

# The Exponence and Development of Plurals in Nuuchahnulth\*

David Inman  
Universität Zürich

**Abstract:** This paper presents an overview of plurals and pluractionals in Nuuchahnulth. A full account of meanings and morphological strategies is given, including lists of which lexemes take which formatives. Finally, there is a brief investigation into the development of plural morphology in the family, in which the Nuuchahnulth formatives are compared to others in the Wakashan family.

**Keywords:** Nuuchahnulth, Wakashan, plurals, pluractionals

## 1 Introduction

This paper began with the development of teaching resources for Nuuchahnulth language learners and presenting the strategies for nominal plurals in the language. In this process, I recognized a few patterns that are of broader linguistic interest, and this developed into an account of the plural system in the language.

I present here my investigation into the formation, regularity, and irregularity of both nominal plurals and verbal plurals (or pluractionals) in Nuuchahnulth, as well as some investigation into the development of this complex system within the larger language family. I will begin with a discussion on the concept of plurality and define which concepts are under consideration. Then I will document the various plural markers present in Nuuchahnulth, and finally compare Nuuchahnulth to other Wakashan languages, showing the likely historical development of the system. Data that is not cited is from my fieldwork and notes.

## 2 The semantic scope of “plural”

There are a variety of definitions for plurality. In the nominal realm, the most basic meaning is “more than a singular entity”: One dog is singular, two or more are plural. Some languages divide the non-singular space into more than one category (dual, paucal), though this is not the case in Nuuchahnulth. However, these extra-plural categories are typically more restricted than the simple plural, and with a few complications, the existence of more specialized non-singular numbers always implies the presence of a general plural (Corbett 2000; Cysouw 2003).

The expression of plurals for non-third persons is more complicated. It is not at all immediately clear what the plural of a 1st person should be: There are not plural speakers, so it is either 1 + 3, 1 + 2, unspecified for the additional member, or something else (Cysouw 2003). The difference

---

\* I would like to acknowledge the people who contributed to the information I present in this paper. I want to thank Adam Werle who shared his language notes and expertise, Henry Kammler who shared his in-progress dictionary, Matthew Davidson who along with Adam and Henry responded to some of my initial questions, and members of the Somass Valley Language Circle who have read and reviewed the lesson material this paper came from. Last but not least, I want to acknowledge the Nuuchahnulth elders who have invested time and considerable patience in sharing their language with me.

Contact info: david.inman@uzh.ch

between inclusive and exclusive 1st person plural can be understood as a language resolving this ambiguity of “1st person plural” by making it explicit. There is a similar problem with 2nd person: Is the plural 2 + 2 (both must be in the audience), 2 + 3, or underspecified? Interestingly, there does not appear to be any language which disambiguates 2nd person plural in the way that clusivity distinctions disambiguate 1st person plural. Nuuchahnulth has no clusivity distinctions, and so for the nominal domain I will only focus on the plurality of 3rd persons in this paper.

It is also possible for plurality of a noun (or argument) to be marked on the verb or clause, rather than on the noun itself. This is sometimes called “pluractionality”, but because it refers to the plurality of *participants*, rather than the plurality of the *event*, I treat this as a kind of nominal plural marking where the locus is on the verb. The most common type of nominal plural marking on the verb is through agreement, where plurality is typically entangled with person-marking. However, this is a kind of plural-marking, and it is possible for verbal agreement to index only the number (and not the person) of one or more of its arguments.

Outside of the nominal domain, there is also a significant literature on the plurality of events, or pluractionality or “verbal number” (Corbett 2000: Chapter 8). Though there are different definitions of pluractionality, most involve in some way repetition of an event. A verb can contain by its very definition the idea of repetition, sometimes called a semelfactive verb (Comrie 1976), like *knock* or *blink*. But this understanding can extend beyond semelfactives to words like *walk*, which presumably is a kind of repetition of a sequence of steps. Besides being part of its lexical semantics, an event can also be repeated through specific and differential aspect marking.

Full repetition of an event over a particular interval of time is the most obvious kind of event repetition. In the grammatical domain, this is often called repetitive or iterative aspect. Habitual events are also plural in a similar way, only over a less fixed interval of time. If one says *I walk in the evening* there is no fixed interval during which the proposition is true. One may walk most evenings but not every evening, it may be true for a week or a month, or it may be true indefinitely into the future. It is also unclear how far into the past it extends. Habitual actions can also be conditionally true, either through some assumption that remains unstated (e.g., *I walk in the evening*—provided the weather is nice, I am not ill and do not have other plans, etc.) or through something explicit in the utterance: *I walk on clear evenings*. If a habitual verb is a type of pluractional, it is a more complex one than the more limited repetitive or iterative aspects because it contains more complex potential restrictions, either in time or in environmental conditions.

Another potential source of event plurality is continuous or progressive actions. If an action is continuous it can be understood as repeated. For example, the most natural interpretation of the English sentence *I am jumping* is that the action *JUMP* is repeated over and over. However, it is possible to interpret this as a single *JUMP* event, perhaps where the speaker says *I am jumping* while in the air and then stops. The repeated jumps interpretation is more available in the progressive tense than in the simple past *I jumped*, although it is also possible there.

Finally, an event can be plural or repeated only by the condition of being a transitive event with multiple objects. *I painted the boats* can be understood as one extended event of painting with multiple objects, or several discrete events of painting, one for each boat. The same interpretation is much less likely in the utterance *I dropped the books*. The pluractional interpretation in the case of the former arises from the interaction of the particular semantics of the verb *paint* with its object *boats*. It is not always clear, if a transitive verb has multiple objects, whether a singular event or multiple events is intended.

My investigation into plurality in Nuuchahnulth is restricted to grammatically-marked plurals,

and so I will only consider pluractionality that is overtly marked by some distinct element in the utterance itself. Pluractionality arising from the lexical meaning of a verb is thus out of scope, as is pluractionality that is dependent on a range of possible interpretations over aspect (as with the progressive aspect in English) or the interaction between a verb and a plural direct object. These are not straightforwardly “multiplicity of actions,” but something that can be interpreted as a multiplicity of actions, under the right pragmatic conditions. Once conditional and lexical cases of pluractionality are discarded, Nuuchahnulth is left with pluractionality in the forms of the repetitive and iterative aspects, and the (differently-marked) habitual aspect.

### 3 Pluractionals

There are two morphological aspects in Nuuchahnulth that meet the restriction on pluractionality given above: the so-called repetitive and iterative aspects. These aspects indicate repetition of an action with different degrees of regularity, and are lexically conditioned—that is, not every verb has all aspect forms. However, they are semantically compositional: When confronted with a new form, speakers can construct what the form would mean even if they do not recognize it as part of the particular verb’s regular aspects. Both repetitive and iterative aspects are indicated in part through reduplication. Nuuchahnulth also has a fully productive habitual enclitic, which will be discussed separately.

#### 3.1 Repetitive

The repetitive aspect is most typically marked through “aspect reduplication” of the root and adding the suffix *-(y)a*, where the *y* appears following a vowel. Aspect reduplication reduplicates the full stem of monosyllabic roots that contain a coda and the onset and nucleus of polysyllabic roots, and makes the vowel of both reduplicant and base long. With CV roots, aspect reduplication supplies a coda in the form of either a *ʃ* or a *c*.<sup>1</sup> I segment this morpheme as *-LRL.(y)a*, indicating the **L**engthening of the **R**eduplicant, the **L**engthening of the **b**ase, and the *-(y)a* suffix. This convention was first introduced at ICSNL in Inman and Werle (2016), and is a useful shorthand, although the suppletion of an obligatory coda for monosyllabic CV roots is not made explicit. Examples of the morphology are given below for a CV root (1), a CVC+ root (2), and a polysyllabic root (3).

(1) *tiiʃtʃiia*  
*tʃi-LRL.(y)a*  
 throw-RP  
 ‘throwing over and over’

(2) *hiishiisa*  
*his-LRL.(y)a*  
 chop-RP  
 ‘chopping’

---

<sup>1</sup> When aspect reduplication would produce a *ʃʃ* sequence, a *c* is used as an alternative, as for the root *ʃi-* ‘shoot’, which becomes *ʃiicʃiia*, rather than *\*ʃiʃʃiia*.

- (3) *taataapata*  
*taapat-LRL.(y)a*  
 think-RP  
 ‘consider’

The repetitive aspect indicates the repetition of an event at roughly regular intervals for a particular duration of time. The length of that duration is somewhat open-ended but not so much so that it becomes habitual. Perfective *hisšił* means ‘chop once’, and *hiishiisa* (2) means chopping (e.g., over and over, as one chops wood), but does not mean that one habitually chops over an extended period, such as weekly. Within the given duration, the interval in which the event repeats is also somewhat open and dependent on the verb. The repetition of *tiiłtiiya* ‘throw(ing) (over and over)’ is limited by what it is one is throwing: e.g., if one is throwing spears, each spear has to be picked up, pulled back, aimed, and thrown. However, the interval of repetition of *taataapata* ‘consider (think repeatedly)’ is not so limited, as one can think about a topic over and over either quickly or more leisurely.

### 3.2 Iterative

The most typical morphology for the iterative aspect uses the same reduplication pattern (with a different form for CV, CVC+, and polysyllabic roots), but without the vowel lengthening and with a different suffix, -š. Examples of this morphology are given for CV (4), CVC+ (5), and polysyllabic roots (6) below.

- (4) *nałnaš*  
*na-R.š*  
 look-IT  
 ‘look from time to time’ (Sapir and Swadesh 1939:56)
- (5) *čitčitš*  
*čit-R.š*  
 turn.sideways-IT  
 ‘turning sideways at times’ (Sapir and Swadesh 1939:27)
- (6) *papawaš*  
*pawał-R.š*  
 lose-IT  
 ‘always losing, lose at times’

There is an alternative morphology for the iterative aspect, which is termed by Davidson (2002: 242–244) the “Iterative II.” In this construction, the perfective (or “momentaneous”) aspect is used as a base,<sup>2</sup> the first two vowels and the last vowel of the word are lengthened, all other vowels are made short, and the final *ł* is turned into a *l*. Note the lack of reduplication. There is no apparent difference in meaning between the Iterative I and II. This is a much rarer form of the iterative in

<sup>2</sup> I believe that, in the few cases where the ending is *-aal* rather than a noticeably perfective-derived *-uul* or *-iil*, the base for the Iterative II is actually verb + *!ał* ‘now/then’, rather than the verb in the perfective form.

modern Nuuchahnulth, though it does exist—from what I can tell, most often (but not exclusively) in names, and I will not discuss it much. An example of the Iterative II, taken directly from Davidson, is given in (7) below.

- (7) kaamiitqwiʔasčiil  
 kamitq<sup>w</sup>-wiiʔas-čił-[IterL]  
 run-go.outside.PF-PF-IT  
 ‘run outside at intervals’ (Davidson 2002:243)

The iterative differs from the repetitive in that the repetition is at irregular intervals. In the appendix to Sapir, Swadesh, and Thomas’s<sup>3</sup> “Nootka Texts”, this is illustrated with the root *mitx<sup>w</sup>*- ‘turn’ (Sapir and Swadesh 1939:241):

“Repetitive *mi-tx<sup>w</sup>mi-tx<sup>w</sup>a* ‘turning round and round’ (emphasized repetition) . . . Iterative *mitxmitxš* ‘to make a circuit, turn at intervals’ ”

The repetitive interpretation is to turn at regular intervals, which either means spinning in place or going in a circle; the iterative interpretation is to turn at less regular intervals, which Sapir or Swadesh translate directly as “at intervals” or making a larger circle or “circuit”.

There are in my experience very few verbal roots in Nuuchahnulth that have both iterative and repetitive aspect forms. The root *tux<sup>w</sup>*- ‘jump’ has a widely used repetitive form *tuuxtux<sup>w</sup>a*, which means ‘jumping’.<sup>4</sup> Some speakers recognize a form *tuxtuxš*, which means ‘keep jumping’, presumably but not obviously with an emphasis on the irregularity of the action.

Another example of a verb with both iterative and repetitive aspects is the root *ciq-* ‘speak’. The repetitive form, *ciqciqa* is the normal way of referring to an ongoing, repetitive event of ‘speaking’. This is different from the perfective *ciqšił* ‘speak and finish’ and the continuative *ciqaa* ‘speaking’. The repetitive form makes it clear that one speaks over and over—e.g., many sentences—while the continuative makes no mention of the speech event being part of a continuous set of speech events. In the Sapir-Thomas texts there is exactly one example of the rare iterative form of the root *ciq-* ‘speak’, *ciqciqš* (Sapir and Swadesh 1955:146), translated in the English as ‘coming to the word part (of a song)’.

Most verbs in Nuuchahnulth are unlike *ciq-* and *tux<sup>w</sup>*-, and have only a repetitive or an iterative form. But these also exemplify the distinction between regular repetition and punctuated or irregular repetition. The root *mīł-* ‘rain’ has an iterative form *mīłmīłš* ‘raining off and on’ but, to my knowledge, no repetitive form *\*mīłmīłaa*. To say that it is raining continuously one just uses the continuative form *mīłaa*, which would mean the same thing as repetitive raining anyway.

Similarly, the root *hul-* ‘dance’ has, in most dialects, a repetitive form *huulhuula* which functionally behaves like a semantic continuative, but to my knowledge no dialect has an iterative form *\*hulhulš*. This again seems to arise from the nature of the activity of dancing. If you begin to dance,

<sup>3</sup> Alex Thomas was Sapir and Swadesh’s main Tseshaht consultant for the data given in the Nootka Texts. Thomas is thanked extensively in the introduction to the 1939 text, and Swadesh himself calls these the “Sapir-Thomas” texts (Swadesh 1938). To acknowledge the extensive contribution of Alex Thomas in producing this important work, I have joined others in adding his name when referring to the texts, though he is not in the published list of authors.

<sup>4</sup> Note that in this case the continuative form of the verb is not used. This is because to jump repeatedly one has to jump, land, and then jump again. The entire action is repeated, not the continuous view of a single jumping action, which is what the continuative form *tux<sup>w</sup>aa* means.

stop, and begin to dance again at irregular intervals, you are doing something, but it would be hard to call it dancing. However, dancing repeatedly at regular intervals is just how dancing functions. There may be a pause in movement, but those pauses are a part of the rhythm of the dance.

### 3.3 Habitual

Unlike the repetitive and iterative aspects, habituality in Nuuchahnulth is marked in the second position enclitic complex, which does not necessarily fall on the verb. Possibly as a consequence of its morphosyntactic position, the habitual is therefore compatible with both the repetitive (8) and iterative (9) aspects.

- (8) sayaaʔeeʔapanitinʔaala *niiłniiła* ʔuṅaaḥ ṅučak.  
 sayaa-ʔii=!ap=!anit=(m)in=ʔaala *niił*<sup>6</sup>-LRL.(y)a ʔu-ṅaaḥ ṅučak  
 far-go=CAUS=PASS.PST=REAL.1PL=**HAB** row/lie.supine-RP EMPTY-look.for egg  
 ‘He would make us row far out looking for eggs.’

- (9) *nałnaš*ʔaλquuweʔinʔaala *čawaakḥ* taatḥeʔis (. . .).  
 ṅa-R.š=!aλ=quu=weʔin=ʔaala *čawaak*-(q)ḥ taatḥa=ʔis  
 look-IT=NOW=PSSB.3=HRSY.3=**HAB** one-LINK child.PL=DIM  
 ‘There was one little child who would go and look every now and then (. . .)’  
 (Sapir and Swadesh 1939:56)

Also because of this position, the interpretation of the habitual distributes over coordinated predicates, as in (10).

- (10) nunuukšišnišʔaaf ʔaḥʔaaʔaλ hułhuuła tuupšišiʔaλquu.  
 nunuuk-šiš=niš=ʔaaf ʔaḥʔaaʔaλ huł-LRL.(y)a tuupšišiλ=!aλ=quu  
 sing.CT-PF=STRG.1PL=**HAB** and dance-RP evening=NOW=PSSB.3  
 ‘We sing and dance when it’s evening.’

Of course, the habitual can also be used without the repetitive or the iterative present, and in some cases the use of the habitual does not easily translate in English.

- (11) ʔuk<sup>w</sup>iicitʔaafʔał čapac.  
 ʔuk<sup>w</sup>iic=(m)it=ʔaaf=ʔał čapac  
 own.one’s.own=PST=**HAB**=PL canoe  
 ‘They had their own canoe.’

From an English perspective, the habitual in (11) is a bit odd: Doesn’t ownership imply the continuation of an event over a period of time? But in Nuuchahnulth, this is a more natural thing to add.

The habitual has the expected meaning associated with its chosen English label: It indicates that an action occurs on a regular basis or is part of a habit. Note that, as in the above examples,

<sup>6</sup> The word *niiłniiła* ‘rowing’ very rarely occurs in other aspect forms, as this meaning of *niił*- ‘lean back, row’ makes the most sense as a repetitive action. There is another word *niiłaaḥ* ‘argue, go to war’, which may or may not be related. I am indebted to Henry Kammler’s in-progress dictionary for this explanation of *niił*-.

event repetition is much more loosely interpreted than in the repetitive and iterative aspects. In (8), someone would habitually make the speaker go out rowing for eggs on islands in Barkley Sound—but presumably not every day. Sometimes the person initiating the egg-hunt might be off visiting relatives, sometimes the weather would be bad, and so on. Rowing looking for eggs was clearly an on-again, off-again event. In contrast, in (11), the ownership of a canoe persisted over a long period of time (presumably not discrete instances of owning and losing ownership over a canoe), and this long continuation is either a fact the speaker felt was worth emphasizing by making the verb habitual or a fact not necessarily entailed by the semantics of *ʔuk<sup>wiic</sup>*. In any case, the interpretation of the habitual in the two sentences is quite different, showing that the pluractionality signaled by the habitual is much looser in meaning than that of the repetitive and iterative aspects.

### 3.4 Summary of pluractionals

With the exception of the habitual, pluractional aspect in Nuuchahnulth consistently uses some kind of reduplication, plus suffixation and possibly a change in vowel length. This use of reduplication is classically *iconic*: an event that recurs is indicated (partially) through the recurrence of the word.

Not only is the habitual aspect not marked iconically, it is also the only pluractional which is not a part of the verb's lexical specification. Repetitive and iterative aspects are part of the set of lexical possibilities one learns as part of a verb stem. The habitual is a syntactically free enclitic, not bound to any lexical stem.

## 4 Nominal plurality not marked within the noun phrase

The pluractional forms all give some kind of event plurality or event repetition. It is also possible for verbs to host marking that refers to the plurality of one of their arguments, something which happens in a few cases in Nuuchahnulth.

### 4.1 Verbal suffix *-!aqa*

The first marker of nominal plurality outside the noun phrase is the suffix *-!aqa*, one of two derivative plural suffixes documented as “core plural suffixes” in Davidson (2002:207–208). I have not encountered this suffix in my work on modern Nuuchahnulth, but it was noted in Sapir and Swadesh (1939:319) and occurs in both Nuuchahnulth and Makah. *-!aqa* refers to multiple participants of an event, as in *čiiq-a* ‘chant’, *čiišaq* ‘several chanting’, and *pisat-uk* ‘play’, *pisataqa* ‘several playing’ (Davidson 2002:207).

### 4.2 Verbal *-RL.yu·* and nominal *-L.yu·*

There are a very small number of words which have the suffix *-yu·* (Davidson 2002:207–208). Although I am presenting this with the verbal section, the suffix occurs on both nouns and verbs, but with a different template. On verbs, the suffix reduplicates the stem and lengthens the second vowel of the resulting word (**RL** in my notation), while on nouns it only lengthens the first vowel (**L**).

The *-yu·* forms are fossilized and unproductive in the modern language. *cicii<sup>y</sup>u* ‘several speak’, from the root *ciq-* ‘speak’ is an example of the verbal template, while *nuič<sup>y</sup>uu* ‘mountains’ from the root *nuč-* ‘mountain’ is an example of the nominal template. In my experience, words that use

the *-yu-* suffix are very rare, although they appear to have been more common in the Sapir-Thomas texts.

### 4.3 CV- reduplication

CV- reduplication of the verbal stem alone can be used to indicate plurality of object. This is identified by both Jacobsen (1997:16–18) and Davidson (2002:210–212) as distributive. This may be correct, but I am less convinced that there is still in modern Nuuchahnulth a clear semantic distinction between distributive and other types of plural marking.

- (12) hihilʔaps n̄ačaalʔak hilaal tiipin.  
 R-hil=ʔap=s n̄ačaalʔak hilaal tiipin  
 PL-be.at=CAUS=STRG.ISG book on table  
 ‘I put the books on the table.’

An irregularity in this pattern is the occasional use of <ɫ> as a coda for the reduplicant, something noted in Davidson (2002:209). Davidson gives two examples of this: *muq<sup>w</sup>alʔič/mulmuq<sup>w</sup>alʔič* ‘clothed in a phosphorescent robe’ and *tiič/tiɫtiič* ‘alive’.

### 4.4 Plural enclitic =ʔal

The enclitic =ʔal (or in the Kyuquot-Checlesheht dialect, =ʔinɫ) is commonly thought of as the third person plural subject marker. This is probably the most frequent use of this morpheme, but it is not strictly speaking part of the person agreement paradigm: =ʔal can be split from person indexation by the intervention of the habitual morpheme ʔaala, as in the word ʔunaakitweʔinʔaalaʔal.<sup>7</sup> =ʔal can also refer to either the subject (13, 14) or the object (15).

- (13) hitasaʔaλweʔinʔal.  
 hitasaλ=!aλ=we.ʔin=ʔal  
 land.on.beach=NOW=HRSY.3=PL  
 ‘They landed on the beach.’
- (14) hiɫitʔal maʔas sumakquʔis.  
 hiɫ=(m)it=ʔal maʔas sumakquʔis  
 be.at=PST=PL house Hot.Springs.Cove  
 ‘They were home at Hot Springs Cove.’

<sup>7</sup> The glossing for which would be:

- (i) ʔunaakitweʔinʔaalaʔal  
 ʔu-na-k=(m)it=we.ʔin=ʔaala=ʔal  
 EMPTY-have=PST=HRSY.3=HAB=PL  
 ‘they had (I hear)’



- (15)  $\lambda u\dot{?}aq\dot{\lambda}ap\dot{?}ic\dot{?}a\dot{?} ha\dot{?}uk.$   
 $\lambda u\dot{?}aq\dot{\lambda}=!ap=\dot{?}i-c=\dot{?}a\dot{?} ha\dot{?}uk$   
 good=FUT=CAUS=STRG.2SG=PL eat.DR  
 ‘You will make them eat well.’

These are all modern examples, with (15) coming from a community-produced text, “Son of Thunderbird”—a naturally-produced example without the interference of being said to a linguist who has a history of asking funny questions about one’s native language.

#### 4.5 Verbal plural suppletions

Finally, there are a small number of verbs that have different forms based on whether the subject is singular or plural. The only verbs that do this, to my knowledge, are intransitive. Listing them as singular/plural pairs, I know of four or five: ‘sleep’  $wa\dot{?}i\dot{c}^8/huu\dot{?}i\dot{c}$ , ‘run’  $kamitquk/pu\dot{?}ak$ , ‘fly’  $mataa/hu\dot{?}ak$ , and ‘cry’  $\dot{?}ii\dot{h}\dot{s}\dot{i}\dot{\lambda}/\dot{\lambda}a\dot{a}yuu$ , and maybe a fifth,  $susaa/\dot{c}\dot{u}yaa$  ‘swim’.<sup>9</sup>

It is difficult to get a perfect count of such suppletions, and the forms for ‘cry’ appear to be a relatively more recent addition to this set of pairs ( $\dot{\lambda}a\dot{a}yuu$  seems to have the plural  $-yu-$  suffix but without the expected reduplication and lengthening template of verbal  $-yu-$ , see §4.2), but when I asked a speaker about it, she directly said it was a group of people crying (or wailing), and I have an example of it used as a verb in natural speech. This apparently contrasts with  $\dot{?}ii\dot{h}\dot{s}\dot{i}\dot{\lambda}$ , which describes a single person crying.

### 5 Nominal plurality within the noun phrase

Nuuchahnulth marks plurality according to an animacy hierarchy: people are always marked for singular or plural, and inanimate objects are almost never marked for plural. Animals may or may not be marked for plural, depending on how “person-like” the speaker is thinking of them.

This general rule has a few prominent exceptions: some inanimate objects that are closely related to human use or are culturally important have their own plural forms, such as  $ma\dot{h}\dot{i}\dot{i}$  ‘house’,  $ma\dot{?}as$  ‘village’,  $tupaati$  (a kind of ritual marriage game or test),  $\dot{?}im\dot{t}\dot{i}$  ‘name’, and a few others. But aside from these cases, Nuuchahnulth speakers very rarely mark plurality for inanimate nouns, unless it is needed for emphasis or clarity.

There are also a small number of adjectives that have plural forms. Unlike French, where adjectives always agree in number with their noun, not every adjective has a plural form and the plural form does not always have to be used. Some of the most common adjectives that pluralize are:  $\dot{\lambda}a\dot{?}uu$  ‘other’,  $\dot{?}ii\dot{h}$  ‘big’,  $\dot{\lambda}ul$  ‘good’,  $\dot{?}ii\dot{c}\dot{i}m$  ‘old/elder’, and  $miixtuk$  ‘old/elder’. Adjective plural forms always follow one of the strategies used for noun plural forms, and so I have included them here with the nouns.

The nominal plural system is one of the most complex and irregular parts of Nuuchahnulth grammar. I have organized this section to follow what I consider to be the morphological paradigms of the plural. Most of the examples given below are in contemporary use, but a few of them are

<sup>8</sup>  $we\dot{?}i\dot{c}$  in the Barkley Sound dialect

<sup>9</sup> It is not clear if the root  $\dot{c}\dot{u}$ - ‘swim, school’ is properly the plural counterpart of a singular  $sus-$  ‘swim’, or if the former is a special term for schooling fish.

archaic. I have erred on the side of giving a complete listing of known plurals, rather than only the ones known to be used by current speakers.

### 5.1 Regular plural *-mính*

The most regular way to mark plurals in Nuuchahnulth, and the one used when none of the special strategies below are present, is with the suffix *-mính*. When speakers find that they need to mark plural on a word that often does not receive plural marking (for example, on an inanimate object or an animal), this is typically what is used.

However, there are a few common plural forms that use *-mính* instead of one of the more complex forms. One example is the plural of *luuč'muup* 'sister' in the Barkley Sound and Central dialects, which is *luuč'muupmính*, where most kinship terms have at least reduplication or some combination of forms from the plural template (§5.2). Similarly, the word *lucsac* 'young girl', in all dialects that preserve the word, has the plural form *lucsacmính*.

### 5.2 The plural template

Many plural forms follow one or more components of the plural template, which has three parts:

1. Reduplication
2. Lengthening
3. <ɬ> infixation after the first vowel

Each of the three parts of the template can be combined with each other, but only reduplication can occur alone. Plural marking by reduplication alone is most frequent in words describing specific relatives or kinship terms.<sup>10</sup>

**Table 1:** Relatives with reduplication

Singular	Plural	English
naniiqsu	nananiqsu	'grandparent(s)'
ḥačimsiqsu	ḥaḥačimsiqsu	'brother(s)'
ʔaasiqsu	ʔaaʔaasiqsu	'niece(s)'
wiiʔuu	wiiwiiʔuu	'nephew(s)'
naʔiiqsu	nanaʔiqsu	'uncle(s)/aunt(s)'
maamiiqsu	maamaamiiqsu	'older sibling(s)'
yúk <sup>w</sup> iiqsu	yúyúk <sup>w</sup> iiqsu	'younger sibling(s)'
ʔaayicqim	ʔaaʔaayicqim	'great-grandchild(ren)'

Plain reduplication can yield forms that are more opaque through subsequent application of ʔ reduction. An example is *k<sup>w</sup>aʔuuc* 'grandchild.' The plural form *k<sup>w</sup>akuuc* is derived through the

<sup>10</sup> Note that most of the kinship words contain the suffix *-iqsu* 'relative' which has a long vowel if the suffix falls on the second syllable and a short vowel if it falls on the third syllable or later.

application of regular phonological processes: *k<sup>w</sup>akuuc* + reduplication → *\*k<sup>w</sup>ak<sup>w</sup>aɔuuc* + glottal stop reduction → *\*k<sup>w</sup>ak<sup>w</sup>uuc* + dorsal unrounding before /u/ → *k<sup>w</sup>akuuc*.

Glottal stop reduction will reappear in other plurals, but the only two forms I know of that have *only* reduplication and glottal reduction are ‘grandchild’ and ‘other’.

**Table 2:** Reduplication and glottal reduction

Singular	Plural	English
k <sup>w</sup> aʔuuc	k <sup>w</sup> akuuc	‘grandchild(ren)’
ʔaʔuu	ʔaʔuu	‘other(s)’

The other two parts of the template, lengthening and <*t*> infixation, do not occur on their own and must be combined with other parts of the template. An example of such a combination is reduplication + lengthening. Typically just the first syllable is lengthened.

**Table 3:** Reduplication + first vowel long

Singular	Plural	English
maḥti	maamaḥti	‘house(s)’
çaʔak	çaçaak <sup>11</sup>	‘river(s)’

It is possible but rare for the first two vowels to be lengthened.

**Table 4:** Reduplication + first two vowels long

Singular	Plural	English
tupaati	tuutuupati	‘marriage test(s)’

The infixation of <*t*> after the first vowel, like lengthening, must occur with another element of the plural template. Both reduplication + <*t*> infixation and lengthening + <*t*> infixation are possible.

**Table 5:** Reduplication + <*t*>

Singular	Plural	English
ḥaak <sup>w</sup> aaʔ	ḥaathaaak <sup>w</sup> aaʔ	‘young woman (women)’
quuʔas	quutquuʔas	‘person (people)’
wiʔak	witwaak <sup>12</sup>	‘warrior(s)’

<sup>11</sup> Note that the resulting plural *çaçaak* from *çaʔak* also comes from glottal stop reduction: *çaʔak* → *çaçaʔak* → *çaçaak*.

**Table 6:** First vowel long + <t>

Singular	Plural	English
taña	taatña	‘child(ren)’
qaʔapta	qaatʔapta	‘leg(s)’
haʔum	haatʔum	‘food(s)’
maʔas	maatmaas	‘village(s)’
ʕiniiʕ	ʕiitniiʕ	‘dog(s)’
naʔaqak	naatʔaqak	‘baby (babies)’

There are two cases in the modern language where the plural template is applied a little irregularly. The first is a case of <t> infixation + lengthening, but where the lengthening occurs only on the second syllable and not on the first. This is the case for the word *ʕut* ‘good.’

**Table 7:** Second vowel long + <t>

Singular	Plural	English
ʕut	ʕutʕuuʕ	‘good’

And one of the plural forms for the word *quuʔas* ‘person’ irregularly becomes short-long (instead of the expected long-long) after it undergoes reduplication and glottal stop reduction. This plural form is only used in Eastern Barkley Sound dialects:

**Table 8:** Reduplication + first vowel short, second vowel long

Singular	Plural	English
quuʔas	quqʷaas	‘person (people)’

### 5.3 Infix R.<ʔaa>

The infix R.<ʔaa> comes with a reduplicating template: The root is reduplicated and then <ʔaa> is inserted after the first vowel of the reduplicant. Like the plural formative -yu· (§4.2), it seems to be an older form and is not one I have encountered with modern speakers. However, it is present in the Sapir-Thomas texts at least for the root *yaqʷ-* ‘who’ and Davidson finds it in at least one word in Makah (Davidson 2002:209).

- (16) *çiiqaaʔaʕ yaʔaayaqqas.*  
*çiiq-a·=!aʕ yaqʷ-R.<ʔaa>=qas*  
 chant-CT=NOW who-PL=DEFN.ISG  
 ‘Those with me (in the crew) chanted.’

(Sapir and Swadesh 1955:134)

<sup>12</sup> *wiʔak* → *witwiʔak* → *witwaak*

#### 5.4 Infixes <(a)aỵ'>, <ỵ'aa>

The infixes <(a)aỵ'> and <ỵ'aa> occur only on their own, without the plural template. The infix <aỵ'> or <aaaỵ'> is always inserted after the first consonant. The length of the vowel appears to be unpredictable.

**Table 9:** <(a)aỵ'> infix

Singular	Plural	English
ʕumtii	ʕaaaỵumti	'name(s)'
ʔuušḥyums	ʔaaaỵušḥyums	'relative(s)'
miixtuk	maỵiixtuk	'old' (as adj), 'old people' (as noun)

The other plural infix <ỵ'aa> is always inserted after the first vowel:

**Table 10:** <ỵ'aa> infix

Singular	Plural	English
hicsnup	hiyaacsnap	'couple(s)'
k <sup>w</sup> atyik	k <sup>w</sup> ayaatyik	'heavy'
k <sup>w</sup> iishii	k <sup>w</sup> iiyaashi	'different'

A few plural forms have changed the <ỵ'aa> to <ỵ'uu> under the influence of a neighboring /u/.

**Table 11:** <ỵ'uu> infix

Singular	Plural	English
pukmis	puyuukmis	'cold monster(s)'
çušuk	çuyyuüşuk	'new'

#### 5.5 The suffix -iiḥ

The -iiḥ suffix can occur alone to indicate plural. If the word it attaches to ends in a *l*, the *l* typically disappears:

**Table 12:** -iiḥ suffix

Singular	Plural	English
ħawil	ħawiiḥ	'chief(s), nobleman (men)'

However, this suffix can also occur with parts of the plural template, for instance lengthening or the <*t*> infix:

**Table 13:** *-iih* + plural template

Singular	Plural	English
čakup	čaakupiih	‘man (men)’
maquuł	maatquuh	‘blind’

Sometimes the *-iih* suffix forms something more irregular, like in *luucsma* ‘woman’, where the *ma* becomes *aam*:

**Table 14:** Irregular *-iih*

Singular	Plural	English
luucsma	luucsamiih	‘woman (women)’

The *-iih* suffix also appears in the irregular plural for *hakum* ‘princess’ or ‘noblewoman.’ Here, the *-iih* appears to be hardening (more on this later), it combines with the <*t*> from the plural template, and the *u* from *hakum* disappears:

**Table 15:** Irregular *-iih* + <*t*>

Singular	Plural	English
hakum	hatkmiih	‘princess(es)’

Finally, the *-iih* suffix combines with the classifying suffix *-(q)imł* ‘round or chunky thing’ to form the irregular plural *-(q)apiih*. There are not very many words where this can be seen, since these words tend to refer to inanimate objects, which are not typically pluralized. I found a few pairs in the Sapir-Thomas Texts.

**Table 16:** *-(q)imł* + *-iih*

Singular	Plural	English
łisimł	łisapiih	‘perch(es) (fish)’
małimł	małapiih	‘bundle(s)’

## 5.6 Ca- reduplication

Ca- reduplication reduplicates the first consonant but uses an *a* vowel instead of the vowel from the word. This only occurs with the plurals for three words: *łiicim* ‘old’, *łiih* ‘big’, and *quuł* ‘slave’.

**Table 17:** Ca- reduplication

Singular	Plural	English
ʔiičim	ʔaʔiičim	‘old’ (adj), ‘elder’ (noun)
ʔiiḥ	ʔaʔiiḥ	‘big’
quuḥ	qaquuḥ	‘slave(s)’

### 5.7 Full reduplication

For a few words, the whole word reduplicates instead of just the first consonant and vowel. All such words are only one syllable long:

**Table 18:** Full reduplication

Singular	Plural	English
nuuk	nuuknuuk	‘song(s)’
kuḥ	kuḥkuḥ	‘hole(s)’
ʔuq	ʔuqʔuq	‘wide’

### 5.8 Irregular plurals

A small number of plurals follow none of the above patterns. First is *ʔanaḥʔis* or *ʔačknaḥʔis*, both of which mean ‘small’. They have the irregular plurals *ʔaʔinḥʔis* (*ʔeʔinḥʔis* in Barkley Sound) and *ʔačkʔinḥʔis*. The ending *-ʔinḥ* looks similar to *minḥ* and is probably related.

**Table 19:** Small

Singular	Plural	English
ʔanaḥʔis	ʔaʔinḥʔis	‘small’
ʔačknaḥʔis	ʔačkʔinḥʔis	‘small’

And finally, the word *meʔiḥqac* ‘boy’ has an irregular plural in Barkley Sound dialects, *maaḥʔitqinḥ*, which also shares the *-inḥ* ending. Other dialects use *maʔiḥqac* and *maʔiḥqacminḥ* for ‘boy’ and ‘boys’.

**Table 20:** Boy (Barkley Sound dialect)

Singular	Plural	English
meʔiḥqac	maaḥʔitqinḥ	‘boy(s)’

## 5.9 Competing plural forms

The preceding sections and accompanying tables may have given the impression that certain lexical items always follow certain plural formations. This is not strictly the case. Most lexical items have a dedicated plural form in Nuuchahnulth, and even more have a dedicated plural form for a given dialect of Nuuchahnulth. But some of these lexical items have competing plural forms—both between dialects and within a dialect.

The root with the clearest distribution of competing plurals is perhaps *quuʔas* ‘person,’ which has the plurals *quq<sup>w</sup>aas* in the East Barkley Sound dialect, *quutquuʔas* in the West Barkley Sound, Central, and Northern dialects, and *quuʔas<sup>m</sup>inh* in the Kyuquot-Checlesht dialect. The first two forms represent variations of the plural template, while the last is fully regularized with the default plural.

Another example is the plural of *ʔiičim* ‘old, elder,’ which is most typically *ʔaʔiičim*, following the Ca- reduplication pattern (*ʔeʔiičim* in Barkley Sound, following a regular ablaut rule). However, Henry Kammler has alerted me to the alternate form *ʔiitʔiičim*, which follows one of the plural templates, and is used consistently by some Barkley Sound speakers and is not present in the Sapir-Thomas texts. It is unclear whether this represents a smaller dialect variety or a type of free variation among Barkley Sound speakers.

There is also the plural of *ʔimtii* or *ʔumtii*,<sup>13</sup> which often has the <aaʔ> infix, yielding *ʔaaʔimti* or *ʔaaʔumti*, but alternative variants *ʔiʔimti* and *ʔaaʔimti* (or *ʔaaʔumti*) are also in use.

Finally, I have personally noted many forms for the plural of *naniiqsu* ‘grandparent’. These notes span a wide period of time and I have not since confirmed where these variants occur, but I have in my notes: *nananiqsu*, *naananiqsu*, *natnaniqsu*, and *naatnaniqsu*. These all come from the plural template and contain reduplication, but vary with respect to other parts of the template: The presence or absence of <t>, and the presence or absence of first syllable lengthening.

It is perhaps unsurprising that a complex plural system like Nuuchahnulth has some lexical items which float between different strategies for plural marking. German is another language with a large number of plural morphemes: suffixing with *-e*, *-er*, *-n/en*, only vowel umlaut, and umlaut plus *-e* or *-er*. Finally, some borrowed words have come with the *-s* plural, as in *Pullover/Pullovers*. In Standard German, each noun has its own particular plural, but if we look at related language varieties such as Swiss German, the plural strategies do not remain consistent across lexemes. Likely due to the erosion of word-final schwa, Swiss German has innovated the use of a plain umlaut where Standard German has only *-e*. Where Standard German has *Tag/Tage* ‘day(s)’, Swiss German typically uses *Tag/Täg*. The same pattern appears with Standard German *Arm/Arme* and Swiss German *Arm/Ärm* ‘arm(s)’. The Swiss German system has generated other innovations, such as Standard German *Katze/Katzen* ‘cat(s)’ corresponding to Swiss *Chatz/Chatzene*, the latter of which avoids final *-n* deletion by the addition of *-e*. The word *Frau* ‘woman’ has two possible plurals in Swiss German, both of which are in use: *Fraue* and *Frauene*. Modern Swiss German slang goes even further, adding the relatively new plural marker *-s* to already-existing plurals, such as *Männers*, from the typical Standard German *Mann/Männer* and Swiss German *Ma/Männer* ‘man (men).’ These examples simply go to show that Nuuchahnulth is not alone in having a plethora of plural formations, nor in these formations varying dialect-to-dialect or even person-to-person. There may be a link between a large inventory of plural morphemes and relative instability in those forms.

<sup>13</sup> The difference stems from a regular sound change of *im* to *um* in some dialects.



## 6 Historical development

It is natural to wonder about the historical development of this complex system, and I will attempt to give a summary of what can be inferred about it. I will start with what can be understood just from internal reconstruction inside Nuuchahnulth, then compare with Makah, and finally turn to Northern Wakashan. I will give a very rough proposal of what the plurals were in Proto-Wakashan and how they developed in Nuuchahnulth.

### 6.1 Nuuchahnulth-internal development

Many nominal plurals have some kind of reduplication in their formation. Reduplication can occur with some other formatives (as with the plural template) or alone (as with CV- reduplication and full reduplication), making reduplication the most common morphological process involved in nominal plurals. Lengthening of the first or second syllable is a strategy that appears throughout the language, and in all cases but one it occurs together with a suffix.<sup>14</sup> Vowel lengthening (and elsewhere, shortening) as part of the specification of suffixes is a highly developed system in the language, and it is not surprising then that in plurals, this must cooccur with some other element, even if the origin of vowel lengthening is unknown.

The source of the plural infixes is obscure. There are no clear reflexes in the language for any of the infixes: the <*t*> of the plural template (§5.2), the *R*.<*ʔaa*> infix (§5.3), or the <*a(a)y'*>, <*y'aa*> infixes (§5.4). However, the latter two share a certain resemblance, and a *y'* to *ʔ* change is not unknown.<sup>15</sup> It is possible these all derive from a single original morpheme. Infixing in the verbal pluractionals appears to happen mostly for euphonic reasons. One can write down a rule that describes when the coda <*ʃ*> of the repetitive or iterative aspect appears and when it becomes <*c*>. This is unlike the <*t*> of the plural template, which follows no such rules.

Of the remaining nominal plurals, only *-iih* (§5.5) is internally transparent: It is almost certainly historically derived from the word *ʔiih* 'big'. The presence of *ʔ* in 'big' may even explain the glottalized *m'* in the plural form *hatkm'iih*, and why the *l* of *haw'il* seems to delete in *haw'iih*.<sup>16</sup> However, if *ʔiih* 'big' is indeed the origin of plural *-iih*, the reflexes of the historical *\*ʔ* are lexically specific and unpredictable, as words like *čaakupiih* show no trace of any glottal closure.

As with the infixes, the lexical source of the nominal plurals marked on the verbs, *-laqa*, *-yu-*, and *=ʔal* (§4.1) do not have any clear reflex inside Nuuchahnulth. Similarly, no modern word will illuminate the origins of habitual *=ʔaala* (§3.3), nor of the basic plural form *-minh* (§5.1).

With the exception of the habitual, pluractional forms all include reduplication of some type (excepting the Iterative II). Even before turning to related languages, the use of reduplication within Nuuchahnulth among both verbal pluractionals and nominal plurals is striking. In the repetitive (§3.1) and iterative aspects (§3.2), full reduplication only occurs with monosyllabic roots while CV-reduplication occurs elsewhere. It is unlikely a coincidence that full reduplication of nominals also only occurs with monosyllabic roots (§5.7).

Strictly from internal reconstruction I can tentatively conclude a few things about the development of Nuuchahnulth plurals:

<sup>14</sup> The gradative aspect is marked only with a Long-Short template applied to the first two syllables of a verb.

<sup>15</sup> For example, some speakers say *m'uksʔi* for 'rock', compared with the more conservative *m'uksyi*.

<sup>16</sup> There is a tendency in Nuuchahnulth for hardening suffixes to change a *l* to *y'*. A simplification of a hypothetical *\*hawiyiih* to *haw'iih* is phonologically reasonable, although there is no clear evidence for this.

1. Vowel-lengthening processes are unlikely to have arisen from plural formations, but as part of a larger set of grammatical changes.
2. The *-iih* plural likely derives from the word *ʔiih* ‘big’.
3. Reduplication is likely an old plural formation, including the pattern of full reduplication for monosyllables and CV- reduplication otherwise.

## 6.2 Southern Wakashan: Plurals in Makah

Makah is perhaps the Southern Wakashan language furthest removed from Nuuchahnulth, at least in terms of continuous contact (with Ditidaht somewhere in-between, which had very intense contact with Barkley Sound Nuuchahnulth). It is surprising, then, that *all* of the plural strategies present in Nuuchahnulth have cognates in Makah. Almost all of the data for these claims come from Davidson (2002 205–212).

### 6.2.1 Makah nominal plurality within the noun phrase

Makah shares all of the components of the plural template: reduplication, lengthening, and  $\langle t \rangle$  infixation. It also has the equivalent of regular Nuuchahnulth *-minh*, pronounced *-badax*.<sup>17</sup> The Nuuchahnulth plural *-iih* has its correspondence in Makah *-ix*, which as in Nuuchahnulth deletes preceding *l* (and shares a resemblance to the word *ʔi:x* ‘big’). Makah even shares irregular Ca-reduplication, also using the plural form *qaquul* for *quul* ‘slave’.

All the plural infixes in Nuuchahnulth also reappear in Makah, both the *R.<ʔaa>* infix, used in the plural of *baččiba* ‘commoner’, *baʔaabaččiba*, and the  $\langle (a)ay' \rangle$ ,  $\langle yaa \rangle$  infixes, which occur in Makah with a plain *y* instead of *y'*.

Despite the remarkably shared morphology, the use of these strategies for particular lexemes differs between Makah and Nuuchahnulth, a situation that echoes differences among the Nuuchahnulth dialects. For instance, Nuuchahnulth dialects all employ some combination of the plural template for *naniqsu*, while Makah instead uses the regular plural suffix to create *dade-ʔiqsu-badax*.

### 6.2.2 Makah nominal plurality not marked within the noun phrase

Makah shares both the *-!aqa* and *-yu-* suffixes, the latter of which can occur together with  $\langle t \rangle$  infixation from the plural template (a situation that does not occur in Nuuchahnulth). The reflex of the plural enclitic  $=ʔal$  in Makah is the grammatically identical  $=al$ . Makah also shares verb reduplication that indicates plurality of the subject,<sup>18</sup> as seen in the example taken from Jacobsen (1997), glossing mine:

- (17) *ʔitiqʷiʔ*  
 R-ʔiqʷ-<sup>o</sup>iʔ  
 PL-sit-in.house.DR  
 ‘many to sit in house’

In the realm of suppletive plurals, Makah shares at least *waʔic/huuʔič* ‘sleep’.

<sup>17</sup> In general, Nuuchahnulth *m,n* correspond to Makah *b,d*, and Nuuchahnulth *h* to Makah *x*. So *-minh/-badax* is a fairly regular correspondence.

<sup>18</sup> This includes the occasional insertion of *l* after an open-syllable reduplication (Davidson 2002:209).

### 6.2.3 Makah pluractionality

Finally, Makah shares almost the same repetitive and iterative reduplication templates as Nuuchahnulth (Davidson 2002:237–245). The habitual aspect uses a completely different enclitic, =*a:k* in Makah, compared to Nuuchahnulth’s =*ʔaala* (Davidson 2002:318), although they serve the same function.

What a comparison between Nuuchahnulth and Makah demonstrates is that the full set of strategies for plural marking have remained quite stable within Southern Wakashan, with the only exception being that different strategies have been employed across the same set of lexical roots. Assuming that these similarities stem from common ancestry and not borrowing, this would push back the development of the complex plural system in Nuuchahnulth to at least Proto-Southern Wakashan.

### 6.3 Northern Wakashan: Plurals in Kwak’wala

The plural situation in Kwak’wala appears to be less complex in terms of its morphology than in its Southern Wakashan relatives, although it has a variety of reduplicative forms. Plurality on nouns is typically optional (Rosenblum 2015:186), compared with obligatoriness of plural marking on human nouns in Nuuchahnulth. CV- reduplication on the Kwak’wala verb stem can be used both to mark the plurality of the participants (18) and pluractionality of the verb (19).

- (18) *gigiʔuʔoxda dámsisGəm láxox básket=iχ*.  
 R-gəy-əw=oxda dámsisGəm la=xox básket=iχ  
 PL-be.at-IN=S.DEM bottle PREP=DEM basket=DEM  
 ‘The bottles are in the basket.’ (Rosenblum 2015:187, minor glossing changes mine)
- (19) *ləmísuχ dádaχustoloχda wáciχ*  
 ləmísuχ R-dəχ-(g)usto-əla=oxda wáci=χ  
 AUX PL-jump-UP-CT=S.DEM dog=DEM  
 ‘And the dog is jumping up and down.’ (Rosenblum 2015:340, minor glossing changes mine)

There are also many examples of CV- reduplication used with nouns to derive plurals, as in *χaxamala* ‘orphans’ (Rosenblum 2015:129) and *qáqəko* ‘slaves’ (Rosenblum 2015:263).

Littell (2016:479) gives a variety of plural formations based on a *Ciʔ-* pattern, which like CV- reduplication applies to both nouns and verbs: *siʔsásəm* ‘children’, *ǵʷiʔǵʷəyám* ‘whales’, and *kiʔkiʔa* ‘(many people) went fishing’. This plural is so productive it can occur on nouns that are already marked irregularly for plurality, as in *giʔgəngənanəm* ‘children’ (2016:483). Presumably the same *Ciʔ-* form, termed *Ci-*, is given as a plural in Kalmar (2003:48–50). Littell also gives a further plural form he analyzes as underlyingly *Ca-*, as in *nəge/nəʔənge* ‘mountain(s)’ (2016:430). This form is only mentioned in Kalmar (2003:50–52) as a diminutive.

In his section on reduplication, Boas (1947:220–223) gives the CV- reduplication patterns listed above, and includes cases where a coda consonant is added in the form of *s*, *l*, or *χ*, examples for which all appear to be nouns or adjectives. He also gives some cases of full reduplication, as in *hánλa/hánhanλa*, ‘shoot/shoot repeatedly’; however, it is not clear if this was a regular process or irregular. Doubtless, there is more to be said about the irregularities and patterns in reduplicative plurals and pluractionals in Kwak’wala.

In terms of non-reduplicating plural formations, I am only aware of two suffixes and a few suppletive forms. The two suffixes are *-χdax<sup>w</sup>*, first recorded in Boas (1947:246), which is used on verbs

to indicate a plural human subject and which Boas hypothesized was related to a Bella Bella suffix. The use of  $-χdax^w$  seems to parallel another suffix  $-ak^w$ , present in words like *Kwakwaka'wakw* 'Kwak'wala speakers', *q'wəlsq'wəly'akw* 'elders', although the use of this as a "plural" rather than a collective is not so clear (Littell, *p.c.*).

There are two suppletive verb forms:  $k^w a-/k^w əs-$  'sit' and  $λax^w-/λax^w λəx^w-$  'stand'.<sup>19</sup> Not only are these roots not the same as suppletive verbal plurals in Southern Wakashan, the Southern Wakashan verbs for 'sit' and 'stand' do not have plural forms at all.

Kwak'wala plural and pluractional forms only share reduplication in common with Nuuchahnulth. The modern system seems to have converged on CV- reduplication, which has Ci(?)- and Ca- forms. However, a larger number of reduplications are present in Boas's materials, including reduplication with coda consonants, a pattern that is also present in Southern Wakashan. Plural suppletion for verbs is present, but not cognate, indicating that this was probably a development that happened separately in the two branches, after they split off from Proto-Wakashan.

#### 6.4 Northern Wakashan: Plurals in Heiltsuk

Although he nowhere addresses plurals specifically, some image of the plural system in Heiltsuk can be derived from the materials in Rath (1981). This review is by no means exhaustive, and much work remains to be done on the Heiltsuk plural system. As in the rest of the family, a large number of plurals are formed by reduplication.

First there is reduplication that copies the first consonant after the first vowel, or alternatively put, CV- reduplication followed by deletion of the second vowel. This can be seen in words such as *cása/cácsa* 'pour' and *ǵánilha/ǵáǵnilha* 'supper'. Another common form of CV- reduplication is Ci- reduplication, as in *méns'it/mímens'it* 'try' and *laénca/lilaénca* 'go underwater'. Both of these strategies can incorporate a coda vowel following the reduplicant, as in *wilh/wiswílh* 'thin' and *ýlis/ýxylis* 'spread out on the beach'. These broad CV- reduplication strategies seem to occur on verbs, adjectives, and nouns, but when they are on verbs they are always marking the plurality of some argument, not pluractionality.

Heiltsuk appears to also have a relatively rare left-aligned infixing plural,  $<ýV>$ , where the vowel is normally copied from its left neighbor. This is again a notionally participant plural which nevertheless occurs on both nouns and verbs, as in *mxá/miyémxa* 'hit, punch,' and *wisem/wiyítsem* 'man/men'.

There is a single set of plural suffixes which Rath (1981) gives, listed as  $-k(v)asw$ ,  $-k(v)as'u$ , and  $-k(v)as'uw$ . These forms are apparently also used as honorifics.

Finally, though there is no section on pluractional verb aspects, the dictionary reveals an apparently regular or semi-regular formation of verbs that mean 'repeatedly'—somewhat analogous to the Nuuchahnulth repetitive aspect. These appear to be formed by full reduplication (possibly with some mutation on the final coda), and the suffixation of  $-a$  or  $-ka$ . Examples are: *wánút/wánútxwanutka* 'trade in/trade in repeatedly', *laénca/laénslaénca* 'go underwater/go underwater repeatedly', and *lix<sup>w</sup>/lix<sup>w</sup>liq<sup>wa</sup>* 'fold/fold repeatedly'.

<sup>19</sup> There are actually four plural variants given in Boas and Yampolsky (1948:420–421):  $λax^w λəx^w-$ ,  $λax^w λa-$ ,  $λax^w λo-$ , and  $λiλax^w-$ .

## 6.5 A sketch of plural development in Wakashan

Some of the elements of plural and pluractional formation are universal within the Wakashan family. Every language has some form of CV- reduplication for marking plural participants—*both* by marking it on the verb *and* on the noun. Every language furthermore has some form of CV- reduplication plus an additional consonant (typically a fricative of some kind, though not every language uses the same fricatives). This basic kind of reduplication is probably an old form of plural marking dating back to Proto-Wakashan, and which underwent further development and specialization in the daughter languages. It is possible that Ca- reduplication was also present in Proto-Wakashan, given its presence in both the southern branch and in Kwak’wala. However, the evidence for this is not great, and it could be explained by independent vowel reduction in the daughter languages. Northern Wakashan either retained or went on to develop a Ci- plural form, while Southern Wakashan elaborated on this type of reduplication with templatic vowel lengths, a system either not present or relatively less developed in the Proto-Wakashan.

The presence of nearly identical repetitive marking in Southern Wakashan and in Heiltsuk leads me to also assume that some form of reduplication plus an *-a* suffix to mark repetition was likely already present in the Proto-Wakashan verbal system. If this is true, it raises a question about the extensive templatic morphology in Southern Wakashan: Was this a southern innovation or the elaboration of a system that was already partially present in the proto-language?

The existence of a <’*yaa*> infix in Southern Wakashan, which sometimes undergoes vowel harmony, and a much clearer <’*V*> infix in Heiltsuk leads me to believe that Proto-Wakashan also had either a \*<’*V*> or \*<’*VV*> plural infix. In Southern Wakashan, this morpheme is used only with nouns, while I found both nominal and verbal examples for Heiltsuk in Rath (1981). It is of course not possible to know from this little data how the form was used in Proto-Wakashan, but given the much greater elaboration of plurals in the southern branch, I would not assume that its restricted use in Nuuchahnulth and Makah is reflective of the earlier stages of Wakashan. It is however consistently used for nominal plural marking, not pluractionality, in both Heiltsuk and Nuuchahnulth. Both Southern Wakashan infixes <*aay*> and <*’aa*> look like they may have developed from a hypothetically earlier <’*yaa*>, itself derived from an even earlier \*<’*V(V)*>.

From what seems to be a relatively restricted set of plural and pluractional forms centered around reduplication and perhaps only a single infix, Southern Wakashan developed an extremely rich and complex system of plural morphology prior to splitting into the modern languages of Nuuchahnulth, Ditidaht, and Makah. This included the suffixation of the Proto-Southern Wakashan form for ‘big’, something like \*’*iix*’, to certain nouns, perhaps originally reserved for human nouns that carried social significance (man, woman, chief, princess). Other developments proceeded along with the expansion of templatic morphology. A “regular” plural suffix, something like \*’*minx* or \*’*minax*, may have been introduced, or at least become more common, once the system became so complex that speakers were no longer certain which plural strategy belonged to which lexical root. This kind of motivated leveling is visible in Nuuchahnulth dialects, where Kyuquot-Checlesheht has abandoned templatic morphology for *quu’as* ‘person’ and gone with a regular form *quu’asminh*, while other dialects disagree about whether the appropriate plural form is *quq’<sup>w</sup>aas* or *quutquu’as*.

Though I believe this is a meaningful step toward uncovering part of the picture of the development of the Wakashan plural system, there is at this point not much more I can conclude about the earliest stages of its development. This picture would be greatly enriched by more in-depth work on the plurals and pluractionals in the northern branch of the family.

## 7 List of Abbreviations

Many abbreviations both standard and non-standard have been used in the glossing for this paper. Where I have copied examples from authors in languages I do not know, I have kept the original glossing, but for Nuuchahnulth I have used the schema developed in Inman and Werle (2016). A list of the abbreviations which are present in this paper and their meanings are given below.

**Table 21:** List of abbreviations

Abbreviation	Meaning	Abbreviation	Meaning
RP	repetitive	REAL	real mood <sup>20</sup>
IT	iterative	STRG	strong mood
PF	perfective	HRSY	hearsay mood
CT	continuative	PSSB	possible mood
DR	durative	DEFN	definite mood
CAUS	causative	HAB	habitual
NOW	now/then <sup>21</sup>	EMPTY	semantically empty
PASS	passive	LINK	linker
PST	past	DIM	diminutive
FUT	future	PL	plural

## References

- Boas, Franz. 1947. Kwakiutl grammar with a glossary of the suffixes. *Transactions of the American Philosophical Society* 37:203–377.
- Boas, Franz, and Helene Boas Yampolsky. 1948. Kwakiutl dictionary.
- Comrie, Bernard. 1976. *Aspect: An introduction to the study of verbal aspect and related problems*, volume 2. Cambridge University Press.
- Corbett, Greville G. 2000. *Number*. Cambridge University Press.
- Cysouw, Michael. 2003. *The paradigmatic structure of person marking*. Oxford University Press.
- Davidson, Matthew. 2002. Studies in Southern Wakashan (Nootkan) grammar. Doctoral Dissertation, University of New York at Buffalo.
- Inman, David, and Adam Werle. 2016. Westcoast (South Wakashan) glossing conventions. Presentation at the 51st International Conference on Salish and Neighbouring Languages.
- Jacobsen, William H. 1997. Makah ablaut and reduplication patterns. Paper presented at the 32nd In-

<sup>20</sup> The real mood (REAL) indicates that a proposition is strongly held to be true (or real) by the speaker. It is identical in meaning with the strong mood (STRG), but the real mood is used in the Barkley Sound dialect, while other dialects use the strong mood.

<sup>21</sup> NOW indicates that the current clause is the next in a sequence. It is very common in Nuuchahnulth and is a way of marking the progression of events.

ternational Conference on Salish and Neighboring Languages, Peninsula College, Port Angeles, Washington.

Kalmar, Michele. 2003. Patterns of reduplication in Kwak'wala. Doctoral Dissertation, University of British Columbia.

Littell, Patrick. 2016. Focus, predication, and polarity in Kwak'wala. Doctoral Dissertation, University of British Columbia.

Rath, John C. 1981. *Practical Heiltsuk-English dictionary with a grammatical introduction*. University of Ottawa Press.

Rosenblum, Daisy. 2015. A grammar of space in Kwak'wala. Doctoral Dissertation, University of California, Santa Barbara.

Sapir, Edward, and Morris Swadesh. 1939. *Nootka texts: Tales and ethnological narratives, with grammatical notes and lexical materials*. Linguistic Society of America, University of Pennsylvania.

Sapir, Edward, and Morris Swadesh. 1955. *Native accounts of Nootka ethnography*. Indiana University, Research Center in Anthropology, Folklore, and Linguistics.

Swadesh, Morris. 1938. Nootka internal syntax. *International Journal of American Linguistics* 9:77–102.