 'three sacks of potatoes'

⁸ The suffix for 'hand' is used in some Salish languages as a measure word indicating 'handful' or 'cupful'.

In such examples, it is the head noun that is being counted, and thus true classifying lexical suffixes differ from compound ones such as the ‘three-tired car’ illustrated in (16) above.

Using these criteria leaves us with a core set of suffixes that function as numeral classifiers. These will be explored in the subsequent sections.

2 The morphosyntax of numeral classifiers

Numerals are adjectives in Halkomelem. In NPs, they appear between determiners and head nouns, like other adjectives, and they do not head an NP.

(20) ʔəmi-stəxʷ č kʷθə ɬixʷ *(χθəm)!
 come-CS:3OBJ 2SUB DT three box
 ‘Bring the three *(boxes)!’

(21) ʔəmi-stəxʷ č kʷθə θi *(χθəm)!
 come-CS:3OBJ 2SUB DT big box
 ‘Bring the big *(box)!’

Adjectives, including numerals, can take lexical suffixes. These can be used attributively, like plain adjectives, to modify a noun as in (20) and (21), but they can also be used anaphorically—without a head noun.

(22) ʔəmi-stəxʷ č kʷθə ɬixʷ=əqən (χθəm)!
 come-CS:3OBJ 2SUB DT three=container box
 ‘Bring the three (boxes)!’

(23) ʔəmi-stəxʷ č kʷθə θe=qən (χθəm)!
 come-CS:3OBJ 2SUB DT big=container box
 ‘Bring the big (box)!’

Question (24) lacks a lexical suffix (and thus we see that numeral classifiers are often omitted in Halkomelem), while the reply in (25) uses the lexical suffix, but omits the head noun, which would be regarded as redundant in this context.

(24) ʔi ʔə ɬixʷ kʷəñ sənixʷəl ʔələp?
 AUX Q three DT:2POS canoe.PL 2PL
 ‘Do you all have three canoes?’

(25) ʔəwə, ʔəw θəm=əxʷəl ʔal.⁹
 NEG just two-canoe just
 ‘No, just two.’

⁹ The bound root *-θəm-* is an older form for ‘two’.

The answer without the classifier is possible but less preferred.

Within the noun phrase, the numeral plus lexical suffix will appear between the determiner and the noun phrase, as in (22) above. The noun phrase can function in any syntactic position usually occupied by a noun phrase. For example, it can function as subject (26), object (27), or an oblique marked phrase (28).¹⁰

(26) niʔ ɖʷəyələʃ kʷθə ʃəθi:nə ɖeləmiʔ.
AUX dance DT four.people girl.PL
'Four girls danced.'

(27) niʔ ct ɖʷəm-ət kʷθə yəsələ=nəc kʷəmləxʷ.
AUX 1PL.SUB uproot-TR DT two=bottom root
'We dug up two roots.'

(28) ʔiχəm cən ceʔ ʔə kʷ ʔəpan=əs.
lend 1SUB FUT OBL det ten=round
'I will lend ten dollars.'

The head noun can be singular as in (29) or plural as in (26) above.

(29) teʔcs=elə kʷθə nə sčəməqʷ.
eight=people DT 1POS great.grandchild
'I have eight great-grandchildren.'

[Compare *sčələməqʷ* 'great-grandchildren'; *ɖemiʔ* 'girl'.] Plural inflection, marked by the infix *-l-* (and glottalization of resonants) or by reduplication, is in general optional in Halkomelem, especially where the context makes number clear. For some frequently used nouns such as terms for people and the larger items of material culture, marking plurality is preferred to not marking it.

Like other noun phrases, the counted noun can appear in a clause-initial focus position. The phrase serves as a predicate nominal in expressions of these sorts, followed by a determiner-headed relative clause:

(30) kʷin=əqən ʃθəm kʷə niʔ ʔiləq-ət-əxʷ?
how.many=container box DT AUX buy-TR-2SSUB
'How many boxes did you buy?'

¹⁰ Halkomelem subjects and objects are bare noun phrases, while non-terms—such as locatives, instruments, as well as themes (secondary objects) in antipassives and ditransitives— are preceded by the catch-all preposition ʔə. For a general introduction to Halkomelem syntax see Gerdts (1988) and Gerdts & Hukari (to appear).

In addition, the numeral and lexical suffix alone can appear as a predicate adjective in clause initial position:¹¹

- (31) $\check{\text{x}}\text{ə}\theta\text{i}\text{n}=\text{əw}\text{ə}\check{\text{t}}$ $\text{k}^{\text{w}}\theta\text{ə}$ $\text{n}\text{ə}$ $\text{pu}^{\text{?}}\text{ə}\text{l}\text{t}$.
 four=canoe DT 1POS boat.PL
 'I have 4 boats.'

Like other adjectives, numerals with lexical suffixes can undergo further derivation. For example, they can take the inchoative prefix $x^{\text{w}}\text{ə-}$ and they can become transitive predicates through the addition of the causative suffix $-\text{st}(\text{əx}^{\text{w}})$.

- (32) $x^{\text{w}}\text{ə-}\check{\text{t}}x^{\text{w}}=\text{əmat-stəx}^{\text{w}}$ $\check{\text{c}}$ $\check{\text{k}}^{\text{w}}\text{ə}\check{\text{n}}\text{s}$ $\check{\text{h}}\check{\text{c}}-\text{ət}$
 become-three-part=CS:3OBJ 2SUB DT:2POS:NM cut-TR
 $\text{t}^{\text{ə}}\text{ə}$ $\text{sce}:\text{t}\text{ə}\text{n}!$
 DT salmon
 'Cut your salmon into three chunks!'

- (33) $\text{t}x^{\text{w}}-\text{y}\text{əs}\check{\text{ə}}\check{\text{l}}=\text{aləs-stəx}^{\text{w}}$ $\check{\text{c}}$ $\text{t}^{\text{ə}}\text{ə}\check{\text{n}}$ $\text{sya}:\text{ys}$ $\text{?i}^{\text{?}}$ $\text{?əy}^{\text{?}}$.
 only-two=loop-CS:3OBJ 2SUB DT:2POS work and good
 'It will be better if you do two more rounds in your knitting.'

Thus numerals with lexical suffixes show for the most part the distributional properties of adjectives, which seem to be a subclass of adjective. The one apparent exception is the fact that numerals with lexical suffixes can be used anaphorically, appearing as the superficial head of an NP, as in (25). However, we noted this is also a feature of adjectives with lexical suffixes, as in (23). An open issue is whether these function as NP heads or as modifiers of null heads. In some instances, the use of a numeral with lexical suffixes without a head noun goes beyond contextual anaphora. The suffix $=\text{as}$ to denote money is a notable example, as in (28), where $^{\text{?}}\text{əpan}=\text{əs}$ is normally construed quite specifically to mean 'ten dollars'.

3 The Semantics of Numeral Classifiers

In this section we turn to an exploration of numeral classifiers in Halkomelem. In Table 1, we exemplify twenty-four classifying lexical suffixes found to appear on numerals in Halkomelem. We use the number tix^{w} 'three' as the base. Suffixes are sorted by the kinds of objects they classify and glossed with a typical noun that they classify. In subsequent sections, we discuss each group of suffixes.

¹¹ Halkomelem lacks a verb for 'have'; possessive expressions like (31) are a common means of expressing this notion.

HUMAN/ ANIMAL	NATURAL ENVIRONMENT	MATERIAL CULTURE	SHAPE/ SIZE	CONTAINERS, GROUPS
ix ^w =elə 'three people'	s-ix ^w =əlp 'three trees'	ix ^w =əwtx ^w 'three houses'	ix ^w =əs 'three dollars'	ix ^w =əqən 'three containers'
ix ^w =eyt 'three children'	ix ^w =nec 'three root plants'	ix ^w =əwət 'three canoes'	ix ^w =aləs 'three loops'	ix ^w =ələ [?] c 'three loads'
ix ^w =iws 'three ducks'	ix ^w =enx ^w 'three plant parts'	ix ^w =e:lwəs 'three paddles'	ix ^w =əyəs 'three coils'	ix ^w =əmat 'three pieces, piles'
ix ^w =a [?] q ^w 'three fish (heads)'	ix ^w =əlcəp 'three pieces of firewood'	ix ^w =əlwət 'three garments'	ix ^w =als 'three spheres'	
ix ^w =elqł 'three pieces of game'	ix ^w =ənəp 'three plots of land'		ix ^w =əmət ^θ 'three long thin objects'	
			ix ^w =ət ^θ e [?] 'three strands'	
			ix ^w =a [?] q ^w 'three heads'	

Table 1 Haikomelem numeral classifiers.

3.1 Classifying humans and animals

For numbers three and higher, the lexical suffix *=elə* is used to classify people.

	NUMBER	NUMBER + LEXICAL SUFFIX	GLOSS
		=elə	people
3	ix ^w	ix ^w elə	three people
4	ʃəʔaθən	ʃəθi:nə	four people
5	lqecəs	lqecselə	five people
6	lʃəm	lʃəmələ	six people
7	l ^θ aʔk ^w əs	l ^θ ək ^w selə	seven people
8	teʔcəs	teʔcselə	eight people
9	tu:x ^w	tu:x ^w elə	nine people
10	ʔapən	ʔəpe:nə	ten people
20	ck ^w əʃ	ck ^w ʃelə	twenty people
how many?	k ^w in	k ^w i:nə.	how many people?

Table 2 Halkomelem classifiers for people.

The suffix is used to count people of all types—men, women, children, elders, friends, relatives, and professionals:¹²

- (34) ʃəθi:nə swaw^wləs t^θə x^w-l^θʃ^w=wi:l-stəm.
four:people boy.PL DT PR-wash=vessel-CS:PAS
'They had four boys do the dishwashing.'
- (35) lʃəm=elə k^wθə sʃəl^wiqəl niʔ ne:-təm.
six=people DT children AUX name-PAS
'Six children got named.'
- (36) niʔ q^waʔ-təm ʔə k^wθə syays k^wθə l^wx^w=elə x^wiyaθənəq.
AUX add-PAS OBL DT work DT three=people language.teacher
'Three language teachers were hired.'

First and second person pronouns are also be counted with *=elə*.

¹² With numbers ending in /n/, like ʃəʔaθən 'four' and ʔapən 'ten', lexical suffixes show deletion of an /l/ or /n/. Also we sometimes see vowels of lexical suffixes being deleted with compensatory lengthening of the last vowel of the number.

- (37) ʔi ct ʔəw txʷ-t̚xəm=ələ ʔal.
 AUX IPL.SUB just only-six=people just
 'There are just six of us now.'

As has been noted by Anderson (1999), many Salish languages use reduplicated forms of numerals for counting people and animals. He reconstructs *CVC-, *CV-, and *-VC reduplication for counting people and *CV- diminutive reduplication for counting animals. This system of classification is prevalent in Interior Salish languages and also in some of the Central Salish languages, e.g. Squamish and Lushootseed. However, in Halkomelem, the only remnant of this system is with the numbers 'one' and 'two' when counting people.

- (38) nəčəʔ 'one' nañəčəʔ 'one person' nəčna:nčə 'one person at a time'

- (39) yəselə 'two' yeysələ 'two people' yəsyeyələ 'two people at a time'

As seen by comparison to the numbers for 'one' and 'two' in the first column, the forms for 'one person' and 'two people' show CV reduplication with a full vowel, and glottalization of a resonant. The meanings 'one person at a time' and 'two people at a time' are indicated with double reduplication.¹³ These forms function as classifiers.

- (40) niʔ qʷals tʰey̆ nañəčəʔ swəy̆qeʔ.
 AUX speak DT one.person man
 'One man spoke.'

- (41) səw txʷ-yeysələ ct kʷəʔeɫ xʷəwe
 NOM-COMP only-two:people IPLSUB indeed not-yet
 niʔ-ət kʷən nəxʷ kʷs xʷə-təcsətšéʔ ct silənəm.
 AUX-IPLSSUB take-LCTR:3OBJ DT become-thirty IPLPOS year
 'So there are two of us only that have not yet reached their eightieth year.'

One other lexical suffix is used on numerals to refer to people: =eyəl 'child' (see (10) above).

- (42) t̚xəm=eýɫ kʷθə nə sčaləməqʷ.
 six=child DT IPOS great-grandchild.PL
 'I have six great-grandchildren.'

¹³ The doubly reduplicated forms show CVC reduplication of the root as the first prefix and then CV reduplication is infix into the second position. See also Lushootseed (Bates, Hess, Hilbert 1994:79).

We see though that this suffix can also be added to a form that already has the suffix =*elə*.¹⁴

- (43) *t̚xəm=ələ=eýt* *kʷθə* *nə* *sčaləməqʷ*.
 six=people=child DT IPOS great-grandchild.PL
 ‘I have six great grandchildren.’

The plain numeral or the reduplicated forms for one or two people can also occur with the lexical suffix =*eyəl*.

- (44) *yəsəl=eýt*.
 two=child
 ‘two children’

- (45) *yeýsəl=eýt*
 two.RED=child
 ‘two children’

This is the only case we have seen of lexical suffixes used as numeral classifiers stacking in this fashion.

Turning now to other animates, there are no generic words for ‘animal’, ‘bird’, ‘fish’, etc. and there are also no general classifiers for non-human animates.¹⁵ Usually, animals and birds are counted without a classifier:

- (46) *t̚eʔcəs* *t̚ə* *p̚əp̚iʰ=əl̚məxʷ-təm* *mələsməs*.
 eight DT squeeze=breast-PAS cow.PL
 ‘There were eight cows to milk.’

Furthermore, Halkomelem, unlike many Salish languages (Anderson 1999) does not use reduplication for counting animals. However, three lexical suffixes are regularly used for counting certain types of animals. The suffix =*aʔqʷ* ‘head’ is used to count fish, fish heads, and round and cylindrical-shaped sea-life such as chitons, clams, oysters, sea urchins, and sea cucumbers.¹⁶

- (47) *niʔ* *cən* *xʷšam=əs-t* *kʷθə* *t̚xəm=aʔqʷ* *sče:ɬtən*.
 AUX 1SUB smoke=face-TR DT six=head salmon
 ‘I smoked six fishheads.’

¹⁴ Hukari & Peter (1995) also notes the form *yeýsələýt* ‘have two children’, which shows the reduplicative form for ‘two people’ as well as the lexical suffix.

¹⁵ This is not to say that there are no words for types of animals, birds, etc.

¹⁶ Note on this example the suffix on the verb refers to ‘face’ while the suffix on the numeral refers to ‘head’. This shows that verb classifiers and numeral classifiers diverge.

- (48) ɬix^w=aʔq^w ʔəʔ^wʔəx^w k^wθə niʔ nə sʔəɬtən.
 three=head oyster DT AUX IPOS food
 'Four oysters is what I had to eat.'

The suffix =aʔq^w is also used for round objects and appears in the section on shape classifiers below.

The lexical suffix =iʔs 'body' is used to count waterfowl and chickens.

- (49) niʔ cən ləm-nəx^w k^wθə ɬix^w=iʔs maʔaq^w.
 AUX ISUB look-LCTR DT three=body duck
 'I saw three ducks.'

In addition, as Suttles (in preparation) notes, rabbits and other small game can be counted with =iʔs. We have found that carcasses of larger game animals and domestic animals, such as elk, sheep, and horses can also be counted with this suffix.

- (50) niʔ cən k^wəɬəʔ-t k^wθə ʔθin=iʔs sqəqəweθ.
 AUX ISUB shoot-TR DT four=body rabbit
 'I shot four rabbits.'

- (51) ɬix^w=iʔs səmiyəθ ʔiʔ hən-cəw^w-nəx^w-əs k^wθə swəyqeʔ.
 three=body deer.PL and go-down-LCTR-3ERG DT man
 'The man managed to bring down three deer from the mountains.'

One speaker told us that dogs when they were alive could be counted with =elə, the suffix used for counting people, but they would be counted with =iʔs when they were dead.

- (52) a. ɬəxəm=eɬə t^hə sq^wəq^wəmeɣ̣.
 six=people DT dog.PL
 'There are six dogs.' (alive)
- b. ɬəxəm=iʔs t^hə sq^wəq^wəmeɣ̣.
 six=body DT dog
 'There are six dogs.' (dead)

Dogs had special status in Coast Salish culture since their hair was used to make blankets. Amoss (1993:26–27) points out that wool dogs were fed dried meat or fish, traveled with the family in the canoe, and were a measure of a woman's wealth. Other animals cannot be counted with =elə. So, although there is no special classifier for dogs in Halkomelem, as there is, for example, in Jacalteco (Craig 1986), they nevertheless are treated distinctly from other animals.

Suttles (in preparation) mentions the use in Downriver Halkomelem of the suffix =*elqt* meaning ‘catch, game’ in words like *təw=-élqt* ‘lose a fish, miss a shot, *q̄x=élqt* ‘have a big catch’, *k̄ʷin=əlqt* ‘how many caught’. One Island speaker we worked with suggested that game could be counted with this suffix: *ixʷəm=elqt* means ‘six pieces of game’ and *ʔapənəlqt* means ‘ten pieces of game’. But she suggested that the suffix was old-fashioned and preferred using the suffix =*iws* for caught birds and animals.

3.2 Classifying the natural environment

Several lexical suffixes are used to count elements of the natural environment, including plants, firewood, and ground.

	TREE	FIREWOOD	GROUND
	=əlp	=əlcəp	=ənəp
1	snəčəlp	nəčəlcəp	nəčənəp
2	syəseʔəlp syəseləʔəlp	yəsələcəp	yəsələnəp
3	slixʷəlp	ixʷəlcəp	ixʷənəp
4	s̄xəθi:nlp	xəθiñəlcəp	xəθənənəp
5	l̄qecsəlp	l̄qecsəlcəp	l̄qecsənəp
6	s̄ixəməlp	ixəməlcəp	ixəmənəp
7	l̄ʰakʷssəlp l̄ʰaʔkʷsəlp	l̄ʰəkʷsəlcəp	l̄ʰakʷsənəp
8	teʔcsəlp	teʔcsəlcəp	teʔcsənəp
9	tu:xʷəlp	tu:xʷəlcəp	tu:xʷənəp
10	ʔapənəlp	ʔapənəlcəp	ʔapənənəp
20	ckʷəsəlp	ckʷəsəlcəp	ckʷəsənəp
how many?	k̄ʷinəlp	k̄ʷinəlcəp	k̄ʷinənəp

Table 3 Suffixes denoting elements of the natural environment.

The suffix =*əlp* refers to trees, bushes, and plants.

- (53) niʔ cən pən-ət l̄ʰə s̄xəθi:n=lp x̄peý.
 AUX 1SUB plant-TR DT four=plant cedar
 ‘I planted four cedars.’

- (54) ?əpen=əɪp tʰə sɪʰeʔqən.
 ten=plant DT cattail
 'There are ten cattails.'

Two other suffixes are used for counting plants. The lexical suffix =*nec* 'bottom' is used to count tubers such as potatoes, carrots, and camas, as well as tree roots.

- (55) ɬəxʷ=nəc sqewθ niʔ ɟʷəmə-təm.
 three=bottom potato AUX dig.up-PAS
 'There were three potatoes dug up.'

- (56) ?əpe:n=nec tʰə nə spe:nxʷ.
 ten=bottom DT IPOS camas
 'I got ten camas.'

Also, the suffix =*enxʷ* 'plant part' is used to count sprouts and shoots, as well as ears of corn or tomatoes when they are on the plant.

- (57) ?əpe:nxʷ tʰə sqewθ niʔ cisəm.
 ten:plant.part DT potato AUX grow
 'Ten potatoes sprouts grew.'

- (58) ɬəxʷ=enx tʰə kʷan
 three=plant.part DT corn
 'three ears of corn'

Firewood is counted with the lexical suffix =*əlcəp*.

- (59) ɬəxʷ=əlcəp ʃpeɻ niʔ yəɟʷ-təm.
 three=firewood cedar AUX burn-pas
 'Three pieces of cedar were burned.'

- (60) ?əpen=əlcəp kʷθə nə syaɭ niʔ xʷə-saɻ.
 ten=firewood DT IPOS firewood AUX become-ready
 'I have ten blocks of firewood ready.'

This suffix can refer to single pieces of wood for the fire as in (59) or to a chunk of a tree (a block) that is ready to be split into stove-sized pieces as in (60).

The suffix =*ənəp* 'ground' refers to a plot in a garden or the things planted there.

- (61) ni? cən pən-ət k*θə ɪx*ɛnəp ʃewəq.
 AUX 1SUB plant-TR DT three=ground carrot
 'I planted 3 plots of carrots.'
- (62) k*ɪ:nəp tʰəŋ spənəm.
 how.many:ground DT:2POS planting
 'How many different things are you planting?'

3.3 Classifying items of material culture

Lexical suffixes are used on numerals to refer to four key items of material culture: =eʷtʰx* 'house', =wət 'canoe', =e:lwəs 'paddle', and =elwət 'garment'. Other items of material culture may be classified according to shape or function, as discussed in sections 3.4 and 3.5 below.

	HOUSE	CANOE	PADDLE	CLOTHING
	=əwtʰx* =eʷtʰx*	=wət =x*ət	=e:lwəs	=elwət
1	nəcəwʰtx*	nečəx*ət	nečəʔe:lwəs	nečəʔəlwət
2	yəseləwʰtx* θəmʰtx* θəməwʰtx* θəmʰtx*	θeməx*ət	yəsele:lwəs	ʔisełwət
3	ɪx*wəwʰtx*	ɪx*wəwət	ɪx*e:lwəs	ɪx*əlwət
4	ʃəθinəwʰtx*	ʃəθinəwət	ʃəʔatəne:lwəs	ʃəʔatənelwət
5	lqecəwʰtx*	lqecəwət	lqecse:lwəs	lqcelwət
6	tʃəməwʰtx*	tʃəməwət	tʃəməwət	tʃəmelwət
7	tʰak*sewʰtx*	tʰaʔk*səwət	tʰəʔk*se:lwəs	tʰəʔk*səlwət
8	teʔcəwʰtx*	teʔcəwət	teʔcse:lwəs	teʔcelwət
9	tux*wəwʰtx*	tux*wəwət	tux*e:lwəs	tux*elwət
10	ʔəpenəwʰtx*	ʔəpenəwət	ʔəpene:lwəs	ʔəpenəlwət
20	čk*əʃəwʰtx*	čk*əʃəwət	čk*əʃe:lwəs	čk*ʃelwət
how many?	k*inəwʰtx*	k*inəwət	k*əne:lwəs	k*inəlwət

Table 4 Suffixes for material culture.

The suffix =*ewtx* 'house' is used when counting houses and buildings.¹⁷

- (63) *yaseł=əwtx^w t^θə lələm̄ x^w-əwe[?] ni:s c-həyq^wu:ñ.*
 two=house DT house PR-not AUX:3SSUB PR-lamp
 'Two houses haven't got their lights yet.'
- (64) *łim̄ nan ʔəw̄ stəstəstəl t^θə qeʔis lix^w=əwtx^w*
 really very CON close.together DT new three=house
hələləm̄.
 house.PL
 'The three new houses are very close together.'
- (65) *šəθin=əwtx^w t^θə telewtx^w.*
 four=house DT bank
 'There are four banks.'
- (66) *ʔəw̄ nəc=əwtx^w ʔal̄ šx^wimələ niʔ ʔə-š sʔamənaʔ.*
 just one=house just store AUX OBL-DT Somenos
 'There is just one store at Somenos.'

The suffix =*wəl* (~*x^wəl*) 'canoe' refers to canoes and boats of all kinds, including sailboats, warships, and ferries.¹⁸

- (67) *šəθin=əwəl snəx^wəl ʔi tecəl.*
 four=canoe canoe AUX arrive
 'Four canoes arrived here.'
- (68) *šəłə k^ws i^x^w=əwəl-s k^w q̄šəw̄ł*
 say.IMP DT three=canoe-3POS DT war.canoe
ʔi yə-ʔe^wə.
 AUX PR.come.IMP
 'He says there are three war canoes coming.'

¹⁷ An alternative form =*eltax* 'house' can be used as a compound lexical suffix to refer to spouses living together under one roof.

- (i) *x^w-t^w=e:ltax^w k^wθe^y swəyqeʔ.*
 PR-two=house DT man
 'That man has three wives.'

For a man to take on two wives was not unusual in pre-contact times, and sometimes he would take three or four. A woman with two husbands was much rarer.

¹⁸ See Hinkson (2001) for a Pan-Salish discussion of the semantics of this suffix.

The general word for canoe *snəxʷəl* today also means ‘car’, and various canoe terminology has been transferred over to automobile culture.

(69) kʷin=əwəl snəxʷəl niʔ ʔəñexʷ niʔ ʔə kʷθələləmʔ
 how.many=canoe canoe AUX stopped AUX OBL DT:2POS house
 ‘How many cars were parked in front of your house?’

(70) yə-ɬəxʷ=əwəl čə kʷθə sʔələləxʷ nem ʔəmʂasəm.
 PF-three=canoe.IMP EVID DT elder.PL go tour.IMP
 ‘The elders that are going on a tour are going on three cars.’

This suffix is also used when counting other vehicles, including wagons, buggies, planes, trains, trailers, scooters, bicycles, and skateboards.

(71) ʔəpen=əwəl kʷθə lilut.
 ten=canoe DT railroad
 ‘The train has ten cars.’

Finally, we see that =wəl is used for counting plates and platters.

(72) ʔəmi-stəxʷ ʃəθin=əwəl laʔəlθən ʔiʔ θəm=əxʷəl
 come-CS:3OBJ four=canoe plate.PL and two=canoe
 qʷθaləs!
 platter
 ‘Bring four plates and two platters!’

Pre-contact Salish dishes were long canoe-shaped wooden vessels used for holding food for a group of people. Plates and platters are the only household implements counted in this fashion. Other vessel-like objects are classified as containers, as discussed in section 3.5 below.

The suffix =e:lwəs is used for counting paddles, as in:

(73) ɬxʷ=əlweʔs kʷθə nə sqəməl.
 three=paddle DT 1POS paddle
 ‘I have three paddles.’

The most common use of the canoe in modern times is racing. Teams travel throughout the Pacific Northwest to compete in races sponsored by different tribes and bands. Galloway (1993:192) reports that in the Upriver dialect, the suffix =əwes not only counts paddles but also the number of paddlers in a canoe. We have not been able to verify this use in the Island dialect; however, paddlers seem to be counted with the people suffix =elə.

- (74) ɬx^w=eɬə k^wθə *klootchman*.
 three=people the women
 ‘There are three women paddlers.’

The Chinook Jargon word *klootchman* ‘woman’ is used to refer to women paddlers.

Items of clothing, such as shirts, skirts, dresses, coats, and pajamas, can be counted with the suffix =əlwət ‘garment’.

- (75) ɬix^w=əlwət t^θə nə ʃʌpiwəh.
 three=garment DT 1POS shirt
 ‘I have three shirts.’

- (76) ʃaθin=əlwət θə nə kəpu.
 four=garment DT 1POS coat
 ‘I have four coats.’

Blankets or pieces of cloth that are worn as ceremonial garments can also be counted with =əlwət.

- (77) k^win=əlwət t^θəh ləχ^wtən?
 how.many=garment DT:2POS blanket
 ‘How many blankets do you have?’

- (78) ɬix^w=əlwət t^θə nə sil.
 three=garment DT 1POS cloth
 ‘I have three pieces of cloth.’

Other items of material culture do not have lexical suffixes of their own but rather are classified by shape or function, as discussed in the next two sections.

3.4 **Classifying by shape**

Several lexical suffixes are used with numerals to count objects classified by their shape.

SUFFIX	MEANING	CLASSIFIES:
=as	ROUND	dollars, small round objects, months
=aləs	LOOP, CYLINDER	meshes of net, stitches of knitting, campfires, pens, sticks, boards
=iʔəs	COIL	rings, bracelets, coils of rope, coiled baskets
=als	SPHERICAL	stones, eggs, berries, apples, oranges, potatoes. tomatoes, balls, balls of yarn
=aʔqʷ	HEAD, SPHERICAL	animals, fish, fish heads, sea life, cabbages, lettuce, garlic, berries, balls of yarn
=eməiʰ	LONG THIN OBJECT	poles, rods, logs, house posts, roads, water pipes
=iʰeʔ	STRAND	ropes, roots, strands of fibre, strips of cloth

Table 5 Halkomelem shape-based classifiers.

Paradigms for three of the classifiers that refer to round objects are given in Table 6.

	ROUND, DOLLARS	LOOP, CYLINDER	SPHERICAL
	=as	=aləs	=als
1	nə́cəs	nə́caləs	nə́cals
2	yəsələs	yəsələləs	yəsəlals
3	ʔixʷəs	ʔixʷaləs	ʔixʷals
4	ʔəθinəs	ʔəθinələs	ʔəθinəls
5	ʔqacsəs	ʔqacsələs	ʔqacsals
6	ʔxəməs	ʔxəmələs	ʔxəməls
7	ʔəʔkʷsəs	ʔəʔkʷsaləs	ʔəʔkʷsals
8	teʔcsəs	teʔcaləs	teʔcsals
9	tu:xʷəs	tu:xʷaləs	tu:xʷals
10	ʔəpanəs	ʔəpanələs	ʔəpanəls
20	cʔʷsas	cʔʷsaləs	cʔʷsals
how many?	kʷinəs	kʷinaləs	kʷinəls

Table 6 Some classifiers for round objects.

The first five suffixes listed in Table 5 refer to round objects of various sorts. Of these suffixes, *=as* classifies flat round objects. Its most common use is in reference to dollars, originally coins. In modern usage it refers to paper currency as well.

- (79) $\text{ʃ}^* \text{ə} \text{m} \text{ } \text{ʔ} \text{ə} \text{ } \text{č} \text{ } \text{ʔ} \text{ɪ} \text{ʔ} \text{ } \text{ʔ} \text{ə} \text{ʃ} \text{ɪ} \text{m} \text{-} \text{θ} \text{ } \text{ʔ} \text{ə} \text{ } \text{k}^* \text{s} \text{ } \text{ʔ} \text{ə} \text{p} \text{a} \text{n} \text{=} \text{əs} \text{ʔ}$
 can Q 2SUB CON lend-TR:1OBJ OBL DT ten=round
 ‘Can you lend me ten dollars?’
- (80) $\text{ɪ} \text{q} \text{e} \text{c} \text{ə} \text{ɪ} \text{ʃ} \text{a} \text{ʔ} \text{=} \text{əs} \text{ } \text{ɪ} \text{ə} \text{ } \text{y} \text{a} \text{θ} \text{ } \text{ʔ} \text{ə} \text{w} \text{ } \text{k}^* \text{e} \text{n} \text{-} \text{n} \text{ə} \text{x}^* \text{-} \text{əs}$
 fifty=round DT always CON get-LCTR:3OBJ-ERG
 $\text{ʔ} \text{ə} \text{ } \text{t}^{\text{h}} \text{-} \text{ə} \text{w} \text{ } \text{m} \text{ə} \text{k}^* \text{ } \text{ɪ} \text{q} \text{e} \text{ɪ} \text{č}.$
 OBL DT-CON all month
 ‘He receives fifty dollars every month.’
- (81) $\text{c} \text{k}^* \text{ʃ} \text{=} \text{as} \text{ } \text{ʔ} \text{ɪ} \text{ʔ} \text{ } \text{k}^* \text{ } \text{ɪ} \text{q} \text{a} \text{c} \text{s} \text{=} \text{əs} \text{ } \text{ʔ} \text{ə} \text{ } \text{t}^{\text{h}} \text{ə} \text{n} \text{ } \text{t} \text{e} \text{l} \text{ə} \text{ʔ}$
 twenty=round and DT five=round Q DT:2POS money
 ‘Do you have twenty-five dollars?’

Another common use of *=as* is to count months (i.e. ‘moons’).

- (82) $\text{w} \text{a} \text{w} \text{a} \text{ʔ} \text{ } \text{n} \text{i} \text{ʔ} \text{ } \text{y} \text{ə} \text{s} \text{a} \text{l} \text{=} \text{əs} \text{ } \text{ɪ} \text{q} \text{e} \text{ɪ} \text{č} \text{ } \text{ʔ} \text{ɪ} \text{ʔ} \text{ } \text{ʃ} \text{e} \text{ʔ} \text{ } \text{w} \text{ə} \text{ɪ} \text{ } \text{n} \text{e} \text{m} \text{ } \text{c} \text{a} \text{m}.$
 perhaps AUX two=round moon and again already go go.up.
 ‘It was maybe two months later and he again went up into the mountains.’
- (83) $\text{n} \text{i} \text{-} \text{i} \text{-} \text{i} \text{s} \text{ } \text{k}^* \text{i} \text{n} \text{=} \text{əs} \text{ } \text{ɪ} \text{q} \text{e} \text{ɪ} \text{č} \text{ } \text{k}^* \text{s} \text{əs}$
 AUX-3SSUB how.many=round month DET:3SSUBP
 $\text{s} \text{e} \text{w} \text{q} \text{-} \text{t} \text{ə} \text{m} \text{ } \text{t}^{\text{h}} \text{ə} \text{w} \text{n} \text{i} \text{ɪ} \text{ } \text{s} \text{w} \text{i} \text{w} \text{l} \text{əs}.$
 look.for-TR:PAS.IMP DT young.man
 ‘It was not known how many months they looked for the young man...’

The second suffix in Table 5 is *=aləs* ‘loop’. It refers to (rows of) stitches of knitting, meshes of net, and campfires.¹⁹

- (84) $\text{t} \text{x}^* \text{-} \text{y} \text{ə} \text{s} \text{ə} \text{l} \text{=} \text{al} \text{əs} \text{-} \text{s} \text{t} \text{ə} \text{x}^* \text{ } \text{č} \text{ } \text{t}^{\text{h}} \text{ə} \text{n} \text{ } \text{s} \text{y} \text{a} \text{:} \text{y} \text{s} \text{ } \text{ʔ} \text{ɪ} \text{ʔ} \text{ } \text{ʔ} \text{ə} \text{y}.$
 only-two=loop-CS:3OBJ 2SUB DT:2POS work and good
 ‘It will be better if you do two more rounds in your knitting.’
- (85) $\text{ʃ} \text{ə} \text{θ} \text{i} \text{n} \text{=} \text{ə} \text{l} \text{əs} \text{ } \text{t}^{\text{h}} \text{ə} \text{ } \text{h} \text{ə} \text{y} \text{q}^*$
 four=loop DT fire
 ‘four fires’

¹⁹People sit around a campfire in a ring.

Halkomelem women are famous weavers and knitters. Coast Salish style sweaters (often referred to as Cowichan sweaters), vests, toques, and slippers are marketed world-wide. Many natives are commercial fishermen and are adept at gill netting. Suttles (in preparation) states that *=aləs* refers to tens of mesh, as would be used in giving the depth of a gill net, the length being given in fathoms. Speakers that we have worked with also use *=aləs* to count single mesh when mending nets.

The loop shape when extended into three-dimensions yields a tube or cylinder figure. The Halkomelem suffix *=aləs* gets used with cylindrical-shaped objects, including pens and sticks.

(86) *yəsəl=aləs* *tʰə́n* *χəl̥tən*.
 two=loop DT:2POS pen
 ‘You have two pens.’

(87) *ɬxʷ=aləs* *sčəšt*
 three=loop stick
 ‘three sticks’

The long three-dimensional shape need not be round. Thus, boards (such as 2" x 4" lumber) can also be referred to by *=aləs*.

(88) *kʷin=ələs* *tʰə* *ləplaš?*
 how.many=loop DT board
 ‘How many boards are there?’

A third suffix referring to round shapes is *=iýəs*.²⁰ Like the previous suffix, it seems to refer to loops, including rings, bracelets, and coils of rope.

(89) *ɬixʷ=əýəs* *θə* *nə* *šeləmcəs*.
 three=coil DT 1POS ring
 ‘I have three rings.’

Whereas the previous suffix *=aləs* extends to oblong objects, *=iýəs* refers to loop-shaped objects elongated in height. For example, *=iýəs* is used for coiled baskets and sheaves of wheat that are wrapped with string and then stood vertically in the field.

The fourth suffix in Table 5, *=als*, is used for small spherical objects, including stones, balls, eggs, berries, fruits, and vegetables.

²⁰ The suffixes *=aləs* and *=iýəs* derive from the suffix *=as* plus the connectors *=al* and *=iý* respectively. Until we know more about the form and function of connectors, we have opted to keep these suffixes distinct.

- (90) $\dot{q}a^? -t$ \check{c} $t^{\theta}ə$ $yəsəl=als$ $i^{\theta}əi^{\theta}ə\check{x}als!$
 add-TR 2SUB DT two=sphere egg
 ‘Add two eggs!’
- (91) $\check{x}ə\theta i=nəls$ $k^{\theta}ə$ $sqew\theta$.
 four=sphere DT potato
 ‘There are four potatoes.’
- (92) $i\check{x}^{\nu}=als$ $t^{\theta}ə$ $nə$ $ʔalən\check{c}əs$.
 three=sphere DT 1POS orange
 ‘I have three oranges.’

The suffix =*aʔq* ‘head’, as noted in section 3.1, is used to count fish, fish heads, and sea-life. It is also used to count vegetables that grow in ‘heads’, such as lettuce, cabbage, and garlic. Balls of yarn and berries can be counted either with this suffix or with the suffix =*als*. We surmise that historically the difference between the two suffixes may have been size, where =*aʔq* referred to larger spherical objects and =*als* referred to smaller spherical objects. Future research may shed light on this issue.

The last two suffixes in Table 5 refer to long thin objects; see Table 7 below. The lexical suffix =*eməi^θ* refers to rigid objects such as poles, rods, logs, boards, sticks, house posts, roads, and water pipes.²¹

- (93) $\check{x}ə\theta i n = əm ə i^{\theta}$ $k^{\theta}ə$ $qeqən$.
 four=long DT house.post
 ‘There are four house posts.’
- (94) $i\check{x}^{\nu} = əm ə i^{\theta}$ $q^{\theta}l e y$
 three=long log
 ‘three logs’
- (95) $\check{x}ə\theta i n = əm ə i^{\theta}$ $\check{s}e l$
 four=long road
 ‘four roads’

Not all rigid objects with a long thin shape are counted with this suffix. For example, trees are counted with =*əlp*, paddles with =*əlwəs*, and pencils (since they are perceived as cylinders) with =*aləs*, while brooms are counted without a suffix on the numeral.

²¹ Galloway (1993:193) gives the suffix =*éməc* (prob. =*éməi^θ*) ‘upright, poles’. We have found in Island dialect that the suffix applies to horizontal as well as vertical objects.

	LONG, THIN, RIGID OBJECT	LONG, THIN, FLEXIBLE OBJECT (STRAND)
	=emətʰ	=itʰeʔ
1	nə́cəmətʰ	nə́cətʰeʔ
2	yə́semətʰ	yə́selətʰeʔ
3	tix ʷəmətʰ	tix ʷətʰeʔ
4	ʃəθinəmətʰ	ʃəθinətʰeʔ
5	lq́ecsəmətʰ ~ lq́acseʔmətʰ	lq́ecsətʰeʔ
6	tʃəməmətʰ	tʃəmətʰeʔ
7	tʰaʔk ʷsəmətʰ	tʰaʔk ʷsitʰeʔ
8	teʔcsəmətʰ	teʔcsətʰeʔ
9	tux ʷəmətʰ	tux ʷətʰeʔ
10	ʔəpenəmətʰ	ʔəpenətʰeʔ
how many?	s kʷin mətʰ	

Table 7 Suffixes referring to long, thin, rigid objects and flexible objects.

In contrast, =itʰeʔ refers to long, thin, flexible objects like cedar roots, ropes, strands of yarn, or strips of cloth or bark.

(95) k ʷθə lq́ecs=ətʰeʔ k ʷaləx ʷ
 DT five=strand dog.salmon
 'five strips of dog salmon.'

(96) tʰaʔk ʷs=itʰeʔ tʰə nə ʃ ʷi ʃ ʷləθ.
 seven=strand DT 1POS thread
 'I had seven pieces of thread.'

In sum, Halkomelem has a large set of lexical suffixes that classify objects according to features of shape. The semantic parameters used in the Halkomelem system match the results of cross-linguistic research on classifiers by Allan (1977), and Denny (1979), among others. The key parameters are dimension (e.g. flat vs. spherical) and consistency (rigid vs. flexible). Also Halkomelem uses secondary features involving size and elongation. The Halkomelem system allows for the accommodation of new items, which are

added to the system according to their shapes or shared function with a core classified object.

3.5 Classifying containers and groups

Three classifiers refer to objects that are put together into some arrangement and the containers that hold them.

	CONTAINER	BUNDLE, LOAD	GROUP, PILE
	==əqən	==əleʔc	==əmat
1	nə́cəqən nə́caqən	nə́cəleʔc	nə́caʔmat
2	yəseləqən	nə́cəleʔc	yəsələmat
3	lɪxʷəqən	lɪxʷəleʔc	lɪxʷəmat
4	ʃəθinəqən	ʃəθinəleʔc	ʃəθinəmat
5	lɪqəcsəqən check glottal	lɪqəcəleʔc	lɪqəcsəmat
6	lɪxəməqən	lɪxəməleʔc	lɪxəməmat
7	lʰəʔkʷsəqən lʰəʔkʷsəqən	lʰəʔkʷsəleʔc	lʰəʔkʷsəmat
8	teʔcsəqən	tə́cəleʔc	teʔcsəmat taʔcsəmat
9	tu:xʷəqən	təwxʷəleʔc	tu:xʷmat
10	ʔəpenəqən	ʔəpeynəleʔc	ʔəpenəmat
20	cḱʷəʃiqən		cḱʷəʃamat
how many?	kʷinəqən	kʷinəleʔc	kʷinəmat

Table 8 Suffixes referring to containers and piled up objects.

The lexical suffix =əqən is used to count items of material culture whose function involves containment of a substance, e.g. bowls, cups, teapots, pans, pots, pipes, and lanterns.

- (98) nə́cəʔ=qən ʔaɪ tʰə́n sqʷaɪs.
 one=container just DT:2POS pot
 'You have just one pot.'
- (99) ɬixʷ=qən tʰə nə ʃtiheɬə.
 three=container DT 1POS teapot
 'I have three teapots.'
- (100) kʷin=əqən ʃθəm kʷə niʔ ʔiləq-ət-əxʷ.
 how.many=container box DT AUX buy-TR-2SSUB
 'How many boxes did you buy?'

The suffix =əqən is also used to count containers of all sizes, including buckets, barrels, baskets, jars, cans, boxes, sacks, suitcases, and pillowcases. The noun associated with the numeral phrase can be the container (101-102) or the substance contained (103-104).

- (101) kʷin=əqən kʷə́n skʷawəs.
 how.many=container DT:2POS bucket
 'How many buckets do you have?'
- (102) nə́c=əs telə tʰə nə́c=əqən lisek
 one=round money DT one=container sack
 'one dollar a sack'
- (103) nem kʷən-ət ɬqɛcs=əqən sqewθ.
 go take-TR five=container potato
 'Go get five sacks of potatoes!'
- (104) nem cən ɬəwɛ:n-t ɬə nə mə́nə
 go 1SUB give.gifts-TR DT 1POS offspring
 [ʔə kʷθə ʔəpen=əqən ʔapəɪs].
 OBL DT ten=container apple
 'I am going to bring gifts (of 10 boxes of apples) for my daughter.'

The suffix =əleʔc is used to refer to a collection of items that constitute a load and to the packaging method that effects this. This includes bales of hay, bundles of wood, barrels of fish, baskets of laundry, bundles of blankets, sacks of potatoes, boxes of fruit, and trunks of possessions.

- (105) ɬxʷ=əleʔc sqewθ
 three=bundle potato
 'three packages of potatoes'
- (106) nəc=əleʔc tʰə nə sitən
 one=bundle DT 1POS basket
 'one basketful'

Large containers, since they often constitute a load, can be classified with either =əleʔc or =əqən. If the emphasis is on the amount of the item then =əleʔc is used. If the emphasis is on the type of container the item is in, then =əqən is used.

- (107) kʷin=əleʔc tʰəń təməwłəɕ?
 how.many=bundle DT:2POS barrel
 'How many (loads of) barrels?'
- (108) kʷin=əqən tʰəń təməwłəɕ?
 how.many=container DT:2POS barrel
 'How many barrels?'

It is also possible to use the suffix =elec to refer to a quantity of an item that constitutes a load even if the item is not contained.

- (109) kʷin=ələʔc tʰəń ləxʷtən?
 how.many=bundle DT:2POS blanket
 'How many stacks of blankets do you have?'²²
- (110) ɬixʷ=əleʔc xʷiləm
 three=bundle rope
 'three coils of rope'

The lexical suffix =mat is the most difficult of the classifier suffixes to gloss. Suttles (in preparation) defines this suffix as 'kind, part, piece' while Galloway (1993:214) defines it as 'piles'.²³ We see reflections of the first

²² We were told that that a bundle of ten blankets make a stack.

²³ The suffix =awəθ also means 'kind'. It appears to modify any inanimate noun that has a variety of types, e.g. spears, berries, stories, languages, medicines, canoes, and spears.

- (i) xʷ-xəθin=əwəθ snəxʷəl
 PR-four=kind canoe
 'four kinds of canoes'

meaning in examples in (110-113), where the suffix means ‘part’, ‘piece’, or ‘group.’

(111) niʔ cən xʷə-ɬxʷ=əmat-stəxʷ kʷə-nə-s ɬiç-ət
 AUX ISUB become-three=part-CS:3OBJ DT-1POS-NM cut-TR
 tʰə θəqiʔ.
 DT sockeye
 ‘I sliced the sockeye (salmon) into three chunks.’

(112) yəsaɬ=əmat ceʔ kʷə neŋ həyeʔ-stxʷ-ət.
 two=part FUT DT go leave-CS:3OBJ-1PL.SSUB
 ‘We are going to take two teams.’

(113) ʔile xʷəl məxʷ=qən tə nəçə=mat pu kʷ
 let’s Indian=throat DT one=part book
 ‘Let’s Speak our First Nations Language: Book 1’
 (title of a Halkomelem textbook)

(114) ɬixʷ=əma-t sçəɬaʔ
 three=part leaf
 ‘three piles of leaves’

(115) ɬixʷ=əma-t ʃʷiɬəm
 three=part rope
 ‘three piles of rope’

Blankets, mats, and rugs of all kinds are also counted with =*mat*.

(116) tɬxʷ-ɬxʷ=əmat ʔal θə nə swəqʷaʔɬ.
 just-three=part only DT 1POS goat.blanket
 ‘I only have three goat wool blankets.’

(117) ʃəθin=əma-t sɬəwən
 four=part bulrush.mat
 ‘four bulrush mats’

(ii) xʷ-ɬxʷ=əwəθ tʰə sqʷal.
 PR-three=kind DT speech
 ‘There are three different ways of speaking.’

It was unclear to us whether this should be regarded as a classifier or a compounding use of a suffix.

Traditionally, the dog wool and goat wool blankets were used for ceremonial purposes in the longhouse. The blankets were laid down on top of each other in a pile. The suffix =*mat* now applies to blankets even when they are not piled.

As Aikhenvald (2000:115) notes: “Since the choice of a mensural classifier is often determined by the temporary state of an object (its quantity, or the arrangement it occurs in) there may be more freedom in choosing a mensural classifier than in choosing a sortal one.” This is exactly what we find in Halkomelem. Choosing between the classifiers =*əqən*, =*eʔləc*, and =*mat* varies from situation to situation, depending on whether emphasis is being placed on the quantity, the arrangement, or the containment of the item. Also relevant is whether the item will be stored, carried, or used in that configuration.

3.6 Summary: the Halkomelem system

This section has discussed the form and function of lexical suffixes used as numeral classifiers in Halkomelem. The system includes both sortal and mensural classifiers. Sortal classifiers refer to a specific kind of entity or to a shape-based class of entities. A handful of specific suffixes refer to living things—flora, fauna, and people, but the majority of suffixes refer to inanimate objects. Some specific suffixes refer to key items of the natural environment and the material culture. The specific suffixes allow us to draw a picture of the most important items in the Halkomelem pre-contact lifestyle—people, waterfowl, fish, trees, plants, ground, firewood, houses, canoes, paddles, and garments. Most inanimate objects are classified based on their shape. Small round flat objects, loops, coils, spheres, long thin rigid objects, and long thin flexible objects seem to be the main classificatory categories for objects. Some suffixes extend in length or height and thus include cylindrical objects. The mensural classifiers allow for several perspectives on a item based on its containment, its packability, its arrangement into piles or stacks, or its division into parts.

The Halkomelem system easily accommodates new items. They fit into the system based upon their shape or manner of containment. In addition, classifiers can extend semantically based on shared functions. For example, the suffix for small round flat objects, used first for coins, subsequently extended to paper money.

It may be the case that in earlier times all items were obligatorily classified. But today many nouns are counted without the use of lexical suffixes. These include mountains, bays, lakes, rivers, islands, points of land, and other large land forms. Hours, days, and weeks are not classified. In addition many of the larger items of material culture—tables, chairs, doors, desks, axes, brooms—are not classified. More abstract items, such as stories, words, languages, and work, are not classified, even though they are counted.

- (118) niʔ nəčaʔ syays-s tʰə swəwʌs tʰə syaʔ.
 3EMPH one work-3POS DT boy.PL DT firewood
 ‘The wood was one of the jobs for the boys.’

So a likely hypothesis is that only the most important and smaller items (ones that were handled, probably) were obligatorily counted with classifiers.

4 Conclusion

This paper explored the system of numeral classification in Halkomelem. Some countable concrete nouns are counted with simple cardinal numbers, but many nouns can be counted with classificatory lexical suffixes. We discuss both the meaning of the suffixes and the nouns that they classify. Classifiers refer to animate and inanimate entities. Suffixes for animates characterize the most salient feature of the entity. Some classifiers for inanimates originate in suffixes referring to specific elements of the natural environment or items of material culture. Most inanimates, however, are classified according to their shape or function. In sum, classification in Halkomelem is the sort of system that we are led to expect based on cross-linguistic typological research. (See Aikhenvald 2000 and references therein.).

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