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**-Papers for ICSNL 50-**

The Fiftieth International Conference on Salish and  
Neighbouring Languages



Edited by:

Natalie Weber, Erin Guntly, Zoe Lam, and Sihwei Chen

**July 2015**

**Volume 40**

## **-Papers for ICSNL 50-**

### The Fiftieth International Conference on Salish and Neighbouring Languages

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Edited by:  
Natalie Weber, Erin Guntly, Zoe Lam, and Sihwei Chen

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## Preface

This volume includes many of the papers submitted to the 50th International Conference on Salish and Neighbouring Languages, co-hosted by the University of British Columbia and Simon Fraser University and held on the University of British Columbia Vancouver campus on August 5–7, 2015. Several speakers also gave more informal presentations and did not therefore include a paper in this volume. Additionally, this volume includes a paper by Amy Rose Deal that was presented at the 49th ICSNL conference, held in 2014, and a paper by Nancy Mattina that was not presented at any ICSNL conference but offers a valuable contribution in the spirit of the conference.

*Erin Guntly  
on behalf of the UBCWPL Editors*

## Introduction for the 50<sup>th</sup> year

This conference marks the 50th anniversary of the International Conference of Salish and Neighbouring languages, and it is my pleasure to introduce this volume of proceedings of the conference. As those who have previously chronicled the history of what started out as the Salish Conference have noted, it began with a small group of linguists dedicated to the study of Salish languages gathering at the Seattle home of Laurence and Terry Thompson in 1965, and by the early 1980s had expanded to include “neighbouring” language families and isolates, including Wakashan, Chimakuan, Tsimshianic, Athapaskan, Chinookan, Penutian and Sahaptin languages, as well as the Chinook jargon and linguistic isolates of the area, including Haida, Kootenai and Tlingit (see [icsnl.org](http://icsnl.org)). Throughout the decades, the conference became a “clearing house” and sharing forum for linguists who were carrying out long-term sustained work on languages of Northwest North America, along with past and present graduate students who were able to present work in progress, and the odd linguistic anthropologist who shared cross-over work into discourse and social theory. The annual papers, initially collected by the organizers of the year’s venue, were distributed, and since 2000 have been published through UBC Working Papers in Linguistics, now available as the On-Line Archive of ICS(N)L Papers. As Henry Davis noted, “...the *Papers* as a whole provide a unique perspective on the trajectory of linguistic investigation in the Northwest over the last half century, and as such form an important part of linguistic history in North America” (Introduction to the Kinkade Collection: The On-Line Archive of ICS(N)L Papers, [icsnl.org](http://icsnl.org)).

With this introduction, I would like to honour the long-term sustained work of the founding members and early generation of linguists who convened the ICSNL, and for years shared their work through this venue. My colleague Henry Davis will speak to the invaluable and important contribution of M. Dale Kinkade, and to the legacy of linguistic research and linguistic training that he left. Several other linguists were regular and productive contributors to the conference: The Thompsons, Bill Elmendorf, Wayne Suttles, Dell Hymes, Aert Kuipers, Tom Hess, Brent Galloway, to name a few – sadly, along with Dale Kinkade, many of them have left us. As a student and speaker of Secwepemctsin (Shuswap), I would like to express my gratitude for Aert’s long and invaluable research with speakers of Secwepemctsin – although he also carried out important work with Squamish speakers. Like the work of many of the other linguists who contributed to the ICSNL, Aert’s work not only resulted in his 1974 publication *The Shuswap Language*, and a 1989 collection of transcribed texts, *A Report on Shuswap*, but in collaboration with speakers of Secwepemctsin, he co-produced a series of

practical works that include a Dictionary, still the foundation of the current Secwepemc language dictionary, as well as a practical language course, and a word list. Reviewing his 1967 version of *A Course on Shuswap*, I cannot help but think that at a time when Secwepemc communities still had a large number of speakers but, like other First Nations communities, were facing the brunt of the cultural genocide and linguicide imposed by residential schools, Aert Kuipers anticipated the decline of the language and advocated language documentation work to include stories, place-names, personal names, cultural practices and traditions, and registers of speech that connect to them.

As the ICSNL persisted, new generations of researchers have honoured this legacy, and next to the descriptive and theoretical work on languages, many of the linguists and graduate students who have contributed to the conference have continued to carry out collaborative work with speakers to document languages. Some have collaborated with speakers and learners in First Nations speech communities to create pedagogical and applied materials, and to teach or co-teach the language to the next generation. Along with the ICSNL, other conferences, including the *Stabilizing Indigenous Languages Symposium* and the *International Conference of Language Documentation and Conservation*, have grown in the past decade or so, and have promoted and show-cased language revitalization in method, practice and theory. It is important to remind ourselves that the ICSNL, as involving collaborations among linguists and speakers of indigenous languages, has existed in this spirit from the onset. Importantly, in addition to the linguistic working paper presentations, since at least the 1990s, the ICSNL has included applied sessions on grass-roots language teaching and learning, and language revitalization. Unfortunately, since these are for the most part oral presentations, we do not have a written record of this important part of the Salish Conference.

In marking the 50th anniversary of the conference, and to celebrate the spirit and practice of collaboration among linguists and speakers of our languages, this year we “de-segregated” the more technical linguistic papers and the applied and collaborative presentations. Instead, we named our Friday session Collaborations, Indigenous Voices and Stories, featuring a number of papers presented or co-presented by First Nations elders, linguists and First Nations linguists, including last but not least a paper by Jan van Eijk, “The barrier breached: Ongoing cooperations between native speakers and linguists” that addresses this very topic. In addition, several of the papers presented in the sessions on Phonetics and Phonology, Syntax and Semantics, and on neighbouring language families Tsimshian and Wakashan feature collaborations and indigenous linguists.

As indigenous language communities are seeing their languages hanging by a thread and are facing the loss of the last first language speakers, we may ask, what can linguistics do, and what role do linguists have in indigenous language revitalization? For one thing, as we face the urgency and the challenge of producing fully proficient second language speakers of our languages, collaborations between linguists, and the training of indigenous linguists are

important tasks that will not only help academics understand and analyse the complex and difficult phonologies and grammatical structures of First Nations Languages, but will also help First Nations language learners develop practical and pedagogical materials. The 50th ICSNL will continue such collaborations and will continue to celebrate our languages, and will continue the dialogue of linguistic research and collaboration.

*Marianne Ignace*

*July, 2015  
Vancouver, British Columbia*



# **Part I**

## **Phonetics and phonology**

---



# Heavy syllables in Gitksan\*

Jason Brown  
University of Auckland

**Abstract:** Very little attention in the existing literature has been devoted to the prosodic structure of Gitksan. Recent work on stress, however, has opened a productive discussion about syllable weight. This paper uses these insights to further the discussion about possible moraic structures, and isolates a difference in how weight is assigned to consonants in stress vs. in other types of prosodic morphology, such as reduplication and word minimality. The patterns that emerge are similar to the behavior of heavy syllables in other languages, but with some key differences.

**Keywords:** Gitksan, phonology, stress, prosodic morphology

## 1 Introduction

The status of prosodic units in Gitksan is a topic that has received little recent attention in the literature on the language. Despite the potentially complex syllables in the language, and the range of prosodic morphological operations that are present, aside from recent works such as Brown (to appear) and Schwan and Anghelescu (2013), there has been little discussion as to what the internal prosodic structure of syllables in the language is.

In recent work, Forbes (2015) has shown that the stress system of Gitksan is weight-sensitive, in that stress preferentially falls on heavy syllables that are not in the default position for stress assignment (i.e. in root-final position). While CVV<sup>1</sup> syllables count as heavy, CVC syllables do not seem to behave in the same way, as far as stress assignment is concerned. This work intends to expand on Forbes' important study, and to investigate the role that syllable weight plays in other facets of the language beyond word-level stress.

In short, this paper is a brief note intended to highlight a contrast between the syllables that count as heavy for metrical reasons, and those that count as

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\* I would like to thank my primary Gitksanimx teachers, Barbara Sennott and the late Doreen Jensen. Thanks are also due to Henry Davis, Clarissa Forbes, Forrest Panther, Tyler Peterson, and Michael Schwan for reading and commenting on earlier drafts of this paper, as well as to the UBC Gitksan Research Lab for general academic stimulation and support, which contributed to the ideas presented here. I would also like to thank the editors for many helpful comments and corrections. All errors are my own.

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<sup>1</sup> “CVV” here is used as shorthand for syllables with phonetically long vowels [CV:], or for syllables with diphthongs that are bimoraic [CV<sub>1</sub>V<sub>2</sub>]. The “C” is intended to reflect an optional syllable onset across languages, and is not intended to be limited to a single consonant, as these structures generally do not contribute to syllable weight cross-linguistically.

heavy for prosodic morphological operations, including reduplication and word minimality. While the evidence indicates that coda consonants are moraic for prosodic morphology, this finding still lends support to Forbes' claim that stress is weight-sensitive, as the minimal word equals the stress foot (Hayes 1995) insofar as it is a heavy syllable. While this short note is not intended to provide an in-depth and unified analysis of the syllabic and sub-syllabic units in the language, it does aim to isolate a pocket of problematic data. The paper is structured as follows: Section 2 provides a brief overview of stress in Gitksan (as presented by Forbes 2015), and draws out the implications for prosodic structure. Section 3 expands the study into the area of reduplication, where it will be shown that coda consonants must be moraic, and section 4 continues this thread in an exploration of the minimal prosodic word. Section 5 provides a brief discussion, and relates the observations to larger theoretical issues.

## 2 Word stress

Rigsby (1986), Forbes (2015), and Brown, Davis, Schwan & Sennott (to appear) draw the generalisation that lexical stress in Gitksan falls on the final syllable of the morphological root. This is exemplified below<sup>2</sup> (data from Forbes 2015: 81–82):

- |     |                                   |                |
|-----|-----------------------------------|----------------|
| (1) | gɪbá                              | ‘wait.for’     |
|     | g <sup>w</sup> ɪlá                | ‘blanket’      |
|     | laɣ <sup>h</sup> ní               | ‘hear’         |
|     | mijúx <sup>w</sup> s              | ‘good smell’   |
|     | ʔamxsiwá:                         | ‘white person’ |
|     | sɪk <sup>w</sup> é:k <sup>w</sup> | ‘sibling’      |

Forbes (2015) notes that this is a default iambic stress pattern. Forbes further illustrates the fact that despite this default pattern, lexical stress is weight-sensitive. That is, if a syllable with a long vowel precedes the root-final syllable, this syllable will instead be stressed, as exemplified in (2):

- |     |                         |                |
|-----|-------------------------|----------------|
| (2) | ná:sɪk <sup>h</sup>     | ‘raspberry’    |
|     | lá:gal                  | ‘examine’      |
|     | ʔó:ts <sup>h</sup> ’ɪn  | ‘soul, spirit’ |
|     | naq <sup>h</sup> é:da   | ‘muskrat’      |
|     | cawaq <sup>h</sup> á:ni | ‘make peace’   |
|     | hó:bɪx <sup>h</sup>     | ‘spoon’        |

---

<sup>2</sup> Syllable breaks are not indicated in these forms. While syllable divisions are unambiguous in many words (e.g. [gɪ.bá] ‘wait.for’, syllabification in other words is much less clear, due to the fact that Gitksan allows fairly extensive clustering of obstruents, and where the ordering of stops and fricatives in a cluster is relatively free. See Brown (to appear) for a discussion of syllable structure in the language.

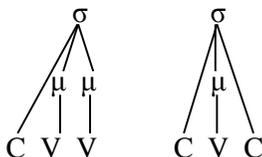
Thus, stress is sensitive to syllable weight, with long vowels attracting stress away from the default root-final position. The same pattern, however, does not hold for syllables with a short vowel and closed by a coda consonant<sup>3</sup>:

- (3) *laχ'ní*            'hear'  
       *bisdá'j*         'grouse'  
       *gımx'dí*       'sibling of opposite gender'  
       *hındá*         'where'

The generalization is thus that the default for stress placement is the root-final syllable, but a heavy syllable in the root can attract stress away from the right-hand position. As defined by the patterns in (2) and (3), a heavy syllable is one with a long vowel (i.e. CVV), and not one with a short vowel plus a coda consonant (CVC). In Optimality-theoretic terms, this would be the result of ranking of WEIGHT-TO-STRESS » RIGHTMOST, such that primary stress is aligned rightmost in the prosodic word, all else being equal, and where this condition can be over-ridden by the presence of a syllable with a long vowel.

## 2.1 Implications

As the data above illustrates, the stress patterns in Gitksan have implications for the prosodic representations of the language below the level of the syllable. As noted above, the patterns lead Forbes to the sensible conclusion that coda consonants are not moraic in Gitksan, and for the purposes of stress, only long vowels count as heavy. Thus, the representations of the Gitksan syllable are as in Figure 1:



**Figure 1** Syllable weight in Gitksan

As Figure 1 illustrates, long vowels are bimoraic, but coda consonants are not moraic. This amounts to one of the options available to languages cross-linguistically, the other option in a system with contrastive vowel length being that coda consonants contribute to syllable weight (i.e., are moraic) (Zec 1995, 2011). In the following sections, data will be presented which supports the view

<sup>3</sup> Forbes (2015) actually lists some forms that appear to have this pattern on the surface: [Gójp'ax] 'bright', [námq'ap] 'bank of stream'. She notes, though, that the vowel of the second syllable is epenthetic in these cases, motivated by breaking up consonant clusters either (a) after a long vowel, or (b) when the first member of the cluster is glottalized, with the underlying forms of the words above being /qojp'γ/ and /namq'p/, respectively. The dynamic introduced by this sub-pattern has obvious implications for a constraint-based approach to stress assignment; however, I will not treat these cases further.

that coda consonants are moraic for some phonological processes in Gitksan. This raises the problem whereby certain structures count as heavy for one phenomenon, and as light for others. This problem will be touched on in Section 5.

### 3 Reduplication

One aspect of prosodic morphology that requires a distinction between light and heavy syllables in the language is reduplication. Reduplication marks plural number, plural agreement, or durative aspect (Rigsby 1986, Brown 2007). Gitksan exhibits two basic reduplicative templates (plus one more with a fixed palatal fricative, which won't be discussed at length here). One template is a CV-reduplicant, with the vowel surfacing as an allophone of /ə/<sup>4</sup>:

- (4) CV-reduplication
- |        |            |                   |
|--------|------------|-------------------|
| ts'ak' | ɬzi~ts'ak' | 'dish'            |
| doʔo   | di~doʔo    | 'cheek'           |
| baʔa   | bi~baʔa    | 'thigh'           |
| lit    | li~lit     | 'wedge'           |
| gin    | gi~gin     | 'to feed someone' |
| gidax  | gi~gidax   | 'to ask'          |

This template amounts to a light syllable ( $\sigma_{\mu}$ ) in the reduplicant. The following illustrates the other template, a CVC-reduplicant, where the vowel quality effects are the same as in the pattern above:

- (5) CVC-reduplication
- |                    |                        |                              |
|--------------------|------------------------|------------------------------|
| ʔisx <sup>w</sup>  | ʔas~ʔisx <sup>w</sup>  | 'stink, smell'               |
| ɬzap               | ɬzip~ɬzap              | 'make, do'                   |
| jim                | jim~jim                | 'smell (VT)'                 |
| t'e: 'It           | dil~t'e: 'It           | 'be fast, quick'             |
| gats               | gas~gats               | 'pour'                       |
| dulp <sup>xw</sup> | dil~dulp <sup>xw</sup> | 'to be short'                |
| mas <sup>xw</sup>  | mis~mas <sup>xw</sup>  | 'to be red (ochre-coloured)' |

Given that there is a contrast between the light syllable template and the template in (5), it's safe to say that the latter is a heavy syllable ( $\sigma_{\mu\mu}$ ).

Assuming that reduplicative templates are derived from genuine units of prosody and not consonantal and vocalic slots (McCarthy & Prince 1986), the surface CV- and CVC- templates employed in (4)–(5) must be encoded in the grammar in prosodic terms. As argued extensively in Brown (2008), there is no sense in which these reduplicants can fall out of a generalized template; i.e., the reduplicant templates are not shaped by other independent forces in the grammar. Instead, the constraints regulating the reduplicant shape must be stipulated in the

---

<sup>4</sup> Most of the [i]s in these forms are more accurately [ɪ]. Vowel quality has been abstracted over in these cases.

form of templatic constraints such as RED= $\sigma_{\mu}$  (“reduplicants equal a light syllable”) and RED= $\sigma_{\mu\mu}$  (“reduplicants equal a heavy syllable”). This is in part because there are no properties of the base that will predict when a given template is used (cf. the similar bases but different templates in *gi~gin* ‘to feed someone’ vs. *jim~jim* ‘smell (TRANS)’), and that there is inter-speaker variation such that some bases will surface with different reduplicants, depending on the speaker, as well as intra-speaker variation such that there is some degree of free variation in reduplicant shape, depending on a given base (for details of the variation associated with plurals, including reduplication, cf. Brown 2007).

#### 4 Minimal words

One other aspect of the prosodic morphology of Gitksan that is worth investigating is the minimal prosodic word. This aspect of the language has not previously been discussed; however, when the possible free-standing words in the language are observed, some clear patterns begin to emerge. The following is only a brief summary; more work in this area is required. The following discussion, however, can perhaps be taken as indicative of the types of constraints on word structure that must be at play. Data from this section is taken from the database collected in Brown (2008, 2010), which subsumes a published dictionary of the language (Hindle & Rigsby 1973), and includes other forms collected during fieldwork.

According to Hayes (1995), the minimal prosodic word in a language corresponds to the minimal stressed foot. As predicted by the account of stress outlined above, this equals a CVV prosodic word.<sup>5</sup> Aside from the loan [di:]/[tʰi:] ‘tea’, the following constitutes the set of lexical words that are CVV from the database:<sup>6</sup>

---

<sup>5</sup> As mentioned in footnote 1, “C” is intended to represent a consonantal onset, and not necessarily a single consonant. Onset clusters exist in the language, and can include lengthy strings of obstruents. See Brown (to appear) for a treatment of onsets in the language.

<sup>6</sup> There is also a word *x<sup>w</sup>da:* ‘mattress’, which, according to the analysis provided by Schwan and Anghelescu (2013), could be interpreted as disyllabic due to the nuclear status of the labialised velar fricative; i.e., [x<sup>w</sup>.da:].

(6) CVV words

g <sup>h</sup> o:	‘to move in water, to swim (of fish)’ <sup>7</sup>
g <sup>h</sup> u:	‘beads’
‘na:	‘out of the woods, into view, against a background’
t <sup>h</sup> a:	‘to sit’
χsda:	‘to win’
je:	‘to go’
ne:	‘no, negative’

Surprisingly, as far as the database in Brown (2008) is concerned, this list is exhaustive.<sup>8</sup> There are actually just as many, if not more forms that consist of only a syllable with a long vowel, but which are proclitics<sup>9</sup> (Gitksan makes use of both prenominal and preverbal proclitics, which will be discussed in more detail below):

(7) CVV proclitics

‘ni:	‘on’
lu:	‘inside’
sa:	‘away, off’
sa:	‘suddenly’
si:	‘new, fresh’
‘wi:	‘big, large, great’
gu:	‘one who habitually does (something)’

The prediction made above in Section 2 with respect to stress is that CVC should not count as heavy. There are, however, many more free-standing lexical CVC words that exist in the language than CVV words. In fact, CVC appears to be the canonical, or at least preferred, root shape in the language. (8) illustrates this with only a sampling of those words:

(8) CVC words

bax	‘to run’
ban	‘to ache’
dap	‘liver’
‘mal	‘canoe’
dił	‘bag’
gat	‘to be born, to hatch’
ʔam	‘be good’

If both CVV and CVC count as heavy in the language (i.e. are bimoraic), then the prediction is that the minimal word must be a bimoraic foot. Ito and

---

<sup>7</sup> The suppletive plural for this form is also CVV: [lo:].

<sup>8</sup> There is one additional verbal root *gu*: ‘take, get, catch’; however, as a transitive verb, this root is presumed to never surface without inflectional affixes.

<sup>9</sup> The clitic status of these morphemes is currently under debate, and further investigation into their prosodic characteristics is likely to yield interesting results; however, for the moment, these structures will be termed clitics, consistent with Rigsby (1986).

Mester (2003) state this as a condition on binary branching, such that the prosodic word must either branch, or the level below it (i.e., the foot) must branch. What is not predicted is a mono-moraic CV minimal word, as this does not constitute a licit stressed foot in the language, and is not a bimoraic structure. For the most part, this prediction holds. There are, however, more than a handful of forms that require some discussion. One set of morphemes is CV, as in (9); however, the forms in (9) are all proclitics (either prenominals or preverbals):

- (9) CV proclitics
- |           |                       |
|-----------|-----------------------|
| tk'i      | ‘down’                |
| ʔa, q'a   | ‘anew, again’         |
| xsa, xsaχ | ‘only’, <sup>10</sup> |
| sbi, sba  | ‘lair, den’           |
| xsi       | ‘fresh’               |
| lgu, lɣwa | ‘small, little’       |
| sga       | ‘across the way’      |

Rigsby (1986:58–59) discusses the prosodic status of preverbals. Rigsby notes that prenominals are not free-standing words and are prosodically bound compounding forms, which often have free-standing lexical counterparts. The preverbal clitics, on the other hand, have slightly different properties. Rigsby notes that they are isolable, take secondary stress, and have the distributional properties of words, rather than affixes (such as the property of having full, rather than reduced, vowels). This argues strongly in favor of the preverbals being prosodic words; however, Rigsby (1986:59) states that “They seem to me to be not unlike English prepositions, determiners, and auxiliary verbs [...] and they too don’t bear the primary phrasal stress.” Likening the preverbals to English function words sheds much light on the issue: while the preverbals are not affixes *per se*, they behave like function words in other languages, which typically escape minimality restrictions in languages and are often incorporated into higher-level prosodic structure (cf. Selkirk 1995). Thus these forms do not constitute true exceptions to a ban on CV lexical words, as that ban is assumed to hold on free-standing forms. The behavior of these proclitics is an interesting one, especially the difference between the prenominals and preverbals; however, a more in-depth investigation is still needed in this area.

Finally, there exists a very small set of lexical items that do in fact violate this minimality condition. There are seven lexical items in total, listed in (10):

---

<sup>10</sup> Dialectally this form is [ksa(χ)].

(10) CV words

ha	‘air’ <sup>11</sup>
psa	‘grey clay’
sa	‘day’
sga	‘herring’
t’a	‘louse’
tqa	‘skin, hide’
wa	‘name’

This exhausts the list of lexical words in the database from Brown (2008). The fact that these vowels are short is demonstrated by measurements from the recordings in Brown et al. (to appear), where the minimal pair [t’a] ‘louse’ and [t’a:] ‘to sit’ can be compared. In unpublished measurements over the tokens from that paper, [t’a:] had an average duration (measured over two productions in isolation) that was more than twice that of [t’a]. It is likely no accident that the vowel in each of these words is the low vowel [a]. No explanation is available at present for this fact, however, and these forms will stand as a list of patterned exceptions. There are three additional forms, the verbal roots *he* ‘to tell (trans)’, *sgi* ‘to be on’, and *wa* ‘to find, to get to someplace’. However, these forms are transitive verb roots, and as such, obligatorily take inflectional affixes. Occasionally trained consultants may produce these as citation forms, but most consultants reject these as free-standing prosodic words.

Finally, there is a piece of supporting evidence in the offglides accompanying short vowels in certain contexts. Rigsby (1986:183–184) notes that in unstressed syllables with short vowels, a resonant [h] offglide follows the vowel. When morphology is added to these roots, the offglide no longer surfaces:

(11) Di! [dr<sup>h</sup>]      ‘Move! (SG)’<sup>12</sup>  
sa [sa<sup>h</sup>]      ‘day’  
sga [sq<sup>j</sup>ε<sup>h</sup>]      ‘herring’

Assuming that the minimal word in Gitksan is CVC, the presence of this offglide in all of the relevant environments such as in (11) suggests that some extra prosodic weight is desired in these sub-minimal forms.<sup>13</sup>

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<sup>11</sup> Clarissa Forbes (personal communication) notes that this form almost always occurs with the pronominal *laχ* ‘on, in’, yielding the disyllabic *laχha*.

<sup>12</sup> Note that the first form *di* ‘move’ is not in the Brown 2008 database, and thus not listed in example (10) above.

<sup>13</sup> Thanks to Michael Schwan for bringing this pattern to my attention. He also points out that some consultants will put an apostrophe at the end of these sub-minimal roots to indicate this offglide, and that the offglide is actually orthographically indicated in the Coast Tsimshian language.

## 5 Discussion

As this paper has shown, while certain syllables count as heavy for the assignment of stress, other syllables count as heavy for other morphological operations. This state of affairs is not as unusual as it seems at first blush. Take, for instance, the case of Maori (Austronesian): long vowels are preferentially stressed, and if no long vowels are present in a word, then diphthongs will count as heavy. Finally, if there are no other “heavy” syllables, the default strategy is to stress a light syllable in initial position (cf. Bauer 1993). In that particular case, both  $CV_iV_i$  and  $CV_iV_j$  count as heavy, but the grammar makes a distinction when targeting a syllable for stress. The same is true for Kashmiri (Indo-European), where closed syllables will be stressed only if they are the optimal syllable type that is present which can be stressed; i.e., if there are no CVV syllables present (Morén 2000). Mam (Mayan) presents another, similar case: In Mam, CVV syllables are preferentially stressed; if these are not present, then syllables closed with a glottal stop will count as heavy, and will be stressed (England 1983). There are also cases of systems that make a distinction between what counts as heavy for the assignment of primary vs. secondary stress (Rosenthal and van der Hulst 1999). The primary difference between Gitksan and the cases cited above is that Gitksan doesn’t *preferentially* treat CVV over CVC as heavy in the computation of stress. Instead, CVC appears to be uniformly light with respect to stress. Where Gitksan displays similarities with these other systems is in the treatment of CVC as heavy for other types of prosodic morphology. It is in this respect that the inconsistent status of CVC syllables poses an interesting challenge.

These types of weight-inconsistencies across phonological processes have been reported for various other languages, such as Latin, Kiowa, and Lhasa Tibetan (cf. Hayes 1995, Gordon 2006, Zec 2011). It is important to specify that the inconsistency is across *processes*, and not *contexts*, because single contexts such as word-final position, which will be relevant for both the process of stress assignment and the minimal word effect in Gitksan, will yield inconsistencies with respect to the weight of CVC.

While it was noted above that the stressed foot in the language equalled the minimal word, there are still some wrinkles. While the heavy syllable template (i.e.  $\sigma_{\mu\mu}$ ) seemed to be necessary to account for the behaviors of CVC, whatever the reason ultimately may be, CVC does not seem to be the minimal *metrical* foot in the language, but yet it constitutes a legal minimal word. While there remains much work to be done in this particular area, for the moment we can cite Garrett’s (1999) typological work illustrating the point that minimal words, while the smallest legal lexical structures in a language, do not always equal the stressed foot, and that stressed feet and minimal words can coexist in a single system as different prosodic structures.

Finally, Shaw (1992) has presented evidence that sonorants are moraic in the related Nisgha language, where some of the phenomena above, namely, stress assignment and reduplication, exhibit slightly different patterns. If the same types of patterns and behaviours are identified in Gitksan, then this would

present a substantially more complex situation, one worthy of deeper investigation.

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# Tsimshian syllable devolution<sup>1</sup>

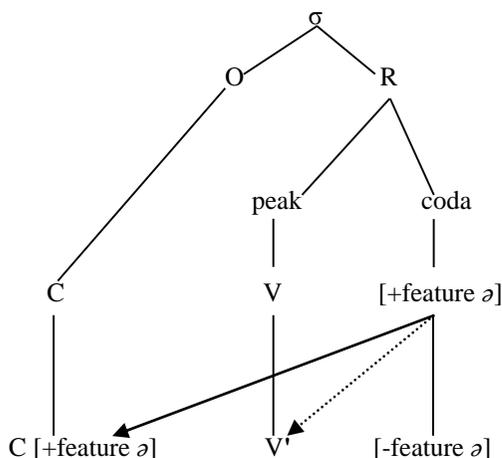
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**Abstract:** A Tsimshian natural class of sounds, {[ʔ], [h], [r], [l], [j], [w]}, in syllable coda position, often significantly alters syllable structure by losing certain phonetic features while spreading/copying them to onset and peak. This spreading/losing (transference) of features (devolution) occurs in stages, often giving individual lexical items several surprising variants.

**Keywords:** phonology, feature spreading/copying, feature loss, devolution, variability

## 1 The spread of syllable coda features

There is a pervasive tendency in Tsimshian for syllable coda elements (features and whole segments) to spread/copy in stages to syllable onset, ‘strengthening’ the onset and coloring the syllable peak along the way. The coda subsequently ‘weakens’ also in stages. See Figure 1.



**Figure 1** The spread/loss of coda features

This was both a synchronic and diachronic process (continuum) at least into the 1980s. Individual lexical items differed in the same speaker from time to

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<sup>1</sup> Devolution: 1. A passing down or descent through successive stages of time or a process. 2. Transference, as of rights or qualities, to a successor. 4. A transfer of powers from a central government to local units. *The free dictionary by Farlex* (2003–2015), <http://www.thefreedictionary.com/devolution>.

time, from speaker to speaker and from dialect to dialect as to where they were in this continuum or staging process. This resulted in an unusually rich variation in many single lexical roots or stems. This variability, documented in Dunn (1978), is confirmed by Dale Kinkade in a personal communication some years ago after he had taught a field methods course with a Gitxsan speaker. Matthews (2001) also records significant variability in Gitxsan.

## 2 Syllable diversity and staging

The lexical root/stem for the verb ‘to tear, tear up, tear out’ shows this diversity.

- (1)  $b\bar{a}^{\circ}\chi$ ,  $ba\chi$ - $b\bar{a}^{\circ}qal$  ‘to tear [out]’ (Boas 1912:262, hence B262)<sup>2</sup>  
 $be^{\circ}\bar{a}\chi$ ,  $beH\chi$ ,  $beex$  ‘to tear, tear up’ (Dunn 1978, entry #151, hence D151)  
 $p^{\circ}\bar{e}^{\circ}G$ - $al$  ‘to tear out and turn over’ (B263)  
 $p^{\circ}eeG$ - $l$ ,  $p^{\circ}eeG$ - $n$  ‘tear out and turn over’ (D1595)

Figure 2 represents the spread of the laryngeal to the onset, changing [b] to [p<sup>◌</sup>], and the spread of the feature [-low] to the vowel, [ $\bar{a}$ ] becoming [ $\bar{e}$ ].

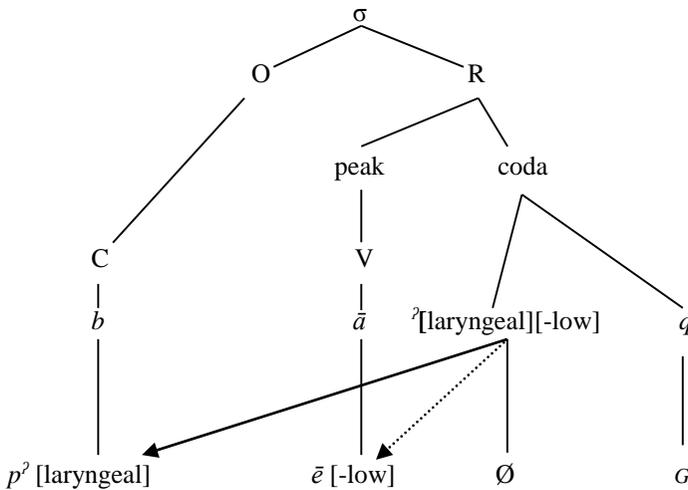


Figure 2  $ba^{\circ}q > \dots > p^{\circ}\bar{e}G$

I interpret the staging, i.e., development in stages, devolution, of this lexical item as  $ba^{\circ}q > b\bar{a}^{\circ}\chi > be^{\circ}\bar{a}\chi > beH\chi > b\bar{e}\chi$  and alternate  $ba^{\circ}q > p^{\circ}\bar{e}^{\circ}G > p^{\circ}\bar{e}G$ . The laryngeal feature of the coda [-<sup>◌</sup>q] causes the vowel to lengthen,  $ba^{\circ}q > b\bar{a}^{\circ}\chi$ , stage one. Then the laryngeal moves into the peak and the vowel

<sup>2</sup> Boas used the superscript symbol <sup>◌</sup> to represent a weakened secondary vowel or a glottal stop (1911:68). The [H] in Dunn (1978) is the same as Boas’ [<sup>◌</sup>], but representing only the weakened secondary vowel, i.e., a reduced vowel, tending toward [ə] and with a falling tone. In CODA position, [q], [χ], and [G] are free variants.

assimilates the [-low] feature of the laryngeal,  $b\bar{a}^o\chi > be^o\partial\chi$ , stage two. The laryngeal feature is then lost, leaving the reduced, falling tone [H],  $be^o\partial\chi > beH\chi$ , stage three. Finally the [eH] becomes a simple long vowel,  $beH\chi > b\bar{e}\chi$ , stage four. In the alternate staging, the laryngeal spreads to onset, raising and lengthening the vowel,  $ba^oq > p^o\bar{e}^oG$ , alternate stage one. Then the laryngeal is lost in the coda,  $p^o\bar{e}^oG > p^o\bar{e}G$ , alternate stage two.

This staging pattern is typical of a large number of lexical items.

- (2)  $h\bar{a}^ox$  ‘goose’ (B261)  
 $haa^oq, ha^oq, ha^ox, ha^oax, ha^oa$  ‘goose’ (D641)  
 staged  $ha^oq > haa^oq > h\bar{a}^ox > ha^oax > ha^oa$

### 3 Staging and semantic development

In some instances the different stages carry modifications in meaning:

- (3)  $dz\bar{e}^os$  ‘grandmother’ (B270)  
 $na-Gan-dz\bar{e}^os-k$  ‘ancestress’ (B270)  
 $dzi^ois$  ‘grandmother’ (D262)  
 $na-Gan-dzi^ois-k$  ‘ancestresses’ (D1483)  
 $ts^oii$  ‘grandmother’ (D1931)  
 staged thus  $dz\bar{e}^os > dzi^ois > ts^oii$

- (4)  $G\bar{a}^ob$  ‘scratch’ (B278)  
 $Gap-G\bar{a}^op!-El$  ‘rake, scratch’ (B278)<sup>3</sup>  
 $k^o^2aap-n$  ‘scrape; scraped’ (D1039)  
 $Gaap-k$  ‘rake, scratch’ (D291)  
 staged  $G\bar{a}^op^o > G\bar{a}^ob > k^o^2\bar{a}p > G\bar{a}p$

## 4 Dialect boundaries

### 4.1 Dialects and sources

The sources for Coast Tsimshian (*Sm'algyax*) in this paper are Boas (1911, 1912), Dunn (1978/1995), and the Ts'msyen Sm'algyax Language Authority (2001). Much of this material is repeated with additional data in Anderson et al. (2013). The sources for Southern Tsimshian (*Sgüüxs*) are the field notes of Nislaus and Dunn (1976–1981). The source for *Gitxsen* is Matthews (2001). The sources for *NisGa'a* are Tarpent (1986) and Williams and Rai (2001).

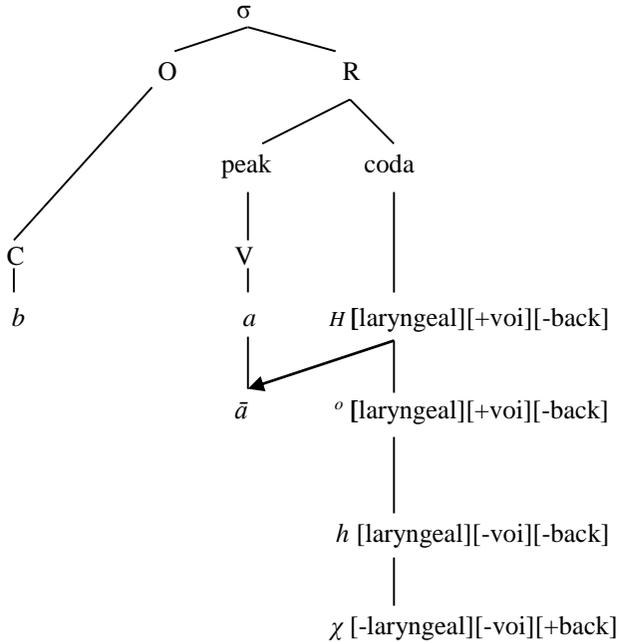
### 4.2 Syllable devolution across dialect boundaries

The progressive staging of syllable coda features-spread (devolution) can cross dialect boundaries, and is therefore diachronic.

<sup>3</sup> Boas' [E] is “an obscure, weak vowel, as in *flower*” (Boas 1912:67).

- (5)  $b\bar{a}^o$  ‘to run’ (B262)  
*baah*, *baH* ‘to run’ (D123)  
*baχ* ‘to run’, Gitxsen (Mathews 2001:7, hence G7)  
*baχ* ‘run’, NisGa’a (Williams & Rai 2001:18, hence N18; Tarpent 1986:413, hence T413)  
*bah-an* ‘make run, e.g., start an engine’, Southern Tsimshian (Nealaus and Dunn 1976–1981, hence S9/76)  
 staged  $baH > b\bar{a}^o > b\bar{a}h > baχ$

See Figure 3. The sounds [H], [°], and [h] are variants of the continuant laryngeal. The loss of the laryngeal and [-back] features in coda results in [h] becoming [χ]. This analysis makes the claim that laryngeal sounds are stronger than consonantal fricatives. Whereas [h] can be predicted as a source of [χ], the reverse is not true; [h] cannot lose the feature [-back] without all the other features of a consonant filling in, but for [χ] to become [-back] simply results in another fricative, not a laryngeal.



**Figure 3**  $baH > b\bar{a}^o > b\bar{a}h > baχ$

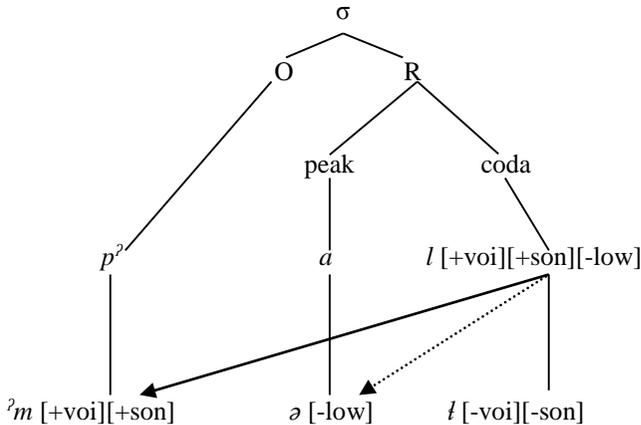
- (6) *biāl-s* ‘star’ (B263)  
*biyaal-s*, *biyeel-s* ‘star, i.e. it flashes forth, shines’ (D162)  
*biya²al-s* ‘star’ (S9/79)  
*bil-²u-s-t* ‘star’ (G11)  
*bil-²i-s-t* ‘star’ (N21, T414)  
 staged *biāl-s* > *biyaal-s* > *biya²al-s* > *biyāl-s* > *biyēl-s* > *bil-²i-s-t*  
 > *bil-²u-s-t*
- (7) *mâ⁰n* ‘the salt water, sea, salt’ (B264)  
*moHn* ‘the sea’ (D1445)  
 ²moon ‘salt’ (Ts’msyeeen Sm’algyax Language Authority 2000:146, hence L146)  
*mo²on* ‘salt’ (S9/76)  
*mo²on* ‘salt’ (G81)  
*mo²on* ‘salt’ (N129, T447)  
 staged *mâ⁰n* > *moHn* > *mo²on* > ²mōn

## 5 Unusual consequences of syllable devolution

The spread and loss of features can account for [p] becoming [m], [l] becoming [ɫ], and [ɫ] becoming [s].

### 5.1 Devolution: [+voi][+son] > [-voi][-son]

The spread of features [+voi][+son] from coda to onset can derive [²m] from onset [p²]. The subsequent loss of the same features in coda can derive [ɫ] from [l]. See Figure 4.



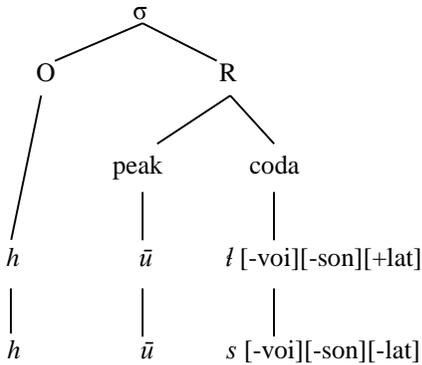
**Figure 4** [m] derived from [p], and [ɫ] from [l]

The features [+voi][+son] copy from coda [l] to onset, changing [p²] to [²m]. The feature [-low] copies to the vowel, changing [a] to [ə]. Coda [l] loses the features [+voi] [+son], changing [l] to [ɫ].

- (8)  $p^2al$  ‘button’ (B263)  
 $p^2a^2la$  in  $ni-p^2a^2la$  ‘abalone shell button, i.e. it glitters’ (D1539)  
 $p^2\partial t$  in  $p^2\partial t-muu$  ‘earring (*muu* ‘ear’)’ (D1589)  
 $^2mal$  ‘to button (something)’ (N130)  
 staged  $p^2a^2la > p^2al > p^2\partial t$  and  $^2mal$
- (9)  $p^2\bar{u}^o$ ,  $p^2\bar{u}^o-l$  ‘scatter’ (B263)  
 $p^2\bar{u}^o-tk$  ‘steam, scattered’ (B263)  
 $p^2uH-tk$  ‘scattered, steam, i.e., it blows out’ (D1613)  
 $p^2uH$ ,  $p^2uH-l$  ‘scatter’ (D1613)  
 $p^2ui-t-k$  ‘get out of the way’ (D1611)  
 $^2mi-txw$  ‘scattered all over the place’ (G118)  
 $^2mi-tkw$  ‘scattered’ (N132)  
 staged  $p^2\bar{u}^o > p^2uH > ^2mi$  and  $p^2\bar{u}^o-l > p^2ui-t$

## 5.2 Devolution: [+lat] > [-lat]

Some lexical items show [s] derived from [t]. See Figure 5.



**Figure 5** [+lat] > [-lat], [s] derived from [t]

Coda [t][-voi][-son][-low][+lat] gives up its feature [+lat], coda [t] becoming [s] [-voi][-son][-low][-lat],  $h\bar{u}t-en-s$ ,  $h\bar{u}s$  ‘hellebore root’.

- (10)  $h\bar{u}^o t-En-s$  ‘hellebore’ (B262)  
 $h\bar{u}^o s$  root’ (B262)  
 $huHt-n-n$  ‘poisonous root, used for medicine’ (D823)  
 $h\bar{u}s$ ,  $h\bar{u}s-t$  ‘root’ (D43)  
 $h\bar{u}t-en-s$  ‘hellebore’ (L85)  
 staged  $h\bar{u}^o t > h\bar{u}^o s$  and  $h\bar{u}^o t > huHt > h\bar{u}t > h\bar{u}s$

- (11) *diHl* in *Ga-diHl-g-m-was* ‘fringed blanket’ (D310)  
*dīl* in *Ga-dīl-gm-was* ‘fringed blanket’ (L50)  
*dīs* in *Ga-dīs-k* ‘braid one’s hair in one braid on the side of the head’ (D311)  
*diHs* in *q<sup>2</sup>a-diHs-k* ‘a braid; esp. in one braid on the side of the head’ (D311)  
*dīl* in *Ga-dīl-g-m-was* ‘fringed blanket’ (L50)  
*dīs* in *k’a-dīs-k, k’a-dēs* ‘braid’ (L103)  
 staged *diHl* > *dīl* > *diHs* > *dīs*
- (12) *duk<sup>w</sup>l-Gn* ‘drown’ (D227)  
*da<sup>k</sup>wl-Gn* ‘drown’ (L20)  
*duk<sup>w</sup>l-inχ* ‘suffocate, drown’ (G19)  
*duk<sup>w</sup>s-gum-naat-q* ‘be out of breath’ (N30, T417)  
*duk<sup>w</sup>s-kw* ‘run out of supplies’ (N30, T417)  
 staged *duk<sup>w</sup>l* > *duk<sup>w</sup>s*

It is clear that the Tsimshian [s] is related to [H] for it maintains the contact between the lateral edges of the tongue and the roof of the mouth, the difference being that air exits the mouth across the top of the tongue rather than along the sides of the tongue. The [H] becomes [s] by holding all articulators the same except simply lowering the tip of the tongue from its contact with the roof of the mouth.<sup>4</sup> The Tsimshian [s] is variously heard as something between English [s] and [ʃ].

## 6 Devolution initiators, a natural class

The coda elements that most frequently copy to onset are [ʔ], [h], [r], [l], and post vocalic or glide [j] and [w]. These form a natural class of devolution initiators. They are approximant sonorants.<sup>5</sup>

The Tsimshian laryngeal [ʔ] is very soft in comparison to glottal stops in the neighboring languages, and often becomes a suprasegmental as something approximating very soft creaky voice.

### 6.1 Glottal approximant [ʔ]

- (13) *Gā<sup>o</sup>, q<sup>2</sup>ā<sup>o</sup>* ‘cane’ (B278)  
*q<sup>2</sup>ā<sup>o</sup>-d* ‘shaft of a lance’ (B279)  
*q<sup>2</sup>a<sup>2</sup>a-t* ‘a cane’ (D853)  
 staging *Gā<sup>o</sup>* > *q<sup>2</sup>ā<sup>o</sup>* > *q<sup>2</sup>a<sup>2</sup>a*

<sup>4</sup> Boas (1912:68) said the Tsimshian [s] is lateral.

<sup>5</sup> There is considerable disagreement as to whether the laryngeals [ʔ] and [h] are sonorant or approximant. In Tsimshian, the laryngeals behave like the other sonorant approximants, or rather, the sonorant approximants behave like the laryngeals.

- (14) *Gats<sup>2</sup>a-l* ‘to swallow’ (D427)  
*q<sup>2</sup>adza-l* ‘swallow’ (B279)  
*q<sup>2</sup>adzā, q<sup>2</sup>adzā-l* ‘to swallow’ (D860)  
*k<sup>2</sup>adza-l* ‘to swallow’ (S9/76)  
 staging *Gats<sup>2</sup>a* > *q<sup>2</sup>adza* > *k<sup>2</sup>adza*
- (15) *gū<sup>o</sup>p!El* ‘two round objects’ (B274)  
*gu<sup>2</sup>pl, guu<sup>2</sup>pl* ‘two (general number)’ (D498)  
*q<sup>2</sup>ōp-sχn* ‘two (of long objects)’ (D939)  
*Gōp-sχan* ‘two long ones’ (B280)  
*gulba* ‘double’ (B274)  
 staging *gū<sup>2</sup>p-l* > *q<sup>2</sup>ōp*
- (16) *daχ-iā<sup>o</sup>g<sup>w</sup>a* ‘hold firmly’ (B265)  
*daχ-yaHg<sup>w</sup>a* ‘hold fast, hold tight’ (D206)  
*t<sup>2</sup>aχ-yak<sup>w</sup>* ‘hold’ (D1841)  
 staging *daχ-iā<sup>o</sup>g<sup>w</sup>a* > *daχ-yaHg<sup>w</sup>a* > *t<sup>2</sup>aχ-yak<sup>w</sup>*

## 6.2 Glottal approximant [h]

Coda [h] spreads to onset its laryngeal property as [ʔ].

- (17) *Gan-dah, Gan-deh* ‘skate, ray (fish)’ (D388)  
*Gandah, Gandeḥ, q<sup>2</sup>andah* ‘skate; ray’ (L58)  
 staging *Gandah* > *q<sup>2</sup>andah*
- (18) *nah g<sup>y</sup>ig<sup>y</sup>aanx<sup>y</sup>* ‘upstream’ (S9/76)  
<sup>2</sup>*nah-*, <sup>2</sup>*na-* ‘direction toward’ (L154)  
 staging *nah* > <sup>2</sup>*nah-* > <sup>2</sup>*na-*
- (19) *GaH, Gah* ‘come’ (D277)  
*q<sup>2</sup>ah* ‘come’ (D863)  
 staging *GaH* > *Gah* > *q<sup>2</sup>ah*
- (20) *Gooy-pah, Goy-p* ‘bright, moon’ (D488)  
*Gōe-p<sup>2</sup>a* ‘light’ (B280)  
*Goy-<sup>2</sup>pa* ‘daylight’ (D488)  
*Goy-p<sup>2</sup>a* ‘daylight, brightness’ (L67)  
*Gooy-<sup>2</sup>pa* ‘light’ (S9/76)  
*Goy-<sup>2</sup>maχ, goy-p<sup>2</sup>maχ* ‘bright’ (G35)  
*Goy-p<sup>2</sup>aχ* ‘(light) be bright’ (N57, T424)  
 staging *Gooy-pah* > *Gooy-<sup>2</sup>pa* > *goy-p<sup>2</sup>maχ* > *Goy-<sup>2</sup>maχ*

## 6.3 Coda [r]

Boas used the symbol [r] in only a handful of words. He characterizes his [r] as “a very weak, strongly sonorant middle palatal trill” (Boas 1912:68). This is

equivalent to or became Dunn's [ɥ], a high, back, unround, continuant, sonorant glide.

In the word *dEr* 'to die', the [r] spreads its [+high][-rnd] features to the syllable peak and lengthens it, [E] becoming [üü]. Then [r] disappears, *dEr* > *düü*. In some instances it weakens by losing its sonorant approximant, voicing and unround properties, becoming [xʷ]. Then the [+rnd] feature spreads to the vowel, *daxʷ* > *dō*.

- (21) *dEr* 'dead, to die, plural' (B265)  
*düü* 'dead, to die, plural agreement' (D244)  
*doo* 'to put down, lay down' (D1686)  
*daxʷ* 'die, plural' (N24, T415)

The [r] in word *ksEr* 'to go out' behaves in much the same way.

- (22) *ksEr* 'to go out' (B275)  
*ksâχ* 'to go out' (B275)  
*ksüü* 'to go out (singular)' (D989)  
*ksooχ* 'to go out (plural)' (D989)

In *sger* 'to lie on, to set down, place', the [r] colors and lengthens the vowel as before.

- (23) *sger* 'to lie (be lying on)' (B270)  
*sgii*, *sgüü* 'be lying on, put down, place' (D1681, 1686)

In *łErder* 'keep, preserve' the [r] in the second syllable colors and lengthens the vowel as above. But the [r] in the first syllable behaves like, becomes [ʔ]: *łEr* > *łuʔə* > *łuH* > *łü*.

- (24) *łErder* 'keep, preserve' (B283)  
*łuʔədüü* 'keep, preserve, i.e., keep hidden' (D1347)  
*n-łuHt* 'be under' (D1551)  
*łuudk*, *łut'ak* 'keep, look after, treasure, prize' (L137)  
*łuut'uxw* 'cherish, treasure, value' (N83, T432)

## 6.4 Coda [l]

Coda [l] behaves like or becomes [ʔ].

- (25) *łEbEl-* 'against' (B281)  
*łEbEl-walks* 'enemy' (B281)  
*lib-ilt-walk* 'enemy' (D1142)  
*łp!El* 'tear up' (B282)  
*liʔəʔp-l* 'tear up' (D1139)  
 staging *lib-ilt* > *łEbEl* > *łp!El* > *liʔəʔpl*

- (26) *matʃa-laal-t* ‘snake’ (D1407)  
*lal-t* ‘worm, snake’ (N110, T439)  
*lal-t-kw* ‘be slow’ (N110, T439)  
*lā<sup>o</sup>lt* ‘snake’ (B282)  
*lā<sup>o</sup>lt-k* ‘slow’ (B282)  
*lahlt-t, laal-t* ‘worm, slow’ (D1066)  
 staging *lalt* > *lā<sup>o</sup>lt* > *lahlt* > *lālt*
- (27) *Gōli* ‘scalp’ (B280)  
*q<sup>2</sup>ōl-i* ‘scalp’ (D932)  
*Gōl-i* ‘scalp, hair’ (L67)  
*Gol-x* ‘skull’ (N57, T424)  
 staging *Gol* > *Gōl*, *Gq<sup>2</sup>ōl*
- (28) *Gol* ‘to run (plural agreement)’ (D474.1)  
*q<sup>1</sup>ōl, Gāt* ‘run (plural)’ (B280)  
*q<sup>2</sup>ol* ‘to run (plural agreement)’ (D916)  
*q<sup>2</sup>ot* ‘to run (plural)’ (L107)  
 staging *Gol* > *q<sup>2</sup>ol* > *q<sup>2</sup>ot*

## 6.5 [j]-glide

The [j]-glide is not strictly speaking a coda element, but it follows the peak vowel and behaves in the same way as the coda sources of devolution. The [j]-glide behaves like or becomes [ʔ].

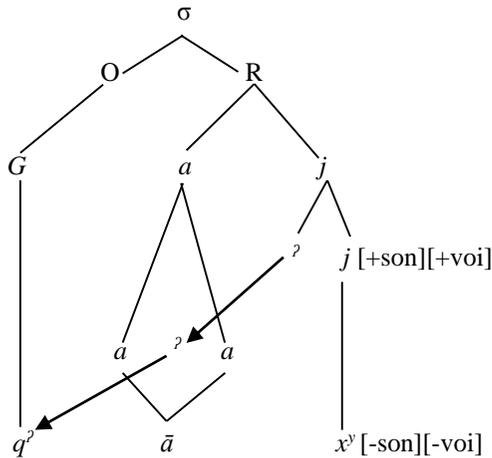
- (29) *hēt-k* ‘to stand’ (B261)<sup>6</sup>  
*hai-tk, haai-tk* ‘stand up (intransitive)’ (D659)  
*hāi-tgi* ‘stand up (intransitive)’ (S9/20/79)  
*haa<sup>2</sup>i-ti-sk* ‘house posts’ (D658)  
*ha<sup>2</sup>y-ti-sk* ‘house posts’ (L82)  
 staging *haj* > *ha<sup>2</sup>j* > *hā<sup>2</sup>j* > *hāj*
- (30) *Gai-ak* ‘grey (colour)’ (D452)  
*Gay-ak, Gay-aak* ‘grey (colour)’ (L65)  
*q<sup>2</sup>ai-a-dzen* ‘grey snapper’ (D47)  
*q<sup>2</sup>ay-a-dzen* ‘grey snapper’ (L106)  
 staging *Gaj* > *q<sup>2</sup>aj*

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<sup>6</sup> Boas’ [ë] is [aj] (Boas 1912:67).

- (31) *nay* ‘mother (archaic address form)’ (L151)  
*nāy-a* ‘mother (said by a girl)’ (B272)  
*nā* ‘mother’ (B273)  
*nā<sup>o</sup>-s* ‘wife of father’s brother’ (B273)  
*no<sup>o</sup>o*, *noo* ‘mother (includes maternal aunt and uncle’s wife)’ (D1554)  
*no<sup>o</sup>oh* ‘mother’ (S9/76)  
<sup>?</sup>*no* ‘mother’ (S12/80)  
*noo-ts* ‘male homosexual i.e. like a mother’ (D1558)  
*noo-ts* ‘homosexual’ (L153)  
 staging *naj* > *nāj* > *nā<sup>o</sup>-s* > *no<sup>o</sup>oh* > *no<sup>o</sup>o* > <sup>?</sup>*no/nō*
- (32) *Gay-k* ‘chest’ (D455)  
*Gāi*, *q<sup>2</sup>āi* ‘wing, arm, fathom (measure of opened arms, trump in stick game)’ (B278)  
*Ga<sup>2</sup>ai*, *Ga-q<sup>2</sup>ai* ‘wing, i.e., like a gill’ (D294)  
*q<sup>2</sup>a-q<sup>2</sup>ai* ‘wing’ (D294)  
*Ga-q<sup>2</sup>aax<sup>y</sup>* ‘wing’ (S9/76)  
*Gāi-k* ‘chest, front of body, half a fathom’ (B278)  
*Gāi-t*, *Gāy-t* ‘billed (wing in front) hat’ (B278)  
*Gaay-t* ‘hat’ (S12/10/80)  
 staging *Gaj* > *Ga<sup>2</sup>aj* > *q<sup>2</sup>aj* > *q<sup>2</sup>āx<sup>y</sup>*

See Figure 6 for an illustration of the devolution from the above examples.



**Figure 6** *Gaj* > *Ga<sup>2</sup>aj* > *q<sup>2</sup>aj* > *q<sup>2</sup>āx<sup>y</sup>*

## 6.6 [w]-glide

- (33) *hau<sup>2</sup>ts*, *ha<sup>2</sup>u<sup>2</sup>ts*, *hauts* ‘sea loon; cormorant; bottle-neck duck’ (D786)  
*ha<sup>2</sup>u<sup>2</sup>uts*, *ha<sup>2</sup>wts* ‘black cormorant, bottle-neck duck’ (L81)  
 staging *hauts* > *hau<sup>2</sup>ts* > *ha<sup>2</sup>u<sup>2</sup>ts*

- (34) *q<sup>2</sup>atum<sup>2</sup>q* ‘swallow (something) in one gulp’ (N100)  
*k<sup>2</sup>at-ikp<sup>2</sup>ahmχs* ‘choke’ (S9/76)  
*k<sup>2</sup>at-haauy* ‘choke’ (S9/76)  
*k<sup>2</sup>at-au* ‘choke’ (D875)  
 staging *au* > *haauy*
- (35) *Gaus* ‘hair’ (B278)  
*Gaus* ‘hair’ (D435)  
*Gaaus, Gauys* ‘hair’ (S9/76)  
*t!Em-Gaus* ‘head’ (B278)  
*t<sup>2</sup>m-q<sup>2</sup>aus* ‘head’ (D1863)  
*q<sup>2</sup>am-Gaus-(u)* ‘head’ (S5/81)  
*Ga-Gaaus, Ga-Gaus* ‘horn (of any animal), antlers, a buck with antlers’ (D320)  
*Ga-Gaaus* ‘horn’ (S9/76)  
 staging *Gaus* > *q<sup>2</sup>aus* and *Gaus* > *Gauys* and *Gaus* > *Gaaus*
- (36) *gau* in *q<sup>2</sup>a-gau-tk* ‘howl’ (D862)  
*q<sup>2</sup>aw* in *Ga-q<sup>2</sup>aw-tk* ‘howl, bay (of dogs and wolves)’ (L52)  
 staging *gaw* > *q<sup>2</sup>aw*
- (37) *sqāg, sgau* ‘to refuse’ (B270)  
*sqaag* ‘to refuse’ (D1665)  
*sgaauy, sgaaw* ‘to refuse’ (L172)  
 staging *sgau* > *sgāu* > *sgāuy* > *sqā*

The sonorant approximants can readily become laryngealized by a simple merging rule, i.e., {[r],[l],[j],[w]} > {[<sup>2</sup>r],[<sup>2</sup>l],[<sup>2</sup>j],[<sup>2</sup>w]} > [ʔ], but deriving the various sonorant approximants from the laryngeal, e.g., [ʔ] > {[r],[l],[j],[w]}, is problematic, as there is no way to predict which sonorant approximant the laryngeal will become.

## 7 Summary and conclusions

Tsimshian syllable devolution is an elegant phenomenon, a simple paradigm, accounting for much if not all lexical root/stem variations. The coda/post-vocalic devolution initiators spread some of their phonetic properties to syllable onset and peak and lose or degrade those same and other properties in their original coda position. What counts for coda weakening or degradation is not clear when one tries to characterize it in terms of the traditional phonological/phonetic feature systems. The Tsimshian postvocalic sonorant approximants {[r], [l], [j], [w]} function as devolution initiators and behave like the laryngeal devolution initiators {[ʔ], [h]}. Indeed in the devolution process they become laryngeals. In a sense the laryngeals are the skeletal remains of the sonorant approximants after they have lost all or most of their other features, absolute devolution. The important question is this: at some systematic level are all the devolution initiators laryngeals?

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# Audio data processing for phonetics and phonology in Blackfoot \*

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**Abstract:** This article outlines a collaborative audio data mining project that is developing an automated program to process and compile audio files for Blackfoot research. The framework consists of two major steps, *audio syntactic analysis* and *data mining*. We tested the system on recordings of Blackfoot conversations to automatically identify segments containing the phonetic forms [x], [xʷ], and [ç] of a particular phoneme /x/. At this point, we are able to process a large volume of audio streams and the experimental results show that the project is promising. This project is innovative because the application of computational techniques in indigenous languages is underdeveloped, and it could also enhance research methods in other languages. The project extended existing computational techniques, such as information processing and artificial intelligence (Jones, 2007), to tackle issues in understudied languages. This study also exemplifies one of many possibilities for collaborative projects between a computer science specialist and a linguist to enhance research in both areas.

**Keywords:** Blackfoot, audio data mining, phonetics-phonology, endangered languages

## 1 Introduction

The phonetics and phonology of indigenous languages are considerably understudied (McDonough and Whalen, 2008) with far fewer papers published in comparison to morphology and syntax. Recordings of word pronunciation, narratives and/or conversations is urgently needed considering the fact that most, if not all, indigenous languages are endangered and it is often a race against time to describe and analyze the sounds of these languages for phonetics-phonology research.

Audio recordings provide phonetics-phonology research with both its essential data and also many of its challenges. In the past, limited budgets for tapes constrained researchers to record only research-relevant words and/or pronunciations. With the advancement of digital recording techniques, present-day researchers are able to record and save more data, such as entire sessions, meetings, or conversations. But as a result, the data organization process has become more complicated. For example, in order to access a particular audio segment, researchers often need to listen through entire recordings to locate the segment of interest and/or conduct transcription to access the targeted segment

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via annotation data. However, both processes are time consuming and infeasible in indigenous language research because of the urgency of documenting these languages, most of which are on the verge of extinction. Computational support for the organization and management of audio data would therefore enhance linguistics research and fieldwork.

Currently, there are some computational tools targeting endangered languages. One group of tools is used to develop language learning programs, such as Rosetta Stone® and RezWorld. Another group of tools is for language documentation and description, such as Field Linguistics Explorer (FLEx), developed by the Summer Institute of Linguistics to help compile linguistic information, and ELAN or EUDICO Linguistic Annotator, developed by the Max Planck Institute for language transcription and annotation (Lausberg and Sloetjes 2009). Different from all these existing works, our project enhances the research process by providing a system to automatically locate audio segments of research interest. This is especially important for phonetics and phonology research in endangered languages, where recording every minute during fieldwork is valuable.

The current system has been tested on sound clips of Blackfoot, an Algonquian language spoken in Alberta, Canada, and Montana, US, to detect segments containing the phonetic forms [x], [xʷ], and [ç] of a particular phoneme /x/ (*h* in orthography). In the future, the system could be extended and applied to other languages, including commonly researched languages, and other fields such as morphology, syntax, and sociolinguistics.

This project is related to computational linguistics attempts to automatically manipulate speech instances from a computational perspective for linguistic studies (Paillet 1973). However, while languages with populations of over a million speakers have been the main targets of computational linguistics, very little work has been conducted on endangered languages. Lonsdale (2008; 2011) attempts a computational process in transcribing and translating Lushootseed and reports the difficulty in reaching high accuracy with current techniques in computational linguistics. As discussed in Pardo et al. (2010), one of the key issues that hinders progress in this area is the lack of multidisciplinary collaboration between the study of endangered languages and computer science. Our collaborative project aims to address this issue, and the preliminary achievements of such collaboration are demonstrated in this article.

The rest of this article is organized as follows: first, the Audio Data Mining Collaboration Project is described. Second, the experimental results are presented and analyzed, together with a brief discussion of the Blackfoot language data source. Finally, the article discusses the significance of the development of the tool and concludes with some future plans.

## **2 Audio data mining collaboration project**

With support from the NEH Digital Humanity Start-Up Grant (2009–11), we are developing an advanced audio data mining system. Taking speech audio as input, this system can produce a list of audio segments containing requested targets,

such as a particular sound or a certain prosodic pattern. This framework consists of two major steps: (i) *audio syntactic analysis* and (ii) *data mining*.

## 2.1 Audio syntactic analysis

Audio files last for minutes or even hours, and it is important to parse them into manageable units (or basic units) for computational processing and analysis. Audio files are processed at the frame level, consisting of 512 samples with a total duration of 32ms, which is consistent with common research practice in the audio processing field (Chen and Miyashita 2011).

Then, similar to a traditional database where each item is represented by its attributes, each basic audio unit (i.e. audio frame, in our work) is characterized by audio features extracted from it and stored as a feature vector for acoustic analysis. In the current system implementation, four types of audio features were extracted:

- short-time signal energy, which is the average waveform amplitude defined over a specific time window and computed frame by frame,
- sub-band energies, which are energies computed for different frequency intervals to model the energy properties more accurately,
- Spectral flux, a measure of how quickly the power spectrum of a signal is changing, and
- Cepstral coefficients, twelve coefficients to represent the short-term power spectrum of a sound.

As demonstrated in the literature (Umapathy et al., 2007), these features are simple, commonly used, and help produce reasonably good results in audio (especially speech sound) analysis and comparison.

## 2.2 Data Mining

Data mining is a data processing technique that uses sophisticated data search capabilities and statistical algorithms to discover patterns and correlations in large datasets. In our project, a type of data mining called *classification* is used, which is defined as building a model (or function) that describes and distinguishes data classes for the purpose of being able to assign any new items to these predefined classes. In other words, if researchers want to get audio segments that relate to a certain research interest (e.g. containing /x/), a classification model can be developed to automatically assign all segments of speech recordings into two classes, “yes” for those matching the interest (containing /x/) and “no” for all others.

The classification task begins with a dataset (training data) in which the class assignments are known (i.e. a set of feature vectors where the vector is labeled as “yes” or “no”). Our classification algorithm then builds a statistical model to represent the pattern of the targeted class (i.e. the statistical commonality among vectors with “yes” labels) through the feature selection, training data refinement, and decision fusion processes described below. This

statistical model can then be applied to an extended dataset (i.e. recordings without annotation) to detect segments with the target sound or sound pattern.

- **Feature selection:** In reality, a feature set that we believe is good is often not perfect, and literature shows that it is hard to define a “perfect feature set” for a general purpose. Therefore, the feature selection process is developed to automatically identify a subset (i.e. the representative feature components) from the imperfect feature set for a given target sound, using a mathematical operation called *eigenspace projection and analysis*. Briefly, this operation maps data in the input space (the original feature space) to another space called *eigenspace* via *linear transformation*. It has been proven that a small subset of vectors in the *eigenspace* can better represent different sound characteristics than the vector set in the original feature space (Mak and Hsiao 2007).
- **Training data refinement:** The training dataset is likely to contain some outliers as a result of improper operations or noise introduced during the production/processing stage. Therefore, a self-refining process is implemented to refine the training dataset, in which data instances that are dramatically different from the statistical properties of the remainder of the training data are considered outliers and are eliminated automatically.
- **Decision fusion:** For each sound of research interest, two predictive models are built for two opposite classes, one representing the pattern of the target sound (concept class) and another one rejecting the possibility of containing the target sound (non-concept class). Intuitively, instances belonging to one class can be considered anomalous to the other and vice versa. However, in real applications, it is possible that an instance may be accepted by both classifiers, or may not be accepted by any classifier. Such issues generally arise from the fact that hardly any classifier can ensure 100% classification accuracy and the quality of data sources is rarely perfect. The decision fusion module is applied to integrate the decisions and to solve these ambiguous cases.

As a result, our approach identifies the feature set, training data distribution, and decision algorithm that are optimal for a specific sound. In the literature, most research only deals with one or two of these essential aspects (Xiong et al., 2003).

### 3 Experimental results

This framework has been tested on Blackfoot speech recordings to detect the particular phonetic variations [x], [ç], and [x<sup>w</sup>] of the phoneme /x/. These sound variations should be similar enough to be grouped into one, as there are only two other fricatives available in Blackfoot: [s] and [h], which are audibly very different from the variations of /x/. Also, we chose this sound /x/ for our project because its surface forms are typologically rare. When /x/ is underlyingly

preceded by /a/, /i/ and /o/, it is coalesced with the preceding vowel and surfaces as [x], [ç], and [xʷ].

We used Blackfoot speech which had previously been recorded by the linguist author from her independent research. The original purpose of the recording was to document natural conversation between two native Blackfoot speakers. The recording was conducted in Browning, on the Blackfeet reservation; the conversation was between a male speaker, who was 79 years old at the time of the recording, and a female speaker who was 54 years old. We used this recording in our study because the differences between the speakers' sex and age would test the system's performance in handling such variances.

The recorded sound files were transcribed and the transcriptions used to build the classification model and to evaluate its performance afterwards. Figure 1 shows a sample transcription with time indication (Time), speaker identification (SP), transcription in Blackfoot orthography (Frantz, 1978; 2009), and free translation.<sup>1</sup> The audible target sound for the test is highlighted.

<u>Time</u>	<u>SP</u>	<u>Blackfoot</u>	<u>Free Translation</u>
00.12	SC	<i>oki</i>	hello
00.16	JB	<i>oki pook<sup>h</sup>apokinsists</i>	shake my hand
00.20	SC	<i>aa @@@@</i>	sure, [laughter]
		...	
00.37	SC	<i>aapooisii kootsim</i>	this is taking/gathering
00.38	SC	<i>or aista maahko<sup>h</sup>kossksinihsi</i>	or she wants to know
00.41	JB	<i>aa</i>	yes
00.42	SC	<i>ikkamsaakitaistsoohsii aa</i>	is there your memory
00.45	SC	<i>kitsksiniipii</i>	what you know
00.47	SC	<i>ih<sup>h</sup>taopaamaahpii pookaiks i</i>	nursery rhymes for children
00.51	SC	<i>ki osisskat'mattsitsitsii kii</i>	and few more
00.53	SC	<i>aa-kitsitsi- kitsits-</i>	you ... (?)
00.54	SC	<i>i'naksts<sup>h</sup>ihpii</i>	it is small

**Figure 1** Sample of transcription used for testing

The recordings were then parsed into more than 17,000 segments (audio frames), of which 144 contained the target sound. Features were then extracted for those segments.

Following the transcription, each feature vector was tagged with either “yes” or “no” as the class label. The resulting dataset was randomly partitioned into two disjoint sets: two-thirds for a training dataset and one-third for a testing dataset. That is, the training set contained about 11,000 segments, among them 96 segments labeled as “yes”, while the testing set contained about 6,000

<sup>1</sup> The free translation here is what was given by the female speaker who also acted as a language consultant. Note that the translation is not necessarily reflecting semantic information of each morpheme. e.g., *ikkam-* ‘if’ is not overtly translated (00.42).

segments with 48 “yes” segments. A classification model was then derived from the training dataset, and its performance on the test data was evaluated by comparing the pre-assigned class labels to the model-predicted values.

This process was repeated five times. The average performance across these five models is calculated and compared with a set of well-known classification methods (see Table 1), such as support vector machine (SVM), neural network (NN), and K-nearest neighbor (KNN), which are included in the WEKA package (Hall et al., 2009). Two evaluation metrics, recall (R) and precision (P) (as defined in Figure 2), are adopted.

$$recall(R) = \frac{\text{Number of instances correctly identified}}{\text{Number of all the targeted instances}}$$

$$precision(P) = \frac{\text{Number of instances correctly identified}}{\text{Number of all units identified as targeted instances}}$$

**Figure 2** Equations of two evaluation metrics

As shown in Figure 3, on average our work can achieve more than 61% recall value and 50% precision value, which is far better than other general data mining approaches. Given that the testing dataset contains 48 “yes” segments (i.e. the number of total targeted instances in equation (1)), the number of instances correctly identified, according to equation (1), is 30, the recall value (61%) multiplied by the number of total targeted instances (48). According to equation (2), the number of units identified as targeted instances is 60, the number of instances correctly identified (30) divided by the precision value (50%). This means that in this testing environment, when a researcher looks for segments containing /x/, he/she will get from our system about sixty segments (from 6,000 testing segments) where about thirty actually match his/her searching request.

In real application, this statistical model can be applied to an extended dataset (i.e. recordings without annotation) to detect target segments. This level of performance could help researchers, without needing to actually listen through all files, get a candidate pool of data automatically with a favorable success rate. It is quite promising, considering that this is the first trial and that automatic phonetic analysis remains a challenging task.

Measure	Our work (%)	SVM (%)	NN (%)	KNN (%)
Recall	61.1	58.3	42.4	40.2
Precision	50.3	41.2	42.5	50.1

**Figure 3** Experiment results

#### 4 Conclusions

We reported on our preliminary Audio Data Mining Collaboration Project, designed to create an automated audio database compilation system for research

in Blackfoot phonetics and phonology. At this point, we are able to process a large volume of audio streams. The experimental results show that the project is promising. Its performance is expected to be further improved in our future work with the addition of more representative features and training data. The next stage is to create a database by compiling files that include the target sound. This project is innovative because the application of computational techniques in indigenous languages is underdeveloped, and it can also enhance the research methods in other languages. Also, the Audio Data Mining Collaboration Project may be extended to capture a string of sounds or morphemes for research in morphology and/or syntax. In a broader perspective, this work can also benefit other fields by, for example, finding cues in natural conversational interactions for sociolinguistics and analyzing folksongs' structures and patterns for ethnomusicology (Nettl, 1989).

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# A Trio of Phonetic Details in Homalco

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**Abstract:** This paper presents three phonetic features of Homalco and other dialects of Comox. These three features are offglides between a palatal obstruent and a following nonhomorganic vowel, laryngealized stops and vowels, and the heterosyllabic nature of sequences of consonants, which do not function as consonant clusters in the generally accepted meaning of the term cluster.

## 1 Introduction

In their 2008 editorial *The phonetics of North American languages*, McDonough and Whalen point out that even the best orthographies do not note phonetic detail and are “usually of limited value for phonetic sciences.” They quote Sapir (1921, p. 55), “There remains the important question of the dynamics of these phonetic elements ... [which] ... are important for the proper understanding of the phonetic genius of a language as the sound system itself, often far more so.” They also write, “In examining the phonetic structure of an under-documented language, the focus of the research is the natural phenomena, not a particular theory. The phenomena must be described as fully as possible.”

Homalco is the northernmost dialect of the language known in the literature as Mainland Comox. The first speakers who made an impression on me with their style of enunciation were the Homalco speakers Noel George Harry, born in 1892, Bill Galligos, born in 1903, and Jimi Wilson, born in 1945, along with numerous casual speakers from 1969 up to 1980. I also worked extensively with Mary George, born in 1924, who lived all her life at Sliammon, as well as having casual conversations with other men and women at Sliammon and Church House, the then home of the Homalco Band. In my master’s thesis at the University of Victoria in 1970, I did not identify each utterance by speaker, partly because not all of my observations were made during formal language sessions. But I did distinguish between men’s and women’s speech, which includes the differences between Mary George and my other language consultants.

## 2 First history

The first field notes that I’ve been able to obtain are from Franz Boas, written onto file slips around 1887. Boas worked with the Island Comox dialect and not with one of the three Mainland Comox dialects. These slips are in the Smithsonian Anthropological Archives as Document 711–b. Although this document gives much phonetic data, fine phonetic detail is not discernable. For

example, although the letter  $\zeta$  uniquely represents the sound [θ], the letter  $q$  represents any one of the three sounds [ç<sup>w</sup>], [χ], [χ<sup>w</sup>].

Edward Sapir, in his 1915 publication *Noun Reduplication in Comox*, wrote

As not infrequently happens in American Indian languages, the long vowels are not always held out with even stress, but end with short rearticulations which give the whole vowel in each case a quasi-diphthongal effect. ... they cannot ... be considered the normal forms of the long vowels; sometimes the short rearticulations seem to serve as glides to following consonants, particularly velars. The quasi-diphthongal long vowels are here indicated by long vowels followed by superior short vowels, the vocalic quality of the latter being indicated as in normal short vowels (Sapir 1915: 3–4).

Writing before the invention of portable recording machines, Sapir intended to convey fine phonetic detail, giving the reader as complete an idea as possible of the actual and exact pronunciation of the language. He did so without sacrificing a thoroughgoing analysis of reduplication patterns in the data he collected.

### 3 One source of Sapir’s “rearticulated vowels”

In my 2005 ICSNL paper, “High consonants, articulatory transitions, and nonhigh vowels in Comox”, I described one source of the phenomenon of what Sapir calls “rearticulated vowels” as being a palatal consonant followed by a phonemic /a/:

Phonemic	Phonetic	Written for learners	Gloss
/pəq sčəjən/	[pʌq sčéʌjɪn]	peq schîajen	‘weasel’
/čəlas/	[čéʌʌs]	chîalas	‘three’
/čəgay/	[čéʌgʌy]	ch’îagay	‘old time wooden spoon’

When I asked how many syllables these words have, he replied “two and a half” — Bill Galligos had been analyzing his language for years, thinking about it and making comparisons and analogies. Thom Hess had worked with Bill Galligos and recommended him highly.

In this paper the digraph *ia* has approximately the same value as it has in the Pinyin alphabet, used to write Chinese. Illustrative alternations in the spelling herein between the digraphs *ia* and *îa* are

- |     |   |                           |             |
|-----|---|---------------------------|-------------|
| (1) | /čəam̄/<br>‘how, why’                                     | [čʷɛmʔ]                   | chiam’      |
| (2) | /x <sup>w</sup> a? čəmas/<br>‘nohow, noway, can’t, won’t’ | [ç <sup>w</sup> ʊ čéʌmas] | whe chîamas |

- (3) /θamʂaʔ/                    [θamʂʲɛʔ] ~ [θamʂíʌʔ]                    thamshia' ~ thamshîa'  
       'twenty'

These examples illustrate the pedagogical orthography that I am using to transcribe my field notes and the texts which have been told to me.

Parallel with the offglide from a palatal stop being heard before an /a/, most instances of a palatal stop followed by the vowel /u/ also have an audible offglide — an exception is the word for 'child' /čuy/ [čuyʔ]. Some examples of the audible offglide are:

- (4) /čʰumən/                    [čʰíumən]                    chʰumen  
       'a screw'
- (5) /čuʔulqinəm/                [číuʔolqenəm]                chîuʔolhqinem  
       'stealing food'

These examples of the “y” offglide are parallel with the pronunciation of the “w” offglide after a velar:

- (6) /kʷamnač/                    [kʷámnač] ~ [kúʌmnač]                    kwamnach ~ kŵamnach  
       'root'

The phenomenon of the offglides being pronounced separately from the neighboring phonemic vowel suggests that Homalco and its related dialects are mora timed rather than being syllable timed or stress timed.

They are also parallel with the normal, unemphatic pronunciation of the word “no” where the unvoiced segment is stressed and the neighboring voiced segment is unstressed.

- (7) /xʷaʔ/                        [çúʌʔ]                        ŵha'  
       'no'

Compare the emphatic pronunciation of ‘no!’

- (8) /xʷaʔ/                        [çʷáʔʷ]                        wha'  
       'no!'

Here the initial segment is pronounced not as its own syllable (or mora) but is phonetically a syllable initial consonant.

One instance of this emphatic denial came during a conversation with Tommy Paul, when I asked him what sasquatch *may'al'alh* [mayʔʌlʔʌl] eats. His response was “*Tam qigath, tam majath*” [tam qegʌθ, tam mʌjʌθ] ‘any kind of deer, any kind of meat’ — then when I asked “*pileq ?*” [pɛlɔq] ‘mushrooms’ his answer was an emphatic “NO!”

#### 4 Stød as another source of Sapir’s “rearticulated vowels”

In the spring of 1970, Jimi Wilson visited me in Victoria. Jimi was a member of the Homalco band, raised in Church House. He visited the University of Victoria campus and classrooms and attended a number of social events. One of these was a cookout on the beach near Sooke. At that cookout, Jim Hoard asked Jimi to pronounce several words. When Jimi said the word for “mussel” Jim immediately identified the pronunciation as being an instance of stød with the same pronunciation as it would have if it were a word in Danish.

Wikipedia defines stød [sdøð] as “a suprasegmental unit of Danish phonology, which in its most common form is a kind of creaky voice (laryngealization), but may also be realized as a glottal stop, above all in emphatic pronunciation.” The article goes on to say that the IPA character for glottal stop is used to transcribe stød. This description from Wikipedia also describes the situation in Homalco. I described this alternation in my M.A. thesis (pp. 24-27). Mary George pronounced a glottal stop where Noel George Harry and Bill Galligos regularly pronounced a rearticulated vowel, a dragged out vowel, with creaky voice and lower pitch.

The Comox word for ‘mussel’ which Jimi told Jim is /sam̩a/ [saɬmɬ] or [sa<sup>a</sup>mɬ] (alternative notations for the same phenomenon) with creaky voice. In his 1915 publication, Edward Sapir wrote the word for ‘mussel’ as sā<sup>a</sup>ba<sup>ˀ</sup> (p. 30). This pronunciation of [b] for /m/ is not unexpected. For example, Noel George Harry sometimes said /majaθ/ as [bɬjɬθ] ‘meat’ and /jənəs/ as [jɪdɪs] ‘tooth’ in allegro speech.

One alternation which occurs in all dialects of Comox is /w/ ~ /g/ and /y/ ~ /j/. One example is the formation of the word ‘puppy’

- |      |            |              |             |
|------|------------|--------------|-------------|
| (9)  | /č̣anəw/   | [č̣əɬano]    | ch’iano     |
|      | ‘dog’      |              |             |
| (10) | /č̣anagul/ | [č̣əɬanagɔɬ] | ch’ianagolh |
|      | ‘puppy’    |              |             |

However, when the original glide is a laryngealized or glottalized resonant, the glottalization precedes the resulting voiced stop, resulting in the alternation called stød.

Remember that the description of stød is an alternation between glottal stop and creaky voice. In Homalco this describes the following alternation:

- |      |                       |   |         |
|------|-----------------------|---|---------|
| (11) | /law/                 | [ɬawʔ]                                      | lhaw’   |
|      | ‘escape’              |   |         |
| (12) | /lagit/ (or /laʔgit/) | [ɬa <sup>a</sup> git] / [ɬaɬgit] ~ [ɬaʔgit] | lha’git |
|      | ‘he got away’         |   |         |

with /w/ ⇒ /g/ before a vowel.

A second example of this alternation is

(13) /təwʔ/                      [tuʔ]                                      tewʔ  
       ‘freeze’

(14) /tagit/                      [taʰgit] / [taʌgit] ~ [taʔgit]      taʔgit  
       ‘frozen’

The negation of the word for ‘good’ /ʔəyʔ [ʔi:ʔ] illustrates the alternation of /y/ ⇒ /j/ before a vowel.

(15) /xʷaʔ ʔaʃas/              [çʷʊ ʔaʰʲəs] ~ [çʷʊ ʔaʔʲəs]      whe ʔaʃas  
       ‘not good’

To restate, Wikipedia states that stød is represented by the symbol for a glottal stop. When the glottal stop is not realized, Sapir’s rearticulated vowel is heard. However, during the 1970s the speakers who pronounced the rearticulated vowel also had creaky voice.

Another example of stød before a laryngealized resonant is:

(16) /ʔaʎas/                      [ʔaʎʎas] / [ʔaʎʎas] not recorded as [ʔaʎʎas]  
       ‘sea cucumber’

Together with the words which Bill Galligos called “two and a half” syllables, this rearticulated, or echo, vowel phenomenon suggests that Homalco and its related dialects are mora-timed.

## 5 Studies of Other Languages

Sonya Bird of the University of Victoria has done extensive analysis of laryngealized resonants in St’at’imcets, most recently in 2011. In that publication, Bird states, “[one] way in which [laryngealized resonants] exhibit substantial variability is in the realization of the laryngeal gesture: from a complete stop to a small dip in fundamental frequency.” This statement is reminiscent of the description of stød as given in Wikipedia.

There have also been studies of laryngealized vowels in Otomanguean (Mazatec, Mixtec) and Hokan (Oaxaca Chontal) and Panoan (Capanhua) languages. Some of these studies are listed in the reference list of this paper. The laryngealization of vowels in Comox is not an isolated phenomenon.

## 6 Another source of laryngealized vowels in Homalco

Vowels adjacent to glottalized stops and affricates can also be laryngealized. Some examples of the entire syllable being laryngealized are:

(17) /t̥in/                              [t̥ɛn]                                      tʔin  
       ‘barbecued fish’

(18) /ʔap̥uk̥w/                      [ʔap̥ok̥w]                                      ʔapʔokʷ  
       ‘maggot’

- (19) /p̥ʰχʷ/                      [p̥ʰχʷ]                      p'oxw  
       'stink, bad smell'

Here the stops are not ejective as pronounced by Bill Galligos and Noel George Harry, but are laryngealized, and the vowels are creaky voice.

Although other speakers, such as Noel George Harry, often pronounced glottalized stops and affricates not as ejectives but as laryngealized, with adjacent vowels enunciated as creaky voice, Bill Galligos never pronounced ejectives. When asked, he described /p̥/ as “on the side of ‘b’” and /t̥/ as “on the side of ‘d’” — in other words, more like the voiced than the unvoiced stops in English.

Ladefoged (1965) distinguishes between voiceless, ejective, laryngealized, and voiced stops in languages of the world. All four occur phonetically in Mainland Comox. However, when a glottalized stop was laryngealized rather than ejective, Bill Galligos and Noel George Harry, among others, pronounced the adjacent vowels as laryngealized.

The Wikipedia article on the Achumawi language states, “The laryngealized stops are similar in articulation to the ejective glottalized stops of neighboring languages, but more lenis, that is, not “popped” unless an unusual effort is made at articulating the distinction.”

Citing Ladefoged’s phonation-types tape, Professor Phil Hoole of the University of Munich gives examples of Danish stød with the laryngealization equally likely to be on the vowel or on the adjacent resonant. This same website transcribes Hausa laryngealized stops using the symbols for voiced consonants with a subscript tilde. This is reminiscent of Bill Galligos equating glottalized stops with voiced English stops.

## 7 Another source of Sapir’s “rearticulated vowels”

Sapir (1915) transcribes a large number of forms with vocalic offglides into following consonants. Among the speakers whom I heard, the most noticeable offglide was when the front vowel was followed by the post-velar stop. Examples include:

- (20) /səp̥iʰqʷatas/                      [sʌp̥ɛ̃ʰqʷatʌs]                      sep'iqwatas  
       'he hit him in the head'

- (21) /t̥əʃiqʷ/                      [t̥iʃɛ̃ʰqʷ]                      t'eshiqw  
       'snot'

## 8 Similar timing in the enunciation of consonants

In their 2008 editorial *The phonetics of North American languages*, McDonough and Whalen write that “Salishan languages have long sequences of consonants, uninterrupted by vowels ... that violate theoretical notions of syllable structure and phonetic salience.”

In his 1978 paper, *Syllabification in Northwest Indian languages*, James Hoard describes how such sequences of consonants are actually pronounced here in the Northwest. In this paper, Hoard distinguishes between tautosyllabic and heterosyllabic consonant clusters. All the consonants in a tautosyllabic consonant cluster are pronounced together as a unit. By contrast, in heterosyllabic consonant clusters, the consonants are pronounced separately or in pairs. A Comox illustration of a heterosyllabic consonant cluster is:

- (22) /tʰʉʂtas/                      [tʰʉ.ʂ.tʌs]                      tʰozʰshtas  
 ‘(S)he shot him/her in the foot/lower leg’

Each of the three consonants in the sequence -zʰsht- [tʰʂt] is enunciated separately and clearly. Here I am adopting James Hoard’s convention of using a period on the line to show the separation of one mora from another.

The segment [-ʂ] is a reduced form of the lexical suffix /-ʂən/ before the transitive suffix /-t/; the full form of this lexical suffix is seen in the following intransitive form, where there is no agent

- (23) /tʰʉʂən čan/                      [tʰʉ.ʂin čʸɛn]                      tʰozʰshen chian  
 ‘I was/am shot in the foot/lower leg’

Another example of how individual consonants in a sequence are enunciated separately is

- (24) /ʔaxʷ/                      [ʔa.ɕʷ]                      ʰaswh  
 ‘fur seal’

and the word for ‘falling snow’ or ‘snowflake’ is a reversal of the word for ‘no’ wherein each continuant — vowel and fricative — is enunciated separately:

- (25) /ʔaxʷ/                      [ʔa.ɕʷ]                      ʰawh  
 ‘falling snow’ ; ‘snowflake’

- (26) /xʷaʔ/                      [ɕʷ.ʌʔ]                      ʷhaʰ  
 ‘no’

Similarly, I usually heard the following word pronounced bimoraically:

- (27) /qawθ/                      [qa.wθ] or [qa.uθ]                      qawth  
 ‘potato’

But Susan Blake reported (p. 22) the diminutive with a vowel after the /w/ and the /w/ becomes /g/ prevocally, which means that the form /qawθ/ does not have a vowel in the second mora.

The bimoraic pronunciation of /qawθ/ ‘potato’ sheds light on the following reduplicated forms:

- |                                |            |         |
|--------------------------------|------------|---------|
| (28) /qin'qin/<br>'mallard'    | [qɛ.n.qɛn] | qi'nqin |
| (29) /tołtol/<br>'stone wheel' | [to.l.tol] | to'łtol |

Noel George Harry described *to'łtol* as a spear throwing game or contest, where a stone wheel with a hole in its center was rolled across the ground and the players or contestants tried to throw a spear through the hole as the wheel rolls.

These two examples suggest that some instances of glottal stop are epenthetic, inserted as the resonant is enunciated separately from the preceding vowel.

In his paper, James Hoard cited examples from Quileute, Nisqually, Columbian, Nez Perce, and Bella Coola. In his conclusion, he writes, "Nearly all descriptions of Northwest languages contain phonemic transcriptions which mask some of the important phonetic properties of these languages. This is especially true of syllabication." He advises "learning to pronounce the individual consonants themselves [rather] than pronouncing combinations of them in clusters." This is true of Homalco (and Sliammon) and the same advice can be given for pronouncing the vowels as well.

## 9 A mora-timed language

The individual enunciation of serial consonants is one more example suggesting that Homalco and its related dialects are mora-timed. It is mora-timed not only in its vowels, as noted in Sapir's transcription, but also in its syllable initial consonants as well as its syllable final consonants. This gives the language a rhythm quite different from spoken English.

The moraic nature of Sliammon syllable peaks and syllable final consonants has been noted previously by Susan Blake (1992). However, I have not found that she discusses a word initial consonant receiving its own moraic value.

## 10 A possible language change

One word which is remembered and used today is the word which Noel George Harry translated as "cousins and friends" — *jiājia*. However, its pronunciation has changed from the old pronunciation of "two and a half" syllables

- |             |          |        |
|-------------|----------|--------|
| (30) /ʃaʃa/ | [ʃiʌ]ʃɛ] | ʃiājia |
|-------------|----------|--------|

to be just two syllables

- |             |          |        |
|-------------|----------|--------|
| (31) /ʃaʃa/ | [ʃʲɛʃʲɛ] | jiājia |
|-------------|----------|--------|

so that now it seems to follow the rhythm pattern of English.

## 11 An areal phenomenon

James Hoard has shown that careful enunciation of consonants is an areal phenomenon. Careful enunciation not only of consonants but also of glide transitions between vowels and consonants may also be an areal phenomenon.

## 12 Afterword

In their 2008 editorial *The phonetics of North American languages*, McDonough and Whalen write, “Given the fact that the best (i.e., most practical) orthographies gloss over phonetic detail, these records are usually of limited value for phonetic science. Even the best IPA transcriptions require a segmentation and linearization that is often at odds with the phonetic phenomena at hand.”

The big question is how do we annotate these languages so that they can be taught in a way that is true to our consultants and teachers who are no longer with us? How do we represent their pronunciation so that it can be emulated? Straight taxonomic phonemic notation has been useful for academic linguistic comparison, but it can be debated whether or not this notation is optimal for language preservation and revitalization among people who are not trained in linguistics. We have strayed far from the detail preserved in Sapir’s transcriptions.

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# Phrase boundary effects in /t/ duration and aspiration in Nl̥eʔkepmxcin (Thompson River Salish)\*

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**Abstract:** Consonant inventories and substantial obstruent clusters in Salishan languages like Nl̥eʔkepmxcin can obscure potential F0 cues to prosodic phrase boundaries, such as boundary tones, or declination reset. By using phonetic analysis, I test the hypothesis that consonant duration and aspiration behaviour differs phrase internally as opposed to in phrase final positions. I show that the final voiceless alveolar stop /t/ of the 1pl marker /kt/ is longer when phrase final than phrase internal. Additionally, /t/ is longer at an i-phrase boundary than at a p-phrase boundary. In terms of aspiration, phrase final /t/ tokens have aspiration that is greater in duration and with an earlier intensity peak, though this appears to be a property only of i-phrase and not p-phrase boundaries.

**Keywords:** prosody, phrasing, aspiration, Nl̥eʔkepmxcin, Salishan

## 1 Introduction

The Salish languages of the Pacific Northwest of North America are well known for their rich consonantal inventories, widespread glottalization, and lengthy obstruent clusters (e.g. Bagemihl 1991; Kinkade 1992; Shaw 2002). Because obstruents are well known to affect the pitch of adjacent resonants (e.g. Brown and Thompson 2006 on Upriver Halkomelem Salish), it can be difficult to measure potential F0 cues to prosodic phrasing, such as boundary tones and declination reset, in Salish languages. In this paper, I explore an alternative phonetic cue to prosodic phrasing in Nl̥eʔkepmxcin (Thompson River Salish), one that in fact takes advantage of the widespread distribution of obstruents. Koch (2010) proposed that the final /t/ of the 1<sup>st</sup> person plural marker /kt/ is aspirated in phrase-final position, but not phrase-internally. In this paper, I test this prediction by comparing /kt/ /in phrase-final versus phrase internal positions, on a range of phonetic measures, including consonant and aspiration duration, and aspiration intensity. The tests were done on intransitive clauses (since these use the subject agreement marker /kt/).

Results indicate that there is no difference on the morpheme internal /k/ of the 1pl /kt/ across different positions, but the final /t/ of the /kt/ 1pl is reliably longer in duration when phrase final (in both phonological phrases, or p-phrases,

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and intonational phrase, or i-phrases). In addition, i-phrase final /t/ has aspiration that is greater in duration and intensity than both p-phrase final and phrase internal /t/.

Results are discussed in terms of how phonological phrasing aligns with properties of syntax, and properties of information structure. While verbs and auxiliaries are phrased together, intransitive verbs and oblique arguments or adjunct phrases appear to be phrased in separate p-phrases. As for the transitive clauses with VSO order that were investigated, these appear to have verb, subject and object phrased in independent p-phrases.

## 2 Background

I begin with some background on Nl̥əʔkepmxcin, then move on to some general background on phrasing and consonant cues to phrase boundaries, reviewing some related prior research in Nl̥əʔkepmxcin, other Salishan languages, and cross-linguistically.

### 2.1 General properties of Nl̥əʔkepmxcin

Nl̥əʔkepmxcin (Kroeber 1997; Thompson and Thompson 1992, 1996) is one of 23 Salish languages (Czaykowska-Higgins and Kinkade 1998; Kinkade 1992; Kroeber 1999; for some general overviews of Salishan). It is spoken in the southwest of British Columbia, and is severely endangered, with no more than a few hundred elderly speakers remaining. The phonemic inventory is given in Table 1.

**Table 1** Phonemic inventory (adapted from Thompson and Thompson 1992)

CONSONANTS	labial	alveolar	alveo-palatal	velar	uvular	pharyngeal	glottal
Stops	p	t		k k <sup>w</sup>	q q <sup>w</sup>		ʔ
Ejectives	p̣	ṭ		ḳ ḳ <sup>w</sup>	q̣ q̣ <sup>w</sup>		
Lateral Eject.		ɬ					
Nasal	m	n					
Glottalized	ṃ	ṇ					
Affricates		ç [ts]	c [tʃ]				
Ejective		ç̣ [tṣ]					
Fricatives		ʃ [s]	s [ʃ]	x x <sup>w</sup>	χ χ <sup>w</sup>		h
Lateral		ɬ					
Approximant	(w)	z	y [j]	w		ʕ ʕ <sup>w</sup>	
Lateral		l					
Glottalized	(ẉ)	ẓ	ỵ	ẉ		ʕ̣ ʕ̣ <sup>w</sup>	
Glott. Lateral		ḷ					



- (2) e=stíptept te=sqáqxaʔ-s  
 DET=black LINK=dog-3POSS  
 ‘his black dog’

The second use of /kt/ is as an intransitive subject agreement marker in indicative or nominalized clauses. Intransitive predicates may be followed by oblique arguments (3), and in cases of a 1pl subject, are inflected with the 1pl subject clitic (on subject marking, see Davis 1999, 2000; Hoard 1971; Koch 2009; Kroeber 1999; Newman 1979, 1980). In this case, /kt/ is a second position clitic, and attaches to whatever is the first prosodic word in its attachment domain, rather than to a fixed host. In example (3), the 1pl indicative subject clitic =kt follows the verb, while in (4) it follows the initial auxiliary. Thus, this /kt/ is “mobile” and is not fixed to the verb. In (5), we see the /kt/ possessive clitic attaching to the imperfective auxiliary, the first prosodic word in a nominalized clause, and not to the verb *q<sup>w</sup>ác* ‘(get) warm’.

- (3) Verb 2CL Oblique  
 wʔxám =kt te=swíte.  
 have =1PL.INCL OBL=sweater  
 ‘We have sweaters.’

- (4) Aux 2CL Aux Verb  
 x<sup>w</sup>úỵʔ=kt nés téw-cn-me.  
 FUT =1PL.INCL go buy-mouth-INTRANS  
 ‘We’re going to go grocery shopping.’

- (5) Aux 2CL Verb  
 ...ʔé k=s=wʔéx =kt q<sup>w</sup>ác  
 ...and COMP=NOM=IMPF =1PL.POCL warm  
 ‘...so we could stay warm.’ [787d’”]

## 2.2 Prosodic phrasing background

There has been little previous research on properties of prosodic phrasing in the language: the grammar mentions a few general pitch cues (Thompson and Thompson 1992:24), while Egesdal (1984) details some general rhythmic properties of narratives, again only impressionistically. Koch (2008, 2011) showed that intonational phrases were right-headed, as indicated by the prosodic prominence of vowels, and phrase-final vowels showed a significant final lengthening effect. In the present study, it is hypothesized that consonants at phrase final edges will also undergo a lengthening effect, similar to vowels. In this paper, I will be referring to phonological phrases (p-phrase) and intonational phrases (i-phrases) in the prosodic hierarchy of Nespor and Vogel (1986, also Hayes 1989). The labels p-phrase and i-phrase are not universally used (e.g. minor phrase and major phrase are other similar terms – Selkirk and Kratzer 2007); for the purposes of the present study, what is important is that I will

provide evidence for two phrasal categories above and beyond words and clitic groups in Nl̥əʔkepmxcin.

Looking across the Salish language family more generally, there again has been much work on prosodic categories below the level of phrases (e.g. Czaykowska-Higgins 1993, 1998; Shaw 2002; Thompson and Thompson 1992, etc.), but comparatively little at the phrasal level. A notable exception, Beck (1996, 1999) identifies the following indicators of p-phrase status in Lushootseed Salish (see also Beck and Bennett 2007):

- (6) Characteristics of phonological phrases in Lushootseed Salish (Beck 1999)
  - a. set off by 50-100 ms pause in careful speech
  - b. lack phonological interaction (i.e. assimilation, etc.) across p-phrase boundaries
  - c. contain a single phonological word with an amplitude peak plus clitics and affixes

In the present study, I primarily focus on how (6c) plays out in Nl̥əʔkepmxcin, and test whether p-phrases in Nl̥əʔkepmxcin can extend beyond single words. In this regard, I show that the verbal complex (auxiliaries plus main verb) are parsed as a single p-phrase, even though auxiliaries are prosodic words since they attract second position clitics. Thus, auxiliary-verb sequences contain two prosodic words, but only one phrase. I also make some remarks about complex noun phrases, suggesting they may also be parsed as single phonological phrases.

In addition, Beck (1999) notes that intonational phrases in Lushootseed are characterized by a steady fall in F<sub>0</sub>, with a declination reset at the start of each i-phrase. In Okanagan Salish, prosodic boundaries are also marked by pauses, F<sub>0</sub> fall, and reset or partial reset of declination across phrasal boundaries (Barthmaier 2004). Finally, recent work by Caldecott (2009) shows that prosodic phrases are right-headed in St'át'imcets Salish; Koch (2008) finds that Thompson Salish, too, has rightmost nuclear stress and right-headed phonological-phrases. The present study does not directly address declination effects in F<sub>0</sub>, since it looks at consonants.

### **2.3 Consonant production background**

In terms of prior related research on consonants in Nl̥əʔkepmxcin, Thompson and Thompson (1992:4) note that stops are “somewhat aspirated before a spirant” and regularly aspirated “before another stop,” while in “syllable final position, [stops] are strongly aspirated.” These observations led Koch (2010) to examine stop aspiration as a possible cue for phrasal boundaries. Specifically, Koch (2010) looked at some cases of the voiceless alveolar stop /t/ in the 1pl marker /kt/, proposing that it was aspirated in phrase final but not phrase internal positions; however, the study used a small set of data, was limited to aspiration (presence or absence), and did not do a phonetic analysis across a larger data set.

Cross-linguistically, consonants have been shown to have phonetic properties that are plausibly the phonological realization of phrase edge boundaries. Butcher and Harrington (2003a, 2003b) showed that /p/ in onset position in Warlpiri focus phrases had increased duration. In Blackfoot, a laryngeal feature marks phrase final positions, including the devoicing of vowels, and aspiration of phrase final consonants (Frantz 2009, Windsor and Cobler 2013). Niebuhr (2008) showed that, in German, utterance final /t/ aspiration differed in duration and intensity depending on the accompanying tonal contour: in other words, while tonal contours are a type of phrasal property usually thought of as realized on vowels, the consonant aspiration also played a role in indicating phrasal type in German. Results of these studies motivate the hypothesis that aspiration duration and intensity may mark final phrase boundaries in Nl̥əʔkepmxcin.

Considering Salishan consonant articulation more broadly, the present study will be of interest to other work that has examined various aspect of consonant production across other Salishan languages. Esling and colleagues laryngoscopically examined properties of glottal stops, glottalized resonants and pharyngeals, including in Nl̥əʔkepmxcin (Carlson et al. 2004; Esling et al. 2002); the present study provides acoustic phonetic information on laryngeal properties (aspiration) of the voiceless stops /k/ and /t/. Bessell (1997, 1998) examined co-articulation effects of vowels on consonants in St'át'imcets, a related Interior Salish language. J.H. Davis (2005) showed that pre-vocalic glides in Comox often attract primary stress, usually thought of as a property of vowels, which are usually described as prosodic heads of syllables and phrases; in terms of the present study, this motivates looking at consonants for other phonetic markers of phrase position and phrase type (here, duration and aspiration). Looking at guttural glides in St'át'imcets, Shahin (2003) also showed a phonological conditioning on consonant production, in that pharyngeal occurrences happen with labialization, while uvular forms were found elsewhere; the present paper proposes that voiceless stop production in Nl̥əʔkepmxcin is also phonologically conditioned, by phrasal boundaries.

Because the present study involves /kt/, a two-consonant form that additionally followed other root consonants, all forms occur in consonant clusters, and will be of interest to studies that have examined consonant cluster properties in other Salish languages (e.g. Hoard 1978, Bagemihl 1991 on Nuxalk; Bianco 1996 for Cowichan; Shaw 2002 for hən'q'əmin'əm'; Marinakis 2004 for Upriver Halq'eméylem). Finally, while phrasal distinctions have not received much attention, Van Eijk (2001) examined word, clitic and sentence distinctions in St'át'imcets (Lillooet Salish); here I look for phonetic evidence for phrasal groupings.

## **2.4 Predictions based on Koch (2010)**

In Koch (2010), the following were proposed to constitute phrasal boundaries. Auxiliaries and verbs form a single phrase, while arguments and adjuncts are

phrased separately from the verbal complex. Thus, /kt/ in (7)–(10) are proposed to be phrase internal. In (7) to (9), we have clitic instances of /kt/ (as per the Clitic Mobility Criterion discussed in 2.1). In (10), we find an instance of the possessor affix /kt/.

- (7) ( )<sub>i-phrase</sub> [VP internal clitic /kt/]  
 ( )<sub>p-phrase</sub>  
 x<sup>w</sup>úy<sup>?</sup>=**kt** nés téw-cn-me.  
 FUT=1PL.INCL go buy-mouth-INTRANS  
 ‘We’re going to go grocery shopping.’
- (8) ( )<sub>i-phrase</sub> [Sentence final clitic /kt/  
 ( )<sub>p-phrase</sub> with additional clitic after it]  
 nan’ék’=**kt**=nuk<sup>w</sup>.  
 get.nutrition=1PL.INCL=EVID  
 ‘We got nutrition.’ [F\_P599a-1]
- (9) ( )<sub>i-ph</sub> [DP internal clitic /kt/, in  
 ( )<sub>p-phr</sub> prenominal relative clause]  
 ... n=e=s=cúw=**kt** nmímł.  
 ... in=DET=NOM=work=1PL.POCL 1PL.EMPH  
 ‘... for our work.’ [F\_P644a]
- (10) ( )<sub>i-phrase</sub> [DP internal affix /kt/]  
 ( )<sub>p-phrase</sub>  
 ... e=spzú?**-kt** nmímł.  
 ... DET=animal-1PL.POSS 1PL.EMPH  
 ‘... our animal.’ [F\_P769a-2]

On the other hand, /kt/ in (11)–(15) are proposed to be phrase final, and thus show greater duration and aspiration.

- (11) ( )<sub>i-phrase</sub> [Sentence final clitic /kt/]  
 ( )<sub>p-phrase</sub>  
 ... t=e=s=máq’=**kt**.  
 ... OBL=DET=NOM=full=1PL.POCL  
 ‘... because we’re full.’ [F\_P704v-3]
- (12) ( )<sub>i-phrase</sub> [Sentence and DP final  
 ( )<sub>p-phrase</sub> affix /kt/]  
 ... ?el le=?íme**c-kt**.  
 ... and DET=grandchild-1PL.POSS  
 ‘... and our grandchildren.’ [F\_P375e-1]

(13) [DP final affix /kt/]

( )<sub>i-phrase</sub>  
 ( )<sub>p-phrase</sub> ( )<sub>p-phrase</sub> ( )<sub>p-phrase</sub>  
 cúk<sup>w</sup>=łu? nmímł e=púš-**kt** e=?ém'c-n-x<sup>w</sup>.  
 finish=PERS 1PL.EMPH DET=cat-1PL.POSS COMP=feed-DRV-3O.2SG.TS  
 'Our cat was the only one you fed.' [F\_P769b]

(14) [VP final clitic /kt/ followed by adjunct]

( )<sub>i-phrase</sub>  
 ( )<sub>p-ph</sub> ( )<sub>p-phrase</sub> ( )<sub>p-phrase</sub>  
 yé' e=s-n-ŕ<sup>w</sup>óy't=**kt** ł=sítist.  
 good COMP=NOM=LOC-sleep=1PL.POCL DET=night  
 'We slept good last night.' [F\_P181f-1]

(15) [VP final clitic /kt/ followed by oblique]

( )<sub>i-phrase</sub>  
 ( )<sub>p-ph</sub> ( )<sub>p-phrase</sub>  
 w?xám=**kt** te=swíte.  
 have=1PL.INCL OBL=sweater  
 'We have sweaters.' [F\_P046]

Note that the present study also allows us to test whether i-phrase final /kt/ has different phonetic properties than p-phrase final /kt/ that is not also i-phrase final at the end of a breath group). This would provide evidence for an intonational phrase (i-phrase), above the p-phrase level, thus resulting in the two levels of phrasing indicated in the above examples. For example, in (14), there are three p-phrases but only one i-phrase; =kt is in final position of the second p-phrase, but is not i-phrase final. In addition, the study looks at both the clitic /kt/ (=kt) and the affix /kt/ (-kt), allowing us to see whether this distinction has any effect on production of /k/ and /t/ in the two cases.

### 3 Methodology

The 1pl marker /kt/ was chosen for analysis because, in addition to consisting of two voiceless stops, it was expected to occur relatively often. Moreover, as an enclitic or suffix, /kt/ would occupy right edge positions as well as internal positions. Instances of /kt/ were collected from the author's corpus of recordings made over the course of three years of fieldwork. The data are from fieldwork with two speakers of the łqémćín (Lyton) dialect of Nłe?kepmxcin. Speakers were recorded on separate channels using a digital audio recorder and individual microphones. The forms examined in this paper all stem from a single breath group (where the breath group corresponds to the intonational phrase in the prosodic hierarchy). Examples come from both elicited examples, as well as spontaneous discourse generated via a range of methodologies (see Caldecott and Koch 2014).

Using Praat (Boersma and Weenink 2013), individual utterances were extracted from master recordings and saved as individual wav files. Using textgrids, consonant and aspiration lengths were marked for /k/ and /t/ in each example. In total, 580 tokens were analyzed. This included 290 tokens of complete consonant durations (phrase final /k/ = 72, phrase internal /k/ = 73, phrase final /t/ = 72, phrase internal /t/ = 73) and 290 tokens of aspiration (phrase final /k/ aspiration = 72, phrase internal /k/ aspiration = 73, phrase final /t/ aspiration = 72, phrase internal /t/ aspiration = 73). However, 5 tokens of phrase internal /t/ yielded no aspiration values because there was no noticeable consonant release and aspiration frication present.

Automated scripts were used to measure overall consonant duration (ms), and the following aspects of consonant aspiration: duration (ms), maximum intensity (dB), and the time point during the aspiration at which the maximum intensity occurred (both as an absolute value in ms, and as a percentage of the overall duration of aspiration). Where there was no aspiration at all, this was noted; if there was no complete /t/ closure (but continuous aspiration from the preceding /k/), this was also noted.

(16) Acoustic phonetic measurements made

a. entire /k/ and /t/ consonants:

- duration (ms)

b. /k/ aspiration and /t/ aspiration:

- duration (ms)
- maximum intensity (dB)
- time of maximum intensity (ms)
- time of maximum intensity as percentage of overall aspiration duration (%)
- absence of aspiration
- absence of complete /t/ closure

In addition to descriptive statistics, independent samples t-tests were used to conduct the inferential statistical tests. Where necessary, the t-tests were conducted for unequal variances after inspection of F values in Levene's Test for Equality of Variances, with degrees of freedom adjusted as needed. Because of the number of comparisons performed (20), the significant p-value was adjusted downward to 0.0025.

## 4 Results

I begin by reporting results for overall consonant duration, and then move on to results for aspiration. I use the following abbreviations: sd = standard deviation, n = number of observations, df = degrees of freedom, t = t-value of the

independent samples t-test,  $d = \text{Cohen's } d$  (effect size measure)<sup>2</sup>. In the tables, significant results are marked with a \*.

Because /k/ values are always clitic or affix internal, being the first phoneme of the 1pl marker /kt/, they serve as a type of control: phrase edge effects are expected for /t/ but not for /k/ (or, at least, to be much stronger for /t/ than for /k/).

**4.1 Overall consonant duration**

In terms of the overall duration of the consonants across all conditions, the duration of /k/ (mean=132.67ms, sd=30.69ms, n=145) and /t/ (mean=118.41ms, sd=74.87ms, n=145) did not differ significantly ( $t=2.121$ ,  $df=288$ ,  $p=0.035$ ).

Turning to the two conditions of interest, /k/ duration when /kt/ was in phrase internal position (mean=127.28ms, sd=29.56ms, n=73) and phrase final position (mean=138.13ms, sd=31.04ms, n=72) did not differ significantly ( $t=2.156$ ,  $df=143$ ,  $p=0.033$ ). Although phrase final /k/ trended in the expected direction and was slightly longer in duration, the effect size was also small ( $d=0.36$ ). On the other hand, /t/ duration in phrase internal position was significantly shorter (mean=75.91ms, sd=33.16ms, n=73) than /t/ duration in phrase final position (mean=161.50ms, sd=80.71ms, n=72), as the t-test showed ( $t=8.330$ ,  $df=94.036$ ,  $p<0.001$ ). These results are summarized in Table 2.

**Table 2** /k/ and /t/ duration in phrase internal and phrase final positions

		/k/ duration (ms)	/t/ duration (ms)
Phrase internal	Mean	127.28	75.91
	sd	29.56	33.16
Phrase final	Mean	138.13	161.50
	sd	31.04	80.71
F test	<i>F</i>	0.001	65.289
	<i>p</i>	0.971	<0.001*
t-test	<i>t</i>	2.156	8.330
	df	143	94.036
	<i>p</i>	0.033	<0.001*
Effect size	<i>d</i>	0.36	1.72

Because the phrase-final condition included phrase boundaries that were both i-phrase and p-phrase final, or only p-phrase final, it was hypothesized that these two phrase final positions may have different consonant productions. A difference here would be indicative of /t/ production being affected by being at a p-phrase versus i-phrase boundary. A /t/ produced at an i-phrase boundary was expected to be longest; /t/ at a p-phrase but not i-phrase boundary was expected

<sup>2</sup> The standard interpretation of the effect size for Cohen's  $d$  is 0.2 for a small effect size, 0.5 for a medium effect size, and 0.8 and more for a large effect size (Cohen 1988).

to be medial in duration; while phrase-internal /t/ was expected to be shortest. Thus, the tokens in the phrase final condition were split into two groups.

Pairwise comparisons of the groups were consistent with this hypothesis. In the table below, i-phrase final tokens are numbered 1, tokens that are only p-phrase final are numbered 2, while the unaltered phrase internal group is labelled 3. The tokens of i-phrase final /t/ were longest in duration (mean=217.92ms, sd=59.77ms, n=39); /t/ at p-phrase final position were of medial duration (mean=94.82ms, sd=41.82ms; n=33); and phrase internal /t/ productions were of shortest duration (mean=75.91ms, sd=33.16ms, n=73). T-tests showed that i-phrase final /t/ was significantly longer than p-phrase final /t/ ( $t=7.081$ ,  $df=69.377$ ,  $p<0.001$ ), but p-phrase final /t/ was approaching but did not reach significance in comparison to phrase internal /t/ ( $t=2.603$ ,  $df=97$ ,  $p=0.011$ ), though the effect size was a medium one here ( $d=0.49$ ). These results are summarized in the table below.

**Table 3** /t/ duration in i-phrase final, p-phrase final and phrase internal positions

		/t/ duration (ms)
1 i-phrase final	Mean	217.92
	sd	59.77
2 p-phrase final	Mean	94.82
	sd	41.82
3 phrase internal	Mean	75.91
	sd	33.16
F test 1-2	<i>F</i>	8.761
	<i>p</i>	0.004
t-test 1-2	<i>t</i>	10.237
	df	67.755
	<i>p</i>	<0.001*
	Effect size 1-2	<i>d</i>
F test 2-3	<i>F</i>	0.076
	<i>p</i>	0.783
t-test 2-3	<i>t</i>	2.500
	df	104
	<i>p</i>	0.014
	Effect size 2-3	<i>d</i>

Finally, I examined whether i-phrase final clitic =*kt* showed differing durations of /t/ than i-phrase final affix -*kt*. While the affixal /t/ was slightly shorter (mean=203.23ms, sd=58.57ms, n=9) than the clitic /t/ (mean=222.32ms, sd=60.40ms, n=30), the difference was not significant ( $p=0.408$ ). This suggests that i-phrase final affix and clitic /*kt*/ are not pronounced differently, despite different morphosyntactic status.

## 4.2 Aspiration duration and intensity

Aspiration of /k/ and /t/ were measured for duration, maximum intensity, time of maximum intensity, and percentage time of maximum intensity as a measure of the overall duration of intensity (this last measure was undertaken because duration of aspiration varied, so absolute time may not have been an accurate measure of the time of the intensity peak).

For /k/, there were no significant differences in the duration or maximum intensity for aspiration values. This suggests that the clitic or affix internal position of /k/ in the 1pl marker /kt/ meant that its production was not significantly affected by the position of /kt/ relative to a phrase boundary. However, the percentage time of the aspiration maximum did differ significantly in the two conditions, with phrase final /k/ aspiration occurring earlier (mean=32% of the total aspiration duration) than phrase internal /k/ aspiration (mean=47.18%). This is a possible cue to phrase final status that is realized on the 1pl internal /k/ of /kt/, and was a mid to large effect size ( $d=-0.66$ ).

**Table 4** /k/ aspiration results in phrase final versus phrase internal /kt/

		duration (ms)	maximum intensity (dB)	time (ms) of max. intensity	% time of max. intensity
Phrase internal	Mean	73.10	56.47	32.46	47.18
	sd	25.83	5.43	21.74	28.03
Phrase final	Mean	78.91	55.54	25.52	32.00
	sd	22.87	3.82	20.23	20.02
F test	<i>F</i>	4.145	6.461	1.209	14.732
	<i>p</i>	0.044	0.012	0.273	<0.001
t-test	<i>t</i>	1.434	-1.187	-1.982	-3.740
	df	141.377	127.389	142	128.475
	<i>p</i>	0.154	0.237	0.049	<0.001*
Effect size	<i>d</i>	0.24	-0.21	-0.33	-0.66

Turning to /t/ aspiration in Table 5, its duration was significantly shorter ( $t=7.816$ ,  $df=78.754$ ,  $p<0.0001$ ) in phrase internal positions (mean=27.04,  $sd=15.51$ ,  $n=68$ ) than in phrase final positions (mean=89.34ms,  $sd=65.85ms$ ,  $n=72$ ). The difference in maximum intensity was also significant ( $t=-3.162$ ,  $df=138$ ,  $p=0.002$ ); interestingly, phrase internal /t/ aspiration showed on average over 3dB greater maximum intensity (mean=59.81dB,  $sd=6.23dB$ ) than phrase final aspiration (mean=56.74dB,  $sd=5.21dB$ ), a point I will return to in the discussion. Finally, the percentage time of the maximum aspiration intensity was, as for /k/ aspiration, later in phrase internal positions (mean=65.73%,

sd=23.95%, n=68) than in phrase final positions (mean=47.32%, sd=32.17%, n=72), a difference that was significant ( $t=-3.873$ ,  $df=130.975$ ,  $p<0.0001$ ).

**Table 5** /t/ aspiration in phrase final versus phrase internal positions

		duration (ms)	maximum intensity (dB)	time (ms) of max. intensity	% time of max. intensity
Phrase internal	Mean	27.04	59.81	18.24	65.73
	sd	15.51	6.23	10.69	23.95
Phrase final	Mean	89.34	56.74	31.46	47.23
	sd	65.85	5.21	40.28	32.17
F test	<i>F</i>	138.436	3.171	13.686	19.403
	<i>p</i>	<0.001	0.077	<0.001	<0.001
t-test	<i>t</i>	7.816	-3.162	2.685	-3.873
	df	78.754	138	81.502	130.975
	<i>p</i>	<0.001*	0.002*	0.009	<0.001*
Effect size	<i>d</i>	1.76	-0.54	0.59	-0.68

In addition, there were 5 phrase internal tokens of /t/ for which there was no release or aspiration of any sort apparent in the waveform and spectrogram (hence the n of 68 rather than 73 for this analysis), while there were an additional 5 tokens where there was no complete closure for /t/, but rather continuous aspiration carrying over from the production of the preceding /k/. Thus, 10/73 tokens in phrase internal position /t/ (13.70%) lacked either aspiration or closure. No tokens in the phrase final data set lacked closure or aspiration. This suggests that lack of complete closure or lack of any aspiration may be a phrase internal but not phrase final consonant characteristic.

Finally, in terms of consonant duration, we saw that p-phrase final /t/ occupied a position between i-phrase final /t/ and phrase internal /t/. In terms of aspiration measures, as shown in Table 6, i-phrase final /t/ aspiration was significantly different from p-phrase final /t/ aspiration in terms of duration, maximum intensity and the percentage time of the maximum aspiration intensity. However, p-phrase final tokens patterned with the phrase internal /t/ tokens, and showed no significant differences from phrase internal /t/ in terms of aspiration measures: even though p-phrase final aspiration duration was slightly longer on average than phrase internal aspiration duration, the effect size was relatively small ( $d=0.29$ ). This suggests that increased aspiration duration is primarily a marker of i-phrase boundaries. However, it should be again noted that phrase internal /t/ tokens did sometimes lack aspiration or closure altogether, something that was not observed in p-phrase final /t/ tokens.

**Table 6** /t/ aspiration for i-phrase final, p-phrase final and phrase internal /t/

		duration (ms)	maximum intensity (dB)	time (ms) of max. intensity	% time of max. intensity
1 i-phrase final	Mean	136.86	54.52	40.75	28.88
	sd	49.61	3.32	52.51	28.22
2 p-phrase final	Mean	33.18	59.38	20.47	68.92
	sd	26.36	5.82	9.77	21.34
3 phrase internal	Mean	27.04	59.81	18.24	65.73
	sd	15.51	6.23	10.69	23.95
F test 1-2	<i>F</i>	13.908	9.06	18.279	2.217
	<i>p</i>	<0.001	0.004	<0.001	0.141
t-test 1-2	<i>t</i>	11.300	-4.244	2.365	-6.688
	df	59.697	48.954	41.093	70
	<i>p</i>	<0.001*	<0.001*	0.023	<0.001*
Effect size 1-2	<i>d</i>	2.93	-1.21	0.74	-1.60
F test 2-3	<i>F</i>	0.449	0.432	0.027	0.753
	<i>p</i>	0.504	0.512	0.871	0.393
t-test 2-3	<i>t</i>	1.501	-0.334	1.009	0.650
	df	104	99	99	99
	<i>p</i>	0.136	0.739	0.315	0.517
Effect size 2-3	<i>d</i>	0.29	-0.07	0.20	0.13

## 5 Discussion

The phonetic analysis reported above tested whether there was any evidence for different consonant duration and aspiration measures depending on phrasal position. The consonants examined were /k/ and /t/ in the 1pl marker /kt/, and these were measured for overall duration; aspiration duration; and maximum aspiration intensity and timing. Tokens that were, based on Koch (2010), claimed to be phrase final and phrase internal were analysed. In addition, the present study conducted an additional post-hoc comparison, splitting the phrase final group into two: those tokens expected to be i-phrase final versus strictly p-phrase final.

### 5.1 Consonant duration

The results showed that consonant duration was a reliable indicator of phrase final position, with longer duration of /t/ in phrase final than phrase internal positions. Moreover, /t/ at a final i-phrase boundary was longer than /t/ at a final p-phrase boundary, which in turn was longer than phrase internal /t/ (though the latter difference was not quite significant, this may have been because of smaller numbers of observations once the phrase-final group was split into two; the effect size was a medium one,  $d=0.49$ ). This provides evidence for two

categories of phrasal groupings (here labelled i-phrase and p-phrase), which are above the level of the clitic group. For example, repeating example (7) below as (17) but adding a level for the clitic group, we see that this differs from the p-phrase and i-phrase: tokens of /kt/ after initial auxiliaries had significantly shorter /t/, not being at a p-phrase boundary.

- (17) ( )<sub>i-phrase</sub> [VP internal clitic /kt/]  
 ( )<sub>p-phrase</sub>  
 ( )<sub>cl-group</sub>  
 x<sup>w</sup>úy=kt nés téw-cn-me.  
 FUT=1PL.INCL go buy-mouth-INTRANS  
 ‘We’re going to go grocery shopping.’

In these cases of complex verbal predicates, with one or more auxiliaries in addition to the main verb, the first auxiliary attracts the second position clitics. This shows us that auxiliaries count as prosodic words. Yet, in Nlɛʔkepmxcin, the p-phrase is built around a larger unit that includes more than one prosodic word, unlike Lushootseed (Beck 1999). Entire verbal predicates appear to form a single p-phrase.

Similar results were found for affixal /kt/ in complex nominal predicates. For example, in (18), the 1pl emphatic pronoun is a separate prosodic word from *puʂ* ‘cat’, yet these /kt/ similarly showed acoustic properties different from the group hypothesized to be phrase final. This again suggests a single p-phrase mapping to the syntactic DP (Determiner Phrase) ‘our cat’.

- (18) ( )<sub>i-phrase</sub> [DP internal affix /kt/]  
 ( )<sub>p-phrase</sub>  
 ... e=púʂ-kt nmíml.  
 ... DET=cat-1PL.POSS 1PL.EMPH  
 ‘... our cat.’ [F\_P769a-4]

The lengthening effects found for /t/ in phrase final positions are in line with previous findings (Koch 2008, 2011) that there is significant final lengthening of vowels in Nlɛʔkepmxcin, showing that phrasal lengthening also includes at least some consonants. Interestingly, /k/ duration was not significantly different when /kt/ was phrase-internal versus phrase-final (though the overall pattern was as expected, with phrase final /k/ tokens about 10ms longer, on average, than phrase internal tokens). This suggests that consonants not at clitic or affix boundaries are not affected here. Moreover, /kt/ as a possessive affix and as an agreement clitic showed the same effects for duration increase at phrase-final positions, suggesting the surface phonological string was not sensitive to morphosyntactic status for this measure of pronunciation.

## 5.2 Aspiration

Turning to aspiration, this measure also distinguished /kt/ production in different phrasal positions, though in a different way from overall consonant duration. The phrase final group /t/ had aspiration that was longer, and with an earlier intensity peak in terms of where the peak occurred as a percentage of overall aspiration duration. /k/ aspiration also showed an earlier intensity peak for phrase final tokens of /kt/. Overall, phonologically, this suggests phonological aspiration of /t/ in phrase final but not phrase internal positions. The /k/ of the 1pl /kt/ marker, on the other hand, was aspirated in all positions.

When the phrase final group was split into i-phrase and p-phrase final subgroups, it was shown that the aspiration measures were relevant for i-phrase final /t/ only, and not for p-phrase final /t/. This suggests that aspiration cues are greater at i-phrase but not p-phrase boundaries, while overall /t/ duration is the primary marker of a final p-phrase boundary. However, there are a few other indicators that suggest p-phrase and phrase internal /t/ tokens were differently marked even for aspiration measures: only /t/ tokens in the phrase internal group sometimes lacked aspiration or /t/ closure altogether, something that was not observed for p-phrase final group. Overall, then, aspiration measures were consistent with the proposal that both i-phrases and p-phrases are relevant for consonant production in Nle?kepmxcin.

Interestingly, the maximum intensity of /t/ aspiration showed a higher mean in phrase internal positions. This is somewhat surprising if these tokens are meant to be phonologically unaspirated. When the sound files were coded, /t/ aspiration was marked when there was any indication of a release in the waveform or any indication of high frequency aspiration in the spectrogram. Even a phonologically unaspirated /t/ will create some release burst. The higher maximum intensity could well be a product of two factors. First, these release bursts were much shorter in duration, allowing for a higher absolute intensity (that is, if energy was measured over the entire release burst, it would be far higher in the phrase final position, something already reflected in the duration difference of aspiration). Secondly, the phrase internal /kt/ tokens occurred earlier in the breath group, so the absolute higher value of intensity could just be a factor of occurring earlier in the declination group.

## 5.3 On some misalignment of phonological and syntactic phrases

An additional reason why the acoustic properties of p-phrase final /kt/ were not found to be as distinct from phrase internal /kt/ (as opposed to i-phrase final /kt/) is likely due to a misalignment of the syntax-prosody interface in some instances. At least some cases of p-phrase final /kt/ were followed by additional clitic material, but from a different syntactic phrase. It appears that principles of syllabification (preferably making the /t/ an onset with a following resonant clitic, for example) conspire to add additional phonological material after a /kt/ that is syntactic phrase final. This removes the /t/ by one segment from the p-



emphasizing the aspiration on both consonants involved, and inserting a phrase boundary after /kt/.

- (21) ( )<sub>p-phrase</sub> ( )<sub>i-phrase</sub>  
 ( )<sub>p-phrase</sub> ( )<sub>p-phrase</sub>  
 ... ?é k=s=w?éx=kt táns ....  
 ... and COMP=NOM=IMPF=1PL.PoCl dance ....  
 ‘... and [WE]<sub>FOCUS</sub> had to dance ....’ [787d’’-3]

Both /k/ and /t/ in the /kt/ of (21) have longer duration than the averages reported in tables 2–3 (168.11ms for [k], 270.9ms for [t]). /t/ also has aspiration that is longer (163.61ms) and louder (60.73dB maximum intensity) than the phrase-final average, while the aspiration intensity peak also occurs earlier than average (at 8.66% of the aspiration duration). Finally, /t/ aspiration is followed by approximately 170ms of silence until the release of the /t/ of *táns*. This suggests that the speaker uses a p-phrase boundary after /kt/ to mark corrective focus on /kt/ here (normally, auxiliaries and verbs are parsed in the same phrase).

Interestingly, I have only documented cases of corrective focus that show this sort of marking; new information focus (as in answering a wh-question), selective focus or contrastive focus don’t seem to employ this strategy. Instead, the preferred strategy is to cleft the 1pl independent emphatic pronoun *nmiml* to mark focus (Koch 2008). In (22) and (23), *nmiml* occurs in the focus domain following the ‘only’ cleft predicate *cúk<sup>w</sup>*, and the ‘persistent’ particle *ǎu?* which gives an ‘only’ meaning (Koch and Zimmermann 2010). While the first example also contains a /kt/ in the initial focus domain, the second example has only the independent emphatic pronoun *nmiml* in the focus domain after the cleft predicate.

- (22) ( )<sub>i-phrase</sub>  
 ( )<sub>p-phrase</sub> ( )<sub>p-phrase</sub> ( )<sub>p-phrase</sub>  
 cúk<sup>w</sup>=ǎu? nmímł e=púš-kt =e ǎém’c-n-x<sup>w</sup>.  
 CLEFT=PERS 1PL.EMPH DET=cat-1PL.POSS =COMP feed-DRV-3O.2SG.TS  
 ‘[Our]<sub>FOCUS</sub> cat was the only one you fed.’ [F\_P769b]  
 (more literally: ‘It was only [our]<sub>FOCUS</sub> cat that you fed.’)

- (23) ( )<sub>p-phrase</sub> ( )<sub>p-phrase</sub>  
 cúk<sup>w</sup>=ǎu? nmímł e=ǎéx kən-t-éy-s ǎéx  
 CLEFT=PERS 1PL.EMPH COMP=IMPF help-TR-1PL.O.-3TS  
 ( )<sub>p-phrase</sub>  
 e=sk<sup>w</sup>úze?-kt te=ǎu?sqáyx<sup>w</sup>.  
 DET=offspring-1PL.POSS LINK=man  
 ‘[We]<sub>FOCUS</sub> are the only ones that get help from our son.’ [F\_P767d]  
 (more literally: ‘It is only [us] that get help from our son.’ (other people don’t get help from their sons))

Notice that example (22) is another instance of the sort of syntactic and phonological misalignment discussed in section 5.3. The initial *e* complementizer in the cleft clause *e ʔem'cnx<sup>v</sup>* ‘that you fed,’ generally understood as a morphosyntactic proclitic (*e*=) on the following clausal material, instead appears to be parsed as an enclitic (*=e*) in the preceding p-phrase. This is evident since it is lengthened, followed by a short pause, and has no declination reset. As an enclitic on /kt/, the *=e* enables the /t/ of /kt/ to become an onset, thus reducing the aspiration values of /t/ here.

## 5.5 Phonological parsing of verbs and arguments

The present study, because the /kt/ clitic is an intransitive verb agreement marker, was limited primarily to intransitive clauses. It was argued that intransitive verbs (plus any additional auxiliaries) form one p-phrase, while oblique arguments or adjuncts form another. Koch (2010), as well as the present study, looked at some cases of the possessive affix /kt/ at the end of arguments in transitive clauses, showing that these pattern with phrase final /kt/, and the phonetic results support this view. This suggests that verbs and arguments are parsed into separate p-phrases in Nl̥eʔkepmxcin, in both transitive and intransitive clauses. Cross-linguistically, this parsing is claimed to be less typical; for example, in English and many other languages, verb and object are typically parsed into one phonological phrase, while the subject is realized in a separate p-phrase (Chomsky 1971; Gussenhoven 1983; Jackendoff 1972; Kahnemuyipour 2004; Selkirk 1995; Selkirk and Kratzer 2007). In a language with underlying transitive V-S-O-Adjunct order, verb and object are split by the subject (where it is expressed), so verb and object are not adjacent. In these cases, either the verb and all arguments must be parsed together, or, as seems to be the case in Nl̥eʔkepmxcin, Lushootseed (Beck 1999), and Okanagan (Barthmaier 2004), the verb is parsed separately from all arguments. There are other languages where verbs and arguments are parsed into separate phonological phrases. Outside the Salish language family, Hayes and Lahiri (1991, on Bengali), Schafer and Jun (2002, on Korean), and Nespor and Sandler (1999, on Israeli Sign Language), also argue for parsing of verb and arguments into individual p-phrases (see also Ishihara 2007: 147–148, ex. 17b, for such parses of some Japanese sentences). This raises interesting questions as to which syntactic units in Nl̥eʔkepmxcin correspond to the prosodic units p-phrase and i-phrase, which (apart from the comments on some syntax-phonology misalignments made above) I will for the moment leave to further research.

## 6 Conclusion

This paper used a consonant-oriented test to probe phrasal boundary cues of Nl̥eʔkepmxcin clauses. By examining the voiceless stops /k/ and /t/ in the 1pl marker /kt/, I showed that phrase final /t/ is greater in duration, and that this duration is greater at i-phrase boundaries than at p-phrase boundaries. The

aspiration of /t/ phrase finally was longer, and both /k/ and /t/ aspiration had an earlier intensity peak (as measured as a percentage of the overall aspiration duration). On closer inspection, these aspiration cues appeared to be a property of only i-phrase final /t/. P-phrase final /t/ aspiration did still differ from phrase internal /t/, in that only that latter was sometimes completely unaspirated or lacked complete closure during its production.

The results show that consonants can be investigated for reliable cues to phrasal boundaries, good news for the consonant heavy Salish languages. A future investigation might investigate the production of the glottal stop, which frequently ends clitic groups in the demonstrative *xe?*.

On a final note, the results show a pattern of aspiration that is roughly opposite to that of English voiceless stops. While English voiceless stops are strongly aspirated as solitary onsets of stressed syllables, Nl̥eʔkepmxcin stops are strongly aspirated phrase finally as codas (Thompson and Thompson 1992). This is a useful tip for second language learners: aspirate those final stops.

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# **Part II**

## **Syntax and semantics**

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# Lillooet irrealis: how real is it?\*

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**Abstract:** The category ‘irrealis’ has been studied for a large number of languages, but remains controversial in that a number of authors question the validity of this term, or the entire existence of the category, as a viable linguistic concept. This paper discusses ‘irrealis’ with regard to Lillooet, within the context of existing observations on this concept.

**Keywords:** Lillooet, irrealis, aspect, tense, mood

## 1 Introduction

Over the years a large number of studies have appeared that are devoted to the concept ‘irrealis,’ i.e. (briefly) the linguistic expression of unrealized or not realizable conditions or situations. As an example we can use English phrases like ‘she was here,’ ‘she is here,’ ‘she will be here,’ all of which refer to situations that have been realized, are realized or will be realized, while ‘if she were here (or, ‘were she here’), she would do it’ or ‘I wish she were here’ refer to situations the realization of which has been rendered moot as they do not reflect real or potential facts but unfulfilled conditions or wishes and the like.

In his paper we investigate ‘irrealis’ with regard to Lillooet, but we also need to study the validity of this concept as that has been called into question in a number of recent studies. We explore this latter issue first, in section 2, before turning to Lillooet in section 3.

## 2 Problems in conceptualizing irrealis

A workable definition of ‘irrealis’ is given in Trask (1993:147):

A label often applied in a somewhat *ad hoc* manner to some distinctive grammatical form, most often a verbal inflection, occurring in some particular language and having some kind of connection with unreality. Palmer (1968) recommends that this term should be avoided in linguistic theory on the ground that it corresponds to no linguistic content.

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Palmer (1968) has appeared in a second edition as Palmer (2001) to which we will refer henceforth. On p. 148 of that source, Palmer has indeed the following to say on ‘realis’ and ‘irrealis’:

Although they are transparent, it is, perhaps, a little unfortunate that the terms ‘realis’ and ‘irrealis’ have been adopted as grammatical terms in place of the traditional terms ‘indicative’ and ‘subjunctive’.

Palmer’s misgivings are reflected in Bybee (1998:267), “A highly generalized notion such as ‘lacking in reality’ is probably too abstract to be of much communicative use,” Martin (1998:198), “[...] the irrealis category in Mocho [a Mayan language—JvE] is not amenable to a single analysis and is best understood as involving a spectrum of meanings and speaker stances that are neither grammatically nor discursively unified,” Vidal and Manelis Klein (1998:185), “[...] the categorization of all such speech acts [counterfactuals, conditionals, etc. —JvE] as belonging to an irrealis mode is highly variable.”

The above hedgings are neatly summarized in Kinkade’s properly pithy comment “[...] irrealis remains inconsistently defined” (Kinkade 1998:234), followed up in a later work with “[...] linguistic literature has used this term in a variety of ways, often referring to very different phenomena,” and “these papers [in *Anthropological Linguistics*, vol. 40, no. 2—JvE] clearly do not reflect a single notion of irrealis” (Kinkade 2001:189).

We are thus presented with two problems: (a) is it necessary to use the terms ‘realis’ and ‘irrealis’ in addition to ‘indicative’ and ‘subjunctive,’ and (b) is a term like ‘irrealis’ useful (if it is used at all) when it covers a large range of different notions (which also may vary from one language to another).

As for the first point, although Palmer’s book is thoroughly researched and richly detailed, with a plethora of examples from a wide array of languages, I can still see the usefulness of ‘realis’ and ‘irrealis’ in addition to ‘indicative’ and ‘subjunctive,’ as (to me, at least) ‘indicative’ and ‘subjunctive’ refer to the formal aspects of category-marking, while ‘realis’ and ‘irrealis’ refer to their (admittedly broad and richly varied) semantic functions, comparable to, say, the terms ‘nominative’ and ‘accusative’ indicating the formal markers of ‘subject’ and ‘object’ respectively. Furthermore, there is not always an automatic link between ‘indicative’ and ‘realis,’ as in English ‘I move that she is promoted’ (colloquial equivalent of ‘I move that she be promoted,’ see also section 2.1), where indicative ‘is’ signals the irrealis. There may be a firmer (be it as yet not completely established) relation between ‘subjunctive’ and ‘irrealis,” an issue we explore for Lillooet in sections 3 and 4.

The fact that ‘irrealis’ covers a large number of ostensibly different categories or functions (again, also varying from language to language) should not be a problem either. It would be utterly impractical to invent a new term for a certain formal or semantic category for each language where that language covers related but also different categories under that term. (For example, the fact that Russian uses the genitive for the object of a negative construction, as in *ja ne znaju etogu*

*človeka* ‘I do not know that person’ [literally, ‘I do not know of that person’], while, for instance, German generally does not [except for archaic expressions like *Ich kenne des Menschen nicht*] does not require us to come up with different terms for the genitive in Russian or German. Similarly, Van Eijk and Hess (1986) argue for using ‘noun’ and ‘verb’ for Salish, even though these word classes pattern differently in Salish than in, for example, Indo-European, but still share enough qualities with non-salish languages to not abandon these terms. Finally, Matthewson (2010) sensibly uses the term ‘subjunctive’ for the non-factual and non-indicative paradigm in Lillooet, even though “[...] the St’át’imcets subjunctive differs semantically in interesting ways from European subjunctives” [p. 59].)

Having proposed that the term ‘irrealis’ is indeed useful and that the fact that it may cover a range of notions is not a problem, we need to define what it actually “does” in any language that employs it. Again, Kinkade (1998:234) hits the nail squarely on the head when he states: “It is necessary to distinguish between that which is actually unreal and an irrealis grammatical category.” Kinkade then mentions negatives, questions, conditionals and subjunctives, and references to the future as expressions that refer to unreal situations, but that are not necessarily marked grammatically (morphologically or syntactically) as unreal. (Note that, in contrast to Palmer, he does not automatically associate or equate ‘subjunctive’ [or ‘conditional’] with ‘irrealis.’) Kinkade then concludes his discussion of unreal vs. irrealis by observing that Upper Chehalis does make a distinction between logical and grammatical unreality (the latter marked in Upper Chehalis with the particle *q’at*).

## 2.1 Formal markers of ‘irrealis

Extrapolating Kinkade’s comments (at the risk of unintentionally misrepresenting them) to a number of languages not mentioned by him we could say that grammatical marking of the irrealis can also consist of a formally distinct paradigm (as in Latin *moneam* ‘that I warn’ vs. *moneō* ‘I warn’), or the “raiding” of a realis (indicative) paradigm for forms that could not be used in their realis function (as in English ‘if she were here’ [irrealis] vs. ‘she was here’ [realis], with ‘were’ is taken from the realis expressions ‘you were here’ or ‘we were here’), or an unusual syntactic pattern, such as the inversion in ‘had she been here’ (irrealis) vs. ‘she had been here’ (realis).

Probably the clearest examples of irrealis marking are those cases where a past tense and future tense marker are combined in one form, as in English ‘could,’ ‘should’ and ‘would’ (past tense forms of ‘can,’ ‘shall’ and ‘will,’ all with a future reference). Other examples (taken from Jensen 1990 include Sanskrit *a-tar-isy-at* ‘he would cross (*tar*), *a-dhar-isy-at* ‘he would hold (*dhar*),’ both with the past tense marker *a-...-at* and the future tense marker *-isy*, or Georgian *da-v-c’er-di* ‘I (v-) would write (*c’er*) it/them,’ with the future marker *da-* and the past tense marker *-di*.

It should also be observed that sometimes realis and irrealis are not formally distinguished when the ‘indicative’ and ‘subjunctive’ paradigms partially coincide, as in English ‘if she was here’ (realis in ‘if she was here, she should have left that book she borrowed from me’) vs. ‘if she was here’ (irrealis as the colloquial variant of ‘if she were here,’ as in ‘if she was here, she would help us out’). The first use refers to a situation that is truth-testable (she was here or she was not), while the second use refers to a situation that is not, as it merely refers to a hypothetical condition. In Italian, *andiamo* can mean either ‘we go’ (realis) or ‘let’s go’ (irrealis), depending on context. (We clearly have the latter reading in Don Giovanni’s *Andiam! Andiam!*, where he seduces Zerlina into joining him in his private chambers.) The fact that Italian distinguishes indicative/realis from subjunctive/irrealis in other parts of its macro-paradigm argues for maintaining that we have two semantically different, though formally identical, forms of *andiamo*. (There is a partial parallel to the Italian case in English ‘we’re walking’ [instead of ‘let’s keep walking’], as used by a tour guide who needs a group of tourists moving when they are dawdling in front of the art pieces in the museum they are visiting.) Finally, Lillooet *éáq<sup>w</sup>anías* expresses both ‘s/he eats it’ (indicative/realis) and ‘let her/him eat it’ (subjunctive/irrealis). We have the latter reading in *éáq<sup>w</sup>anías áu?* (with the general discourse particle *áu?*, which also moves the stress in the preceding word), in a line from Bill Edwards’ story ‘The man who stayed with the bear,’ where a man is chastised by his kinfolk for bringing home a deer from the hunt without sharing it with the others (in violation of strict hunter’s protocol).

Summing up the above, we can say that the realis expresses truth-testable situations, whether those are real (as in ‘she was here’ or ‘she is here’) or as yet unreal (as in ‘she will be here’), while the irrealis expresses non-truth-testable situations (‘I wish she were here’ or ‘had she been here, she would have done it’). Conditionals (basically ‘if’ constructions) can be either realis, as in ‘if you touch me, I’ll scream’ (the truth of your touching me will be tested at some point), or irrealis, as in ‘if you touched me, I’d scream’ (truth not testable). It is for that reason that Leech (1971:110), from whom these examples are taken, classes the first one as a real condition and the second as an unreal condition. (Note also that ‘had she been here,’ quoted above, is rendered as ‘if she had been here’ [unreal condition] in more colloquial English.)

We now apply our observations to Lillooet.

### 3 Lillooet irrealis

In addition to an indicative and a factual paradigm, Lillooet also employs a subjunctive, which is used in three different ways, of which at least two have a clear irrealis function.<sup>1</sup> In the first place, when the subjunctive is used by itself,

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<sup>1</sup> Prefixes are followed by a period [.] in orthographic transcriptions and a hyphen [-] in morpheme-by-morpheme glosses. Clitics are indicated with the underloop [̣], which

without additional morpho-syntactic markers, it expresses an optative mood, as in ‘I (*s.ʔənc.a*) am the one who shot (*q<sup>w</sup>úsxít*) him’ (indicative, with zero-marking on *s.ʔənc.a*) vs. *s.ʔənc-ás k<sup>w</sup>u.nás* ‘let me be the one to go (*nas*)’ (3sing./subjunctive *-as* on *s.ʔənc*), *x<sup>w</sup>ʔqz k<sup>w</sup>.šiq-i* ‘they did not (*x<sup>w</sup>ʔqz*) come (*šiq*)’ (literally, there was not the fact (*s-*) of their (*-i*) coming’ (indicative, with zero-marking on *x<sup>w</sup>ʔqz*) vs. *x<sup>w</sup>ʔqz-as k<sup>w</sup>.q<sup>w</sup>əlp-su* ‘do not get burnt/scalded’ (‘let it not be the fact of your (*-su*) getting burnt.’ *-as* 3sing./subjunctive), *wáʔšúʔ ʔišəm* ‘he is singing (*ʔišəm*)’ (indicative) vs. *wáʔ-as šúʔ ʔišəm* ‘let him (be) sing(ing)’ (subjunctive). For the subjunctive reading of *éáq<sup>w</sup>anias* see section 2.

In the second place, the subjunctive is automatically triggered by the enclitic *an* which indicates ‘possibility, surmise,’ as in *tayt-áx<sup>w</sup>-an* ‘you (*-ax<sup>w</sup>*) 2sing./subjunctive) must be hungry (*tayt*),’ vs. *tayt-káx<sup>w</sup>.ha* ‘are you hungry?’ (*-kax<sup>w</sup>* 2sing./indicative; question marker), *plán-at.an waʔ pəlp* ‘it looks like we (*-at* 1plur./subjunctive), vs. *plán-kaʔ waʔ pəlp* ‘we are lost already,’ (*-kaʔ* 1plur./indicative), *wáʔ-as.an k<sup>w</sup>zúsəm* ‘it looks like he is working (*k<sup>w</sup>zúsəm*),’ vs. *wáʔ k<sup>w</sup>zúsəm* ‘he is working.’

In the third place, the proclitics *ʔ* ‘if’ and *ʔi* ‘when’ also automatically require the subjunctive, as in *ʔ.ʔiʔwaʔ-min-c-ax<sup>w</sup>*, *ʔ.s.zaytən-min-ax<sup>w</sup>* [*ʔ*].*s.tám-as k<sup>w</sup>.s.cún-ci-n*, *húy-ʔkan cunámən-ci-n k<sup>w</sup>a.pixəm* ‘if you (*-ax<sup>w</sup>*) come along (*ʔiʔwaʔ*) with (*-min*) me (*-c*), and you do (*s.zaytən-min*) everything I tell (*cun*) you, I will teach (*cunámən*) you how to hunt (*pixəm*),’ *ʔi.xin-as* ‘a long time ago’ (*xin* ‘to last a long time’), *ʔi.sitst-as* ‘last night (*sitst*),’ *ʔi.cix<sup>w</sup>-wit-as*, *s.xáw<sup>w</sup>.tiʔšúʔ* ‘when they got there, was that ever a surprise (*s.xáw<sup>w</sup>*) for them’ (*cix<sup>w</sup>* ‘to arrive there’). Although at first blush, these sentences refer to a real, essentially truth-testable situation (much like Leech’s ‘If you touch me, I’ll scream’) but are combined with a subjunctive, and as such suggest that there is not an automatic link between subjunctive and irrealis, the matter may be more complex than that. We explore this issue further in section 4.

For a far more detailed discussion of the Lillooet subjunctive I refer to Matthewson (2010), which also divides the three functions listed above over nine types of use.

There are also three enclitics which have an irrealis “feel” to them, but might not be irrealis from a Lillooet point of view, since they allow combinations with indicative formations. First of all, there is *kaʔ* (*kəʔ*) which roughly translates as ‘may’ and indicates a potential event in the future, as in *ʔáčəən-ci-ʔkan kaʔ mútaʔ* ‘I (*-ʔkan*) will see (*ʔáčəən*) you (*-ci*) again (*mútaʔ*)’ (good-bye expression, possibly calqued from English ‘I’ll be seeing you’), *šálan-c-ás kaʔ ti.s.qáxaʔ-láp.a* ‘the dog (*s.qáxaʔ*) of you folks (*-lap*) may bite (*šálan*) me (*-c*).’ The irrealis “feel” is reinforced when *kaʔ* is combined with *tuʔ* which indicates that something is definitely over and done with (as in *éəkaʔ.tuʔ* ‘it’s all gone,

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follows proclitics and precedes enclitics. For these and other morphological markers, see Van Eijk (2013).



## 4 Conclusions and outlook

The whole issue of ‘irrealis’ remains a vexingly complex one, as it basically asks the unanswerable question ‘How much wood would a woodchuck chuck if a woodchuck would chuck wood?’ It is therefore understandable that oceans of ink have been spilled on this matter, with some authors blithely using the term, while others seriously question its usefulness. In what follows we briefly touch on two interrelated issues that apply to this problem: (a) the relation of ‘realis’/‘irrealis’ (essentially a type of mood) to ‘tense’ and ‘aspect,’ and (b) the function of the subjunctive in Lillooet.

Unless a language has a completely separate paradigm for the irrealis (much like the subjunctive in Latin), the irrealis may “raid” other parts of the macropradigm, and the past tense seems to be a prime target, as in English “I wish she were here,” “were she here, she would do it” (the latter with both the past tense of “be” and “will,” as commented on in section 2.1). There is also an interesting overlap between aspect and irrealis, in that ‘if she had been here (= had she been here)’ (perfect aspect) can only have an irrealis reading, while ‘if she was here’ (imperfect) can have either a realis or an irrealis reading, as detailed in section 2.1. Similarly to the association between ‘past’ and ‘irrealis’ in English, Steele (1975) proposes that ‘past’ and ‘irrealis’ are linked in Uto-Aztecan. Following Seiler (1971), Steele then uses ‘dissociative’ (which Seiler uses in reference to the optative and the preterit in Greek), to refer to the ‘past’/‘irrealis’ link. On the other hand, Vidal and Manelis Klein (1998) interpret the particles *ga*’ and *ka* in respectively Pilagá and Toba as having a general future reference (without being future tense markers, since neither language marks tense grammatically), the irrealis function implied by contextual inference.

It thus remains to be seen whether ‘irrealis’ is primarily associated with the past or the future (or both, as in English ‘could,’ ‘should,’ ‘would’). We turn to this topic briefly in our comments below, with regard to the subjunctive in Lillooet.

As we have seen in section 3, the Lillooet subjunctive clearly expresses the irrealis in its optative function (i.e., when it is used by itself) and in combination with *ani*, but it seems to express the realis in ‘if’ and ‘when’ situations (i.e., when combined with *ɬ* or *ʔi*). However, it is possible that Lillooet ‘if’ and ‘when’ constructions are, from a Lillooet point of view, seen as unreal in as much that the past (*ʔi*) cannot be reached anymore, while a potential future (*ɬ*) still falls outside our grasp. We have already commented on the fact that the enclitics *ka*, *ka*, *ka* possibly do not indicate the irrealis when combined with forms in the indicative, in spite of the fact that they generally indicate the irrealis when translated into English (in itself a weak criterion), but probably should be interpreted as expressing the irrealis when combined with forms in the subjunctive.

In a broader cultural linguistic context it should be pointed out that what is interpreted as ‘real’ or ‘unreal’ from an English (and general European-based) point of worldview, might not be interpreted in the same way within a different culture. (To give an idea, beings that within the Western canon are classified as fictional, such as mermaids, ghosts, two-headed serpents and the like, may be very

real within the classificatory systems of other cultures.) For example, Hofling (1998:225) mentions the fact that past-perfect and future-irrealis may be marked in similar ways in Itzaj Maya, and then suggests that this is related to a fact he noted in a previous article; namely that “Maya time is largely cyclical time, in which past time periods (e.g., days) are considered to be equivalent to future time periods in a comparable calendric position” (Hofling 1993). Hofling also, on p. 214 of his 1998 article but quoting from his 1993 effort, mentions that “Itzaj narrative discourse suggests a division between what a person knows from personal experience centered in one’s home and town (the actual), and what is less known, but imaginable, further away in space-time.” (Incidentally, Hofling’s observations on Maya space-time also mesh with Whorf’s (1956:63) observation that in Hopi, events happening at a distant location are not seen as happening “now,” as we will not find out about them until later, so that in a sense distance in location is associated with distance in time. An association between past and future is also suggested in Dutch *vannacht* [1] ‘last night,’ [2] ‘tonight,’ or Lillooet *natx<sup>w</sup>*, which means ‘tomorrow’ when used by itself, but is also used in the expression *ʔi.nátx<sup>w</sup>-as* ‘yesterday.’)

Of course, issues like these are best explored with fluent speakers of the language in question, who should be encouraged to comment on the forms they provide rather than just deliver them as translations of the English forms put before them. As such, a problem like ‘irrealis’ and the way or ways in which it is marked in any language becomes a powerful argument for involving speakers not only as consultants but also as co-investigators.

In summation, I suggest three areas for further research in connection to ‘irrealis.’ In the first place, and with reference to my remarks above, we need to look deeper into the connection between ‘irrealis’ and tense and aspect, even for a language like Lillooet, of which Van Eijk (1997) claims that it has no tense but that it does have aspect. However, other studies to be consulted in relation to this topic in Lillooet include Glougie (2007) on the difference between the future event indicators *x<sup>w</sup>uz* and *kɬ*, and Davis and Matthewson (2003) on the Lillooet enclitic *tuʔ*, which, although it generally describes a completed event, the authors describe neither as a tense nor an aspectual marker but a distal demonstrative adverb, be it one that supports a ‘tensed’ analysis of Lillooet over a tenseless one.

In the second place, although ‘irrealis’ presents itself as a very complex topic (and I for one have only scratched the surface when it comes to Lillooet), the complexity of this topic should not prevent us from investigating it as vigorously as we can. As holds true for all forms of language research, continued exploration of ‘irrealis’ will occasion us to finetune and, where appropriate, revise the theoretical constructs we have set up to describe and analyze human language. For example, whereas Palmer (2001) essentially identifies ‘subjunctive’ with ‘irrealis,’ as mentioned in section 2, Matthewson (2010) cogently argues against such an automatic identification (see also her summaries of this on pp. 59 and 102 of her article). Even if the Lillooet subjunctive in ‘if’ and ‘when’ constructions can be shown to serve the irrealis, and no cases of a subjunctive serving a realis can be found in any language, Palmer’s association of ‘subjunctive’ with ‘irrealis’

is correct, but not, in my view, his identification of these two categories with each other.

Finally, the topic of ‘irrealis’ needs to be investigated within a wider Salish context. Kinkade (2001) is an excellent first attempt at reconstructing the Proto-Salish irrealis, but he also admits (p. 199) that “What had appeared to me to be a rather straightforward reconstruction of an irrealis morpheme in Salish turns out to have some rather messy loose ends.” There have been other studies on irrealis, such as Baier (2010) on Montana Salish, and those referenced by Kinkade (including some that do not use the term ‘irrealis’), but much further work is needed. I hope that this very minor effort is a modest but hopefully interesting contribution to such an endeavour.

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# Lushootseed semantic composition and the structure of the lexicon

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**Abstract:** In this paper, I present an outline of my dissertation research question which regards the semantic compositionality of Lushootseed roots and stems, and the ramifications of corresponding structures in the lexicon. I touch on the relevant literature and then discuss a computational environment for modeling the problem and investigating the issue.

**Keywords:** UBCWPL, Implemented Grammar, Semantic Structure, Lushootseed

## 1 Introduction

While Salishan languages are known for wearing their derivational structure “on their sleeves” (Davis and Matthewson 2009:1098), there is some debate about the productivity of these derivational structures and their encoding with respect to the atomic elements of a lexicon in a synchronic grammar. Davis and Matthewson (2009), argue for what they call the “primacy of the root”, the hypothesis that Salishan roots do contribute semantic content in the synchronic lexicon. This is contra Hess (1993)<sup>1</sup> who claims that using the verb-stem as the basis for lexical organization maximizes the perspicuity of the model—that treating verb roots as atomic units obscures the natural classes which fall out of the data when looking at stems. But the question of what morphological level to treat as atomic in a synchronic model of a Salishan language also has ramifications on semantic composition. I assume a neo-Davidsonian semantics in which verbs introduce event-type variables which are qualified by lexical predicates (Copestake et al. 2005; Davidson 1967; Parsons 1990) and nouns introduce individual-type variables which can serve as role-players in predicates. This basic split into lexical items which introduce events versus those which introduce individuals has ramifications on monotonic semantic compositionally because no matter which level of verbal decomposition one takes as basic (verb root or verb stem), nominalization prefixes are allowed to attach outside of inflectional markers of aspect. So the question arises whether or not to allow the basic units of verbs (be they stems or roots) to be underspecified with respect to semantic variable type (essentially making them semantically neutral with respect to semantic type), only specifying them once they have enough morphology attached that they can no longer become nominal. An alternative might be to allow semantic rewrites of variable types, potentially breaking standard assumptions about the monotonicity of semantic composition.

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<sup>1</sup>Davis and Matthewson also cite Mattina (1996) and Willet (2003) as supporting the stems based account.

In this short paper, I provide a little more detail about the problem to be investigated. After that, I present a methodology for exploring the issue and describe the preliminary implementation.

## 2 Roots and stems

Davis and Matthewson (2009) summarize arguments against the primacy of the root hypothesis as being along two lines: the first being that the semantic relation which holds between roots and derived forms is not always compositional and the second being the existence of accidental gaps in derivational paradigms along with the phenomenon of certain bound roots which do not surface without affixation. Davis and Matthewson reject these arguments by pointing out that existence of idiosyncrasy does not preclude the utility of any generality otherwise gained by describing the non-idiosyncratic forms by rule. That is, a system which accommodates exceptional forms is needed anyway and the phenomenon of linguistic exceptions to general rules is found at all levels of linguistic analysis.

While I accept Davis and Matthewson's arguments in principle, from the perspective of constructing a working synchronic grammar of Lushootseed, it's not clear what is to be gained by creating rules to systematically build up by formal composition forms which are semantically non-compositional. What's more, if Hess (1993) is right about the natural classes of verbs "falling out" of the data when operating with a stems-based approach, the structures in a stems-based grammar should offer greater explanatory value for the synchronic processes of the language than the alternative. However, I hold-off drawing any conclusion on this topic and instead turn to an related issue, one of semantic variable types and its relation to multicategoricity.

## 3 Semantic variables

I assume a semantic compositionality principle where the meaning of a complex sign is a function of the meaning of its parts (Szabó 2013). Furthermore, as mentioned in the introduction, I assume a neo-Davidsonian approach to semantic representation in which verbal predicates take a characteristic argument corresponding to the event the predicate describes and noun-like predicates take a characteristic argument corresponding to the individual. Minimal Recursion Semantics<sup>2</sup> (MRS) (Copestake et al. 2005) provides a practical encoding of this semantic representation which is amenable to implementation in machine-readable grammars. In

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<sup>2</sup>MRS saves space and computation time by allowing an underspecification of quantifier scope in just those places where syntax allows quantifier scope ambiguity as well as a mechanism for constraining quantifier scope where syntax requires it. Algorithms for producing the set of fully scope-resolved logical forms from an underspecified MRS have been published. In this way, MRS provides a compact and efficient representation for sentential semantics but can be translated to logical form when required by particular downstream applications.

MRS, the variable types which fill the argument positions of the elementary predications are either e-type (events/states), x-type (instances, individuals), or h-type.<sup>3</sup> For example, the three elementary predications involved in an MRS representation for the English sentence ‘Kim walks’ are shown in (1). Note that the predications corresponding to the proper name quantifier and the name itself take the variable  $x_2$  as their first argument. Similarly, the predication for walk takes the event-type variable  $e_8$  as a characteristic argument.

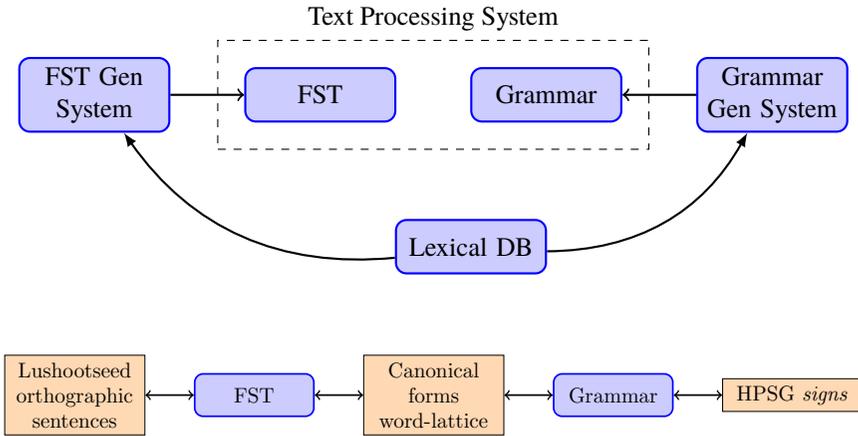
- (1) h1:proper\_q\_rel ( $x_2$ , h3, h4)  
 h5:named\_rel ( $x_2$ , “Kim”)  
 h7:walk\_v\_rel ( $e_8$ ,  $x_2$ )

Nominalization (or deverbalization) and verbalization patterns in Lushootseed, however, pose challenges for this representation scheme. When a Lushootseed noun such as *sq<sup>w</sup>šab* (‘fog’) is analyzed as derived from the verb *q<sup>w</sup>šab* (‘be foggy’), this begs the question of how to introduce the individual type variable which would typically be introduced by a noun. If we just add a new variable, we risk a proliferation of variables (of conflicting types) which correspond to a single lexical item. If we remove or delete the event-type variable from the underlying verb, we break monotonicity in semantic composition. Another alternative would be to utilize a lexical underspecification in which the characteristic variable of a given item would be underspecified for semantic type in the lexicon. In this scenario, morphological rules would hold off constraining the type until enough morphological material had been added to make a concrete determination. I note that the underspecification alternative, *prima facie*, fits nicely with the primacy of the root hypothesis discussed above. That is, if constraints on monotonicity in semantic composition suggests an analysis in which lexical items have to be underspecified as to semantic type, perhaps the root, not the stem, is the place to hang these underspecified variables.

#### 4 An empirical question

The analytical challenges discussed above and the question of which set of analyses is to be preferred is, under certain assumptions, an empirical one. Or, it can become an empirical one given: (1) a fleshed-out, concrete theory of grammatical structures which allows implementation; (2) a testing environment including procedures for applying the competing grammatical models to linguistic data in order to evaluate the analyzed structures as well as procedures to evaluate structures of the grammatical models themselves; and (3) competing implementations corresponding to competing sets of hypotheses about linguistic structures. To this sort of quantitative analysis one can also add a qualitative evaluation of the competing grammatical models; that is, one can ask which grammar is easier to update and

<sup>3</sup>The latter type is only used MRS-internally for specifying the scope-tree constraints; that is, h-type variables do not map onto semantic variables in a typical logical-form language (<http://moin.delph-in.net/ErgSemantics/Basics>).



**Figure 1:** Above: the two subsystems of a text processing system for testing are generated by independent systems which share a lexical resource. Below: the text processing system forms a pipeline connecting orthographic sentences to semantic and syntactic structures.

maintain, which is “simpler” or more elegant (or just less baroque), which is preferable along the lines of having structures which fall into correspondence with other grammars of other languages. In sum, a mathematically precise theory of grammar along with a testing environment allows empirical analysis of linguistic questions. As things stand, (1) is provided by Head-driven Phrase Structure Grammar (Pollard and Sag 1994) as implemented in the DELPH-IN tools and environment.<sup>4</sup> Point (2) is likewise provided by the DELPH-IN tools. In my dissertation project, I am building out (3) in an effort to make the analytical questions discussed above into empirical ones.

Adopting the design architecture argued for in Bender and Good (2005), I am maintaining separate modules for morphophonology and morphosyntax, each of these sharing a lexical database. In order to maximize efficiency in updating and maintaining the system, the two modules are generated by metagrammar systems which access the lexical database for shared resources. The two metagrammar systems and the database fit together to generate a text-processing system. The overview of this architecture is shown schematically in Figure 1.

The electronic versions of the texts in Beck and Hess (2014, 2015) form a development and testing corpus that can be used to compare the performance of competing versions of the grammar. Furthermore, Fokkens (2011, 2014) describes new methodologies for comparing alternative analyses within grammar engineering. The crucial insight is that by using a metagrammar, one can alleviate the grammar-design problem in which early decisions are overly influential on the space of analysis available for later decisions.

<sup>4</sup><http://delph-in.net/>

In sum, I am developing a metagrammar for Lushootseed (and supporting testing environment) intended to serve as a proving-ground for the research questions outlined above and summarized in (2).

- (2) What are the ramifications of competing grammatical analyses regarding semantic variables and lexical structure? Specifically, how do different sets of analyses effect:
- the performance of the grammar (coverage, accuracy, overgeneration: when applied to a test corpus)
  - the maintainability of the grammar (as a system to be extended, updated, refined)
  - the “elegance” of the grammar and its utility to provide insight into the linguistic structures at play in a Lushootseed sentence

## 5 Conclusion

In my dissertation project, I flesh out a computational model of Lushootseed grammatical structure in order to tease apart the predictions of these competing hypotheses and to examine their ramifications on the design of a working grammar, one in which “all parts have to hang-together”<sup>5</sup> I suggest that the creation of such a test-environment can lead to new insights on questions of linguistic analysis like those described above.

While the initial morphophonological system was described in Crowgey (2014), work has just begun on the morphosyntactic grammar. I have written extraction procedures to backport the original morphophonological system into the lexical database, and to then allow export back to the original structures (future development will take place only in the lexical database—for maintainability and synchrony with the development of the morphosyntactic system). In future work I will report on the results of these efforts. Ideally, the empiricization of the philosophical and analytical questions described above can provide fodder for further refinement of theories on Lushootseed lexical structure and its relation to other Salishan languages.

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# Evidence for question formation by direct *wh*-movement in Ktunaxa\*

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**Abstract:** This paper gives a short survey of the formation of *wh*-questions in Ktunaxa, concluding that they are formed by direct movement of arguments to a position on the left periphery of the (matrix) clause. Ktunaxa adheres to at least three strong island constraints as defined in Ross (1967), namely the Coordinate Structure Constraint, the Adjunct Island Constraint, and the Complex Noun Phrase Constraint; additionally, *wh*-words cannot be predicates, as nouns require a copula to be interpreted as predicative.

**Keywords:** Ktunaxa, *wh*-questions, syntax, field work

## 1 Introduction

The body of work on questions in Ktunaxa (isolate; British Columbia, Montana, Idaho) is sparse. The most thorough descriptive linguistic resources on the language in general are Boas (1927a), Morgan (1991), and Mast (1988), a Master's thesis examining Ktunaxa morphology as it appears in Boas (1918). The thesis devotes two sections to the broad topic of questions, the first (pp. 90–97) providing an inventory of interrogative/indefinite pronouns, and the second (pp. 108–115) examining participial/interrogative marking.

Previous work has shown several preliminary facts. First, that Ktunaxa interrogative pronouns share their form with indefinites—specifically, Mast (1988) translates *qata* to ‘who, whose, someone (for humans)’, *ka/ka* to ‘how, where (as for manner or location)’, and *qapsin* to ‘what, why, something (for non-human nouns, both animate and inanimate)’. Second, these words may be obviative (indicated in Ktunaxa with a suffix *-s*), but cannot be marked for possession or number, and do not show any agreement morphology. Finally, there is a relevant verbal prefix *k-/ki-/k-* glossed by Mast as “participle/interrog,” which can mark yes-no questions, as well as serving as “a style marker.” (Mast 1988:109) This paper seeks to add to the literature by exploring the status of movement islands in Ktunaxa using existing Ktunaxa reference materials (Kootenai Culture Committee 1999) and original data collected in discussions between the authors. The first author takes responsibility for the theoretical linguistic material presented in this work, while the second author, a speaker of Ktunaxa, vouches for the consistency and validity of the data.

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This work describes how *wh*-questions are formed in Ktunaxa, concluding that they are instances of direct *wh*-movement that conform to the limits of three traditional movement islands outlined in Ross (1967). Section 2 gives a general introduction to Ktunaxa sentence structure in several subsections focusing on declarative sentences (Subsection 2.1) and canonical cases of *wh*-questions (Subsection 2.2). Following this, Subsection 3.1–3.3 illustrate that Ktunaxa abides by the restrictions on movement that were described in Ross (1967). Finally, Section 4 concludes and gives directions for future work on this topic in this language.

## 2 Survey of Ktunaxa clauses

### 2.1 Declarative sentences, complementizer *k*

Default Ktunaxa word order is verb-initial, with some variation permitted in word order for information structural effects (topics and foci can precede the verb, specifically). Verbs also agree with all of their arguments (subject and object for transitive verbs, subject for intransitive verbs), though not for indirect objects of ditransitive verbs (Mast 1988:30).

A few notes on conventions: this squib uses the orthography from the reference dictionary, rather than a closer phonetic transcription. One consequence of this is that what Mast (1988) analyzed as subject-marking prefixes are written as separate words, which has the superficial effect of making Ktunaxa look as though it has SVO word order—however, since these morphemes are bound and do not allow free-standing words to intervene between them and the verb, the generalization that Ktunaxa is verb-initial still holds. Additionally, since the present work focuses on whole-word syntax rather than morphology or morphosyntax, morphologically complex words are provided with simplified glosses.<sup>1</sup>

The following show some simple declarative sentences: (1a) and (1b) show intransitive verbs with and without a full NP argument, respectively; (2a) and (2b) demonstrate the same, but with transitive verbs.

- |        |   |    |  |
|--------|---|----|--|
| (1) a. | kumnaqatqa?ni maŋi<br>kumnaqatqa?-ni maŋi<br>sad.face-IND Mary<br>'Mary looks sad.'                 | b. | hu ɕakunani<br>hu ɕakuna-ni<br>1.SG short-IND<br>'I'm small/short.'        |
| (2) a. | wu·kati martinas erin<br>wu·kat-i martina-s erin<br>see-IND Martina-OBV Erin<br>'Erin saw Martina.' | b. | hin ɕtakitni<br>hin ɕtakit-ni<br>2.SG like.3.SG-IND<br>'You like him/her.' |

<sup>1</sup>Glosses used: 1, 2, 3 = first person, second person, third person; CONT = Boas and Mast's "continuative"; COP = copula; COMP = complementizer; DEM = demonstrative; DUAL = dual (though this gloss may be somewhat inaccurate, as Ktunaxa can also indicate group of three, group of four, which is unusual in a system with a straightforward dual); IND = indicative; NEG = negation; PL = obviative; PL = plural; PROG = progressive; SG = singular; SUB = subordinator. A question mark indicates that no applicable gloss could be found.

Embedded clauses in Ktunaxa are distinguished by two main factors: the embedded verb lacks the indicative suffix, and it can be preceded by what this work glosses as a complementizer, *k*—note that in (3a) and (3b) the *k* affixes to the subject morphology, deleting the *h-* that would be pronounced in a declarative version of this utterance. These attributes (demonstrated in (3a) through (3c) below) are shared with *wh*-questions.

- (3) a. hu qakiʔni ku ʔumaç  
 hu qakiʔ-ni k-hu ʔumaç  
 1.SG say-IND COMP-1.SG laugh  
 ‘I said I laughed.’
- b. hin qakiʔni kin ʔumaç  
 hin qakiʔni k-hin ʔumaç  
 2.SG say-IND COMP-2.SG laugh  
 ‘You said you laughed.’
- c. qakiʔni çan kʔumaç matis  
 qakiʔ-ni çan k ʔumaç  
 say-IND John COMP laugh  
 ‘John said that Mary laughed.’

This *k* particle has a wide distribution in the language. Mast (1988:109) provides a brief summary:

First, as Canestrelli (1927:7) notes, it marks participles (verbal forms used as nouns) and interrogatives. In *Kutenai Tales* it is added to verbs in clauses without interrogative pronouns to indicate yes-no questions; in addition, it is optionally added to verbs which immediately follow interrogative pronouns. It marks subordinate clauses as well as participles. It is used optionally with declarative verbs, perhaps as some sort of style marker.

It can also mark subordinate clauses without distinct overt subjects, as in (4) below.

- (4) hin çłakitni k çi·katiʔ kiktuklitkał  
 hin çłakit-ni k çi·katiʔ k iktuqłitqał  
 2.SG like-IND COMP look book  
 ‘You like to read.’

In light of its specific (though diverse) functions, this paper assumes going forward that *k* is a complementizer. However, due to the limited scope of this paper, we do not investigate the consequences of this particular classification in more detail, though the topic may be a promising avenue for future research.

## 2.2 Wh-questions

As noted above, questions in Ktunaxa follow the general template of: [interrogative pronoun (if a *wh*-question)] + *k* + [verb without indicative morphology]. Simple examples are given in (5a) through (5c) below. Additionally, these interrogative pronouns may be interpreted as indefinite when in an argument position, as in (5d) below.

- (5) a. qata k haɣataqa  
 qata k haɣataqa  
 who COMP sleepy  
 ‘Who’s sleepy?’
- b. qapsin kin wu·kat  
 qapsin k-hin wu·kat  
 what COMP-2SG see  
 ‘What do you see?’
- c. qata k wu·kat niʔis qukins  
 qata k wu·kat niʔis qukin-s  
 who COMP see DEM raven-OBV  
 ‘Who saw the ravens?’
- d. hu ɕtakitni qata ʔukqna kiʔsuk  
 hu ɕtakit-ni qata ʔukqna k-iʔsuk  
 1SG like-IND who because COMP-?-good  
 ‘I like someone<sub>i</sub> because they<sub>i</sub> are so good.’

With respect to interrogative pronouns Ktunaxa differentiates between human arguments, *qata* ‘who’, and non-human arguments, *qapsin* ‘what’. Both interrogative pronouns inflect for obviation with an *-s* suffix, though only in situations where obviation would be appropriate for the argument in the declarative counterpart of the interrogative sentence (for more on obviation in Ktunaxa, see Dryer 1992). The majority of the data in this paper are *qata* questions; though Ktunaxa is sensitive to human/non-human status (particularly in number marking), the behaviours of the two interrogative pronouns seem identical, and the generalizations made for *qata* are expected to hold for *qapsin* as well.

Due to the fact that both interrogative pronouns and embedding verbs such as *qakiʔni* ‘say-IND’ induce the following phrase to be “*k* + non-indicative verb,” it could be argued that the interrogative pronouns are themselves predicative. However, nouns in Ktunaxa require an overt copula *ʔin* to serve a predicative function, as shown in (6a), (6b), and (7a) below.

- (6) a. \*hun naʔkyu  
 hun naʔkyu  
 1.SG fox  
 (intended:) ‘I am a fox’
- b. hun ʔini naʔkyu  
 hun ʔin-ni naʔkyu  
 1.SG COP-IND fox  
 ‘I am a fox.’

- (7) a. qaḷa kiʔin na  
 qaḷa ki-ʔin na  
 who COMP-COP DEM  
 ‘Who is this?’
- b. (ʔini) maḥi  
 ʔin-ni maḥi  
 COP-IND Mary  
 ‘(It’s) Mary.’  
 (as reply to 7a)

This copula is also used to form cleft questions such as (8)—clefts are also employed as a way to repair certain island violations, and will appear in following sections in that capacity.

- (8) qaḷa kiʔin kin wukqa  
 qaḷa ki-ʔin k-hin wukqa  
 who COMP-COP COMP-2.SG find  
 ‘Who is it you found?’

Long-range *wh*-movement is permitted across bridge verbs, as in (9a) through (9c) below. The matrix clause morphology is identical to what would be expected from a local *wh*-move.<sup>2</sup>

- (9) a. qaḷa kin qaki k haḷaḷaqa  
 qaḷa k-hin qaki k haḷaḷaqa  
 who COMP-2.SG say COMP sleepy  
 ‘Who did you say was sleepy?’
- b. qapsins k a-qaki maḥi qukins k sakiḥ ʔiks  
 qapsin-s k a--qaki maḥi qukin-s k sakiḥ ʔik-s  
 what-OBV COMP ?-say Mary raven-OBV COMP PROG eat-OBV  
 ‘What did Mary say the ravens were eating?’
- c. qapsins k qaki maḥi k sakiḥ ʔiks a-qukḥiʔits  
 qapsin-s k qaki maḥi k sakiḥ ʔik-s a-qukḥiʔit-s  
 what-OBV COMP say Mary COMP PROG eat-OBV berry-OBV  
 ‘What did Mary say was eating the berries?’

Note that the example (9b) is identified as “emphasizing” the eating event; to ask about more specifically what Mary *said* the ravens were eating, a question such as (10) below (employing the more general *wh*-word *ka-*) is preferred.

- (10) ka·s k a-qaki maḥi qukins k sakiḥ ʔiks  
 ka·s k a--qaki maḥi qukin-s k sakiḥ ʔik-s  
 where-OBV COMP ?-say Mary raven-OBV COMP PROG eat-OBV  
 ‘What did Mary say the ravens were eating?’

<sup>2</sup>Additionally, in example (9b), the progressive *k sakiḥ* can also be written or said *k skikiḥ*.

To sum up, Ktunaxa questions are consistently introduced by an overt complementizer *k*, to whose specifier the *wh*-word moves, either from the same clause, or cross-clausally given the presence of a bridge verb. When *in situ*, *wh*-words may be interpreted as indefinite. And lastly, without an overt copula, *wh*-words (as is the case for Ktunaxa nouns in general) cannot act as predicates.

### 3 Island constraints

#### 3.1 Coordinate Structure Constraint

As stated in Ross (1967), the Coordinate Structure Constraint (CSC) requires that “[i]n a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct.” The latter half of this constraint, specifically banning the movement of one element from a conjunct, holds in Ktunaxa.<sup>3</sup> The conjunction operator in Ktunaxa is the particle *ϕ*, a dental affricate; it can conjoin verb phrases and noun phrases, as in (11a) and (11b) below. (data from Kootenai Cultural Council, pp. 43)

- (11) a. puł nawasxu'mik ϕ naqwiłni  
 puł nawasxu'mik ϕ naqwił-ni  
 Paul sang and dance-IND  
 ‘Paul sang and danced.’
- b. piyał ϕ puł qa ϕkaxi  
 piyał ϕ puł qa ϕkaxi  
 Peter and Paul NEG come  
 ‘Peter and Paul did not come.’

The sentence (12) below is acceptable as an answer to a general question ‘What did I see?’ However, in a context where the speaker knows only part of the proposition in (12), that speaker cannot then ask about one half of the coordinated object phrase; this results in the ungrammaticality shown in (13a) and (13b).

- (12) hin wu-kati ni?iy qukin ϕ ?a-qukłi?it  
 hin wu-kat-i ni?iy qukin ϕ ?a-qukłi?it  
 2.SG see-IND DET raven and berry  
 ‘You saw the ravens and the berries.’
- (13) a. \*qapsin kin wu-kat ϕ ?a-qukłi?it  
 qapsin k-hin wu-kat ϕ ?a-qukłi?it  
 what COMP-2SG see and berry  
 intended: ‘What did you see and berries?’

<sup>3</sup>Or at least, it holds enough to ban the movement of one member of a coordinate NP in subject or object position. Whether Ktunaxa permits Across-the-Board movement of identical objects (as in ‘What does Mary love and John hate?’) is a topic for another time.

- b. \*qapsin kin       wu·kat qukin ɕ?  
 qapsin k-hin       wu·kat qukin ɕ  
 what COMP-2SG see   raven and  
 Lit. ‘What did you see a raven and?’

The sentence in (13b) can become acceptable if the speaker inserts a prosodic break; this then allows the utterance to be interpreted as a question and partial or leading answer, much the same as the English translation.

- (14) qapsin kin wu·kat? qukin ɕ...?  
 ‘What did you see? A raven and...?’

The same pattern holds in subject position. The following examples show a plain declarative sentence, and a question appropriate to ask (answerable with the declarative sentence).

- (15) a. kakiswisqani paŋkiy ɕ naʔuti  
 kaki-swisqa-ni paŋkiy ɕ naʔuti  
 DUAL-stand-IND woman and girl  
 ‘A woman and a girl are standing there.’
- b. qaʔa k       sawisqa  
 qaʔa k       sawisqa  
 who COMP stand  
 ‘Who’s standing there?’

Questioning only one of the elements of the conjunct results in ungrammaticality:

- (16) a. \*qaʔa k       sawisqa ɕ naʔuti  
 qaʔa k       sawisqa ɕ naʔuti  
 who COMP stand and girl  
 Lit. ‘Who and a girl are standing there?’  
 (intended: ‘*Who* and a girl are standing there?’ as echo-question.)
- b. \*qaʔa k       sawisqa naʔuti ɕ  
 qaʔa k       sawisqa naʔuti ɕ  
 who COMP stand girl and  
 Lit. ‘Who a girl and are standing there?’  
 (intended: ‘A girl and *who* are standing there?’)

Leaving *qaʔa in situ* can usually lead to either an indefinite reading or an echo-question reading (see the following sections for examples), but in this particular instance it does not seem to be preferred. Instead, for the declarative form a different word, *taʔaktaq* ‘another’, is used; for the intended *wh-in situ* (echo-like) interrogative, cleft questions like (17c) are preferred.

- (17) a. <sup>\*/?</sup> sawisqaʔni pałkiy ɕ qała  
 sawisqaʔ-ni pałkiy ɕ qała  
 stand-IND woman and who  
 (intended): ‘A woman and someone are standing there.’ OR ‘A woman and *who* are standing there?’
- b. sawisqaʔni pałkiy ɕ łaʔakłaq  
 sawisqaʔ-ni pałkiy ɕ łaʔakłaq.  
 stand-IND woman and another  
 ‘A woman and someone (else) are standing there.’
- c. qała kiʔin k sawisqapmał naʔutis  
 qała ki-ʔin k sawisqapmał naʔuti-s  
 who COMP-COP COMP stand.with? girl-OBV  
 ‘Who is it standing with the girl there?’

### 3.2 Adjunct islands

Adjuncts also form islands from which extraction is not allowed (Ross 1967). This pattern is shown to hold in Ktunaxa; though it is logically possible to seek information about arguments within an adjunct (such as the ‘because’ phrase in the following examples), a speaker cannot do it simply by applying standard question formation rules, “plugging in” a *wh*-word at the beginning of the sentence. To wit, given a declarative sentence such as (18a) below, a speaker can ask about the subject of the main clause VP—see (18b)—but not the subject or object of the adjunct—(19a) and (19b), respectively.

- (18) a. małi kumnaqałqaʔni ʔukqna ɕans k ɕłakits erins  
 małi kumnaqałqaʔ-ni ʔukqna ɕan-s k ɕłakit-s erin-s  
 Mary sad.face-IND because John-OBV COMP like-OBV Erin-OBV  
 ‘Mary looks sad because John likes Erin.’
- b. qała k kumnaqałwi-tik ʔukqna ɕans k ɕłakits  
 qała k kumnaqałwi-tik ʔukqna ɕan-s k ɕłakit-s  
 who COMP sad.heart because John-OBV COMP like-OBV  
 erins  
 erin-s  
 Erin-OBV  
 ‘Who is sad because John likes Erin?’

- (19) a. \*qatas k kumnaqatwi-tiks (mati) ʔukqna k ɕtakits  
 qata-s k kumnaqatwi-tik-s (mati) ʔukqna k ɕtakit-s  
 who-OBV COMP sad.heart-OBV (Mary) because COMP like-OBV  
 ɕans  
 ɕan-s  
 John-OBV  
 intended: ‘Who is Mary sad because (*t*) likes John?’  
 (asking about who likes John, including information that Mary is sad.)
- b. \*qatas k kumnaqatwi-tiks (mati) ʔukqna ɕans k  
 qata-s k kumnaqatwi-tik-s (mati) ʔukqna ɕan-s k  
 who-OBV COMP sad.heart-OBV (Mary) because John-OBV COMP  
 ɕtakits  
 ɕtakit-s  
 like-OBV  
 intended: ‘Who is Mary sad because John likes (*t*)?’  
 (asking about who John likes, including information that Mary is sad.)

Leaving the *wh*-word *in situ* results in an indefinite reading, but can also be interpreted as a question. For instance, (20a) and (20b) are ambiguous between the two translations given; whether there are prosodic differences between the two forms is uncertain for now, but initial discussion did not result in intense prosodic variation of the sort observable in English echo-questions.

- (20) a. mati kumnaqatqaʔni ʔukqna ɕans k ɕtakits qatas.  
 mati kumnaqatqaʔ-ni ʔukqna ɕan-s k ɕtakit-s qata-s  
 Mary sad.face-IND because John-OBV COMP like-OBV who-OBV  
 ‘Mary is sad because John likes someone./who?’  
 (Potential reply: *ɕan ɕtakitni erins*. ‘John likes Erin,’ or simply *erins*.  
 ‘Erin.’)
- b. mati kumnaqatqaʔni ʔukqna qatas k ɕtakits ɕans  
 mati kumnaqatqaʔni ʔukqna qata-s k ɕtakit-s ɕan-s  
 Mary sad.face-IND because who-OBV COMP like-OBV John-OBV  
 ‘Mary looks sad because someone/who likes John./?’  
 (Potential reply: *erin ɕtakitni ɕans*. ‘Erin likes John,’ or simply *erins*.  
 ‘Erin.’)

The precise semantics of the question interpretation of these sentences is beyond the scope of the present work. They do not seem to necessarily be echo-questions. They might be productively analyzed as questions with declarative syntax (QDS), as they “[appear] to be *wh*-in-situ [...] and] may carry interrogative force as a speech act, but from a syntactic perspective [are] declarative clause[s] with a *wh*-expression in focus” (Bobaljik & Wurmbrand 2014:1).

### 3.3 Complex NP constraint

The final island addressed by this squib is the Complex Noun Phrase Constraint (CNPC). Specifically, the CNPC states that “No element contained in a sentence dominated by a noun phrase with a lexical head noun may be moved out of that noun phrase by a transformation” (Ross 1967:127). Ktunaxa abides by the CNPC for noun complement clauses in both subject and object positions. Beginning with subjects (which should be the worst case, due to the separate existence of Subject Islands apart from the CNPC), speakers may take a declarative sentence such as (21a) and reform it as a yes-no question, as in (21b).

- (21) a. niʔi k haqaʔpaʔniʔnam k qakit itwa mali ɕupqas siʔ  
 niʔi k haqaʔpaʔniʔnam k qakit itwa mali ɕupqa-s siʔ  
 DET COMP story COMP say shoot Mary deer-OBV CONT  
 suʔkni  
 suʔk-ni  
 good-IND

‘The story that says how Mary shot and killed a deer is a good one.’

- b. niʔi k haqaʔpaʔniʔnam qakit itwa mali ɕupqas, kiʔin  
 niʔi k haqaʔpaʔniʔnam qakit itwa mali ɕupqa-s ki-ʔin  
 DET COMP story say shoot Mary deer-OBV COMP-COP  
 kiʔsuks?  
 kiʔ-suk-s  
 COMP-good-OBV

‘The story that says how Mary shot and killed a deer, is it a good one?’

However, attempting to create a *wh*-question (by movement) which inquires about either of the arguments of the complex NP results in ungrammaticality, demonstrated in (22a) and (22b) on the following page. Note that leaving the *wh*-words *qata* and *qapsin in situ* in either example would result in normal indefinite readings for either sentence (i.e. ‘The story of how someone shot and killed a deer is a good one,’ ‘The story of how Mary shot and killed something is a good one.’) These *in situ* counterparts can also be interpreted as questions—be they echo questions or ‘questions with declarative syntax’ à la Bobaljik & Wurmbrand—and the addressee may reply with a fragment answer *mati* ‘Mary’ or *ɕupqas* ‘deer (obviative)’, as appropriate.

- (22) a. \*qata, k haqaʔpaʔniʔnam k qakit itwa ɕupqas isiʔ  
 qata k haqaʔpaʔniʔnam k qakit itwa ɕupqa-s i-siʔ  
 who COMP story COMP say shoot deer-OBV ?-CONT  
 suʔkni/suk  
 suʔk(-ni)  
 good(-IND)

Lit. ‘Who, the story that says *t* shot and killed a deer is a good one?’  
 (Asking about who shot and killed a deer, including information that the story is a good one.)

- b. \*qapsins, k haqaṭpaṭni?nam k qakiṭ iṭwa maṭi isiṭ  
 qapsin-s k haqaṭpaṭni?nam k qakiṭ iṭwa maṭi i-siṭ  
 what-OBV COMP story COMP say shoot Mary ?-CONT  
 suʔkni/suk  
 suʔk(-ni)  
 good(-IND)

Lit. ‘What, the story that says Mary shot and killed *t* is a good one?’  
 (Asking about what Mary shot and killed, including information that  
 the story is a good one.)

When the complex NP is in object position, the same generalization holds.  
 Given a declarative such as (23a) below, speakers may pose it as the yes-no ques-  
 tion (23b), but cannot use the *wh*-questions in (24a) and (24c) to ask about the  
 arguments of the complex NP’s embedded clause.

- (23) a. hun huṭpaṭni haqaṭpaṭni?nam k qakiṭ iṭwa maṭi ɕupqas  
 hun huṭpaṭni haqaṭpaṭni?nam k qakiṭ iṭwa maṭi ɕupqa-s  
 2.SG hear-IND story COMP say shoot Mary deer-OBV  
 ‘I heard the story that says how Mary shot and killed a deer.’

- b. kin huṭpaṭin haqaṭpaṭni?nam k qakiṭ iṭwa maṭi  
 k-hin huṭpaṭ-in haqaṭpaṭni?nam k qakiṭ iṭwa maṭi  
 COMP-2.SG hear story COMP say shoot Mary  
 ɕupqas  
 ɕupqa-s  
 deer-OBV

‘Did you hear the story that says how Mary shot and killed a deer?’

- (24) a. \*qaṭa hin huṭpaṭni haqaṭpaṭni?nam k qakiṭ iṭwa ɕupqas  
 qaṭa hin huṭpaṭ-ni haqaṭpaṭni?nam k qakiṭ iṭwa ɕupqa-s  
 who 2.SG hear-IND story COMP say shoot deer-OBV

Lit. ‘Who you heard a story that says *t* shot and killed a deer?’  
 (I know you heard a story about someone killing a deer—who was that?)

- b. qaṭa kin huṭpaṭin haqaṭpaṭni?nam k qakiṭ iṭwa  
 qaṭa k-hin huṭpaṭin haqaṭpaṭni?nam k qakiṭ iṭwa  
 who COMP-2.SG hear story COMP say shoot  
 ɕupqas?  
 ɕupqa-s  
 deer-OBV

Who did you hear a story that says they shot and killed a deer?  
 (I know you heard a story about someone killing a deer—who was that?)

- c. \*qapsins hin hułpałni haqałpałni?nam k qakił itwa mati  
 qapsin-s hin hułpał-ni haqałpałni?nam k qakił itwa mati  
 what-OBV 2.SG hear-IND story COMP say shoot Mary  
 Lit. What you heard a story that says how Mary shot and killed *t*?  
 (I know you heard a story about Mary killing something—what was it?)
- d. qapsins ma kin hułpałin haqałpałni?nam k qakił  
 qapsin-s ma k-hin hułpałin haqałpałni?nam k qakił  
 what-OBV PAST COMP-2.SG hear story COMP say  
 itwa matis?  
 itwa mati-s  
 shoot Mary-OBV  
 ‘What did you hear a story that says how Mary shot and killed?’  
 (I know you heard a story about Mary killing something—what was it?)

More acceptable ways to ask the questions attempted above use the *wh-in-situ* forms given in (25a) and (25b) below. Speakers also have the option of splitting the query across two sentences (e.g. ‘I know you heard a story about someone killing a deer. Who was it?’) or using a cleft, as in (25c).

- (25) a. hun hułpałni haqałpałni?nam k qakił itwa qala čupqas  
 hun hułpał-ni haqałpałni?nam k qakił itwa qala čupqa-s  
 1.SG hear-IND story COMP say kill who deer-OBV  
 ‘I heard the story that said how someone/who shot and killed a deer?’  
 Potential replies: *man ?ini mati*. ‘It was Mary,’ or *mati*. ‘Mary.’
- b. hun hułpałni haqałpałni?nam k qakił itwa mati qapsins  
 hun hułpał-ni haqałpałni?nam k qakił itwa mati qapsin-s  
 1.SG hear-IND story COMP say kill Mary what-OBV  
 ‘I heard the story of that said how Mary shot and killed something/what?’  
 Potential replies: *man ?ini čupqas*. ‘It was a deer,’ or *čupqas* ‘deer’.
- c. qala ki?in, ni?i haqałpałni?nam k itwa čupqas  
 qala ki-?in ni?i haqałpałni?nam k itwa čupqa-s  
 who COMP-COP DET story COMP shoot deer-OBV  
 ‘Who was it in that story who killed a deer?’

#### 4 Conclusions and future directions

This work has given evidence for the existence of direct *wh*-movement in Ktunaxa, in contrast with its Salish neighbours, which use predicative *wh*-words in question formation (Kroeger 1999). The major pieces of support for this conclusion are the language’s systematic adherence to the three island constraints listed above (the Coordinate Structure Constraint, Adjunct Island Constraint, and Complex NP Constraint), as well as the fact that nouns and *wh*-words require a copula in order to act as predicates, and are copula-free in plain (i.e. non-cleft) *wh*-questions. Furthermore, the pattern of obviation present in questions involving two third-person

arguments (namely that the object is obviated and the subject not, regardless of which is a *wh*-word) is consistent with *wh*-words being generated as arguments rather than as predicates, and triggering obviation fittingly.

An additional consequence of the work presented here is that there is an adjunct-argument asymmetry in Ktunaxa, evinced by the ungrammaticality of movement out of adjuncts, but not out of arguments of bridge verbs. The existence of this asymmetry points to the existence of further structural asymmetries in the clause.

Throughout the earlier sections of this paper, passing reference has been made to areas where this research may be expanded. Specifically, the nature of the *k* particle, the viability of Across-the-Board movement, and the semantic attributes of questions with declarative syntax might all be productive lines of linguistic inquiry. The following are three other questions and issues that arose in the writing of this work that remain unaddressed here, but may be within the scope of future research.

Whether these *wh*-indefinites are determiners or NPs is somewhat of an open question. Mast (1988) cites data from *Kutenai Tales* (Boas 1918) in which the phrase *qata tkamu* ‘some child’ appears; however, the second author’s first impression of sentences using *qata* as an indefinite determiner was that they were ungrammatical. For instance, *qata patkiy wu-kati ni?is qukins* intended to mean ‘some woman saw the ravens’ was judged to be questionable at best. It is therefore a possibility that *qata* and perhaps *qapsin* could be used as indefinite determiners in older dialects of Ktunaxa, but younger speakers use the words only as full NPs. However, we have not explored the topic in more detail and we cannot give a conclusive category for the indefinite pronouns at this time.

As for weak islands, we have some preliminary data on *wh*-islands, given in (26a) and (26b) below, but have not yet discussed the crucial ungrammatical cases. The prediction is that extraction from the embedded phrase headed by a *wh*-word is banned; given the rest of the data in this paper, this prediction seems likely to hold.

- (26) a. hu qatwini qata k wu-kat mahis  
 hu qatwi-ni qata k wu-kat mahi-s  
 1.SG think-IND who COMP see Mary-OBV  
 ‘I wonder who saw Mary.’
- b. hu qatwini qatas maŋi k wu-kat  
 hu qatwi-ni qata-s maŋi k wu-kat  
 1.SG think-IND who-OBV Mary COMP see  
 ‘I wonder who Mary saw.’

Finally, we have not so much as scratched the surface of multiple-*wh* questions. Whether Ktunaxa uses multiple *wh*-fronting (\*‘Who what bought?’), or partial (‘Who bought what?’), or another strategy for inquiring after multiple arguments is a natural next step in its pursuit.

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# Complex predicate-argument relations in Bella Coola<sup>1</sup>

Hank Nater

**Abstract:** Bella Coola, a head-marking and polysynthetic PSO language, has a few predicate-internal suffixes that are linked with two syntactic arguments; vice versa, such arguments can relate to two or three predicate components. Although these suffixes are paralleled by similar suffixes in other Salish, they (with the exception of CAUS *-(s)tu-*) differ from those in function and/or origin.

**Keywords:** Salish, Bella Coola, morpho-syntax, divalency, redirection

## 1 Introduction

In this brief report on valency-related phenomena in Bella Coola, I consider the morpho-semantics of the predicate base, different types of divalent suffix, relations between the predicate and syntactic arguments, and areal-etymological aspects of the divalent suffixes.

As concerns predicate base properties, note that morpho-semantic traits of Bella Coola verbo-nominals warrant a four-way partition of this class: TR stative / ITR stative / TR active / ITR active (cf. Nater 1984, p. 34). Of these, ITR stative verbs are generally unaccusative, while most ITR active verbs are unergative. (But certain ITR verbs – e.g. those that convey perception or a bodily function, where the degree of subjective control/purpose may vary – can be ambiguous.) This division also holds – but on a distributional, rather than morpho-semantic, basis – where verbo-nominals accept a divalent suffix. For instance, benefactive *-tu-* is compatible only with ITR active (antipassive) bases, CAUS *-tu-* with ITR active/stative and detransitive bases, NC CAUS *-nix* with ITR stative (including adjectival) bases. (In addition, there are ambitransitive verbs and transitivizable nouns and adjectives, for which see Nater 1984, pp. 59–60.)

On the other hand, and regardless of TR-ITR and active-stative distinctions, divalent *-alst* DEPR combines specifically with bases associated with removal or displacement, and applicative suffixes are often found with bases conveying a ritual, artistic expression, mood, or need.

Divalent suffix types and valency structures are outlined in Section 2 below, and BASE-ARGUMENT and SUFFIX-ARGUMENT linking details as such are described in Sections 2.1–2.3. The status of Bella Coola divalent suffixes within Salish is examined in Section 3.

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<sup>1</sup> Abbreviations used in this paper are: ADJ adjunct, ART article, CAUS causative, DEM demonstrative, DEPR deprivative, DIM diminutive, DIR direct, GEN genitive, IMP imperative, INC inclusive, ITR intransitive, NC non-control, OBJ object, OBL oblique, PART participial, PASS passive, PL plural, POSS possessive, PREP preposition, PROG progressive, RDR redirective, REFL reflexive, SG singular, SUB(J) subject, TR transitive. Bella Coola examples are copied from my field notes, and Dutch analogues are provided by myself. Contact info: hanknater@gmail.com

A Bella Coola verbo-nominal (noun, verb, adjective) can be combined with one or more suffixes to form a clausal predicate:

- (a) staltmx-c  
chief-1SG.SUBJ  
'I am a chief'
- (b) sta:taltmx-uuŋla-liwa-naw-tχ<sup>v</sup>  
chief.PL-appearance-...like-3PL.SUBJ-optative  
'let them look like chiefs!'

Within the predicate, which has a ((( ([BASE] suffix) suffix) suffix) ...) structure (prefixes being disregarded), suffixes occupy the positions shown below:

		BASE	
1		<i>-alst(n)</i> deprivative ← lexical	
2	aspect	transition – development	
		stative – completive	
3	RDR	TR <i>-m, -amk</i> applicative	causative
		<i>-nix</i> NC causative	ITR causative – communal
4	voice	transitive, medium, antipassive	
		reflexive, reciprocal	
5		desiderative	
6		inchoative, modifying	
7		<i>-t</i> past	
8		<i>-(s)tu-</i> causative	
9		object	
10		subject	
11		<i>-tχ<sup>w</sup></i> optative	

**Figure 1** Predicative suffixation

A verb base can itself consist of a root or stem followed by one or more suffixes (subscript numbers are the position indicators used in Figure 1):

- (c) cak<sup>w</sup>-liwa-nix-i-c  
 ((([(cak<sup>w</sup>liwa<sub>6</sub>]nix<sub>3</sub>)i<sub>9</sub>)c<sub>10</sub>)  
 straight-...like-consider-3SG.OBJ-1SG.SUBJ  
 ‘I understand him correctly’

Of the suffixes listed above, the divalent ones (printed in boldface in slots 1, 3, 8) have been selected here for further examination.

Note that *-(s)tu-* ‘causative, benefactive’ (slot 8) originally belonged (along with *-(s)tx<sup>w</sup>* and shorter *-(s)t-*) in slot 3, but has moved forward and merged with pronominal suffixes (Nater 2014, p. 85). The optative suffix *-tχ<sup>w</sup>* is originally causative *-tχ<sup>w</sup>* ‘make/let it be ...!’ ← \**-tx<sup>w</sup>-χ* (Nater 1984, pp. 39–40).

## 2 Divalent and trivalent linking: types and structures

Below, I categorize, and briefly examine, several types of divalent suffix: Section 2.1 benefactive and deprivative suffixes, Section 2.3 applicative and causative suffixes. In Section 2.2, I mention two lexical suffixes, which are, however, monovalent.

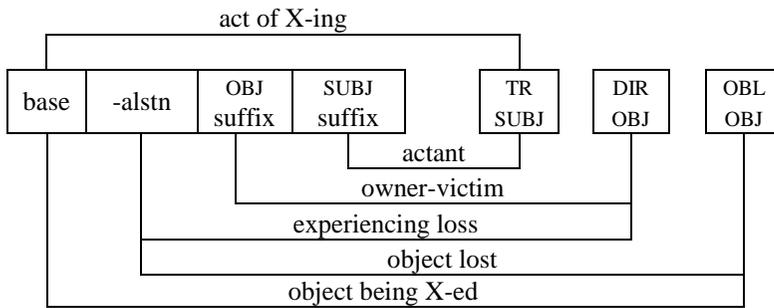
The structure of a Bella Coola clause consisting of a predicate and several arguments is such that the order in which the arguments appear mirrors that of the corresponding morphemes contained in the predicate, except where the base is connected with the SUBJ and/or DIR OBJ, or where a causative or applicative suffix is linked with the TR SUBJ. Thus, in benefactive/deprivative constructions, divalency-marking links connecting the ITR SUBJ/DIR OBJ and OBL OBJ with the predicate form a distinct oscillatory pattern. The figures in Sections 2.1–3 reflect these properties (with “lopsided” links appearing above the constituent level), and show that some predicate components and arguments are connected on more than one level due to the doubly or triply referential role of a suffix, base, or argument. A link conveys one of a number of functions: act or state; gain or loss; include, cause, observe; close, connected, asset; included, caused, observed; being ...ed, having ...ed; affected, experiencing; actant, includer, causer, observer.

### 2.1 Benefactive and deprivative suffixes

In Bella Coola clauses with a benefactive/deprivative-marked TR predicate, predicate constituents and arguments are interlinked as follows:







**Figure 4** Morpho-syntactic relations in re TR loss

Compare (6) with (7):

- (6) knix-alstn-i-x<sup>w</sup>\_mas                      ti\_man-c\_tx  
 PREDICATE                                      DIR OBJ  
 eat-DEPR-3SG.OBJ-2SG.SUBJ\_forever!      ART\_father-1SG.POSS\_ART  
 x\_a\_sqaluc-s\_c  
 OBL OBJ  
 PREP\_ART\_berries-3SG.POSS\_ART  
 ‘you are forever eating my father<sub>1</sub> out of [his<sub>1</sub>] berries!’

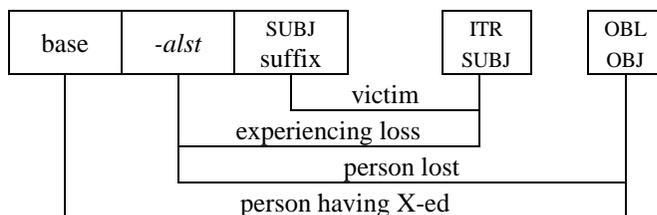
- (7) knix-i-x<sup>w</sup>\_mas                              wa\_sqaluc-s\_c  
 PREDICATE                                      DIR OBJ  
 eat-3SG.OBJ-2SG.SUBJ\_forever!      ART\_berries-3SG.POSS\_ART  
 ti\_man-c\_tx  
 GEN ADJ  
 ART\_father-1SG.POSS\_ART  
 ‘you are forever eating my father’s berries!’

As indicated above, argument role switching also pertains where the base is ITR stative (unaccusative), as in (8) versus (9):

- (8) ?atmn-alst-s                      ta\_staltmx\_tχ      x\_ta\_mna-s\_tχ  
 PREDICATE                      SUBJ                      OBL OBJ  
 die-DEPR-3SG.SUBJ      ART\_chief\_ART      PREP\_ART\_son-3SG.POSS\_ART  
 ‘the chief<sub>1</sub> had his<sub>1</sub> son die on him’

- (9) ?atma-s\_c’                      ta\_mna-s\_tχ                      ta\_staltmx\_tχ  
 PREDICATE                      SUBJ                                      GEN ADJ  
 die-3SG.SUBJ\_now      ART\_son-3SG.POSS\_ART      ART\_chief\_ART  
 ‘now the chief’s son died’

In example (8), divalency patterns are as shown below:



**Figure 5** Morpho-syntactic relations in re ITR loss

-alst continues proto-Salish \*-als(t) ‘rock, round object’ (Kuipers 2002, p. 205, where Squamish -uyʔs ‘large object, piece, chunk’ is also mentioned) → ‘bulk, importance’. Hence, knixalstn ‘to eat someone else’s food’ derives from ‘to eat from A what is important for A to have’, ʔatm̄nalst ‘to have someone die on oneself’ from ‘to lose someone important to death’. (Compare Dutch *be-storven* ‘having become orphaned or widowed’ ← \*be-sterven ‘to become orphaned or widowed’ ← sterven ‘to die’.)

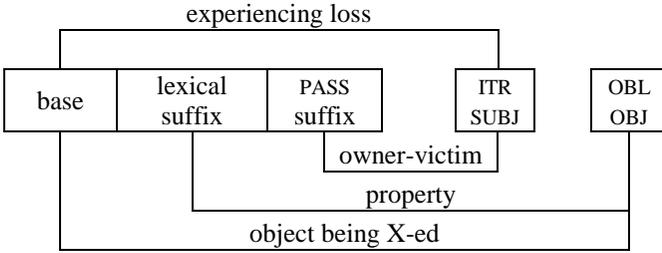
## 2.2 Lexical suffixes

Like -alst(n), lexical suffixes (specifically metaphoric suffixes and classifiers) can bring about argument redirection after TR bases (Nater 1984, pp. 85–87). But unlike -alst(n), they define the type (use, texture) of property (and are mono-valent rather than divalent), whereas the “loss” or “benefit” connotation is here conveyed by the base alone (which is di- or trivalent). Compare (10) with (11):

- (10) ʔulχ-iiχʷ-ʔ-im\_ma                      ta\_man-c\_tχ  
 PREDICATE                                      SUBJ  
 steal-hat-past-3SG.PASS\_maybe    ART\_father-1SG.POSS\_ART  
 x\_taqayt-ʔ-s\_tχ  
 OBL OBJ  
 PREP\_ART\_hat-past-3SG.POSS\_ART  
 ‘somebody may have stolen my father<sub>1</sub>’s hat from him<sub>1</sub>’

- (11) ʔulχ-ʔ-im\_ma                              ta\_qayt-ʔ-s\_tχ  
 PREDICATE                                      SUBJ  
 steal-past-3SG.PASS\_maybe    ART\_hat-past-3SG.POSS\_ART  
 ta\_man-c\_tχ  
 GEN ADJ  
 ART\_father-1SG.POSS\_ART  
 ‘my father’s hat may have been stolen’

The structure of example (10) is:



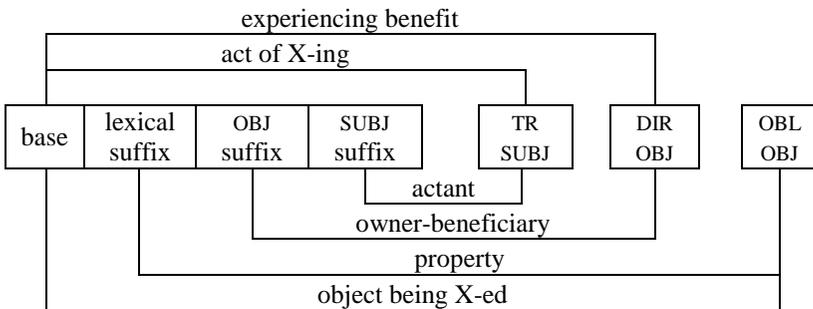
**Figure 6** Morpho-syntactic relations in re lexical suffix PASS

Next, compare (12) with (13):

- (12) kic'-anɬ-i-s                      ɬa\_kikya-c\_ʔiɬ  
 PREDICATE                              SUBJ  
 wash-cloth-3SG.OBJ-3SG.SUBJ      ART grandmother-1SG.POSS\_ART  
 ɬa\_stan-c\_ʔiɬ                              x\_tu\_nup-s\_tɕʷ  
 DIR OBJ                                      OBL OBJ  
 ART\_mother-1SG.POSS\_ART      PREP\_ART\_shirts-3SG.POSS\_ART  
 'my grandmother washed my mother<sub>1</sub>'s shirts for her<sub>1</sub>'

- (13) kic'-i-s                              ɬa\_kikya-c\_ʔiɬ  
 PREDICATE                              SUBJ  
 wash-3SG.OBJ-3SG.SUBJ      art\_grandmother-1SG.POSS\_ART  
 tu\_nup-s\_tɕʷ                              ɬa\_stan-c\_ʔiɬ  
 DIR OBJ                                      GEN ADJ  
 ART\_shirts-3SG.POSS\_ART      ART\_mother-1SG.POSS\_ART  
 'my grandmother washed my mother's shirts'

The structure of example (12) is presented in Figure 7:



**Figure 7** Morpho-syntactic relations in re lexical suffix TR

## 2.3 Applicative and causative suffixes

Like benefactive *-tu-*, but unlike *-alst(n)* and the classifiers considered in Section 2.2, applicative and causative suffixes are strictly transitivizing.

### 2.3.1 Applicative suffixes

The two Bella Coola applicative suffixes occur in the following environment:

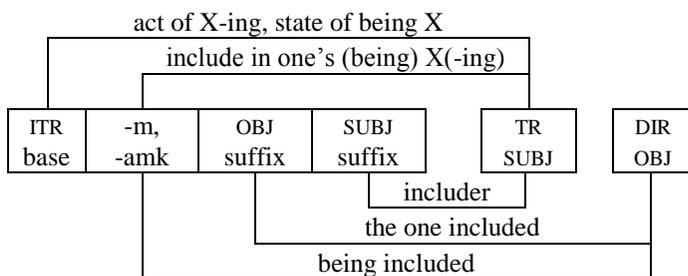


Figure 8 Morpho-syntactic relations in re applicative

#### 2.3.1.1 Applicative *-m*

The most versatile among all valency-affecting suffixes is *-m* ‘medium’ (Nater 1984, pp. 61–63). Broadly, ITR verbs with *-m* are denominal active (unergative), detransitive active (unergative, valency reducing), detransitive stative (unaccusative (mainly anticausative), valency reducing), or detransitive reflexive (valency reducing). Here, we consider transitivizing *-m* ‘make or find ... the object or goal of one’s ...ing’, which increases valency (and is not related to ITR *-m*, see Section 3.1). This is a truly applicative suffix insofar as the OBL OBJ following a predicate without this suffix becomes the DIR OBJ after addition of transitivizing *-m* to the base, as in (14)–(16).

<u>with -m</u>	<u>without -m</u>
(14) talaws-m-i-c    c’ayx	talaws-c            ?aḷc’ayx
PREDICATE    DIR OBJ	PREDICATE    OBL OBJ
marry-INC-3SG.OBJ-1SG.SUBJ DEM	marry-1SG.SUBJ PREP DEM
‘I’m marrying her’	‘id.’

- |      |   |  |
|------|---|--|
| (15) | ʔanayk-m-i-c t'ayx<br>PREDICATE DIR OBJ<br>want-INC-3SG.OBJ-1SG.SUBJ DEM<br>'I want this'                 | ʔanayk-c x_t'ayx<br>PREDICATE OBL OBJ<br>want-1SG.SUBJ PREP_DEM<br>'id.'         |
| (16) | qaaxɣla-m-i-c wa_qla<br>PREDICATE DIR OBJ<br>drink-INC-3SG.OBJ-1SG.SUBJ ART_water<br>'I'm drinking water' | qaaxɣla-c x_a_qla<br>PREDICATE OBL OBJ<br>drink-1SG.SUBJ PREP_ART_water<br>'id.' |

### 2.3.1.2 Applicative -*amk*

Transitivizing -*amk* 'be caused/urged/inspired to (be) ... about/with ...' (Nater 1984, pp. 63–64) is, like transitivizing -*m*, an applicative suffix. (Both suffixes are like Dutch *be-* 'to X regarding Y in particular/detail', as in: *ze bespreken de zaak* 'they discuss the matter' vs. *ze spreken over de zaak* 'they talk about the matter', *hij bekeek het huis* 'he viewed the house' vs. *hij keek naar het huis* 'he looked at the house'.) Examples are presented in (17)–(19):

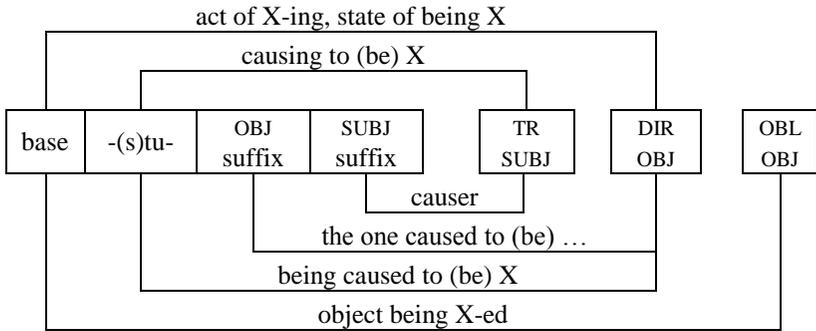
- | <u>with -<i>amk</i></u>  | <u>without -<i>amk</i></u>   |
|--|--|
| (17) yayaatw-amk-ii-ti-c t'ayx<br>PREDICATE DIR OBJ<br>happy-INC-DIM-3SG.OBJ-1SG.SUBJ DEM<br>'I am happy about this'                                   | yayaatw-ii-c ʔaɬ_t'ayx<br>PREDICATE OBL OBJ<br>happy-DIM-1SG.SUBJ PREP_DEM<br>'id.'                        |
| (18) nuyamɬ-amk-i-c tx<br>PREDICATE DIR OBJ<br>sing-INC-3SG.OBJ-1SG.SUBJ DEM<br>'I am singing a song about him'  | nuyamɬ-c ʔaɬ_tx<br>PREDICATE OBL OBJ<br>Sing-1SG.SUBJ PREP_DEM<br>'id.'                                    |
| (19) ʔalac'-amk-ii-ti-c ti_qʷaxʷ_tx<br>PREDICATE DIR OBJ<br>tell story-INC-DIM-3SG.OBJ-1SG.SUBJ<br>ART_Raven_ART<br>'I am telling a story about Raven' | ʔalac'-ii-c ʔaɬ_ti_qʷaxʷ_tx<br>PREDICATE OBL OBJ<br>tell story-DIM-1SG.SUBJ<br>PREP_ART_Raven_ART<br>'id.' |

### 2.3.2 Causative suffixes

Bella Coola has two causative suffixes: -(*s*)*tu-* and -*nix*. These differ from one another in degree of control/purpose and affiliated pronominal suffix paradigm.

### 2.3.2.1 Causative *-(s)tu-*

I mentioned *-(s)tu-* ‘CAUS TR’ in Section 2.1.1 above. This suffix is compatible with ITR bases, and the associated CAUS template differs from the non-CAUS TR one (Nater 1984, pp. 37–40). It increases valency by adding an argument (causer) to the act described by the base, and ITR SUBJ → DIR OBJ, as in Figure 9. Two examples are given in (20) and (21).



**Figure 9** Morpho-syntactic relations in re *-(s)tu-*

- (20) ʔaʔps-tu-Ø-s                      ʔa\_stan\_ʔiʔ  
 PREDICATE                              SUBJ  
 eat-CAUS-3SG.OBJ-3SG.SUBJ      ART\_mother\_ART  
 ta\_mna-s                              x\_tu\_sputx\_tʃw  
 DIR OBJ                                OBL OBJ  
 ART\_son-3SG.POSS PREP\_ART\_eulachon\_ART  
 ‘the mother<sub>1</sub> gave her<sub>1</sub> son the eulachons to eat’

- (21) ka\_paxpaaqʷuu-stu-ti-c\_ma                      wa\_wacʷ-uks-nu\_c  
 PREDICATE    DIR OBJ  
 future\_afraid-CAUS-3PL.OBJ-1SG.SUBJ\_maybe      ART\_dog- PL-2SG.POSS\_ART  
 x\_ti\_ʔacʷta\_tʷayx  
 OBL OBJ  
 PREP\_ART\_paddle\_DEM  
 ‘maybe I will scare your dogs with this paddle’

### 2.3.2.2 Causative *-nix*

*-nix* (and *-nxʷ*, *-nuxʷ*) ‘NC CAUS’ (Nater 1984, pp. 68–69) combines with ITR stative (unaccusative-adjectival) bases, and accepts the non-CAUS TR paradigm. It differs from *-(s)tu-* in that it implies lack of control or purpose: ‘accidentally or unwittingly cause X to ...’, ‘find that X has ...ed’, ‘find (that) X (is) ...’. Like *-(s)tu-*, *-nix* is valency-increasing (and ITR SUBJ → DIR OBJ), as in Figure 10. Examples are presented in (22)–(24).



Bella Coola	Other Salish
-nix, -n(u)x <sup>w</sup> ‘NC CAUS’	-nəx <sup>w</sup> ‘TR (CAUS) NC’
-(s)tu-, -(s)tx <sup>w</sup> ‘control CAUS (benefactive)’	-(s)t(-əw-/əx <sup>w</sup> ) ‘CAUS’
-alst ‘deprivative’	-als(t) ‘rock’
-m(i-), -amk ‘applicative’	-mi(n) ‘relational applicative’ -(a)min ‘OBL OBJ, means’

**Figure 11** Salish cognates of Bella Coola divalent suffixes

For CAUS *\*-nəx<sup>w</sup>*, see Section 4. Note that *-mi-* replaces applicative *-m* before the reflexive suffix *-cut* (Nater 1984, p. 65). Unlike myself, Kiyosawa & Gerdts (p. 46) do not equate Bella Coola *-m(i-)* with other Salish *-mi(n)* (but in fn. 19, they do connect *-mi(n)* with *-(a)min*, for which see *-amk* further below). However, the primary meaning (‘use, contact, involvement’) of TR *-m* is evinced by TR active verb + somatic suffix + TR *-m* ‘to ... something with one’s ...’:

(25) cp-ak-m-i-c

wipe-hand-contact-3SG.OBJ-1SG.SUBJ

‘I wipe it with my hand’

(26) ʔaʔ-tmp-aaxalic-m-i-c

PROG-insert-teeth-contact-3SG.OBJ-1SG.SUBJ

‘I’m holding it between my teeth’

(27) ʔiʔ'-aaʔ-m-t-χ

move-foot-contact-3SG.OBJ.PART-IMP.SG

‘move it with your foot!’

*-amk* is originally complex. I gather that *-amk* continues *\*-amə(n)-k* ‘means-back, middle’ in view of the following points:

- its formal, semantic, and functional resemblance to TR *-m* (which suggests that ...*k* is suffixal in origin);
- the flexible use/meaning of Salish *-(a)min* (‘implement, means, oblique-applicative’, see Kuipers, pp. 79 & 132; Van Eijk, p. 417; Speck, pp. 70–71);
- the lack of clear cognates (*\*-amək*, *\*-amik*, or the like) in other Salish.

As regards *\*-amən-k* → *\*-amə-k*, elision of a morpheme-left-adjacent consonant is not uncommon in Bella Coola: *qluq* ‘s eye’ ← *\*qlum-aq’-us*, *sqma* ‘chest’ ← *\*s-qəp-mən* ‘breast’, *su:q’wuuχin* ‘tadpole’ ← *\*s-q’wum-qin* ‘large-headed’, *q’waaχ* ‘old mountain goat’ ← *\*q’wuy-aʔq* ‘wilted-crotch’, *-amx<sup>w</sup>* ‘by oneself, autonomously’ ← *\*-al-məx<sup>w</sup>* ‘individual’, *-ams* ‘jaw’ ← *\*-ap-məs* ← *\*-ap-nəs*

(‘base-teeth’) (Nater 2013 and 2014). \*-*amən* also underlies Bella Coola -(*a*)*ma*, -(*a*)*mn*- ‘tool, implement’.

### 3.2 Innovations and retentions

Bella Coola applicatives are functionally unlike those in other Salish: they are not used as benefactives or deprivatives (malefactives). On the other hand, where Bella Coola benefactive formations involve a causative suffix with a range of glosses including ‘... something for somebody’, and where deprivative verbs contain a suffix whose function is derived from another morphological category, other Salish as a rule uses applicatives. Although in Halkomelem, the causative suffix can also be used benefactively, -*stəx<sup>w</sup>* is here added to a TR base, which is not necessarily creation-oriented:

- (28) Halkomelem (Kiyosawa & Gerdts, sample 103b)
- |     |                   |            |                       |                   |                 |
|-----|-------------------|------------|-----------------------|-------------------|-----------------|
| neṃ | č                 | ceʔ        | qəṇ-stəx <sup>w</sup> | t <sup>h</sup> əṇ | səlsilə         |
| go  | 2SG.SUB           | FUT        | steal-CS              | DET:2POSS         | grandparent(PL) |
| ʔə  | k <sup>w</sup> θə | sciʔə.     |                       |                   |                 |
| OBL | DET               | strawberry |                       |                   |                 |
- ‘You’re going to steal some strawberries for your grandparents.’

- (29) Halkomelem (Kiyosawa & Gerdts, sample 104b)
- |     |    |         |                         |                   |      |     |                |       |
|-----|----|---------|-------------------------|-------------------|------|-----|----------------|-------|
| niʔ | ʔə | č       | calaʔ-stəx <sup>w</sup> | k <sup>w</sup> θə | John | ʔə  | k <sup>w</sup> | teləʔ |
| AUX | Q  | 2SG.SUB | borrow/lend-CSDET       | John              | OBL  | DET | money          |       |
- ‘Did you borrow some money for John?’

The morpho-semantic and distributional mechanisms underlying Bella Coola divalent constructions, too, deviate from other Salish, where:

“Redirective applicatives are formed on transitive bases, and their precise interpretation—as benefactive, delegative, or malefactive—depends upon the context of the situation and the semantics of the verb. Most transitive verbs form redirectives with benefactive meanings, but redirectives formed on transfer verbs often express malefactive meanings, especially when a source or possessor is the applied object. Relational applicatives are formed on intransitive bases. They frequently have malefactive or adversative meanings, especially with natural or psychological events, and only rarely express benefactive meanings.” (Kiyosawa & Gerdts, p. 27)

The Bella Coola morpho-syntactic details discussed in this paper may also differ from those in other Salish. Nevertheless, the PREDICATE (+SUBJ) + DIR OBJ + OBL OBJ clause type associated with benefactive/malefactive is found across Salish (note: in Interior Salish, the subject often precedes the predicate, and the OBL OBJ may precede the DIR OBJ), which is shown in (30)–(34).

- (30) Halkomelem (Kiyosawa & Gerdts, sample 1)  
 ni? q̣ʷəl-əḷc-t-əs            t̄ə sténi? ʔə kʷθə səpl̄l.  
 AUX bake-RDR-TR-3ERG DET woman OBL DET bread  
 ‘He baked the bread for the woman.’
- (31) Shuswap (Kiyosawa & Gerdts, sample 4)  
 m-kúl-x-t-s                    ʧ núx̣ʷṇx̣ʷ t̄ə m̄im̄x.  
 PERF-make-RDR-TR-3SUB DET woman OBL basket  
 ‘She made a basket for the woman.’
- (32) Comox (Kiyosawa & Gerdts, sample 28)  
 qʷuqʷu-ʔəm-θ-as            ʔə t̄ə t̄<sup>θ</sup> tiy.  
 drink-RDR-TR:1SG.OBJ-3SUB OBL DET 1SG.POSS tea  
 ‘He drank my tea for me [when I could not finish it].’  
 ‘He drank up my tea [on me].’
- (33) Thompson (Kiyosawa & Gerdts, sample 25)  
 máx̣t̄imes                      t̄ə s-zélt-ep.  
 //máx̣-xi-t-uym-es//  
 break-RDR-TR-2PL.OBJ-3SUB OBL NM-dish-2PL.POSS  
 ‘He broke up you people’s dish.’
- (34) Okanagan (Kiyosawa & Gerdts, sample 52)  
 Mary ʕac-xí-t-s            iʔ t snk̄ł̄caʔsqáxa? iʔ ttwít.  
 Mary tie-RDR-TR-3SUB ART OBL horse ART boy  
 ‘Mary tied the horse for the boy.’

#### 4 Conclusions

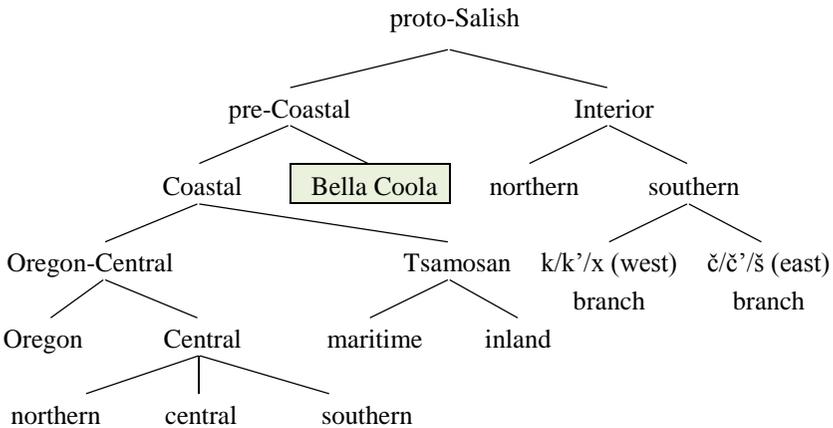
As concerns the status of Bella Coola divalent suffixes within Salish, it is clear that the only all-Salish applicative suffix that has survived in Bella Coola (as the transitivizing applicative *-m(i-)*) is *\*-mi(n)* ‘relational applicative’. *\*-mi(n)* itself is derived from *\*(a)min* ‘OBL OBJ, means, tool’, which also underlies the other applicative suffix (*-amk*).

Of the three remaining divalent suffixes, the one malefactive (deprivative) suffix *-alst(n)* is originally lexical, and as such causes ITR SUBJ / TR DIR OBJ → OBL OBJ and GEN ADJ → DIR OBJ redirection. The latter of these is very similar to the OBL OBJ → DIR OBJ shift triggered by applicative suffixes: the role of the GEN ADJ (“victim”, see examples 7 and 9, and cf. example 11) is like that of the OBL OBJ in examples (14)–(19) (right column). Syntactically, however, the GEN ADJ is an **adjunct** rather than an **argument**: it is linked – via a POSS pronominal suffix – with the ITR SUBJ or DIR OBJ, not – via an OBL marker – with the predicate.

Both causative suffixes are valency-increasing insofar as an argument (causer/considerer) is added (and ITR SUBJ → DIR OBJ). Unlike *-m(i-)* and (to some extent) *-alst*, neither *-tu-* nor *-nix* have applicative properties. *-tu-*, though patently Salish, differs from Salish counterparts in that it has changed its position within the predicate and merged with pronominal suffixes (which now differ from non-CAUS TR suffixes).

The suffix *-nix/-nx<sup>w</sup>/-nux<sup>w</sup>* ‘NC CAUS’ continues *\*-nəx<sup>w</sup>* ‘NC TR’. But *-nəx<sup>w</sup>* (and *-n...* in general) also has a causative connotation in some other Salish: Squamish *-nəx<sup>w</sup>* ‘have ...ed (non-volitional (CAUS))’ (Kuipers 1967, p. 77), Lillooet *-Vn/-Vn’* ‘causativizer’ (et alia), *-nun/-nun’* ‘to nourish a certain thought on ...’ (i.e. ‘consider ...’) (Van Eijk, pp. 425–426). It would thus appear that there was already a tendency in proto-Salish for *\*-n-* (and *\*-nəx<sup>w</sup>*) to have, or acquire, the feature CAUS. In Bella Coola, then, *-nix/-nx<sup>w</sup>/-nux<sup>w</sup>* became the standard NC CAUS suffix under the influence of *-tu-* and the (innovative?) *-t-* CONTROL vs. *-n-* NON-CONTROL distinction (for which see Nater 1984, p. 60).

Within Salish, **benefactive use of causative *-tu-***, strict **PSO<sub>air</sub>O<sub>obl</sub> syntax**, and **OBL-marking prepositions** are attributes that Bella Coola has in common only with Coastal Salish. These traits lend further support to my thesis that Bella Coola evolved after, rather than – as is too often assumed – before, the Coastal Salish ↔ Interior Salish divide, i.e. it has descended from early Coastal (“pre-Coastal”) Salish (see Nater 2013 and 2014 for phonemic, lexical and morphological similarities). The model that reflects this view (Figure 12) differs therefore from e.g. Kiyosawa 2006 (p. 9, after Hinkson, p. 44), who places Bella Coola as having branched off from proto-Salish (and is not led to posit a pre-Coastal node). Note: Nater “Coastal” = Kiyosawa “Proto-Central-Tsamosan”, Nater “Central” = Kiyosawa “Proto-Central”, Nater “Tsamosan” = Kiyosawa “Proto-Tsamosan”, Nater “Interior” = Kiyosawa “Proto-Interior”.



**Figure 12** Bella Coola within Salish

In re PREDICATE–ARGUMENT interaction, it remains to be determined to what extent the morpho-syntax, semantic roles of the links, and combinatorial traits described in Sections 2 and 2.1–3 are matched in other Salish. In the meantime, I suspect, in view of the similarities shown in examples (28)–(29) and (30)–(34) (and conclusions drawn in Nater 2013 and 2014), that further research will reveal more morpho-syntactic resemblances between Bella Coola and Coastal Salish than we have seen to date.

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# **Part III**

## **Neighbouring languages**

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# Gitksan *gi*: A marker of past evidence\*

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**Abstract:** This paper provides the first targeted investigation of the semantics of the particle *gi* in Gitksan (Tsimshianic). This particle has previously been characterized, both in Gitksan and in related Tsimshianic languages, as a distal deictic marker (Boas 1911, Jóhannsdóttir 2006, Rigsby 1986, Tarpent 1984, 1987, 1998). However, we provide evidence that *gi* does not enforce spatio-temporal distance. Instead, we suggest that *gi* in a declarative sentence conveys that at least one interlocutor had prior evidence for the asserted proposition. The use of *gi* extends to *wh*-questions, in which it conveys that at least one interlocutor had prior evidence for the answer to the question, or for the question itself. Whether *gi* signals the hearer's knowledge or the speaker's is determined pragmatically. According to this preliminary analysis, *gi* is a discourse particle with a cross-linguistically unusual property: it encodes information about the knowledge state not of one particular discourse participant (speaker / addressee), but of *either* participant.

**Keywords:** Gitksan, discourse particles

## 1 Introduction

This paper provides the first targeted investigation of the Gitksan particle *gi*, an element which has previously been characterized as a marker of spatio-temporal distance (e.g., Boas 1911, Jóhannsdóttir 2006, Rigsby 1986, Tarpent 1984, 1987, 1998). The use of *gi* is illustrated in (1). In anticipation of our findings, we gloss *gi* as PR.EVID for 'prior evidence'.<sup>1</sup>

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\* Contact info: [tjheins@alumni.ubc.ca](mailto:tjheins@alumni.ubc.ca), [lisa.matthewson@ubc.ca](mailto:lisa.matthewson@ubc.ca). We are very grateful to our Gitksan consultants Vincent Gogag, Hector Hill, Ray Jones, Barbara Sennott and Louise Wilson, for their patience and skill. *Ha'miyyaa!* We would also like to thank the UBC Gitksan Research Lab: Katie Bicevskis, Kyra Borland-Walker, Colin Brown, Jason Brown, Henry Davis, Catherine Dworak, Clarissa Forbes, Aidan Pine, Alyssa Satterwhite, Michael Schwan and Yimeng Wang. Special thanks to Katie Bicevskis, Henry Davis and Michael Schwan for (proof)reading an earlier version of this paper. This research was supported in part by SSHRC grant #410-2011-0431 and the Jacobs Research Fund.

<sup>1</sup> Data are presented in the orthography developed by Hindle and Rigsby (1973). ' represents a glottal stop or glottalization; hl is a voiceless lateral fricative; x, k and g are uvulars; j is [dz]; vowel length is represented by double vowels. Abbreviations not covered by the Leipzig Glossing Rules: I/II/III = series I/II/III pronoun, BPG = best possible grounds, CAUS1 = prefixal causative, CAUS2 = suffixal causative, CL.CNJ = clausal conjunction, CN = connective, DM = determiner marker, EPIS = epistemic modal, INCEP = inceptive, LV = light verb, PN = proper name, PREP = preposition, PR.EVID = prior evidence, REP = reportative, QUDD = question under discussion downdate, SUBORD = subordinator, T = "T" suffix, YNQ = yes-no question, -PPS = -p in projected set.

- (1) *Context: Michael has asked George's name and been told it, but he has forgotten it. So he has to ask:*

Michael: Oo naa=hl we-n=**gi**?  
oh who=CN name-2SG.II=**PR.EVID**  
'Oh, what's your name, again?'

George: George=hl we-'y=**gi**  
George=CN name-1SG.II=**PR.EVID**  
'My name is George.' (HH)

We will present novel data showing how *gi* is used in both declarative and interrogative clauses, and argue that it encodes discourse-related notions rather than deictic ones. Specifically, we propose that when *gi* attaches to a declarative clause denoting a proposition *p*, it signals that at least one of the interlocutors had evidence for a salient proposition – usually *p* itself – before the time of utterance. In the second sentence in (1), for example, *gi* is licensed because Michael had been told George's name before. When *gi* appears in an interrogative clause, as in the first sentence in (1), it signals that at least one of the interlocutors should have known the answer to the question, or at least have heard the question itself, before the time of utterance. We will further argue that the effect of spatio-temporal distance – in particular the frequently cited connection between *gi* and 'past tense' (cf. Jóhannsdóttir 2006) – falls out from our analysis without having to be hardwired into the lexical meaning. We will also show that although prior knowledge by at least one interlocutor is required to license *gi*, not every context in which this condition is satisfied allows *gi*. We will derive the observed asymmetry between speaker knowledge and addressee knowledge from Gricean principles.

The paper is structured as follows. In the remainder of the introduction, we provide background on the language, our consultants, our methodology, and the syntactic distribution of *gi*. In Section 2 we summarize prior research on *gi*. Section 3 presents data on the use of *gi* in declaratives and interrogatives. Section 4 presents our preliminary analysis. Section 5 offers a preliminary test of our generalizations on some spontaneous narratives and conversation, and Section 6 concludes.

## 1.1 Language and speaker background

'Gitksan' is the name traditionally given by linguists to a chain of dialects spoken along the drainage of the upper Skeena River in northwestern British Columbia, Canada. Gitksan is currently endangered, with fewer than 400 remaining first language speakers (FPCC 2014). Together with neighbouring Nisga'a, spoken in the Nass River Valley, Gitksan comprises the Interior branch of the Tsimshianic language family; though Gitksan and Nisga'a are very closely related and mutually intelligible, both speech communities consider them to be distinct languages (see Rigsby 1987, Rigsby and Kari 1987).

This paper presents data from speakers of three dialects of Gitksan. Our

primary consultants for this research are Vincent Gogag from Git-anyaaw (Kitwancool), Hector Hill from Gijigyukwhla (Gitsegukla), and Barbara Sennott from Ansbayaxw (Kispiox). Some data were additionally checked with Ray Jones (Prince Rupert and Gijigyukwhla) and Louise Wilson (Ansbayaxw, and seasonally Prince Rupert). Each piece of data is annotated with the speaker's initials. As we will outline below, there is some variation between speakers in their use of *gi*, though there are many commonalities.

## 1.2 Methodology

Our primary methods of data collection include the standard semantic elicitation techniques of asking for translations in either direction, asking for acceptability judgments of sentences in specified discourse contexts, and asking for volunteered sentences in specified discourse contexts (Matthewson 2004). We have also examined spontaneous narratives for instances of *gi*, as well as one recorded conversation between two fluent speakers.

A word is in order regarding the challenge of forming robust empirical generalizations about discourse-dependent elements like *gi* (see also Grenoble 2007 for discussion). Like all discourse particles, *gi* is extremely context-dependent, with even very subtle tweaks to the context affecting its acceptability. Even when rigorous efforts are made to control discourse contexts (as we have endeavoured to do throughout), it is never possible to be sure that the speakers are not adding extra contextual information in their minds before judging the utterance. Like most discourse particles, *gi* is virtually impossible to translate into English, and although speakers offer many insightful comments about the effect of *gi*, these are only clues to its contribution and are not always consistent. Further adding to the complexity of the situation is that *gi* is not obligatory even when it is licensed. And finally, cultural issues arise due to the fact that *gi* indicates prior knowledge, and therefore may be taken to suggest that the addressee *should* have known something before (even if they don't). Our consultants often allude to the importance of politeness in Gitksan culture; this may be a factor which sometimes influences the acceptability of *gi*.

For all these reasons, we do not have results about *gi*'s usage which are 100% consistent from speaker to speaker and from context to context. However, we have extracted several fairly robust generalizations. Where there is significant or systematic inter-speaker variation, we note this below.

## 1.3 Distribution of *gi*

The particle *gi* appears clause-finally both in declarative sentences and in *wh*-questions, as shown in (1) above.<sup>2</sup> Tarpent (1984) classifies *gi* in Nisga'a as a postclitic, and Rigsby (1987) marks it with an equals sign (=), the symbol for a clitic. Supporting this, *gi* is in complementary distribution with the clause-final

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<sup>2</sup> There may be a separate *gi* which can attach to nominals, but we do not address it here.

yes-no question particle *aa*. This yes-no particle is obligatorily present in all (and only) yes-no questions, and *gi* may not co-occur with *aa*, as shown in (2).<sup>3</sup>

- (2) *Context: I have been told Stacy's name before, but forgot it. I think it might be 'Stacy', but I ask to check:*

Stacy=hl wa/we-n=**aa**?  
 Stacy=CN name-2SG.II=**YNQ**  
 'Is your name Stacy?'

\* Stacy=hl wa/we-n=**aa=gi**?

\* Stacy=hl wa/we-n=**gi=aa**? (BS, VG)

For *aa*, there is clear phonological evidence that it encliticizes to the preceding word, since it induces voicing of a preceding voiceless obstruent. (See Hoard 1978, Rigsby 1986, Rigsby and Ingram 1990, and Brown 2008: sec. 4.3 on this voicing process.) Since *gi* appears to occupy the same slot as *aa*, we assume it is also an enclitic.

Imperatives also appear to allow *gi*, as shown in (3). The particle is not felicitous the first time Henry orders us to make food, but becomes acceptable when the command is repeated. (A parallel example gave rise to the same results with VG.)

- (3) *Context: Henry comes in to our elicitation session where we are working with Barbara and decides that she needs some food. He says:*

Henry: Jap=hl wineex a-s Barbara(=#=**gi**)!  
 make=CN food PREP-PN Barbara(=#=**PR.EVID**)  
 'Make Barbara some food!'

T.J.: Gwi?  
 what  
 'What?'

Henry: Jap=hl wineex a-s Barbara(=**gi**)!  
 make=CN food PREP-PN Barbara(=**PR.EVID**)  
 'Make Barbara some food!' (BS)

Our preliminary data from imperatives are very much in line with the data from declaratives and interrogatives we will present below. However, *gi* in imperatives has not been investigated in any detail, so these constructions will be set aside for the remainder of the paper.

## 2 Prior research on *gi*

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<sup>3</sup> The alternation between *wa* and *we* for 'name' in (2) represents a dialect difference: *wa* for BS, *we* for VG. This is part of a systematic *a/e* alternation which will appear in other data in the paper.

Writing about Nisga'a (the 'Nass dialect'), Boas (1911:349–350) states that the suffix *-g·ê* marks distance in space and time. Tarpent (1984:366) similarly claims for Nisga'a that 'the postclitic *-gi* indicates that the topic of conversation is remote from the speaker in place or time or both.' One of Tarpent's examples is given in (4) (glosses slightly updated):

- (4) 'Wii sim'oogit t=nigwood-i'y=**gi**  
 big chief PN=father-1SG.II=**PR.EVID**  
 '[either] My father, who lives far away, is a great chief [or] My father, who  
 is dead, was a great chief.' (Tarpent 1984:366)

Tarpent (1998) also presents a similar description of the Southern Tsimshian phrase-final enclitic =*ga'a*, saying it encodes deictic distance – either physical or psychological – from the speaker.

For Gitksan itself there is very minimal discussion of *gi*. Rigsby (1986), in his grammar of the language, glosses it as 'DIST' but does not provide discussion. Jóhannsdóttir (2006), in the context of an examination of some aspectual morphemes, analyzes *gi* as a distal adverb and glosses it as 'past', proposing that *gi* places the reference time before the utterance time. However, she observes that she has occasionally observed *gi* in a present tense context, and states that further research is required. The current paper aims to begin filling the gap in work on *gi* by providing the first detailed attempt at characterizing its empirical properties in Gitksan, and the first discourse-based analysis of it in any of the Tsimshianic languages.<sup>4</sup>

### 3 Function of *gi* in declarative and interrogative clauses

In this section we present the major empirical generalizations about the contexts where *gi* is and is not licensed, in both declarative and interrogative clauses.

#### 3.1 Repetition of an assertion or question

One very robust case where *gi* is felicitous is when the speaker is repeating information that has been presented before. One common sub-case of this is in contexts where the addressee has forgotten what they had previously been told, as in (1) above. Further examples of forgetting contexts are given in (5)–(6).

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<sup>4</sup> See Matthewson (2015) for analysis of two other discourse particles in Gitksan: *ist*, which signals that the question under discussion is being downdated, and *k'ap/ap*, which signals that the negation of the asserted proposition is in the set of projected future common grounds at the time of utterance.

- (5) *Context: T.J. and Aidan are in Moricetown. They've been talking about going there all day. T.J. wasn't paying attention to where they were driving and he forgot the entire conversation.*

T.J.: Hinda wil 'wihl wil-i'm?  
 where COMP around LV-1PL.II  
 'Where are we?'

Aidan: Moricetown wil wil-i'm(=gi).  
 Moricetown COMP LV-1PL.II(=PR.EVID)  
 'We're in Moricetown.' (LW)

Consultant's comment: "The *gi* says that you weren't paying attention."<sup>5</sup>

- (6) *Context: One of my really good friends is having a dinner party on May 12. He told me about the dinner a while ago, and I told him I will not be there because I'm going up north that week. But he forgot, so he asks me:*

Friend: Dim 'witxw 'niin go'o=hl luu gwendins-'y  
 PROSP arrive 2SG.III LOC=CN in party-1SG.II  
 e=hl May 12=aa?  
 PREP=CN May 12=YNQ  
 'Are you coming to my dinner party on May 12?'

Me: Nee, dim daa'whl 'nii'y go'o=hl gigeenix  
 NEG PROSP leave 1SG.III LOC=CN Gigeenix  
 e=hl ganootxw tust(=gi).  
 PREP=CN week DEM.PROX(=PR.EVID)  
 'No, that week I'm going up north (to Gigeenix territory).' (VG)

Consultant's comment: "Yeah. Previously mentioned you can use *gi*."  
 [Researcher: "If I hadn't mentioned it before, could I use *gi*?"] "The first time you don't need it. No."

A second subset of repetition cases involve scenarios where the addressee has expressed disbelief and the speaker repeats herself for that reason. An example of this type is given in (7).

- (7) *Context: Jack and Jill are at the library, reading books about animals. Jill is reading about the Chinese water deer.*

Jill: Wan=hl 'win-am=hl wan goo=hl China(#=gi)  
 sit.PL=CN tooth-ATTR=CN deer LOC=CN China(#=PR.EVID)  
 'There are toothed deer in China.'

Consultant's comment about *gi*-version: "I would say no; it's like when

<sup>5</sup> In a similar vein, BS comments in another context that *gi* "can be used as like a snarky way of saying 'I told you!'" And HH comments about *gi* in a forgetting context that "That means he better not forget again. When you put the *gi* on, it's like screaming at him, but you're not really."

you have to convince somebody.”

Jack: Nee=dii=n      sim-e-din=hl      he-n!  
NEG=FOC=1SG.I    true-say-CAUS2=CN    say-2SG.II  
‘I don’t believe you!’

Jill: Nee! Ap    lukw'il    wan=hl    'win-am    wan    goo=hl  
NEG    ¬PPS    very      sit.PL=CN    tooth-ATRR    deer    LOC=CN  
China=**gi**.  
China=**PR.EVID**

‘No! Deer with teeth do live in China.’ (BS)

Consultant’s comment: “She could use the *gi* to emphasize to him that she’s right.”

A third set of repetition uses of *gi* is where the addressee did not hear the information the first time it was uttered. Examples of this are given in (8) and (9).

(8) Mary: Hats'-d-i=hl      us=hl      duus.  
bite-T-TR=CN      dog=CN      cat  
‘The dog bit the cat.’

John: Gwi?  
what  
‘What?’

Mary: Hats'-d-i=hl      us=hl      duus=**gi**!  
bite-T-TR=CN      dog=CN      cat=**PR.EVID**  
‘The dog bit the cat!’ (BS)

(9) Context: T.J. has asked Serena what her name is.

Serena: Serena=hl    wa-'y(#=**gi**).  
Serena=CN    name-1SG.II(#=**PR.EVID**)  
‘My name is Serena.’

T.J.: Guu? Nee=dii=n      lax'ni=hl    he-n.  
what    NEG=FOC=1SG.I    hear=CN    say-2SG.II  
‘What? I didn’t hear what you said.’

Serena: Serena=hl    wa-'y=**gi**.  
Serena=CN    name-1SG.II=**PR.EVID**  
‘My name is Serena.’ (LW)

The consultant for (9) rejects *gi* when Serena tells T.J. her name for the first time, commenting that using *gi* the first time is “rude”, “like insinuating I don’t have all my faculties. And that how dare I not remember something.” However, *gi* is fine in Serena’s second sentence, as T.J. didn’t hear the

information the first time. LW comments that in the repeated sentence, “It’s re-emphasizing her name. Not being sarcastic.” Another consultant, RJ, spontaneously commented “That’s when you use *gi*, when people are hard of hearing.”<sup>6</sup>

Summarizing so far, prototypical contexts for *gi* in declarative clauses are where the speaker is asserting information that the addressee had prior exposure to (whether they have forgotten, didn’t believe it the first time, or failed to hear). With the two exceptions noted in footnote 6, *gi* is consistently accepted by our speakers in all these contexts.

We also see a ‘prior knowledge’ effect when *gi* appears in interrogatives. An example of this was given in (1) above, in which *gi* appears in the question because the speaker knew the answer before. A similar point is made by the minimal pair in (10)–(11). The consultant judges that *gi* is acceptable in Katie’s question if she had known before when the next full moon is and temporarily forgot (10), but not if she never knew the answer (11).

- (10) *Context: Katie wants to know when the full moon is. She knew when it is, but she temporarily forgot.*

Dax    gwi    dim    hoo    luu    mitxw    hloxs-im    axxw(=**gi**)?  
 when    what    PROSP    again    in    full    sun-ATTR    night(=**PR.EVID**)  
 ‘When is the next full moon?’ (BS)

- (11) *Context: Katie wants to know when the full moon is. She never had any idea when it is.*

Dax    gwi    dim    hoo    luu    mitxw    hloxs-im    axxw(#=**gi**)?  
 when    what    PROSP    again    in    full    sun-ATTR    night(#=**PR.EVID**)  
 ‘When is the next full moon?’ (BS)

Similarly in (10), *gi* is acceptable if the questioner has forgotten an answer they previously knew, but is not acceptable in an out-of-the-blue question.

- (12) *Context: Adam and Bill meet up, and across the room they see a woman who Adam has never seen before. Adam asks Bill:*

# Naa=hl    we=hl    hanak’    tus=**gi**?  
 who=CN    name= CN    woman    DEM.DIST=**PR.EVID**  
 ‘What is that woman’s name?’ (HH)

Consultant’s comment: “If Adam forgot. When you put that, it means he

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<sup>6</sup> However, another consultant, HH, rejected *gi* in a failure-to-hear scenario on one occasion, and VG states that *gi* does not appear in the first repetition after a failure to hear, but only after a time lapse or after several repetitions. For VG, *gi* is systematically licensed by forgetting – as shown in (6) – but not by failure to hear. Further research is required into this variation; it could be that for some speakers, an addressee who did not hear the information is judged as not having been exposed to it. It could also be that for some speakers, there needs to be a longer time-span between the initial mention and the *gi*-sentence.

forgot.”

Interestingly, *gi* is licensed in questions by prior knowledge not just on the part of the speaker – as in (1) and (10) – but also of the addressee. And it can be either the answer, or the question, which was previously known. In (13), *gi* is accepted because the addressee had heard the question before, but forgot it.

(13) A: Nde win jog-an?  
where COMP live-2SG.II  
‘Where do you live?’

B: T'eg-i'y=hl guu=hl gidax-n.  
forget-1SG.II=CN what=CN ask-2SG.II  
‘I forgot what you asked.’

A: Nde win jog-an(=**gi**)?  
where COMP live-2SG.II(=**PR.EVID**)  
‘Where do you live?’

(VG)

Just like with assertions, *gi* in questions is licensed not only by forgetting, but also by not hearing, at least for some speakers. In (14), A repeats his question because B did not hear it the first time.

(14) *Context: At a noisy bar.*

A: Naa=hl wa-n?  
who=CN name-2SG.II  
‘What’s your name?’

B: Gwi? Nee=dii=n lax'ni=hl he-n!  
what NEG=FOC=1SG.I hear=CN say-2SG.II  
‘What? I didn’t hear what you said!’

A: Naa=hl wa-n=**gi**?  
who=CN name-2SG.II=**PR.EVID**  
‘What’s your name?’

(BS)

*Gi* is also licensed in interrogatives when a third person repeats a question that was not heard. This is shown in (15), where Clarissa fails to hear T.J.’s question and Katie repeats it.<sup>7</sup>

(15) *Context: T.J., Katie, and Clarissa are in the room together. Clarissa has recently returned to Vancouver from Toronto.*

T.J.: Dax guu jiswihl gukws 'witxw-in e=hl Vancouver?  
when what when return arrive-2SG.II PREP=CN Vancouver  
‘When did you return to Vancouver?’

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<sup>7</sup> BS gave parallel judgments on this example, modulo dialectal pronunciation differences.

C: Guu? Nee=dii=n      nax'ni=hl he-n!  
 what NEG=FOC=1SG.I hear=CN say-2SG.II  
 'What? I didn't hear what you said!'

K: Dax guu jiswihl      gukws      'witxw-in=**gi**?  
 when what when      return      arrive-2SG.II=**PR.EVID**  
 'When did you return?' (VG)

Consultant's comment: "That's when you repeat and then you use [*gi*]."

This use of *gi* to repeat a third person's question is reminiscent of the behaviour of the Cuzco Quechua reportative evidential, which is shown by Faller (2002) to be felicitous when somebody is reporting (i.e., repeating) somebody else's question. We return to this in Section 3.6.

The preceding data illustrated cases where the question is old information, for whatever reason. The example in (16) is a case where it's the *answer* which should already be known by the addressee. We see that *gi* is felicitous here as well.

(16) *Context: The teacher teaches the children that 'our lands' is called 'lax yip'. The next day she gives them a quiz and asks:*

Gwi dip si-wa-di=hl      'our lands'=**gi**?  
 what 1PL.I CAUS1-name-T=CN 'our lands'=**PR.EVID**  
 'What do we call 'our lands'' (BS)

Consultant's comment: "Yeah, you could because she told them yesterday."

### 3.2 All-new contexts

In order to establish that *gi* is not merely *compatible* with repetition contexts, but *requires* some kind of prior knowledge, we need to establish that *gi* is rejected in situations where the information is brand new. For the reasons mentioned in Section 1.2 above, it is sometimes difficult to obtain clear and consistent rejections of *gi*. Speakers could, for example, always (perhaps subconsciously) enrich the context to infer that there was some prior knowledge. However, we do detect a difference in the acceptability status of *gi* in new-information contexts as opposed to prior-evidence contexts. For example, in (17) the consultant rejects *gi* unless the students have known the answer before.

(17) *Context: A classroom, somewhere in the United States. The children know nothing about Gitksan territory. The teacher hands them all a map of Gitksan territory and is trying to see whether they can read the map to work out what the name of a river is. She asks:*

Guu=hl aks galksi      bax-t      ga'a=hl      lax yip=hl  
 what=CN water through run=3.II LOC=CN on land=CN  
 Gitksen(=#**gi**)?  
 Gitksan(=#**PR.EVID**)

‘What river runs through Gitksan territory?’ (HH)

Consultant’s comment: “When you put *gi* on there, they’ve already known it before ... Not if they didn’t know it before.”

In (12) above, we saw that the consultant rejects *gi* if it is the first time Adam asks Bill the woman’s name. This result was confirmed with another speaker; as shown in (18), VG also rejects *gi* on Bill’s answer if it is the first time the information is given. This is evidence that *gi* is not merely compatible with prior knowledge contexts, it enforces them. (Note also that although Bill has prior evidence here, this is not sufficient to license *gi* in Bill’s answer. We return to this pragmatic bias towards address knowledge in Section 4.3.)

(18) *Context: Adam and Bill meet up, and across the room they see a woman. Adam knows that Bill knows who she is.*

Adam: Naa=hl we=hl hanak'(#=gi)?  
who=CN name=CN woman(#=PR.EVID)  
‘What’s the woman’s name?’

Bill: Daphne=hl we-t(#=gi).  
Daphne=CN name-3.II(#=PR.EVID)  
‘Her name is Daphne.’ (VG)

Often, the effect of a new-information context is revealed primarily by consultant comments. In (19), for example, the consultant finds a way for the utterance to be acceptable, but her comment reveals that the speaker of the sentence must be incorrectly assuming he is not really in an out-of-the-blue context. This is consistent with our generalization about *gi*.

(19) *Context: A stranger comes up to me on the street. We’ve never spoken before. He says:*

# Yukw dim ha-'nii-sgyad-i'y t'aahlakw=gi.  
IPFV PROSP INS-on-be.born-1SG.II tomorrow=PR.EVID  
‘It’s my birthday tomorrow.’ (BS)

Consultant’s comment: “No. But if he was telling a complete stranger he might use *gi* – maybe he thinks he knows you.”

In (20), we again see that the speaker appears to accept *gi* in a new-information context (in this case, a context where the speaker is answering a question they have just been asked for the first time). However, the comment reveals that the consultant understands the speaker to be suggesting that the addressee should know the information already.

(20) *Context: Lisa is married to Henry. T.J. asks her:*

T.J.: Naa=hl siip'-in-in?

who=CN like-CAUS-2SG.II  
'Who do you love?'

Lisa: Henry=**gi**.  
Henry=**PR.EVID**  
'Henry.' (LW)

Consultant's comment: "It's like 'How could you not know that it's Henry?'"

In the context in (20), the addressee (T.J.) knows that Lisa and Henry are married, so it is not a solid new-information context. In a minimally different context where the interlocutors are strangers, *gi* is predictably rejected, as shown in (21).

(21) *Context: Peter and Jack are strangers to each other.*

Peter: Naa=hl siip'-in-in?  
who=CN like-CAUS-2SG.II  
'Who do you love?'

Jack: # T=Jill=hl siip'-in-i'y=**gi**.<sup>8</sup>  
DM=Jill=CN like-CAUS-1SG.II=**PR.EVID**  
'Jill is the one I love.' (BS)

Examples (22)–(23) are a minimal pair illustrating the contrast between a situation where the addressee had no prior knowledge, and where they did. We see that *gi* is rejected in the former case, but accepted in the latter.

(22) *Context: We're at Totem Field Studios (the UBC Linguistics Department) and it's Katie's baby shower! An SFU undergrad who is thinking about applying to the UBC linguistics program opens the door and sees the party.*

Student: Yukw=hl gwi-si'm?  
IPFV=CN what-2PL.II  
'What are you guys doing?'

Katie: Yukw dip jap=hl sii-sgyad-im party  
IPFV 1PL.I do=CN new-be.born-ATTR party  
(loo-'y)(#=**gi**)!  
(OBL-1SG.II)(#=**PR.EVID**)  
'We're having a baby shower!' (BS)

Consultant's comment: "If he asks just after opening the door and seeing something going on, no *gi*."

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<sup>8</sup> The initial determinate marker *t* in Jack's reply is optional for BS, and would not be present for HH or VG.

(23) Context: As in (22), except instead of some random SFU student, it's Katie's husband Luke who wasn't at the baby shower, and only came to UBC because he locked himself out of the house and thought he'd be able to swing by the department and pick up the keys. Luke says:

Luke: Yukw=hl gwi-si'm?  
 IPFV=CN what-2PL.II  
 'What are you guys doing?'

Katie: Yukw dip jap=hl sii-sgyad-im party  
 IPFV 1PL.I do=CN new-be.born-ATTR party  
 (loo-'y)(=**gi**)!  
 (OBL-1SG.II)(=**PR.EVID**)  
 'We're having a baby shower!' (BS)

Consultant's comment: "The more I think about it you definitely use the *gi*. 'See we're making a party for your baby, y'know.'"<sup>9</sup>

Here is one more minimal pair showing the effect of prior knowledge in licensing *gi*. The same sentence with *gi* is rejected when it is the first answer to a question, but accepted when it is repeated.

(24) A: Gwi dim wi-n hiihluxw t'aahlakw?  
 what PROSP LV-2SG.II morning tomorrow  
 'What are you doing tomorrow morning?'

B: Yug=uma dim yee-'y goo=hl sbagayt  
 IPFV=EPIS PROSP go-1SG.II LOC=CN together  
 gan(#=**gi**).  
 tree(#=**PR.EVID**)  
 'I might go for a walk in the forest.'

Consultant's comment: "The *gi* would be there if he's answering for at least a second time."

A: Nee=dii=n lax'ni=hl he-n=gi.<sup>10</sup>  
 NEG=FOC=1SG.I hear=CN say-2SG.II=PR.EVID  
 'I didn't hear what you said.'

B: Yug=uma dim yee-'y goo=hl sbagayt

<sup>9</sup> BS frequently volunteers the comment that *gi* translates into English as 'y'know'.

<sup>10</sup> This is not a prototypical use of *gi*, since the addressee does not have prior knowledge of the proposition 'I didn't hear what you said.' It is however parallel to other cases where prior speaker knowledge alone is apparently sufficient to license *gi*; cf. (25) and (26) below. When asked about the presence of *gi* in A's utterance in (24), the consultant says that *gi* makes it more polite.

IPFV=EPIS    PROSP    go-1SG.II    LOC=CN    together  
gan(=**gi**).  
tree(=**PR.EVID**)  
‘I might go for a walk in the forest.’ (BS)

In summary, there is clear evidence that *gi* requires some kind of prior knowledge on the part of at least one interlocutor.

### 3.3 Prior evidence for the speaker only

We have seen so far that prototypical contexts for *gi* in declaratives include cases where the addressee is hearing the information for the second (or subsequent) time (if the addressee has forgotten, or is disbelieving, or has not heard). In the data seen so far (with the one exception noted in footnote 10), *gi* in declaratives is rejected if the information is completely new to the hearer. Based on these facts alone, it seems like *gi* in assertions could be restricted solely by a requirement for prior evidence for the addressee. This would differ from the situation in interrogatives, where we have seen that either the speaker or the addressee having had prior information is sufficient to license *gi*.

However, there are data which show that even in declaratives, we cannot tie the effect of *gi* solely to the addressee. There are cases where *gi* is accepted or produced even when the information is completely new to the hearer, as long as the information is based on prior evidence on the part of the speaker. Consider, for example, (25)–(26).

(25) *Context: I was in Gitksan territory last winter and I felt that it was really cold. Katie is going there now and asks me what the weather is like in winter there. I say:*

Lukw'il    sak=**gi**.  
very        cold=**PR.EVID**  
‘It’s very cold.’ (VG)

Consultant’s comment: “If she knew you’d been there, yeah.”

(26) *Context: As in (25).*

Ap        lukw'il    sak    goo=hl    lax    yip    tust=**gi**.  
¬PPS    very        cold    LOC=CN    on    land    DEM.DIST=**PR.EVID**  
‘It’s very cold in the territory.’ (BS)

Consultant’s comment: “You wanna add the *gi* because you’re telling her for the second time?” [Researcher: “No.”] “Well, you could say that just for emphasis.”

In both (25) and (26), the consultants make a comment which alludes to prior addressee knowledge, but nevertheless in both cases they accept the *gi*-sentence in the absence of such knowledge. (In (25), the addressee may know that the speaker has been to Gitksan territory before, but she crucially does not

know the proposition to which *gi* attaches, namely that it is cold in the territory in winter.) Our interpretation of these facts is that while *gi* in assertions is strongly biased towards signalling addressee prior knowledge, speaker prior knowledge can suffice. We return to a possible explanation for the strong bias towards addressee knowledge in Section 4.3.

### 3.4 Evidence time must be before utterance time

In this sub-section we present data to show that *gi* crucially relies on evidence which was obtained prior to the utterance time, and therefore is rejected when the evidence obtains at the utterance time. This is true whether it is speaker or addressee evidence which is invoked.

Consider again (25)–(26) from the preceding sub-section, which we presented to show that speaker prior knowledge is sufficient to license *gi*. In these sentences, *gi* becomes bad if the evidence is not obtained before the utterance time, but instead holds at the utterance time. This is shown in (27). Both VG and BS accept and volunteer other versions of this sentence, either with no sentence-final particle or with *ist* (the ‘question under discussion downdate’ particle; Matthewson 2015). With *gi*, it is rejected. This is because the speaker is just now experiencing the cold for the first time.

(27) *Context: I am in Gitksan territory in winter for the first time. I land and get out of the plane and the air is cold. I call my husband on my cellphone and say:*

#	Uuu,	lukw'il	sak(= <b>gi</b> ).	
	oh	very	cold(= <b>PR.EVID</b> )	
	‘Oh, it’s very cold.’			(VG)

#	Ap	lukw'il	sak= <b>gi</b> . <sup>11</sup>	
	¬PPS	very	cold= <b>PR.evid</b>	
	‘It’s very cold.’			(BS)

The contrast between (25)–(26) and (27) suggests that *gi* is only felicitous when the evidence for the assertion was obtained prior to the utterance time.

The same point is made, this time with respect to addressee prior knowledge, by the triplet in (28)–(30). In (28), *gi* is felicitous in both question and answer because the information about the capital of Canada was taught earlier that day. In (29), *gi* is rejected, because the question comes out of the blue. And in (30), *gi* is rejected if the children are presently looking at the maps while the teacher asks them, but becomes good if they have put away the maps and are working from memory.

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<sup>11</sup> BS requires the Question Under Discussion downdate particle *ist* in this sentence, because “You know he wants to know if it’s really cold.”

(28) *Context: The teacher had taught the children what the capital of Canada is in the morning. In the afternoon she checks to make sure they remember the lesson from the morning.*

Teacher: Nde=hl      miinhlgalts'ep=hl      Canada=**gi**?  
                   where=CN    main.village=CN      Canada=**PR.EVID**  
                   ‘What is the capital of Canada?’

Student: Ottawa=**gi**.  
                   Ottawa=**PR.EVID**  
                   ‘It’s Ottawa.’ (VG)

(29) *Context: Following up on (28), the teacher has a bonus question. She has never talked about it before, but she asks the students:*

# Nde=hl      miinhlgalts'ep=hl      Australia=**gi**?  
                   where=CN    main.village=CN      Australia=**PR.EVID**  
                   ‘What is the capital of Australia?’ (VG)

Consultant’s comment: “No. Not if she hadn't mentioned it.”

(30) *Context: Now the teacher is asking about capitals in Africa. She passes out maps of Africa and says “Okay, everyone let's look at Kenya.” Then she asks the students:*

# Nde=hl      miinhlgalts'ep=hl      Kenya=**gi**?  
                   where=CN    main.village=CN      Kenya=**PR.EVID**  
                   ‘What is the capital of Kenya?’ (VG)

Consultant’s comment: “Putting away the maps, yeah. If you’re not looking at it then yes. It’s memory.”

A further question is whether *gi* requires some prior *personal* evidence by an interlocutor, or whether common or general knowledge is sufficient. This issue frequently arises in the evidentials literature, and it could potentially be relevant for *gi*. For example, Faller (2002, 2011) argues that the Cuzco Quechua ‘direct’ evidential =*mi* actually marks the ‘best possible grounds’ a speaker can have for an utterance. She further argues that the best possible grounds may include propositions which were obtained by general knowledge rather than personally witnessed. On the other hand, some evidentials are specialized for sensory evidence and are incompatible with general knowledge (e.g., St’át’imcets (Lillooet Salish) *lákwa*; Matthewson 2011, 2012).

Further research is required into this issue with *gi*, but our preliminary results suggest that for at least one speaker, common knowledge is not sufficient. VG displays a clear difference in judgment between (25), where the speaker personally witnessed the cold weather, and (31), where the claim relies on common knowledge. However, BS accepts (32). These results are preliminary.

- (31) *Context: I'm packing to go to Antarctica and T.J. asks me a silly question: 'Why are you packing warm clothes?' I answer:*

E=hl          win   sak=gat   go'o=hl   Antarctica(=#gi).  
 PREP=CN   COMP cold-REP   LOC=CN   Antartica(=#PR.EVID)  
 'It's cold in Antarctica.'  
 (VG)

- (32) *Context: as in (31).*

Ap          lukw'il   sak   goo=hl   Antarctica(=#gi).  
 -PPS   very   cold   LOC=CN   Antarctica(=#PR.EVID)  
 'It's very cold in Antarctica.'  
 (BS)

Consultant's comment: "Is she saying it more than two times now?"

[Researcher: "No."] "It's good because you're just making a statement, but it's emphasized by the *gi*."

There is also evidence that a *gi*-interrogative is not felicitous when the answer will be based on pure guesswork. In (33), *gi* is acceptable if Bob had some prior evidence about where the pinecone is (as we expect), but (34) shows that *gi* is rejected if Bob is merely guessing and did not witness where the pinecone went.

- (33) *Context: Adam and Bob are playing a game. The table between them has three boxes; you cannot see inside the boxes. Adam shows Bob a pinecone, and while Bob is watching he puts the pinecone into one of the boxes. Adam and Bob have a conversation, and five minutes passes. Then Adam asks Bob:*<sup>12</sup>

Nde=hl          win   luu   sgi=hl   meek=gi?  
 where=CN   COMP in   lie=CN   pinecone=PR.EVID  
 'Where is the pinecone?'  
 (VG)

- (34) *Context: Adam is running a sort of gambling game. Bob has to pay Adam \$1 to play this game. He has to randomly guess which box Adam put the pinecone in. And if he's right he wins \$5. Bob closes his eyes, Adam puts the pinecone in one of the boxes, then Bob opens his eyes. Adam asks Bob:*

Nde=hl          win   luu   sgi=hl   meek(=#gi)?  
 where=CN   COMP in   lie=CN   pinecone(=#PR.EVID)  
 'Where is the pinecone?'  
 (VG)

### 3.5 The flexibility of *gi*

So far, we have seen that *gi* requires some information to have been available to at least one interlocutor, prior to the utterance time. This is the case both in declaratives and in *wh*-interrogatives. In this section we present data which show

<sup>12</sup> This is also an acceptable question even without five minutes passing, if Bob is known by Adam to have an extremely bad short term memory.

that *gi* is flexible with respect to exactly what must be already known.

First, observe that it is not the case that *gi* in a declarative sentence requires *gi*'s prejacent proposition to be already known. We see this in (35), which is a continuation of the forgetting scenario in (12) above. While the *gi* in Bill's answer is entirely expected (Bill is repeating information he had previously told Adam), the *gi* in Adam's question is not as straightforward, because the fact that Adam forgot the name is not actually old information.

(35) *Context: Adam and Bill meet up, and across the room they see a woman. Adam asks Bill the woman's name, and he tells her. But Adam forgets it after a while.*

Adam: T'eg-i'y=hl      we=hl    hanak'    tus=**gi**.  
 forget-1SG.II=CN name=CN woman    DEM.DIST=**PR.EVID**  
 'I forgot the woman's name.'

Bill: Daphne=hl    we=hl    hanak'    tus=**gi**.  
 Daphne= CN name=CN woman    DEM.DIST=**PR.EVID**  
 'The woman's name is Daphne.' (HH)

This usage is vaguely reminiscent of English restitutive *again*, where for example 'John opened the door again' does not entail that the door was opened before (let alone by John), but only that it had previously been in an open position (perhaps it was built that way; see von Stechow 1996, a.o.). Similarly in (35), it is not old information that Adam forgot the name, but it is old information that he is in a state of needing to know the name.

A slightly different example, although again with the predicate *t'ak* 'forget', is given in (36).<sup>13</sup> The presence of *gi* does not signal that the speaker forgot the berries before. The old information was that they were supposed to *buy* the berries.

(36) *Context: I'm having a party tomorrow. And I'm in charge of the catering and I promised that I would bring huckleberries. And then tomorrow comes and I tell everyone:*

T'ag-i'y      dim      sgals    sim    maa'y ky'oots=**gi**.  
 forget-1SG.II    PROSP    buy    real    berry    yesterday=**PR.EVID**  
 'I forgot to buy the huckleberries yesterday.' (BS)

Consultant's comment: "Having the *gi* just emphasizes what you're saying. It's like if you say I forgot to bring berries yesterday, y'know, see."

In short, *gi* requires *some* relevant information to be prior knowledge, but there is flexibility in what exactly needs to be already known.

### 3.6 No commitment to the speech act

<sup>13</sup> Recall from Section 1.3 that the final consonant of *t'ak* voice before a vowel.

In (15) above, repeated here as (37), we saw an interesting case where *gi* can be used in a repeated question, even when the person using *gi* was not the original asker, and may not even want to know the answer themselves.

(37) *Context: T.J., Katie, and Clarissa are in the room together. Clarissa has recently returned to Vancouver from Toronto.*

T.J.: Dax guu jiswihl gukws 'witxw-in e=hl  
 when what when return arrive-2SG.II PREP=CN  
 Vancouver?  
 Vancouver  
 'When did you return to Vancouver?'

C: Guu? Nee=dii=n nax'ni=hl he-n!  
 what NEG=FOC=1SG.I hear=CN say-2SG.II  
 'What? I didn't hear what you said!'

K: Dax guu jiswihl gukws 'witxw-in=gi?  
 when what when return arrive-2SG.II=PR.EVID  
 'When did you return?' (VG)

As mentioned above, Faller (2002) notes a similar ability of the Cuzco Quechua reportative evidential to appear in questions being repeated on behalf of a third person. A Quechua example is given in (38).<sup>14</sup>

(38) *Context: Martina asks the consultant's sister a question, which the sister does not hear. The consultant repeats Martina's question.*

Martina: Imayna-ta-n ka-sha-nki  
 how-ACC-BPG be-PROG-2  
 'How are you?'

Consultant: Imayna-s ka-sha-nki  
 how-ACC-REP be-PROG-2  
 '(She says) How are you?' (Faller 2002:233)

Faller argues that the Cuzco Quechua reportative is an illocutionary operator which can scope over other illocutionary operators, such as a question operator. In (38), the consultant reports that Martina had asked 'How are you?' The consultant is not herself performing a speech act of questioning.

With *gi*, a similar effect may arise in declarative sentences as well. In (39), Adam asks Bill a question, Bill answers, Adam doesn't hear, and Charlie repeats Bill's answer but then indicates that he doesn't himself believe it. Example (40) is a similar case, with forgetting rather than not hearing.

(39) Adam: Naa=hl wa=hl hanak'?  
 who=CN name=CN woman

<sup>14</sup> Faller (2007) gives a slightly different version of the same example.

‘What’s the woman’s name?’

Bill: Daphne=hl wa-d=ist.  
Daphne=CN name-3.II=QUDD  
‘Her name is Daphne.’

Adam: Gwi? Nee=dii=n lax'ni=hl he-n.  
what NEG=FOC=1SG.I hear=CN say-2SG.II  
‘What? I didn’t hear what you said.’

Charlie: Daphne=hl wa-t=**gi**, ii ap Erin=hl  
Daphne=CN name-3.II=**PR.EVID** CL.CNJ ¬PPS Erin=CN  
dii ap wa-t.  
FOC ¬PPS name-3.II  
‘Daphne is her name, but Erin is her name.’ (BS)

(40) Adam: Naa=hl we=hl hanak'?'  
who=CN name=CN woman  
‘What’s the woman’s name?’

Bill: Daphne=hl we-t.  
Daphne=CN name-3.II  
‘Her name is Daphne.’

*Time passes ...*

Adam: Oo t'eg-i'y=hl he-n. Naa=hl we=hl  
oh forget-1SG.II=CN say=2SG.II who=CN name=CN  
hanak'=**gi**?  
woman=**PR.EVID**  
‘Oh, I forgot what you said. What’s the woman’s name?’

Charlie: Daphne=hl we-t=**gi**. Oo Erin=hl we=hl  
Daphne=CN name-3.II=**PR.EVID** oh Erin=CN name=CN  
an-e-n.  
NMLZ-say-2SG.II  
‘Her name is Daphne. Oh you meant to say [lit. ‘you said’] her name  
is Erin.’ (VG)

These uses have in common that the speaker of the *gi* utterance does not themselves perform the relevant speech act. As mentioned, in (37), Katie is not herself asking when Clarissa returned, and in (39)–(40), Charlie is not himself asserting that Daphne is her name. Nor is the speaker merely repeating a third person’s previous utterance verbatim, since they are adding *gi*. It seems that *gi*, like the Cuzco Quechua reportative, is able to take scope over either the ordinary semantic content of its prejacent, or over an entire speech act.

#### 4 Steps toward an analysis

This paper is the first targeted investigation of *gi* in the literature, and our main goal is to establish the core empirical generalizations about its function. We are not yet able to provide a formal analysis which derives all of *gi*'s properties, but in this section we take steps towards an eventual analysis. We begin by dismissing an analysis which will *not* work.

#### 4.1 Not a marker of past tense

As noted in Section 2, previous research has often claimed that *gi* enforces past tense. There are indeed data which seem to suggest a correlation with past tense, as for example in (41). VG construes the presence of *gi* here as indicating that the speaker no longer loves Jill; he judges that if Jack still loves Jill at the time of speech, *gi* is inappropriate.

(41) *Context: Jack speaking to Peter.*

Jill siip'-in-i'y=**gi**.  
 Jill like-CAUS-1SG.II=**PR.EVID**  
 'I loved Jill.' (VG)

Consultants will also often spontaneously translate sentences containing *gi* into past-tense English sentences, while the corresponding *gi*-less sentences are translated with present tense. An example of this is given in (42), where the English translations were provided by the consultant.

- (42) a. Yukw-t hats'-i=hl us=hl duus.  
 IPFV-3.II bite-TR=CN dog=CN cat  
 'The dog **is** biting the cat.'
- b. Yukw-t hats'-i=hl us=hl duus=**gi**.  
 IPFV-3.II bite-TR=CN dog=CN cat=**PR.EVID**  
 'The dog **was** biting the cat.' (BS)

Often, however, data which initially seem to support a past-tense analysis have another explanation. Consider (43)–(44). Here, VG judges that Aidan cannot use *gi* while the interlocutors are still at Anlaḵ, even if the sentence is being repeated due to Michael not having heard. He accepts *gi*, in both Michael's and Aidan's utterances, only if the conversation is taking place the next day. This looks like a past-tense effect, especially in light of the consultant's volunteered comment on (43).

- (43) Michael: Nde win 'wihl wil-i'm=si, Aidan?  
 where COMP around LV-1PL.II=PROX Aidan  
 'Where are we, Aidan?'
- Aidan: Yukw=hl win 'wihl wil-i'm go'o=hl Anlaḵ.  
 IPFV=CN COMP around LV-1PL.II LOC=CN Anlaḵ  
 'We are at Anlaḵ.'

Michael: Nee=dii=n      nax'ni=hl he-n!      Pdeld-in=hl  
 NEG=FOC=1SG.I    hear=CN    say-2SG.II    raise-2SG.II=CN  
 ame-n.  
 voice-2SG.II  
 'I didn't hear what you said! Say it louder.'

Aidan: Yukw=hl win 'wihl      wil-im      go'o=hl  
 IPFV=CN    COMP    around      LV-1PL.II    LOC=CN  
 Anlak(#=gi).  
 Anlak(#=PR.EVID)  
 'We are at Anlak.'  
 (VG)

Consultant's comment: "The *gi* is used to remind that we were there previously, we were talking about it previously. But if it's in the present you don't use it."

(44) *The next day after (43).*

Michael: T'ag-i'y      win      wil-i'm=gi.  
 forget-1SG.II    COMP    LV-1PL.II=PR.EVID  
 'I forgot where we were.'

Aidan: 'Wihl      wil      'nuu'm      go'o=hl      Anlak(=gi).  
 around      LV      1PL.III      LOC=CN      Anlak(=PR.EVID)  
 'We were at Anlak.'  
 (VG)

However, the contrast between (43) and (44) is expected anyway for this consultant, and does not motivate a past-tense analysis of *gi*. As we noted above, VG often rejects *gi* in a context where the utterance is repeated due to the addressee not having heard, but accepts it in a forgetting context (see footnote 6).<sup>15</sup>

Our claim that *gi* does not enforce past tense is supported by evidence that *gi* is possible in sentences which talk about present or future events. For example, (28), repeated here as (45), includes a present-tense assertion with *gi*, and (46) is another present-tense scenario.

(45) *Context: The teacher had taught the children what the capital of Canada is in the morning. In the afternoon she checks to make sure they remember the lesson from the morning.*

Teacher: Nde=hl      miinhlgalts'ep=hl      Canada=gi?  
 where=CN      main.village=CN      Canada=PR.EVID  
 'What is the capital of Canada?'

<sup>15</sup> In fact, there are indications that the 'forgetting' scenario does not always exclude *gi* for VG. The conversation in (43) was judged by him as felicitous with *gi* on a different occasion. Further investigation is required into this phenomenon; it could be that *gi* is undergoing a shift for some speakers.

Student: Ottawa=**gi**.  
 Ottawa=**PR.EVID**  
 ‘It’s Ottawa.’ (VG)

- (46) *Context: Michael and Aidan have been hiking. They take a break and they sit down to have a picnic. Michael doesn’t know where they are. While they’re sitting down, having their picnic, he asks:*

Nde wil 'wihl wil-i'm=**gi**, Aidan?  
 where COMP around LV-1PL.II=**PR.EVID** Aidan  
 ‘Where are we, Aidan?’ (VG)

Consultant’s comment: “Only if he had to repeat.”

With respect to future interpretations, (6), repeated here as (47), makes an assertion about a future event which contains *gi*, as does (48). Further indication that *gi* is acceptable in future sentences is given by the consultant’s comment in (49). The consultant rejects *gi* here due for an independent reason (the absence of prior evidence), but her comment reveals that *gi* is in principle fine when talking about the future.

- (47) *Context: One of my really good friends is having a dinner party on May 12. He told me about the dinner a while ago, and I told him I will not be there because I'm going up north that week. But he forgot, so he asks me:*

Friend: Dim 'witxw 'niin go'o=hl luu gwendins-'y e=hl  
 PROSP arrive 2SG.III LOC=CN in party-1SG.II PREP=CN  
 May 12=aa?  
 May 12=YNQ  
 ‘Are you coming to my party on May 12?’

Me: Nee, dim daa'whl 'nii'y go'o=hl Gigeenix  
 NEG PROSP leave 1SG.III LOC=CN Gigeenix  
 e=hl ganootxw tust(=**gi**).  
 PREP=CN week DEM.DIST(=**PR.EVID**)  
 ‘No, that week I'm going up north to Gigeenix territory.’ (VG)

- (48) *Context: I'm going to Chicago this summer, and I mentioned this to Aidan before. He forgets what I said, and he tells me he forgot. I say:*

Dim wil 'nii'y go'o=hl Chicago sint tun(=**gi**).  
 PROSP LV 1SG.III LOC=CN Chicago summer DEM.PROX(=**PR.EVID**)  
 ‘I’ll be in Chicago this summer.’ (VG)

- (49) *Context: We have not yet discussed my plans for tomorrow. You haven’t asked me yet what I’m doing tomorrow, and you don’t know what I usually do on that day of the week. You ask me:*

Gwi dim wi-n hiihluxw t'aahlakw(=#**gi**)?  
 what PROSP LV-2SG.II morning tomorrow(=#**PR.EVID**)

‘What are you doing tomorrow morning?’ (BS)

Consultant’s comment: “You can use *gi* if you had to say it another time ... You could have a *gi* if you had asked the question before.”

Interestingly, the cases where we have found *gi* to be acceptable when talking about the future all involve schedulable events, as in (47)–(49). Non-schedulable events, such as the weather, resist *gi*, as shown in (50). Here, the consultant rejects *gi* in Michael’s answer, even though it repeats information that T.J. was told before. We address this fact in the next sub-section.

(50) *Context: At 11am Michael says:*

Michael: Dim wis yuxwsa t'aahlakw.  
PROSP rain evening tomorrow  
‘It’s gonna rain tomorrow evening.’

T.J.: Nee=dii am!  
NEG=FOC good  
‘That’s not good!’

*Michael and T.J. go their separate ways. At 4pm they see each other again.*

T.J.: T'eg-i'y=hl he-n e=hl wila wi=hl  
forget-1SG.II=CN say-2SG.II PREP=CN manner COMP=CN  
wis=**gi**.  
rain=**PR.EVID**  
‘I forgot what you said about rain.’

Michael: Dim wis yuxwsa t'aahlakw(**#=gi**).  
PROSP rain evening tomorrow(**#=PR.EVID**)  
‘It’s gonna rain tomorrow evening.’ (VG)

#### 4.1.1 Deriving the past-tense effect

We just showed that *gi* is not restricted to sentences which talk about past events; we conclude from this that *gi* does not hardwire a requirement that the described event took place in the past. Any apparent past tense effects must be derived from the core meaning of *gi* (that at least one interlocutor had prior evidence for the proposition).

This will work roughly as follows, taking the dog-biting case in (42) as an example. If at least one interlocutor needs prior evidence for the dog-biting, it is very likely that the biting took place in the past. In fact, as shown in (27) (the case where I have just arrived in Gitksan territory and am experiencing the cold), the prior-evidence requirement of *gi* renders it infelicitous in contexts where the evidence for the utterance holds only at the utterance time. Given this, it follows that the consultant’s default translation of the *gi*-sentence of (42) will use an English past-tense verb.

What about the cases where *gi* is felicitous with present- or future-time

events, as for (45)–(49)? Notice that these contexts have the special property that there was past-time evidence for a present or future eventuality. In (45), the students learned earlier that the capital of Canada is Ottawa, and in (47)–(49) I had previously stated my future plans. And in (50), we suggest that the reason *gi* is infelicitous is because with un-schedulable events like rain, it is not possible to have obtained past evidence that they will occur.

Hence, our proposal that *gi* requires prior evidence accounts for both the fact that *gi* does not enforce past tense, as well as for the fact that it favours past tense as a default.

## 4.2 A marker of prior evidence

The core generalizations we have discovered about *gi* are listed in (51).

- (51) a. In **declaratives**, *gi* is licensed if at least one interlocutor had prior evidence for some salient proposition, usually the prejacent proposition to which *gi* attaches.

(Sub-cases: The addressee was told the proposition but forgot it; the addressee did not hear the previous utterance; the addressee did not believe the previous utterance; the speaker had prior personal evidence for the proposition.)

- b. In **interrogatives**, *gi* is licensed if at least one interlocutor had prior evidence for either the question or the answer.

(Sub-cases: The speaker is repeating the question due to the addressee's having forgotten it, or failed to hear it; the speaker expects that the addressee had prior evidence for the answer to the question; the speaker is re-asking the question because they knew the answer previously but have forgotten it; a third person is repeating someone else's question due to the addressee's not having heard it the first time.)

It is clear that there is a unifying core to the licensing contexts for *gi*, which we have roughly summarized as a 'prior evidence' requirement. We are, however, several steps away from being able to present a formal unified analysis which derives all of *gi*'s uses. Challenges include firstly the question of how to allow *gi* to be flexible about what is required to be already known (cf. discussion in Section 3.5), but not to be too flexible so as to over-generate. Another important challenge is how one might lexically encode the prior evidence requirement in a way which allows *gi* to attach compositionally to both declaratives and interrogatives, with the desired individual effects. It is also challenging to compositionally derive the flexible effect of *gi* in interrogatives. The fact that *gi* allows prior evidence of *either* the question *or* the answer already poses difficulties, let alone the fact that *gi* allows a 'speech act' reading whereby the questioner is merely reporting somebody else's question.

For these reasons we have to delay a formal analysis till some future time. In the next sub-section we will nevertheless sketch how one might derive the fact that *gi* strongly prefers the prior evidence requirement to target the addressee, but nevertheless allows speaker prior evidence to be sufficient in

some contexts.

### 4.3 Deriving the addressee bias

Suppose that we are correct in claiming that *gi* requires prior evidence on the part of at least one interlocutor for the speech act being performed. How might we then account for the bias towards *gi* being used only when the *addressee* has prior evidence? We would like to propose that this preference falls out from Gricean reasoning and from standard assumptions about the felicity conditions on assertions (cf. Stalnaker 1978).

If a speaker is asserting a proposition *p*, the default assumption (by Grice’s Quality maxim) is that she has sufficient evidence for *p*. And simple world knowledge dictates that she obtained her evidence before she began to speak. So we propose that the prior evidence constraint, if applied to the speaker, achieves little beyond duplicating the existing conditions on the assertion of *p*. For this reason, *gi* is used mostly to signal *addressee* evidence. However, *gi* can also be used to signal speaker evidence, and this is naturally more likely to happen when for some reason, the speaker wishes to emphasize that they had prior evidence for their utterance.

This approach predicts that *gi* will be perceived as having an emphatic effect when it signals only speaker evidence. This appears to be correct, based on consultant’s comments during elicitation sessions. For example, BS frequently summarizes her views on *gi* by means of a disjunctive definition, highlighting either the prior-knowledge effect or an emphasis effect. Thus, she comments that “We use *gi* for emphasis or to show that we’re repeating ourselves.” On another occasion BS commented that “The *gi* is for repeating yourself or ‘That’s what happened.’” And in (52), a case where *gi* signals only speaker prior evidence, she spontaneously mentions the emphatic effect.

(52) *Context: An answer to (11) above. Katie has asked Michael when the next full moon is; she has never had any idea when it is. He replies:*

Dim	luu	mitxw	hloxs-im	axxw	ji	hlaa	
PROSP	in	full	sun-ATTR	night	IRR	INCEP	
	xwsdins	sa= <b>gi</b> .					
	five	day= <b>PR.EVID</b>					

‘The full moon will be in five days.’ (BS)

Researcher: “And he’s not reminding her?”

Consultant: “No, he’s just emphasizing. Sometimes it’s just used to emphasize.”

We predict that whenever *gi* indicates only speaker evidence, there will be an emphatic effect. Further testing is required to establish whether this is upheld.

## 5 Investigating *gi* in stories and conversation

Investigating discourse-dependent markers based on corpus data is fraught with

difficulty. It is often extremely difficult to determine what licensed a particular marker found in a narrative or conversation; one can often only guess. Another major problem is the absence of negative evidence. The researcher does not know whether an utterance containing the marker in a discourse would have been felicitous without it, or whether an utterance lacking the marker in a discourse would have been felicitous with it. Obviously, one also cannot extract from a corpus information about how the meaning would have been altered, were the marker to be inserted or deleted.

Nevertheless, it is important to at least attempt to test our empirical generalizations on spontaneous data. In this section we report on some preliminary findings based on seven stories told by VG, and on one conversation between BS and VG. We do find evidence which supports our generalizations. We also find a number of cases of *gi* where it is difficult to tell why it appears. There may be an emphatic effect, but this information is not extractable from the corpus itself.

In (53), taken from the conversation, we have a case where *gi* may well be licensed because BS is assuming that VG knows the information already. Alternatively (or as well), *gi* may be licensed here because Walter is dead (cf. Tarpent's translation of (4) above).

- (53) BS: Ii            'nit=hl            k'uuhl wil            hetxw=hl gya=hl  
                  CL.CNJ    3SG.III=CN    year    COMP            stand=CN pierce=CN  
                  gan-s            Walter=**gi**,            Geel.  
                  tree-PN        Walter=**PR.EVID** Geel  
                  'And that was the year when they raised Walter's, Chief Geel's,  
                  totem pole.'

BS: Nee-m            amgood=aa?  
                  NEG-2SG.I        remember=YNQ  
                  'Do you remember?'

Example (54), from the same conversation, is a case where *gi* appears in a question because the speaker knew the answer before, but has forgotten it.

- (54) Ii            hlaa            Friday    ii            bakw=hl            hlogots'uu-diiit,  
                  CL.CNJ    INCEP    Friday    CL.CNJ    arrive.PL=CN    other-3SG.II  
                  sim'oogit Alice Jeffrey,    naa=hl    wa=hl    hanak'=**gi**,  
                  chief    Alice Jeffrey    who=CN    name=CN    woman=**PR.EVID**  
                  Benson,    Rena Benson  
                  Benson,    Rena Benson  
                  'And on Friday, the others came, chief Alice Jeffrey (what's the woman's  
                  name?), Benson, Rena Benson, ...' (BS)

In (55) there is no obvious reason why *gi* is used – that is, there is no reason to suppose that this is repeated information for the addressee – so perhaps *gi* is licensed here only by the fact that the speaker had prior evidence for the relevant proposition. As outlined above, we predict that *gi* has an emphatic effect here,

but this is impossible to confirm (or deny) based on the transcription of the conversation.

(55) BS: Ii            'nit=hl            wil-i'y,            hlis=hl            graduate-'y,  
           CL.CNJ    3SG.III=CN    LV-1SG.II    COMPL=CN    graduate-1SG.II  
           'And that's what I did, I already graduated.'

[overlapping:]

BS: Hlis-hlisxw-'y            ii—  
           COMPL-COMPL-1SG.II    CL.CNJ  
           'And I finished—'

VG: Ii            dii            hlis            galksa-x-hl-xw-in.  
           CL.CNJ    FOC    COMPL    through-mouth-?-PASS-2SG.II  
           'And you got through (it).'

BS: Ii            am            wila            daa'wihl  
           CL.CNJ    good    MANNER    leave  
           sa-goot-xw-i'y=**gi**.  
           CAUS1-heart-PASS-1SG.II=**PR.EVID**  
           'And my plan went very well.'

The preceding examples were all from the conversation. The relative frequency of *gi* in conversation is in line with consultants' comments that *gi* is informal. For example, BS states that *gi* would not be used in a speech at a feast, because such speeches are formal, while *gi* is "conversational". LW similarly comments that *gi* "puts it in the informal", and that *gi* is "casual".

In narratives, *gi* has more variable frequency. The stories in Smith (2004) contain many *gis*, but the instances of it in seven stories by VG can be counted on the fingers of one hand. Here is one example of *gi* from the story 'War with the Jits'aawit'. It is unclear why *gi* is present here. It could be either that the information is judged to be already known by the addressee, or it could be an emphatic usage.

(56) Sim    luu    tk'al            good-in-diiit=hl            Jits'aawit    go'o=hl  
           true    in    against    heart-CAUS2-3PL=CN    Jits'aawit    LOC=CN  
           T'aam Meji'aadn  
           lake    Meji'aadn.  
           'They completely killed off all the Jits'aawit at Meji'aadn Lake.'

'Nit    gan            wi=hl            gi'nam=hl            Gitwinhlguu'l  
           3SG.III    SUBORD    COMP=CN    give=CN            Gitwinhlguu'l  
           ha~anak'            dim            niiniks-xw=hl            xsdaa-t=gi.  
           PL~woman    PROSP    spouse.PL-PASS=CN    win-3.II-**PR.EVID**  
           'That is why Gitwinhlguu'l offered women to marry these victors.' (VG)

Further investigation of spontaneous uses of *gi* will be most useful if it is

combined with follow-up elicitation with the original speakers, in an attempt to elicit more information about why *gi* appears where it does.

## 6 Conclusion

In this paper we have provided the first targeted investigation of the particle *gi* in Gitksan. Contrary to previous literature, which has classified *gi* as a spatio-temporal distal marker, we have argued that *gi* is a discourse particle which encodes a prior evidence requirement. Our core empirical findings are repeated in (57). (Recall from section 4.3 that there are further pragmatic complexities which govern when *gi* is used, even when the conditions in (57) are met.)

- (57) a. In **declaratives**, *gi* is licensed if at least one interlocutor had prior evidence for some salient proposition, usually the prejacent proposition to which *gi* attaches.

(Sub-cases: The addressee was told the proposition but forgot it; the addressee did not hear the previous utterance; the addressee did not believe the previous utterance; the speaker had prior personal evidence for the proposition.)

- b. In **interrogatives**, *gi* is licensed if at least one interlocutor had prior evidence for either the question or the answer.

(Sub-cases: The speaker is repeating the question due to the addressee's having forgotten it, or failed to hear it; the speaker expects that the addressee had prior evidence for the answer to the question; the speaker is re-asking the question because they knew the answer previously but have forgotten it; a third person is repeating someone else's question due to the addressee's not having heard it the first time.)

Although we have not yet provided a unified formal analysis, we believe that our findings represent a significant step forward in the empirical understanding of *gi*. In addition, our generalizations suggest that *gi* is a particle with a cross-linguistically interesting property: it requires prior evidence or knowledge, but it does not care which interlocutor has that evidence or knowledge. This makes it different from presuppositional elements (which specifically require information to be in the shared common ground, Stalnaker 1973), and also potentially different from German discourse particles like *ja* or *doch*, which at least under many analyses specifically encode information about the addressee's knowledge state (Zimmermann 2011).

### 6.1 For future research

There are many avenues for future research with *gi*. In this sub-section we present just one outstanding puzzle, which is a potential interaction with lexical aspect (Aktionsart), at least for one of our consultants. Although (58a) and (58b) both convey approximately the same information, the eventive version in (58a) allows *gi*, while the stative version in (58b) does not. We have no explanation for this at this time, and further research is necessary to establish whether the



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# Connect Four!

## The morphosyntax of argument marking in Tsimshianic

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**Abstract:** The NP-introducing connective morphemes are an enduring puzzle in Tsimshianic linguistics, their distribution obscured by opaque morphophonology and considerable homophony. We present a novel account of the Gitksan connective paradigm which reduces the distinction between *t* and *=s* to a matter of morphophonology, in contrast to the case-related analysis proposed by Hunt (1993). As a result, the connective system is simplified so as to only reference the distinction between common and proper/determinate nouns. We then extend the analysis to Coast Tsimshian, demonstrating the fundamental similarity of the two systems while exploring some points of variation which indicate interesting differences in agreement patterns between the Coast and Interior varieties.

**Keywords:** Gitksan, Tsimshianic, connectives, pronouns, agreement, case

### 1 Introduction<sup>1</sup>

In the Tsimshianic literature, the term ‘connective’ has been used since Boas (1911) to identify a set of article-like morphemes which precede noun phrases. The distribution of these morphemes shows a basic distinction between ‘determinate’ and ‘common’ (non-determinate) NPs (Rigsby 1986): determinates include proper names, demonstrative pronouns, and ascending kinship terms,<sup>2</sup> while non-determinates include all other NPs. In both Coast Tsimshian (CT) and Interior Tsimshianic (IT), the connective for non-determinates is invariant (*a* in the former and *hl* in the latter); however, within the class of determinates, there are two apparently competing elements (*t* and *s*) whose distribution is sensitive to clause type and grammatical function. In IT, the situation is further complicated by a number marking distinction within the determinates, which partially neutralizes the distinction between *s* and *t*.

This paper focuses on the connective system of Gitksan, one of the two members of the IT branch (that of the other member, Nisga’a, is basically identical, at least on the evidence presented in Tarpent 1987*b*, 1988). We develop an analysis of the Gitksan connective system that considerably simplifies its surface

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<sup>1</sup> We extend our deepest thanks to the Gitksan speakers we have worked with (the wonderful Barbara Sennott (nee Harris), Vince Gogag, Hector Hill, BM, and many others); all unreferenced examples are attributed to them. Ha’miiyaa! We also acknowledge Lisa Matthewson and Margaret Anderson for their valuable contributions and comments on this work, and are grateful for the support and collaborative environment provided by the UBC Gitksan Research Lab.

<sup>2</sup> Ascending kinship terms mark kin above the level of the ego, such as parents, parents’ siblings, grandparents, and so on.

complexity, reducing the pattern from one which relies on common/determinate, singular/plural, and syntactic contrasts, to one which only references the determinate/non-determinate distinction. We argue that the difference in number marking for determinate NPs is best recognized as an independent contrast, and that the difference in connective usage for NPs with different syntactic roles is ultimately morphophonological in nature. Consequently, our analysis of the connective paradigm posits only two members: determinate *t* and non-determinate *hl*. We then extend our findings on IT to the connective system of CT: we show that in spite of apparent surface differences the two systems are nearly identical, and our account of IT can be extended to CT with minimal adjustments.

The paper is structured as follows. In the rest of Section 1, we provide some background information on the syntax and inflectional morphology of Gitksan. In Section 2, we give an overview of the Gitksan connective system, exemplifying each different connective pattern, before introducing the two major analytical approaches that have been proposed in the previous literature on IT, those of Rigsby (1986) and Tarpent (1987*b*). In Section 3 we explore Hunt's (1993) analysis (itself partly based on Tarpent 1987*b*), which is the most detailed and successful of previous accounts. We then present our own alternative in Section 4, before extending it in Section 5 to the CT connective system. Section 6 concludes.

### **1.1 Brief background on Interior Tsimshianic syntax and morphosyntax**

Here we provide a skeletal outline of certain key features of IT syntax that will be relevant to the argumentation in following sections. We make no attempt to be comprehensive: for detailed descriptions see Rigsby (1986) (Gitksan) and Tarpent (1987*b*) (Nisga'a).

Clausal morphosyntax in all Tsimshianic languages is organized around a clause-typing distinction, variously characterized as 'indicative' versus 'subjunctive' (Boas 1911), 'independent' versus 'dependent' (Rigsby 1986), and 'predicate focused' versus 'regular' (Tarpent 1987*b*, 1988). We will adopt Rigsby's Gitksan-based terminology here. The distinction is particularly important in regulating the function of the three pronominal series (named prosaically but efficiently Series I, II and III by Rigsby 1986). All subordinate clauses are dependent, but not all main clauses are independent: a set of pre-predicative 'dependent markers', including certain aspectual operators, negation, and clausal coordination, also induce dependent inflection. See Rigsby (1986), Tarpent (1987*b*), and Hunt (1993) for details of the IT system. The CT system is very similar, differing only in which elements trigger dependent inflection: see Dunn (1979*a*), Mulder (1994), Bach (2004), and Anderson and Ignace (2008).

The three pronominal series are most easily distinguished on morphological grounds, as shown in Table 1:

**Table 1:** Morphological type and position of pronouns

	TYPE	POSITION
SERIES I	clitic	pre-predicative
SERIES II	affix	post-predicative
SERIES III	independent word	post-predicative

Their distribution is complex, but can be roughly characterized as ‘pivoting ergative’, with the Series II pronouns acting as the pivot.<sup>3</sup> The basic distribution of the three pronominal series is shown in Table 2, with A, S and O standing for subject of a transitive clause, subject of an intransitive clause, and object, respectively, as is standard practice in the literature on ergativity.<sup>4</sup>

**Table 2:** Basic distribution of pronominal series

		INDEPENDENT	DEPENDENT
ERG	A	II	I
	S	III	II
ABS	O	III	II

Both Series I and Series II pronouns co-occur with lexical (NP) arguments (and on occasion with each other, as we will see); however, Series III pronouns (whose syntax is closest to that of NPs) never co-occur either with lexical NPs or other pronouns.

<sup>3</sup> These affixes also mark possessors and the complements of prepositions; we discuss the latter function in Section 4.3.

<sup>4</sup> Transitivity (obviously, crucial to ergative systems such as those of Tsimshanic languages) is not systematically marked on verbs, though various transitivity and intransitivity affixes are quite common. However, in transitive independent clauses, a ‘transitive’ suffix (glossed -TR here) appears immediately before the Series II suffix which marks the A argument (although sometimes it is obscured for phonological reasons). As noted by Hunt (1993), this suffix (which also appears in O extraction contexts) is in strict complementary distribution with Series I pronouns, and as such is never found in dependent clauses.

Lexical arguments in all Tsimshianic languages follow the predicate, except in contexts of A'-extraction;<sup>5</sup> word order is strictly VSOX.<sup>6</sup> All arguments aside from A, S and O must be introduced either by the general oblique preposition *a=* or the specialized locative preposition *go(')o=*.

## 2 The Gitksan connective system

The basic elements of the Gitksan connective paradigm are presented in Table 1. Connectives are obligatory before noun phrases in argument positions, including those introduced by prepositions.<sup>7</sup>

**Table 3:** The Gitksan connective paradigm, version 1

	SG	PL
Common	hl	
Determinate 1	t	dip
Determinate 2	s	s dip

NPs headed by common (non-determinate) nouns are uniformly introduced by the morpheme *=hl*, which appears as an enclitic on the previous prosodic word. This connective shows no sensitivity to linear position, grammatical function, or clause type.<sup>8</sup>

<sup>5</sup> A'-extraction contexts include relativization, WH-question formation, and focus movement. In each case, a constituent (sometimes null in the case of relativization) moves to a pre-predicative A'-position, leaving a distinct morphological signature which differs between A, S, and O functions, as well as between arguments and adjuncts. For details, see Davis and Brown (2011) and references therein.

<sup>6</sup> The one exception to this, discussed by Rigsby (1989:250) involves an alternative VOS ordering limited to cases with a pronominal (Series III) object, as shown in (i). Even in the 1970s and 1980s, this 'right-extraposed' order was apparently confined to older speakers, and now seems to have been replaced by the 'regular' VSO order for all speakers (ii).

(i) hlimooyit 'nuu'm t Mary  
 help-TR-3.II 1PL.III DM Mary  
 'Mary helped us.'

(ii) hlimooyis Mary 'nuu'm  
 help-TR=PN Mary 1PL.III  
 'Mary helped us.'

<sup>7</sup> The common noun connective *=hl* (or a homophonous morpheme) is also used to introduce certain clausal complements, following for example imperfective *yukw*. We set aside these uses here.

<sup>8</sup> The orthography used here is a variant of the Gitksan orthography established by Hindle and Rigsby (1973), with minor changes to the representation of palatovelars (e.g. *gya* rather

(1) a. **baxhl** hanak'  
 run=CN woman  
 'The woman ran.'

b. needii **baxhl** hanak'  
 NEG=FOC run=CN woman  
 'The woman didn't run.'

(2) a. gya'ahl hanak'hl gyat  
 see[TR]=CN woman=CN man  
 'The woman saw the man.'

(Hunt 1993:200)

b. neediit gya'ahl hanak'hl gyat  
 NEG=FOC=3.I see=CN woman=CN man  
 'The woman didn't see the man.'

The examples in (1) contain an intransitive subject (S), those in (2) a transitive subject (A) and an object (O): all are introduced by =hl. The (a) cases also differ from the (b) cases by clause type: the (a) examples involve independent clauses, while the (b) examples involve dependent clauses; again, this has no effect on the form of the connective.

In contrast, determinate NPs (personal names, demonstrative pronouns, and ascending kinship terms) are introduced by the morphemes =s and t, as well as dip when plural or coordinated.<sup>9</sup> The distribution of these morphemes is complex, and is governed by three factors: the distinction between independent and dependent clauses, the linear position of noun phrases relative to the verb, and the

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than ga). Sm'algyax (Coast Tsimishian) examples are presented in the standard community orthography, which differs from that used in IT mainly in using l rather than hl for the lateral fricative. Glossing abbreviations used in examples are as follows: ASSOC = associative; CAUS = causative; CN = common noun connective; DM = determinate noun marker/connective; EMPH = emphatic; EPIS = epistemic modal; FOC = focus; I/II/III = person marker series; INTR = intransitive; LOC = locative; NEG = negation; NMZ = nominalizer; PASS = passive; PFV = perfective; PH.CNJ = phrasal conjunction; PL = plural; PN = proper noun connective; POSS = possessive; PREP = preposition; REPORT = reportative; SG = singular; TR = transitive.

<sup>9</sup> The morphophonological properties of these elements differ from each other as well as from =hl. Determinate =s (glossed =PN for 'proper noun' here) is a bound morpheme which only ever surfaces at the right edge of the predicate (usually, but not always, a verb). It is given the status of an enclitic rather than a suffix here only because of its linear position following other elements which are themselves clearly enclitic, notably the reportative marker =gat and the modal =ima(')a (Tarpent 1987b, Hunt 1993, Peterson 2010). In contrast the determinate marker t (glossed DM) is a 'floating' clitic which can either dock to a preceding or following host, or even remain 'unmoored' as a stray consonant. And finally, the plural marker dip is prosodically independent, and as such has the status of a 'particle', rather than a clitic. See Stebbins (2003), Mulder and Sellers (2010) for remarks on the morphophonological properties of various closed-class elements in CT.

distribution of agreement morphology. Below, we lay out the possibilities for the determinate connectives systematically, beginning with independent clauses.

- (3) *singular determinate S in independent clause*

bax t      **Gidi**  
 run DM    **Katie**  
 ‘Katie ran.’

- (4) *plural determinate S in independent clause*

gol      **dip** [Michael gan t Aidan]<sup>10</sup>  
 run.PL ASSOC [Michael PH.CNJ DM Aidan]  
 ‘Michael and Aidan ran.’

- (5) *singular determinate A in independent clause*

a. gya'as      **Michael** t      Gidi  
 see[TR]=PN **Michael** DM    Katie  
 ‘Michael saw Katie.’

b. gya'as      **Michael** ('nit)  
 see[TR]=PN **Michael** (3.III)  
 ‘Michael saw him/her.’

- (6) *plural determinate A in independent clause*

a. gya'as      **dip** [**Michael gan t Aidan**] t      Gidi  
 see[TR]=PN ASSOC [**Michael PH.CNJ DM Aidan**] DM    Katie  
 ‘Michael and Aidan saw Katie.’

b. gya'as      **dip** [**Michael gan t Aidan**] ('nit)  
 see[TR]=PN ASSOC [**Michael PH.CNJ DM Aidan**] (3.III)  
 ‘Michael and Aidan saw him/her.’

- (7) *singular determinate O in independent clause*

a. gya'as      Gidi t      **Michael**  
 see[TR]=PN Katie DM    **Michael**  
 ‘Katie saw Michael.’

b. gya'at      t      **Michael**  
 see[TR]-3.II DM    **Michael**  
 ‘S/he saw Michael.’

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<sup>10</sup> The determinate *t* marking the second conjunct of the coordinated noun phrase here is used for non-initial determinate conjuncts by speakers from the Eastern (Gigyeenix) dialects; Western dialect (Geets) speakers use =s, which is also employed by Nisga'a speakers.

- (8) *plural determinate O in independent clause*
- a. gya'as            Gidi **dip** [Michael gan t Aidan]  
 see[TR]=PN Katie ASSOC [Michael PH.CNJ DM Aidan]  
 'Katie saw Michael and Aidan.'
- b. gya'at            **dip** [Michael gan t Aidan]  
 see[TR]-3.II ASSOC [Michael PH.CNJ DM Aidan]  
 'S/he saw Michael and Aidan.'
- (9) *singular determinate S in dependent clause*
- needii            baxs            **Michael**  
 NEG=FOC run=PN **Michael**  
 'Michael didn't run.'
- (10) *plural determinate S in dependent clause*
- needii            gols            **dip** [Michael gan t Gidi]  
 NEG=FOC run.PL=PN ASSOC [Michael PH.CNJ DM Katie]  
 'Michael and Katie didn't run.'
- (11) *singular determinate A in dependent clause*
- a. neediit            gya'as            **Michael** t            Aidan  
 NEG=FOC=3.I see=PN **Michael** DM            Aidan  
 'Michael didn't see Aidan.'
- b. neediit            gya'as            **Michael** ('nit)  
 NEG=FOC=3.I see=PN **Michael** (3.III)  
 'Michael didn't see him.'
- (12) *plural determinate A in dependent clause*
- a. neediit            gya'as            **dip** [Michael gan t Gidi] t            Aidan  
 NEG=FOC=3.I see=PN ASSOC [Michael PH.CNJ DM Katie] DM Aidan  
 'Michael and Katie didn't see Aidan.'
- b. neediit            gya'as            **dip** [Michael gan t Gidi] ('nit)  
 NEG=FOC=3.I see=PN ASSOC [Michael PH.CNJ DM Katie] (3.III)  
 'Michael and Katie didn't see him/her.'
- (13) *singular determinate O in dependent clause*
- a. neediit            gya'as            **Michael**  
 NEG=FOC=3.I see=PN **Michael**  
 'S/he didn't see Michael.'
- b. neediit            gya'as            Gidi t            **Michael**  
 NEG=FOC=3.I see=PN Katie DM **Michael**  
 'Katie didn't see Michael.'

(14) plural determinate O in dependent clause

- a. neediit            gya'as    **dip** [Michael gan    **t**    **Gidi]**  
 NEG=FOC=3.I    see=PN    ASSOC [Michael PH.CNJ    DM    Katie]  
 'S/he didn't see Michael and Katie.'
- b. neediit            gya'as    Gidi    **dip** [Michael gan    **t**    **Aidan]**  
 NEG=FOC=3.I    see=PN    Katie    ASSOC [Michael PH.CNJ DM    Aidan]  
 'Katie didn't see Aidan and Michael.'

Table 4 summarizes the distribution of both determinate (DM) and common (CN) NPs.

**Table 4:** Gitksan connectives by clause and argument type

	S		A		O	
	IND	DEP	IND	DEP	IND	DEP
V-SCN	=hl	=hl				
V-SDM	t/dip	=s/=s dip				
V-ACN-OCN			=hl	=hl	=hl	=hl
V-ACN-ODM			=hl	=hl	t/dip	t/dip
V-ACN			=hl	=hl		
V-ADM			=s/=s dip	=s/=s dip		
V-ADM-OCN			=s/=s dip	=s/=s dip	=hl	=hl
V-ADM-ODM			=s/=s dip	=s/=s dip	t/dip	t/dip
V-OCN					=hl	=hl
V-ODM					t/dip	=s/=s dip

How to read the table:

- i. As specified in the left-hand column, connectives are classified according to their distribution in clauses with S, A, and O arguments headed either by common nouns (CN) or determinates (DM).
- ii. Clauses listed with a single A or O (e.g. V-ACN, V-ODM) have no overt O and A argument, respectively; however, a covert argument is present, recoverable via pronominal morphology and/or the discourse context.
- iii. For each grammatical function (top row), clauses are cross-classified (second row) as independent (IND) or dependent (DEP).

- iv. For determinates, both singular and plural values are given, with the singular preceding the plural (*sg/pl*).

## 2.1 Four generalizations and two potential analyses

The following generalizations immediately emerge from an inspection of Table 4.

- A. The distribution of the common noun connective =*hl* is completely uniform across clause type and grammatical function.
- B. The singular determinate connectives *t* and =*s* are in complementary distribution.
- C. The plural marker *dip* is in complementary distribution with *t*, but co-occurs with =*s*.
- D. =*s* only occurs on an argument immediately left-adjacent to the verb.

Since =*hl* poses no morphosyntactic challenges, we will set it aside here, focusing on the interaction of =*s*, *t* and *dip*. There are two basic ways to understand this interaction:

- I. *t* and =*s* are allomorphs, and *dip* is a separate marker of plurality
- II. *dip* is the plural allomorph of *t*, and =*s* marks something else

Analyses based on both interpretations have been proposed previously in the IT literature. An analysis based on (I) and schematized in Table 5 was assumed in early work by Rigsby and Tarpent (Tarpent 1982, Rigsby 1986), but later abandoned in favour of an analysis based on (II), developed by Tarpent (1987*b*, 1988) and later modified by Hunt (1993). Tarpent's version is schematized in Table 6 (see also Rigsby 1989, note 1).

**Table 5:** A type I analysis of the connective paradigm

	CONTEXT 1	CONTEXT 2
CN connective	<i>hl</i>	
DM connective	<i>t</i>	<i>s</i>
DM PL	<i>(t → ∅) dip</i>	<i>s dip</i>



- (17) ama'mas    **t**        **Mary**  
 beautiful    DM    Mary  
 ‘Mary is beautiful.’ (Hunt 1993:17)

The second problem, the limited distribution of =s, is more problematic for the Type II analysis. Recall that unlike *t* or =*hl*, =s only ever shows up immediately to the right of the predicate. As far as we can tell, Tarpent offers no explanation for this restriction.

Hunt (1993), however, does. Hunt adopts the outlines of Tarpent’s account, but rather than treating =s as a connective, she proposes that it is a *case marker*. As such, it is not expected to act as the determinate counterpart of =*hl*, which appears uniformly on common noun arguments (that function is assumed by *t* and *dip*); rather, as a case marker, it should be sensitive to grammatical function. Hunt’s system is schematized in Table 7.

**Table 7:** Hunt’s (1993) connective paradigm

	SG	PL
CN connective	<i>hl</i>	
DM connective	<i>t</i>	<i>dip</i>
(in <i>s</i> -case context)	<i>s</i> ( <i>t</i> → ∅)	<i>s dip</i>

Like Tarpent, Hunt appeals to cluster simplification (15) to account for the absence of the =s *t* combination, but otherwise her system is rather different. In particular, *t* and *dip* are restored to their original roles as connectives rather than being treated as a separate set of determinate markers, accounting for their relatively unrestricted distribution (like =*hl* but unlike =s, they appear on objects in V-A-O<sub>DM</sub> clauses, for example). The anomalous element in Hunt’s system is clearly =s.

### 3.1 Generalizations on the distribution of =s

There is good justification for Hunt’s breakdown of the paradigm this way: =s is the only one of the four connective elements to be restricted to immediately post-predicative position, and the only one to show sensitivity to the particular form of agreement on the predicate. These two unique properties are combined in what Hunt refers to as the ‘/s/-case-assignment condition’:

- (18) /s/ *case-assignment condition*  
 /s/-case is assigned to an NP if and only if  
 a. it is adjacent to a lexical head *and*  
 b. it is coreferent with the Series II suffix on that head (Hunt 1993:200)



that counterexamples to both of these rules involve the lexical root as part of the relevant environment for deletion. Turning this observation around, we see that a /t/ or /s/ in a lexical root may serve neither as a valid trigger nor target of any deletion process. This is suggestive of a larger phonological generalization: lexical roots are protected from reduction processes like (15) and (21) (cf. work on Root Faithfulness, e.g. McCarthy and Prince 1995). We therefore expect reduction processes to occur only amongst inflectional elements like the person suffixes and connectives, as attested, without requiring reference to specific morphemes.

Adoption of the above establishes that =s always co-occurs with Series II -t. But what about the /s/-case condition's coreference requirement? At first sight, this appears counter-intuitive, since =s may introduce arguments bearing any of the three grammatical functions: determinate A in both independent and dependent clauses, determinate S in dependent clauses, and determinate O in dependent clauses without a lexical subject. The coreference condition therefore entails that third person Series II -t can switch allegiance between A, S and O functions, not only between but also within clause types.

However counter-intuitive it might seem, there is in fact strong evidence that the coreference condition is correct. Switching functions between clause types is a hallmark of Series II pronouns, which are employed as ergatives (i.e., in A function) in independent clauses, and (usually) as absolutes (i.e., in S and O functions) in dependent clauses (as shown in Table 2 above). Since in independent transitive clauses Series II is always linked to the A argument, and A arguments are always immediately adjacent to the right edge of the predicate, (18) correctly predicts that =s will occur on all and only overt A arguments in transitive independent clauses.

The situation is more complicated in dependent clauses, where Series II pronouns normally mark the S and O arguments (i.e., they show an absolutive distribution), but sometimes unexpectedly mark the A argument instead, contrary to the basic pattern shown in Table 2.

The exceptional cases all involve a third person Series II pronoun 'doubling' the third person Series I clitic pronoun *t*, which uniformly marks the A function in dependent transitive clauses. The most obvious such case involves the third person plural Series II suffix *-diit*, which marks the A rather than the O argument in dependent clauses with a third person plural subject and a lexical object.<sup>14</sup>

- (22) neediit            gya'adiit        t        Michael  
       NEG=FOC=3.I    see-3PL.II    DM     Michael  
       'They didn't see Michael.'

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<sup>14</sup> Since the language simply lacks a third person plural Series I clitic, the exceptional use of the Series II third person plural suffix here seems to be a way of circumventing a lexical gap in the Series I paradigm, with 'knock on' effects elsewhere in the pronoun system.

The A function is marked overtly here both by the Series I pre-predicative third person (number neutral) clitic *t* and by the Series II suffix *-diit*.<sup>15</sup> In order to express a third person singular A with a third person plural O, the language resorts to using the Series III (independent) plural pronoun *'nidiit*, which occupies the regular post-predicative object argument slot, as shown in (23):

- (23) neediit            gya'as        Michael   **'nidiit**  
 NEG=FOC=3.I    see=PN    Michael   **3PL.III**  
 'Michael didn't see them.'

By hypothesis, the appearance of =s above in (23) forces deletion of an underlying third person singular Series II suffix *-t* (via the deaffrication rule in (23)). This predicts that if an evidential enclitic is inserted between *-t* and =s, *-t* will surface. It does:

- (24) neediit            gya'**adimaas**        Michael   **'nidiit**  
 NEG=FOC=3.I    see-3.II=EPIS=PN    Michael   **3PL.III**  
 'Perhaps Michael didn't see them.'<sup>16</sup>

But in this case, what is the Series II suffix *-t* marking? It cannot be the O, because Series III pronouns (unlike Series I clitics) *never* double other arguments, either lexical or pronominal (see Section 1.1 above). This leaves only one

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<sup>15</sup> In the absence of a lexical (NP) object, *-diit* is able to mark *either* the object *or* the subject in dependent clauses:

- (iii) Neediit            t'**isdiit**  
 NEG=FOC=3.I    hit.with.fist-3PL.II  
 (a) 'They hit him/her.'  
 (b) 'S/he hit them.'

This ambiguity can be resolved either contextually or grammatically. In the latter case, a Series III pronoun is employed in object position: since Series III pronouns cannot be cross-referenced with any other pronominal marking, a subject interpretation for *-diit* is forced (iv).

- (iv) Neediit            t'**isdiit**            **'nit**  
 NEG=FOC=3.I    hit.with.fist-3PL.II    3SG.III  
 'They hit him/her.' (unambiguous)

<sup>16</sup> Unlike Series II *-t*, 3rd plural Series II *-diit* never co-occurs with a lexical DP (Tarpent 1988, Hunt 1993:182), as shown in (vi) below. In contexts where a Series II pronoun doubles a plural argument, the third person singular (or rather, number-neutral) suffix *-t* appears instead (v).

- (v) hlixxwhl    simimnaks**dimaas**            dip    John    gan            t    Mary  
 finish=CN    together-marry-3.II=EPIS=PN    ASSOC    John    PH.CNJ    DM    Mary  
 'John and Mary apparently just got married.'
- (vi) \*hlixxwhl    simimnaks**diidimaas**            dip    John    gan            t    Mary  
 finish=CN    together-marry-3PL.II=EPIS=PN    ASSOC    John    PH.CNJ    DM    Mary

possibility: both Series I *and* Series II pronouns mark the A function in dependent clauses such as (23) and (24).

This finding extends to non-plural contexts. A sentence such as (25) with a single overt argument is surface ambiguous:<sup>17</sup>

- (25) neediit            gya'as    Michael  
       NEG=FOC=**3.I**    see=**PN**    Michael  
       (i) 'S/he didn't see Michael.'  
       (ii) 'Michael didn't see him/her/it.'

On reading (i), the underlying Series II *-t* refers to the O function, and is coindexed with the lexical argument *Michael*, just as it would, for example, in a parallel sentence with a first person Series I (ergative) clitic:

- (26) neediin            gya'as    Michael  
       NEG=FOC=**1SG.I**    see=**PN**    Michael  
       'I didn't see Michael.'

But on reading (ii) of (25), the Series II *-t* refers to the A function, just as in (23) and (24). We can see this if we replace the null object with a third person singular Series III pronoun:<sup>18</sup>

- (27) neediit            gya'as    Michael 'nit  
       NEG=FOC=**3.I**    see=**PN**    Michael **3SG.III**  
       'Michael didn't see him/her.' (unambiguous)

And just as in the plural case, insertion of an evidential clitic leads to the re-emergence of the covert *-t*:

- (28) neediit            gya'adimaas    Michael 'nit  
       NEG=FOC=**3.I**    see=**3.I=EPIS=PN**    Michael **3SG.III**  
       'Perhaps Michael didn't see him/her.' (unambiguous)

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<sup>17</sup> See Tarpent (1988:114) who gives similarly ambiguous cases from Nisga'a. Tarpent (1987a:155) had earlier attempted to argue that interpretation (i) of these cases is disfavoured, due to her claim that Nisga'a is 'syntactically ergative' and more specifically that it has an absolutive rather than a nominative 'pivot' in discourse contexts. Furthermore, she claims that sentence-level stress systematically distinguishes between the two interpretations, since the A always has weaker prominence than the O. We have found neither of these claims to be true in Gitksan. There is no preference for interpretation (ii) over (i) – in fact, if anything, the contrary is true, since speakers prefer to insert an overt Series III pronoun in object position for (ii) – and in a pilot phonetic study of examples such as (25), elicited with the help of storyboards, McClay (2015) found no prosodic difference between the two cases. See also note 18 immediately below, and Hunt (1993:42–44), who comes to the same conclusion.

<sup>18</sup> The variant in (27) with an overt object pronoun is actually more common than the version without (interpretation (ii) of (25)), at least in elicitation contexts where a discourse antecedent is not provided for the null object.

Notice that in (28), as in its plural counterpart in (24), all three pronoun series are represented: the Series I pre-predicative clitic *t* and the Series II suffix *-t* both mark the A function, while the Series III independent argument pronoun *'nit* marks the O function.

In fact, this configuration is not even restricted to cases with third person objects. It is also possible to employ other Series III pronouns in O function in dependent clauses, as in (29), which is an acceptable alternative to the more standard agreement configuration in (29). Just as elsewhere with a covert Series II *-t*, insertion of an evidential enclitic blocks deletion and allows the *-t* to surface (29).

- (29) a. neediit                    gya'a'y                    t                    Michael  
           NEG=FOC=3.I    see=1SG.II            DM            Michael  
           'Michael didn't see me.'
- b. neediit                    gya'as                    Michael    'nii'y  
           NEG=FOC=3.I    see=PN            Michael    1SG.III  
           'Michael didn't see me.'
- c. neediit                    gya'adimaas                    Michael    'nii'y  
           NEG=FOC=3.I    see=3.II=EPIS=PN            Michael    1SG.III  
           'Michael didn't see me.'

In all of these cases, *=s* appears if and only if an overt or covert Series II *-t* suffix is present on the predicate, and is coindexed with an immediately adjacent determinate argument. In short, Hunt's */s/-case* condition in (18) is an accurate description of the facts.

### 3.2 Is *=s* a case-marker?

Having provided evidence for Hunt's generalization, let us now, however, ask whether it supports her contention that *=s* is a *case marker*. This is not a simple question to answer, since 'case' covers a multitude of theoretically heterogeneous notions. Hunt, furthermore, never attempts to justify her claim, but is content to label *=s* as '*/s/-case*' and leave it at that.

Most approaches to case, however, agree on some version of the following basic properties:<sup>19</sup>

- A. Case is a form of dependent marking (i.e., it marks an argument rather than a predicate)
- B. Case at least partially reflects a hierarchy of grammatical functions which may or may not be instantiated in phrase structural terms.

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<sup>19</sup> These properties are characteristic of 'structural case', as opposed to 'inherent' or 'semantic' case, which is tied to specific thematic roles; the latter is clearly not relevant to *=s*.

- C. Case is relational: that is, within a grammar, cases are only defined relative to each other.

We can now ask to what extent /s/-case meets these criteria.

Concerning A.: Since =s is always prosodically attached to the (immediately left-adjacent) *predicate*, and not to an argument, it is not surface obvious that it meets the dependent marking criterion. A case-based analysis must come up with a supplemental explanation for its distribution.

Concerning B.: Because it tracks agreement so closely, =s shares the idiosyncratic behaviour of third person Series II *-t*. In particular, while it is associated with A function in independent clauses, and (usually) S and O functions in dependent clauses (see Table 2), in cases of doubling =s may also mark A in dependent clauses. Thus, while =s must presumably ultimately be linked to a functional hierarchy, the mapping is indirect, via agreement. Furthermore, there is no evidence that =s-marked arguments occupy a unique syntactic position, since, as far as we know, there are no structural tests in IT which pick out just the class of nominals which are linked to Series II agreement (for a survey of structural tests in Gitksan, see Hunt 1993: Chapters 3 and 4).

Concerning C.: To the extent that it marks case at all, the basic distinction in IT is between ‘direct’ and ‘oblique’ arguments; the former are unmarked, while the latter are introduced by a preposition. Direct arguments include S, A, and O, but =s does not mark any of them consistently, and there is no evidence of a second (unmarked) case to which it is opposed.

We conclude that though it is difficult to produce knock-down arguments against a case-based analysis of =s, simply because the notion ‘case’ can be interpreted so variably, =s clearly does not fit the typological profile of a case-marker: it forms a prosodic constituent with the predicate, marks all three grammatical functions, and does not form part of a standard case opposition. In short: /s/-case is not case.

#### 4 A new Type I analysis of the connective system

In view of the problems with treating =s as a case marker, we would like to suggest a new approach – or rather, a new variant of the older Type I approach to the connective system – containing the following core claims: (i) =s is in fact an allomorph of connective *t*, with its appearance conditioned by adjacency to a predicate containing a coindexed Series II *-t* suffix; and (ii) *dip* is not part of the connective system at all, but is a separate *associative marker* (Forbes 2013a).

In Table 8, we schematize our version of the Type I analysis (cf. Table 5 above).

**Table 8:** A new Type I analysis of the connective paradigm

	CONTEXT 1	CONTEXT 2
CN connective		<i>hl</i>
DM connective	<i>t</i>	<i>t</i> ( $\rightarrow$ <i>s</i> )
Associative PL		<i>dip</i>

The basic ingredients of this analysis are as follows:

- A. =*s* is derived from determinate *t* by a *softening rule* which applies under adjacency with the right edge of the predicate, with the additional condition that the argument introduced by *t* be coindexed with a third person Series II *-t* on the predicate.
- B. The softening rule is crucially ordered before a *degemination rule* that deletes *t* before the associative marker *dip*.<sup>20</sup>
- C. The softening rule is also crucially ordered before the *deaffrication rule* (21), which deletes Series II *-t* before =*s* or =*hl*.

We assume softening takes the form in (30), and degemination the form in (31). Deaffrication is repeated here as (32).

(30) *Softening*

$$t \rightarrow =s \quad / \text{-}t_i \text{ ] } \_\_\_ \text{ [NP]}_i$$

DM    PN    3.II

(31) *Degemination*

$$t \rightarrow \emptyset / \_\_\_ \text{ dip}$$

DM            ASSOC

(32) *Deaffrication (=21)*

$$\text{-}t \rightarrow \emptyset / \_\_\_ \{=s, =hl\}$$

3.II            PN, CN

The rules operate as follows. Determinate *t* is softened to =*s* when following a coindexed Series II suffix *-t*. The suffix that triggered this change is then deleted before the =*s* it has produced via deaffrication, in a classic case of feeding order opacity. Otherwise, *t* remains *t*. In environments where *dip* follows this *t*, the *t dip* sequence is degeminated to simply *dip*.

To illustrate this rule interaction, let us work through a couple of the example sentences given above. We begin with (6a), repeated below as (33):

<sup>20</sup> The *d* in *dip* is itself derived from a phonemic *t* by obstruent voicing, as mentioned in note 12.

- (33) gya'as                    dip [Michael gan            t Aidan] t Gidi  
 see[TR]=PN ASSOC [Michael PH.CNJ DM Aidan]DM Katie  
 'Michael and Aidan saw Katie.'

By hypothesis the underlying form is as in (34).

- (34) gya'at                    t dip [Michael gan            t Aidan]            t            Gidi  
 [see[TR]-3.II<sub>i</sub>]    DM ASSOC [Michael PH.CNJ DM Aidan]<sub>i</sub> DM    Katie

The environment for softening is met, so the DM following the verb becomes =s:

- (35) gya'ats                    dip [Michael gan            t Aidan] t            Gidi  
 [see[TR]-3.II<sub>i</sub>]=PN ASSOC [Michael PH.CNJ DM Aidan]<sub>i</sub> DM    Katie

Now deaffrication (21) applies to delete the Series II *-t*, yielding (33).

Next, let us take a case where softening fails to apply. One such case is (8b), repeated as (36):

- (36) gya'at                    **dip** [Michael gan            t Aidan]  
 see[TR]-3.II    **ASSOC** [Michael PH.CNJ DM Aidan]  
 'S/he saw Michael and Aidan.'

The underlying form here is (37):

- (37) gya'at                    t            dip [Michael gan            t Aidan]]  
 see[TR]-3.II<sub>i</sub>    **DM**    ASSOC [Michael PH.CNJ DM Aidan]]<sub>i</sub>

The Series II *-t* on the verb is contra-indexed with the adjacent nominal, so softening is blocked, and since softening feeds deaffrication, the latter also fails to apply. However, the environment for degemination is met, and therefore DM *t* deletes before *dip*, yielding the surface form (36).

#### 4.1 Consequences

The analysis outlined above has the following consequences.

- A. The determinate connective *t* and its plural counterpart *dip* are no longer part of the same paradigm: *dip* is a separate *associative marker*, as independently argued by Forbes (2013*a,b*).
- B. There is no longer a number distinction in any part of the connective system.
- C. DM *t* is now present underlyingly with all determinates, mirroring the behavior of CN =*hl*.
- D. PN =*s* has been reduced to a reflex of *t*: hence it is just an allomorph of the determinate connective. There is no 's/-case'.
- E. Since determinate noun phrases always show up with =*s* when they are complements to the prepositions *a* and *go(')o*, we must assume that

prepositions are themselves inflected for third person Series II *-t* agreement.

Of these consequences, we take (B), (C) and (D) to be both self-evident and to constitute clear advantages of our analysis over previous accounts; (A) and (E), however, merit more discussion, and are further elucidated in Sections 4.2 and 4.3 below, respectively.

#### 4.2 *Dip* as an associative marker

Consequence (A) of our analysis concerns the ‘determinate plural’ particle *dip*, which we propose need not be considered a counterpart of the connective morpheme *t* with which it appears to alternate. Instead, we argue following Forbes (2013a,b) that it independently marks an associative or group interpretation for determinate nouns, and co-occurs underlyingly with a number-neutral *t*. The lack of surface co-occurrence with *t* is explained by morphophonological means (specifically, the degemination rule in (31)).

As remarked by all who have discussed this morpheme (e.g. Rigsby 1986; Tarpent 1981, 1987b), *dip* introduces a “group” interpretation when used with a determinate noun. The noun in a *dip NP* sequence serves as the representative member of a group whose other members are identified contextually.

(38) *dip*      *nigwood'y*  
 ASSOC    father-1SG.II  
 ‘my parents’ or ‘my dad and his friends’

(39) *jabis*              *dip*              *ts'iits'*              *ahl*              *jam*      *miyup*  
 make-TR=CN    ASSOC      grandmother    OBL=CN    cook    rice  
 ‘The grandmothers made rice.’  
*BS: There could be grandfathers there too, and only one ts'iits'.*

Corbett’s (2001) crosslinguistic discussion of number identifies this as a specific *associative* subset of plurality, which sometimes overlaps with a more familiar additive interpretation. The terminological distinction between additive and associative plurals is important to make in Gitksan, however, as *dip* is crucially restricted to an associative interpretation, contrasting semantically with numerous other morphological plurals in the language.<sup>21</sup>

As shown in (40), reduplicative plural morphology is not able to perform this semantic function:

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<sup>21</sup> Other subsets of the general ‘plural’ notion are similarly marked in Gitksan; Rigsby (1986) notes distributive and collective plural morphemes (*ga-* and *-(t)xw* respectively). The specifically distributive vs. collective usage of these morphemes, in contrast to other plural interpretations, merits further investigation.

- (40) doxhl **sipsip** goohl laxyip  
 lie.PL **PL~bone** LOC=CN on-earth  
 ‘There are bones on the ground.’

*Researcher: Could there be one bone, and other dog toys on the ground, like balls (hlit’)?*

*Consultant: No.*

Further, as demonstrated by native speaker judgements to (41)–(42), it does not seem to be possible for *dip* to function as a traditional additive plural, as is for example possible when names are pluralized in English.

- (41) saksins dip Michaels hla ga'windiit  
 clean-CAUS=CN ASSOC Michael-PL NMZ PL-teeth-3PL.II  
 ‘The Michaels (= Michael and his reflections in the mirror) cleaned their teeth.’

*Consultant: I’m not sure if “Michaels” is right, but it seems like there should be something there.*

- (42) k'ap lukw'il wilix wila ky'uulst Michaelhl  
 EMPH very smart how one.hum-PASS=CN Michael=CN  
 wilaa'y  
 know-1SG.II

‘The Michaels I know are very smart.’

*Consultant: How do I say a plural for Michaels?*

*Researcher: Could you say **dip Michael**?*

*Consultant: No, not in Gyaanimx.*

The absence of an additive interpretation for determinate nouns suggests that *dip* is strictly associative.<sup>22</sup>

With the semantic interpretation of *dip* clarified, we now consider some motivation for removing this morpheme from the connective system.

First, to our knowledge there is no previously identified case of an article sensitive to this semantic category (though this is not to say such a thing would not be possible). Instead, associatives crosslinguistically tend to be linked to other types of plural markers, whether by sharing their form or other properties of their distribution. We note that in Tsimshianic, *dip* is homophonous with the 1st plural Series I clitic, which appears pre-predicatively rather than pre-nominally. Given

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<sup>22</sup> An additive interpretation is possible for kinship terms, though this is usually accomplished with the distributive. *Dip* may co-occur with this morpheme.

- (vii) (dip) ganits'iits'xw'm  
 (ASSOC) DISTR-grandmother-PASS-1PL.II  
 ‘our grandmothers’

Gitksan generally allows different types of plural markers to co-occur in this fashion, e.g. simultaneous prefixation and reduplication on common nouns. We therefore do not take the co-occurrence facts as evidence against an analysis of *dip* as a plural marker.

the inherent associativity of first person plurals (which mark the self and a group of others, rather than multiple selves), it seems that these two morphemes are likely diachronically linked, though we do not speculate which usage might have been derived from the other.

Second, we note some optionality in the distribution of *dip* that goes unexplained under an analysis of this morpheme as a connective. Tarpent (1981:400) notes that *dip* may co-occur with Series III independent pronouns as a way of emphasizing a group interpretation.

- (43) a. (dip) 'nuu'm  
 (ASSOC) 1PL.III  
 'us (guys)'
- b. (dip) 'nisi'm  
 (ASSOC) 2PL.III  
 'you guys'
- c. (dip) 'nidiit  
 (ASSOC) 3PL.III  
 'them (guys)'

The use of *dip* with coordinated determinate nouns is also optional, as shown in (44) below:

- (44) si'anaax (dip) Henry gans Lisa  
 CAUS-bread (ASSOC) Henry PH.CNJ=CN Lisa  
 'Henry and Lisa baked bread.'

Such a pattern more closely resembles that of nominal plural marking, which is often required to achieve a plural interpretation, but is not strictly obligatory; speakers we have worked with occasionally omit it, and when asked comment that an added plural marker makes a sentence “more correct.”

In light of these facts, it is clear that the inclusion of *dip* in the connective system does not simply introduce a distinction on the basis of number. Rather, it introduces optionality on a semantic basis into a system which otherwise obligatorily marks a noun class distinction, and obligatorily alternates for grammatical function. The connective system without *dip* can be described cleanly in terms of agreement with syntactic properties. Given that *dip* can be understood equally well as an independent marker of associativity, we argue that this added simplicity is worth the cost of removing it from the connective system.

We now consider the precise nature of this cost: the mechanisms required to explain why, of all three of the connectives, *dip* only co-occurs with =s.

Its inability to co-occur with =hl is easy to explain: all accounts of *dip* require that it be restricted to the class of determinate nouns. This clashes with the strictly non-determinate properties of =hl. Such a distribution is even more restricted than is crosslinguistically common for associatives, usually restricted to use only with human or animate nouns, and is illustrated in (45).



- (48) 'witxw t John go'os Mary  
 come DM John LOC=PN Mary  
 'John went to Mary's place' (Hunt 1993:113)

By hypothesis, this means that the underlying representation for a preposition with a determinate noun phrase complement must include Series II *-t*, which induces softening of determinate *t* to *=s* and then deletes by deaffrication, as shown in the schematic derivation in (49).<sup>26</sup>

- (49) *a-t t Mary* → *a-t=s Mary* → *a=s Mary*  
 (softening) (deaffrication)

This means in turn that we must effectively treat all prepositions in IT as inflected. We see no objection to this move, either empirically or theoretically, though it must also be admitted we have no independent evidence to support it.

## 5 Extending the analysis to Coast Tsimshian

On any analysis, the IT connective system and its relation to the pronominal system raises questions as to how it arose, and which of its components are shared by its CT relatives. In this section, we therefore compare the IT system with what we can deduce of the CT system from Dunn (1979*a,b*), Mulder (1994), Stebbins (2003), Bach (2004), and Anderson and Ignace (2008). This is not the first time the comparison has been made: Peterson (2004) is an earlier attempt, though with somewhat different analytical assumptions (in particular, he adopts Hunt's /s/-case analysis).

In Tables 9 and 10, we compare the two systems systematically, first in independent and then in dependent clauses. Differences between the CT and IT systems are bolded.

Several comments are in order involving the CT forms. First of all, we have confined ourselves to the 'plain' connective system, eschewing an analysis of the more complex formal or 'elaborate' system first recorded by Boas (1911) and discussed in detail by Mulder (1994).<sup>27</sup> Second, we have glossed over certain

<sup>26</sup> Series III pronouns can also optionally be preceded by *as* (yielding e.g. *as 'niin* 'to you', *as 'nidiit* 'to them', etc.) as an alternative to the specialized oblique pronominals beginning with *loo* (see note 25). There is an added complication here in that Series III pronouns do not normally occur with DM *t*: however, cases where the two do co-occur are reported in Davis and Brown (2011), along with the suggestive comment that "today, they'd leave it out". It seems that independent pronouns used to conform to the general determinate pattern, but have recently lost their initial *t* in IT (it is retained after the phrasal coordinator *gan*, and is still present in CT). For present purposes, we will assume a late local *t*-deletion rule for Series III pronouns only, ordered after softening.

<sup>27</sup> It is worth mentioning here Tarpent's interesting take on the CT elaborated system, presented in an unpublished 1998 paper using mostly Southern Tsimshian (Sgüüxs) data. She segments the 'complex' forms into the simple forms plus two 'optional postclitics' =*da'a* and =*ga'a* with deictic meanings (absent/proximal and remote/distal, respectively). She then claims that because the postclitics appear in phrase- as well as sentence-final position (unlike their IT counterparts) they end up adjacent to connectives, and various

phonological complications: in particular, the common noun =*a* connective is deleted systematically before vowels and resonants, and the vowel that we have given as simply ‘*V*’ (which we treat as epenthetic, following Bach 2004) varies between *a* and *i* under conditions which we do not understand. And third, following Bach (2004) and Peterson (2004) but contra Dunn (1979*a,b,c*), Mulder (1994), and Anderson and Ignace (2008), all of whom follow

**Table 9:** CT-IT connective comparison: Independent clauses

	S		A		O	
	CT	IT	CT	IT	CT	IT
S <sub>CN</sub>	= <i>a</i>	= <i>hl</i>				
S <sub>DM</sub>	=( <i>V</i> ) <i>s/t</i>	<i>t</i>				
A <sub>CN</sub> -O <sub>CN</sub>			= <i>a</i>	= <i>hl</i>	= <i>a</i>	= <i>hl</i>
A <sub>CN</sub> -O <sub>DM</sub>			= <i>a</i>	= <i>hl</i>	=( <i>V</i> ) <i>t</i>	<i>t</i>
CAN			= <i>a</i>	= <i>hl</i>		
A <sub>DM</sub>			=( <i>V</i> ) <i>s</i>	= <i>s</i>		
A <sub>DM</sub> -O <sub>CN</sub>			=( <i>V</i> ) <i>s</i>	= <i>s</i>	= <i>a</i>	= <i>hl</i>
A <sub>DM</sub> -O <sub>DM</sub>			=( <i>V</i> ) <i>s</i>	= <i>s</i>	=( <i>V</i> ) <i>t</i>	<i>t</i>
O <sub>CN</sub>					= <i>a</i>	= <i>hl</i>
O <sub>DM</sub>					=( <i>V</i> ) <i>t</i>	<i>t</i>

phonological processes then obscure their status as separate morphemes, leading Boas and others following him to misanalyze them as ‘complex connectives’.

**Table 10:** CT-IT connective comparison: Dependent clauses

	S		A		O	
	CT	IT	CT	IT	CT	IT
S <sub>CN</sub>	= <i>a</i>	= <i>hl</i>				
S <sub>DM</sub>	=( <i>V</i> ) <i>s</i>	= <i>s</i>				
A <sub>CN-O<sub>CN</sub></sub>			= <i>a</i>	= <i>hl</i>	= <i>a</i>	= <i>hl</i>
A <sub>CN-O<sub>DM</sub></sub>			= <i>a</i>	= <i>hl</i>	=( <i>V</i> ) <i>t</i>	<i>t</i>
A <sub>CN</sub>			= <i>a</i>	= <i>hl</i>		
A <sub>DM</sub>			=( <i>V</i> ) <i>t</i>	= <i>s</i>		
A <sub>DM-O<sub>CN</sub></sub>			=( <i>V</i> ) <i>t</i>	= <i>s</i>	= <i>a</i>	= <i>hl</i>
A <sub>DM-O<sub>DM</sub></sub>			=( <i>V</i> ) <i>t</i>	= <i>s</i>	=( <i>V</i> ) <i>t</i>	<i>t</i>
O <sub>CN</sub>					= <i>a</i>	= <i>hl</i>
O <sub>DM</sub>					=( <i>V</i> ) <i>s</i>	= <i>s</i>

Boas's original (1911) analysis, we treat the A connectives as simply =*a* and =(*V*)*t*, rather than =*da* and =*dVt*, with the initial *t* (voiced to *d*) actually representing the very same Series II third singular suffix *-t* that much of our analysis of the IT system has revolved around.

Once we have 'cleaned up' the CT connective system in this way, it is clear that it is very close to the IT system. The common noun connectives have different forms (CT has =*a* where IT has =*hl*), but there are traces of =*hl* in the CT system (it replaces =*a* in certain irrealis environments, including under negation and in questions and conditionals: Dunn 1979*a*, Tarpent 1998, Bach 2004).<sup>28</sup> The likelihood is that both =*hl* and =*a* originated from a Proto-Tsimshianic \*=*ahl* connective.<sup>29</sup>

As far as the determinate connectives are concerned, the first point to make is that the same elements (*t* and =*s*) appear in more or less the same environments

<sup>28</sup> Peterson (2004:336) points out that the correspondence between IT =*hl* and CT =*a* extends to non-standard uses of the CN connective: in particular, where the IT imperfective marker *yukw* selects =*hl* before its complement, its CT cognate *yagwa* can be analyzed as consisting of a root *yakw* plus the common noun connective =*a*.

<sup>29</sup> A fluent speaker whom we have worked with from Gitsegukla, but with extensive family connections further west in CT territory, systematically uses =*ahl* instead of =*hl* as the common noun connective in Gitksan. We do not know if this represents a hitherto undocumented 'interlanguage' between IT and CT or if her dialect represents a throwback to an earlier form of IT.

in both systems. Of note is the limited distribution of =s in CT: just as in IT, it only ever appears immediately adjacent to the predicate.

In fact, there are only two significant differences between the two systems. The first is in intransitive independent clauses with determinate subjects: whereas *t* is consistently used in IT (see (3) above), Dunn (1979*b*) and Mulder (1994) report that =s is used in CT, as shown in (50) and (51).

(50) ada nah manyaas üünalda ła huup!  
 then PFV walk.up=PN Arnold=PREP INCEP dark  
 ‘Arnold used to walk up from the shore in the dark.’ (Dunn 1979*b*:133)

(51) nah ts'lm'wiihawtgas Mardzi da nawaabu  
 PFV into.from-cry=PN Margie PREP POSS-house-1SG.II  
 ‘Margie came into my house crying.’ (Mulder 1994:57)

This CT pattern suggests that there should be a Series II *-t* suffix present in intransitive independent clauses, which triggers softening of the determinate marker *t* to =s and then undergoes deletion via deaffrication. Interestingly, there is evidence that this is indeed the case, offering rather striking support for our account. Unlike in IT, in CT Series III independent pronouns are not used in absolutive contexts in independent intransitive clauses: instead, a fourth suffixal paradigm consisting of reduced variants of the independent pronouns is employed, termed the ‘definite objective’ paradigm by Dunn (1979*c*), and the ‘marked absolutive’ paradigm in Dunn (1979*a*). Significantly, this paradigm overlaps in first person singular and third person with the Series II paradigm: in particular, the third person form is simply *-t*. Assuming, then, that this ‘marked absolutive’ *-t* acts exactly like Series II *-t* for the purposes of softening and deaffrication, the difference between CT and IT falls out without stipulation.

However, there is a further interesting wrinkle in the CT data.<sup>30</sup> Anderson and Ignace (2008) (see also Sasama 1995:7, note 8) give a number of examples of intransitive clauses introduced by perfective *nah* with subjects introduced not by =s but by the determinate marker *t* (with epenthetic vowel insertion):

(52) nah yaawxgat Meli  
 PFV eat[INTR]=DM Mary  
 ‘Mary has eaten.’

(53) nah hadiksat Sally  
 PFV swim=DM Sally  
 ‘Sally has swum.’

(54) nah sisaaxsat Doug  
 PFV laugh=DM Doug  
 ‘Doug has laughed.’

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<sup>30</sup> We are grateful to Margaret Anderson for help with the CT data here.

This is, of course, identical (except in phonetic detail) to the IT system. There are two possible explanations. The first is that the cases in (50) and (51) are actually *dependent* clauses, introduced exceptionally by *nah*. Dunn (1979*a*) raises this possibility by claiming that in CT – unlike in IT – the dependent-independent clause distinction is not categorically induced by a set of designated ‘dependent markers’, but is clinal, with certain tense-aspect markers (*yagwa*) most likely to induce dependent inflection, others (*dm*) least likely, and still others (*la* and *nah*) intermediate in status.

The other alternative is that there is a language shift taking place, with older speakers preferring =*s* and younger speakers shifting to *t*. The shift would involve a change in the pronominal paradigm used by CT speakers in independent intransitive clauses, with the ‘definite objective’ or ‘marked absolutive’ -*t* being eliminated altogether, thus bringing CT in line with IT in these contexts. Interestingly, the paradigms for this pronoun series in Dunn (1979*c*:226) and in Anderson and Ignace (2008:303) differ in exactly this way: Dunn gives -*t*, where Anderson and Ignace have Ø.

The second difference between the connective systems of CT and IT is found in transitive dependent clauses, where the A argument is marked with *t* in CT, but =*s* in IT. This is shown in (55) and (56):

(55) *Coast Tsimshian*

- a. *yagwat*      *łmoomdit*      *Meli*  
 IPFV=3.I      help-3.II=DM      *Mary*  
 ‘Mary is helping him.’ (Bach 2004)

*Interior Tsimshian (Gitksan)*

- b. *yukwt*      *hlimoos*      *Mary* ('nit)  
 IPFV=3.I      help=PN      *Mary* (3.III)  
 ‘Mary is helping him.’

(56) *Coast Tsimshian*

- a. *yagwat*      *łmoomdit*      *Melit*<sup>31</sup>      *Dzon*  
 IPFV=3.I      help-3.II=DM      *Mary=DM*      *John*  
 ‘Mary is helping John.’ (Bach 2004)

*Interior Tsimshian (Gitksan)*

- b. *yukwt*      *hlimoos*      *Mary t*      *John*  
 IPFV=3.I      help=PN      *Mary DM*      *John*  
 ‘Mary is helping John.’

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<sup>31</sup> The determinate connective *t* is usually written together with the preceding word in CT, unlike in most work on IT. This possibly signifies that it is more closely bound to the preceding prosodic word (like the common noun connectives =*hl*/*=a*), although given that *t* may front together with its NP complement in focusing constructions in CT (as is also possible for more conservative IT speakers), the difference is more likely to be simply orthographic.

Note that in CT, both the third person Series II suffix *-t* and the determinate connective *t* surface overtly in the sequence *-d=it*, separated by what we assume to be an epenthetic vowel [i], which triggers voicing on the immediately preceding *-t*. Softening fails in this environment: but why?

There is an obvious answer to this question: in CT, the third person Series II suffix *-t* is *not* coindexed with the subject, but with the *object*, and therefore the coindexation condition on softening is not met. This means that the difference between the languages falls out from the lack of ‘double A’ marking in CT, whose Series II *-t* shows a straightforward absolutive pattern in dependent clauses, just as in Table 2 above.

We take it as a significant advantage of the analysis we have provided for the IT connective system that it extends so straightforwardly to the CT system, with two truly ‘micro-’parametric adjustments. Otherwise, exactly the same set of morphophonological rules, operating in the same order, accounts for both systems.

## 6 Conclusion

We believe the account we have given of the Tsimshianic connective system, which has drawn on the important contributions of Tarpent, Hunt, Dunn, Bach, and Peterson, is the most successful description yet. Even so, our analysis is far from simple: it appeals to three morphophonological rules (softening, deaffrication and degemination) which are not only specific to particular morphological environments, but in the case of softening, also subject to a syntactic condition on coindexing. We welcome suggestions on how to simplify the analysis we have provided without losing its empirical coverage.

Beyond the details of our analysis, however, we also think it is important to point out that *any* analysis will have to confront the fact that the Tsimshianic connective system is both quite regular and remarkably opaque. Generally, morphological complexity is measured in terms of the sheer number of morphemes per word, leading both Rigsby and Tarpent to comment that IT is less morphologically complex than e.g., Wakashan and Salish. However, the combination of rampant homophony within the inflectional system (how many *t* morphemes can a language tolerate?) and significant morphophonological opacity (with complex rule-ordering necessary to derive the surface forms) would appear to make Tsimshianic uniquely difficult from the viewpoint of language acquisition. And yet the same system in its essentials characterizes both IT and CT, suggesting a surprising degree of diachronic stability, and therefore learnability. Not for the first time, we are struck with wonder at the human capacity for learning complex grammar.

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# A morphemically glossed Kwak’wala text from the Boas-Hunt corpus\*

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**Abstract:** This paper provides a morphemically glossed excerpt from a Kwak’wala text. It is intended as an instructional tool for linguists and others who are interested in accessing and analyzing the narratives in the Boas-Hunt corpus.

**Keywords:** Kwak’wala, George Hunt, Franz Boas

## 1 Introduction

This publication reproduces a portion of a narrative from the Kwak’wala textual corpus assembled by Franz Boas and George Hunt,<sup>1</sup> along with a transcription into the orthography of the North American Phonetic Association, morphemic glosses, and an interlinear translation. It is meant to assist linguists and students of oral literature who are interested in accessing narratives from the Boas-Hunt corpus in their original language, but who may have difficulty interpreting the texts’ morphological features or deciphering Boas’s Kwak’wala orthography. The excerpt that I reproduce is the second half of a narrative that Boas titled “Star Story” (Boas 1935a:92–94, 1943:92–94), in which a sea otter drags several human hunters into the sky, where they are transformed into the Pleiades and the constellation Orion.

The provenance of “Star Story” is unclear. The tale focuses on a *Gusgiməx<sup>w</sup>* (Koskimo) hunting party and mentions two *Gusgiməx<sup>w</sup>* and *Goḥinuχ<sup>w</sup>* hunters by name.<sup>2</sup> This likely suggests that the story originated in the Quatsino Sound region of northwestern Vancouver Island, where the *Gusgiməx<sup>w</sup>* and *Goḥinuχ<sup>w</sup>* tribes had their territories (Galois 1994:347–349). However, whereas most of the narratives published alongside “Star Story” are prefaced with introductory labels identifying the tribe to which each tale belongs, Boas does not provide this information for

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<sup>1</sup> For an introduction to the corpus and its history, consult Berman (1991:13–57 and 1992).

<sup>2</sup> Here, I have followed Boas’s (1966:48) transcription (*G.ósg·iməx<sup>w</sup>*) and analysis of this tribal name. However, in my morphemic analysis of “Star Story,” I transcribe the name as *Gusgimux<sup>w</sup>*, in accordance with how Boas transcribes it (*g.ḏsg·imuxw-*) in his edition of the text. The initial consonant in *Gusgiməx<sup>w</sup>* is uvular. The initial consonant in *Goḥinuχ<sup>w</sup>* is velar, but I capitalize the *G* at the beginning of this proper noun.

“Star Story.” He simply labels it as having been “Recorded by *George Hunt*.” The text also lacks the dialect-specific features (such as frequent use of the suffix *-kas*, special vocabulary, and certain phonological tendencies<sup>3</sup>) that appear in some of the narratives Hunt documented<sup>4</sup> among the tribes of northwestern Vancouver Island.<sup>5</sup> Hunt may have drawn “Star Story” from his own narrative repertoire without consulting a Gʷsgiməx<sup>w</sup> or Gop̓inuχ<sup>w</sup> narrator.<sup>6</sup> I cannot determine how Hunt first became familiar with the tale or whether it originated in the Quatsino Sound region.

The etiological content of “Star Story” differs from depictions of the constellation Orion in other Kwak’wala texts (see Boas 1935*b*:126). Two other narratives (Boas and Hunt 1905:383–387, 127–128) associate Orion with a heavenly canoe bearing either nine or fourteen crewmen and a skipper. One of the skipper’s names, “Harpooneer-of-Heaven” (translation from Boas and Hunt 1905:383), is nearly identical to the name for Orion’s Belt that appears in “Star Story.” The skipper of the canoe gives supernatural gifts to the tales’ protagonists. In one of the narratives, the protagonist is a celestial ancestor figure who travels across the sky-world before descending to the earth and becoming the progenitor of a Gʷsgiməx<sup>w</sup> *n̓əṃ̓ima*.<sup>7</sup> His encounter with “Harpooneer-of-Heaven” occurs

<sup>3</sup> E.g. spirantization of velar and uvular stops in word-final position (Boas 1947:295).

<sup>4</sup> While a small fraction of the texts in the Boas/Hunt corpus were dictated directly to Boas by Kwak’wala speakers, Hunt documented most of the narratives, and he typically recomposed them in writing after they were told to him (Berman 1991:34, 1994:491). As Berman notes, “The narratives we have are *Hunt*’s tellings of the story, not the words of the Indian who told the story to Hunt and whose name Boas often appended to the text in the published version” (Berman 1991:34). Furthermore, Berman has adduced strong evidence to the effect that “Hunt altered the material...to conform to his *own* narrative style” (Berman 1983:21). Therefore, the dialect-specific features to which I refer reflect Hunt’s efforts to imitate the dialects of northwestern Vancouver Island. Boas made the following statement regarding a narrative cycle that exhibits these linguistic features: “Mr. Hunt has tried to record the following traditions in the Lálasiqwala dialect. The language is, however, not quite consistent” (Boas and Hunt 1906:185).

<sup>5</sup> Hunt did not always imitate regional dialects when recomposing narratives that originated among groups from northwestern Vancouver Island. Therefore, the fact that “Star Story” does not exhibit special dialectal features should not be taken as evidence against a northwestern provenance. However, the absence of these distinctive features leaves us without a firm basis on which to establish the geographic origins of the narrative, given that Boas did not supply an introductory label identifying the tribe to which the story belongs. For examples of texts that Hunt wrote in northwestern dialects, see Boas and Hunt (1905:393–397, 1906:185–224) and Boas (1910*a*:244–285, 296–352).

<sup>6</sup> Professor Daisy Rosenblum made me aware of the fact that some of the narratives in the Boas-Hunt corpus originated this way. It should be noted that in the anthology containing Boas’s translation of “Star Story” (Boas 1935*a*), Boas frequently labels texts as having been “Recorded by George Hunt.” Normally, he does not italicize the name, “George Hunt.” However, when Boas identifies the narrators who told the stories in the anthology, he italicizes their Kwak’wala names. Interestingly, above his translation of “Star Story,” Boas prints the label, “Recorded by *George Hunt*,” with “*George Hunt*” in italics. This may indicate that Hunt was not only the documenter, but also the source, of “Star Story.”

<sup>7</sup> For a definition and brief discussion of this type of social division, see Codere (1990:366–368).

while he is still in the sky. In another narrative, the personified constellation Orion is depicted as the owner of a “fog-box” (translation from Boas 1910a:165), which causes foggy weather when it is opened.<sup>8</sup> None of these narratives gives the impression that the constellation Orion was once a human being or a group of human beings who lived on earth before being pulled into the sky and transformed into stars. Nevertheless, like “Star Story,” two of the other tales I have cited (Boas and Hunt 1905:383–387, 127–128) associate Orion with sea-mammal hunting.<sup>9</sup>

In the morphemic analysis that follows, seven separate tiers are used to represent each segment of the text. In the first tier, I reproduce the originally published text of “Star Story” in Boas’s orthography. The second tier contains a transcription of the text into the NAPA orthography.<sup>10</sup> My transcriptions of vowels, particularly Boas’s *ē* and *e*, are extremely tentative. The next three tiers contain segmented morphemes, morphemic glosses, and a word-level translation. Then, I reproduce Boas’s sentence-level translation, followed by a modified version of his translation that more closely matches my morphemic analysis of the text.

An explanatory list of abbreviated morphemic glosses appears at the end of this paper. However, it is helpful to introduce in advance a particularly complex set of suffixes and the glosses I use to represent them.<sup>11</sup> Boas (1947:271–272, 284–285) analyzes a morphological pattern involving words that express spatial relationships and that are formed from the following three items, in order: (1) a postural or other root; (2) a locative suffix; and (3) either the suffix *-e?*, *-ala*, or *-d*.<sup>12</sup> The first of these three components (a postural or other root) denotes the figure in the spatial relationship that the word expresses, while the second of these three components (a locative suffix) denotes the ground. The third component (*-e?*, *-ala*, or *-d*) indicates whether the subject of the verb is the figure, the ground, or a separate entity. If *-e?* (which I gloss as LOC1) is used, then the root denotes

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<sup>8</sup> In his discussion focusing on depictions of the sky-world in Kwak’wala oral literature, Boas (1935b:126) has already assembled and compared each of the narratives I have reviewed, implicitly calling attention to the differences between how the constellation Orion is portrayed in “Star Story” and how it is depicted in the other tales. I rely on Boas’s identification of the figures depicted in these narratives as personifications of the constellation Orion (*ibid.*). Presumably, Boas relied, in turn, on information supplied by Hunt. Berman (1991:599) states this identification in more tentative terms, suggesting that the canoe and its crewmen “*seem to represent the constellation Orion*” (Berman 1991:599, emphasis added).

<sup>9</sup> Incidentally, narratives paralleling “Star Story” have been documented among Inuit groups. In a discussion focusing on genres of Inuit oral literature, Boas (1904:4) summarizes one narrative as follows: “A number of bear-hunters, their sledge, and the bear which they were pursuing, rose to the sky and became the constellation Orion.” A fuller form of this narrative can be found in Boas (1901:174), “The Hunters transformed into a Constellation.” See, also, the examples cited in Boas (1901:360).

<sup>10</sup> My transcription is guided by the table of Kwak’wala orthographies that has been produced by the School District 85 First Nations Education Council (2010:6).

<sup>11</sup> Throughout the discussion that follows, I merely reiterate Boas’s analysis of the paradigm in question (1947:271–272, 284–285).

<sup>12</sup> The form of the third suffix varies considerably depending on its phonetic environment (see Boas 1947:273, 365).

the subject, and the locative suffix denotes where the subject is. The resulting word means, roughly, “the [root] is at the [locative suffix].” If *-ala* (which I gloss as LOC2) is used, then the locative suffix denotes the subject or a spatially circumscribed part of the subject (such as a body-part, if the subject is animate), and the root denotes a primary object that the subject possesses at the location denoted by the locative suffix. The resulting word means something along the lines of, “the [subject] has the [root] at the [locative suffix].” Finally, if the suffix *-d* (which I gloss as LOC3) is used, then the verb describes the act of placing the item or entity denoted by the root at the location denoted by the locative suffix.<sup>13</sup> The resulting word means, roughly, “to place the [root] at the [locative suffix].” For purposes of illustration, I now reproduce a set of examples cited by Boas (1947:272) in his discussion of this morphological paradigm. The words exhibiting the phenomenon and the segmented suffixes *-e?*, *-ala*, and *-d* are printed in bold:

- (1) wε    lafaʔi                      ɕumxɕumgiʔa  
 wε    la-fa=i                      ɕumx-ɕum-giʔa  
 well    AUX-QUOT=SBJ    RED-wealth-MAKE (PN)  
**ñəxʷənalaxida**  
 ñəxʷ-kən-ala=χida  
 be.close-SURFACE.OF.LONG.BODY<sup>14</sup>-**LOC2**=OBJ1  
 ɕiɕasasGəmi  
 ɕi-ɕasa-sGəm=i  
 RED-sea.otter-ROUND=DEM  
**“to have blanket on body”** (Boas 1947:272)

**ñəxʷənaʔa.**  
 ñəxʷ-kən-eʔ=a  
 be.close-SURFACE.OF.LONG.BODY-**LOC1**=DEM  
**“blanket”** (Boas 1947:272) (i.e. nominalised form of ‘being close to surface of body’)

“Wealthy [PN] wore a marten blanket” (Boas and Hunt 1905:74).

- (2) wε    lafaʔi                      Gʷaʔa    laʔi  
 wε    la-lʔ=i                      Gʷaʔ-a    la=i  
 well    AUX-QUOT=SBJ    finish-? AUX=SBJ

<sup>13</sup> The suffix I gloss as ‘LOC3’ is homophonous with a more general transitivity suffix (Boas 1947:273, 365) that I label ‘TRANS’. I believe LOC3 and TRANS are, in fact, the same morpheme. Boas (1947:273) has already implied that this is the case: in his discussion of the suffix I label ‘TRANS’, Boas provides several examples of words in which this suffix functions in the same manner as the suffix that I label ‘LOC3’. Nevertheless, I use the gloss ‘LOC3’ when the morpheme in question occurs in complementary distribution with LOC1 and LOC2.

<sup>14</sup> Boas (1947:357).

**ḥəxwənda**

ḥəx<sup>w</sup>-kən-d-a

be.close-SURFACE.OF.LONG.BODY-LOC3-?

yəsis

yə=s=is

PRONOMINAL=OBJ2=3.POSS

“to put blanket on body” (Boas 1947:272)

**ḥəxwənaʔi**

ḥəx<sup>w</sup>-kən-eʔ-i

be.close-SURFACE.OF.LONG.BODY-LOC1=DEM

“blanket” (Boas 1947:272) (i.e. nominalised form of ‘being close to surface of body’)

“Then he finished, and put on his blanket” (Boas and Hunt 1905:65).

In sentence (1), we find a word that denotes *being* a blanket on the surface of a body (*ḥəxwəneʔ*, formed with *-eʔ*, ‘LOC1’) alongside of a word that denotes *having* a blanket on the surface of one’s own body (*ḥəxwənaʔa*, formed with *-ala* ‘LOC2’). In sentence (2), we find a word that denotes *putting* a blanket onto the surface of a body (*ḥəxwənda*, formed with *-d* ‘LOC3’).

## 2 Morphemic analysis of “Star Story”

### Key

<b>a. Kwak’wala text as it was first published (Boas 1943:93–94) in Boas’s orthography.</b>
<b>b. Kwak’wala text transcribed into the orthography of the North American Phonetic Association.</b>
<b>c. Morphemic segmentation.</b>
<b>d. Morphemic glossing.</b>
<b>e. Word-level translation.</b>
<b>f. Boas’s (1935a:93–94) sentence-level translation.</b>
<b>g. Modified version of Boas’s sentence-level translation.</b>

1.

a. wä	la'läe	lents!es	läxa
b. wε	la'əʔi	lənčis	laχa
c. wε	la-!a=i	la-ənčis	la=χa
d. well <sup>15</sup>	SEQ-QUOT=SBJ	go-DOWN.TO.BEACH <sup>16</sup>	PREP=OBJ1
e. Well,	then, it is said <sup>17</sup>	they went down-beach	to the
f. Then	q <sup>18</sup>	they went down the	
g. Well,	then, it is said that	they went down to the <sup>19</sup>	

2.

a. L!emáise	lax
b. χəmaʔisi	laχ
c. χəma-is=i	la=χ
d. beach-ON.BEACH=DEM	PREP=OBJ1
e. beach	to
f. beach to	
g. beach to	

3.

a. hã <sup>ε</sup> nédzasases
b. hənizasis
c. hən-is-as=as=is
d. hollow.object.is.located <sup>20</sup> -ON.BEACH-PLACE=GEN=3.POSS
e. location on the beach of their
f. where
g. where their

<sup>15</sup> I follow Berman (1983:1; 1991:288–321) in glossing and translating *wε* as “well.”

<sup>16</sup> Boas (1947:304). I have drawn extensively on lexicographic sources throughout. I generally provide citations to specific sources when I borrow unusual or multi-word glosses from them, especially (but not exclusively) when I reproduce these multi-word glosses verbatim.

<sup>17</sup> I follow Boas (1947:245) in translating the suffix *-!a* as “it is said.”

<sup>18</sup> The letter *q*, short for “quotative,” is Boas’s representation of the suffix *-!a* (see Berman 1991:357).

<sup>19</sup> The first half of the text, which I have not reproduced, describes the hunters’ preparations for the expedition that follows.

<sup>20</sup> Cf. Boas (1948:90) and Lincoln and Rath (1981:383).

4.

a. ǎléwats!e	ɣwáɣwagwema.
b. ʔəliwaçi	x <sup>w</sup> ax <sup>w</sup> agwəma.
c. ʔəlix <sup>w</sup> -açi	x <sup>w</sup> a-x <sup>w</sup> ak <sup>w</sup> -əm=a
d. sea.mammal.hunting <sup>21</sup> -HOLLOW.CONTAINER <sup>22</sup>	RED-canoe-DIM=DEM
e. container used for hunting sea mammals	little canoe.
f. the small hunting canoe was,	
g. little sea-mammal-hunting canoe was.	

5.

a. wä, á <sup>ε</sup> Em <sup>ε</sup> láwise	háyxastálisēleda
b. wē ʔoʔəm <sup>l</sup> awisi	hayaxstalisəlida
c. wē ʔo- <sup>m</sup> - <sup>l</sup> a-wis=i	hi-əɣsta-lis-əla=ida
d. well just-OI-QUOT-CONN=SBJ	go.straight-OPENING-BEACH-CONT=SBJ
e. Well and so, it is said, they just	went straight to the shore <sup>23</sup> the
f. (See below) <sup>24</sup>	
g. (See below)	

6.

a. ǎlé <sup>ε</sup> winoxwe	qa <sup>ε</sup> s
b. ʔəliw <sup>i</sup> inux <sup>w</sup> i	qaʔs
c. ʔəlix <sup>w</sup> -inux <sup>w</sup> =i	qaʔ=s
d. sea.mammal.hunting-PROF=DEM	PURP=3.POSS
e. sea-mammal hunters	in order to
f. and so q, the sea hunters went straight down to the shore and	
g. Well, and so, it is said, the sea-mammal hunters just went straight to the shore and	

<sup>21</sup> Cf. Boas (1948:12) and Lincoln and Rath (1981:400).

<sup>22</sup> Cf. Berman (1990:13).

<sup>23</sup> A more literal translation would be, “went straight to the mouth of the beach.” I follow Boas (1935a:93), who gives the translation, “went straight down to the shore.”

<sup>24</sup> Owing to the differences between Kwak’wala and English syntax, it often makes sense to delay sentence-level English translations until after both the verb and the subject have appeared in the original Kwak’wala sentence.

7.

a. $\epsilon$ mógwa $\epsilon$ le $\epsilon$ sexes	dääkwe	láxa
b. mǔgwaliʔsixis	dəʔak <sup>w</sup> i	laya
c. mǔ <sup>25</sup> -gaʔt-iʔ=s=x=is	da-k <sup>w</sup> =i	la=χa
d. load-ONTO <sup>26</sup> -NMLZ=3.POSS=OBJ1=3.POSS	CARRY-PASS=DEM	PREP=OBJ1
e. load their	things that were carried	onto the
f. put down what they carried at the		
g. loaded what they were carrying at the		

8.

a. māg·EXsta $\epsilon$ lisasa	dÉmsx·e.	wä,
b. magəχstaʔisasa	dəmsxi.	wε
c. mak-əχsta-ʔis <sup>27</sup> =asa	dəm-sxi	wε
d. next.to <sup>28</sup> -OPENING-BEACH=GEN	salt <sup>29</sup> -ʔ <sup>30</sup>	well
e. shore of the	sea.	Well,
f. edge of the sea.		
g. shore of the sea. Well,		

9.

a. g·āx $\epsilon$ lāe	χwÉlax $\epsilon$ wesdes	láxa
b. gaχʔəʔi	x <sup>w</sup> ilaxwəsdis	laya
c. gaχ-fa=i	x <sup>w</sup> it-aqa-wəsdis	la=χa
d. AUX-QUOT=SBJ	go.back-PAST-UP.FROM.BEACH <sup>31</sup>	PREP=OBJ1
e. then, it is said	go back up-beach	from the
f. Then q they came up again on the		
g. then, it is said that they went back up from the		

<sup>25</sup> Boas (1948:148) glosses *mawa* as “to move away, move a pile of things, to move with goods.” Lincoln and Rath (1981:88) gloss *mwa-* as “to pile, load, transport.”

<sup>26</sup> See Boas (1947:246).

<sup>27</sup> See Boas (1947:239) and Rosenblum (2014) regarding the status of the *ʔ* at the beginning of this suffix. (Cf. also Boas [1900:718] for an early interpretation of this phenomenon).

<sup>28</sup> Boas (1948:139).

<sup>29</sup> Lincoln and Rath (1981:91).

<sup>30</sup> I use question marks in the fourth tier to indicate that I am unable to determine the meaning of a morpheme.

<sup>31</sup> Boas (1947:213).

10.

a. l!emáise	qa <sup>ε</sup> s	lä <sup>ε</sup>
b. ʃəmaʔisi	qaʔs	leʔ
c. ʃəma-is=i	qaʔ=s	la=iʔ
d. beach-BEACH=DEM	PURP=3.POSS	go=NMLZ
e. beach	in order to	go
f. beach and		
g. beach, and		

11.

a. lÉlÉlEbəndɣa		ɣwáɣwagweme
b. ʃəlʃəlbəndɣa		x <sup>w</sup> ax <sup>w</sup> ag <sup>w</sup> əmi
c. ʃəl-ʃəl-ba-nd=ɣa		x <sup>w</sup> a-x <sup>w</sup> ak <sup>w</sup> -əmə=i
d. RED-carry.canoe <sup>32</sup> -HORIZ.END-TRANS=OBJ1		RED-canoe-DIM=DEM
e. carry the canoe by its ends the		little canoe
f. carried at each end the small canoe,		
g. they carried by its ends the little canoe,		

12.

a. lÉ <sup>ε</sup> wís	k!waxlɛ́á <sup>ε</sup> ye	bəgwanəm
b. ləwís	k <sup>w</sup> axɣaɣi	bəg <sup>w</sup> anəm
c. luʔ=ís	k <sup>w</sup> a-ɣla-eʔ=i	bək <sup>w</sup> -anəm
d. with=3.POSS	sit-STERN-LOC1=DEM	human-ANIMATE <sup>33</sup>
e. with their	sitting at the stern	man
f. with their spearsman,		
g. with their spearsman,		

13.

a. qa <sup>ε</sup> s	lä <sup>ε</sup>	lÉlsténdəs
b. qaʔs	leʔ	ʃəlstəndəs
c. qaʔ=s	la-iʔ	ʃəl-ʔsta-nd=s
d. PURP=3.POSS	go-NMLZ	carry.canoe-IN.LIQUID <sup>34</sup> -TRANS=OBJ2
e. in order to	go	carry the canoe into the water
f. and they launched it		
g. and they carried it into the water		

<sup>32</sup> Boas (1948:429).

<sup>33</sup> Boas (1910b:511).

<sup>34</sup> Rosenblum (2014).

14.

a. lax	L!asa <sup>ε</sup> lisas	<sup>ε</sup> m <sup>ε</sup> wédzasasa	g.wig.wäläs.
b. lax	ḡasa <sup>l</sup> isas	m̄ <sup>o</sup> wizasasa	G <sup>wi</sup> lG <sup>wε</sup> l <sup>ε</sup> s.
c. la=x	ḡas-l̄is=as	m̄ <sup>u</sup> -is-as=asa	G <sup>wi</sup> lG <sup>wε</sup> la-as.
d. PREP=OBJ1	seaside-BEACH=GEN (un)load-BEACH-PLACE=GEN	clothing-3.POSS	
e. at	area of the beach to	unloading place on the	belongings. <sup>35</sup>
	the seaside of	beach of their	
f. outside of	where they had put down their belongings.		
g. seaward from	where they had put down their belongings on the beach.		

15.

a. wä,	lá <sup>ε</sup> läe	<sup>ε</sup> mōxsaq	lāxes
b. wε	la <sup>l</sup> əʔi	m̄ <sup>u</sup> xsaq	lax <sup>i</sup> s
c. wε	la-l̄a=i	m̄ <sup>u</sup> -x <sup>s</sup> =q	la=x <sup>i</sup> s
d. well	SEQ-QUOT=SBJ	load-IN.CANOE=OBJ1.PRON	PREP=OBJ1=3.POSS
e. Well, then, it is said	they loaded them [i.e. their	into their	
	belongings] into the canoe		
f. Then q	they put them aboard their		
g. Well, then, it is said	that they loaded [their belongings] into their		

16.

a. xwāxwagweme.	wä,	lá <sup>ε</sup> läe	<sup>ε</sup> wí <sup>ε</sup> la	hóg.wexsa
b. x <sup>w</sup> ax <sup>w</sup> ag <sup>w</sup> əmi.	wε	la <sup>l</sup> əʔi	wí <sup>l</sup> a	huG <sup>w</sup> əxsa
c. x <sup>w</sup> a-x <sup>w</sup> ak <sup>w</sup> -əm=i	wε	la-l̄a=i	wí <sup>l</sup> -a	huq <sup>w</sup> -x <sup>s</sup> -a
d. RED-canoe-DIM=DEM	well	SEQ-QUOT=SBJ	all-?	go.plural <sup>36</sup> -IN.CANOE-?
e. little canoe.	Well, then, it is said	they all	went into canoes	
f. small canoes. (See below)				
g. little canoes. (See below)				

17.

a. ēs <sup>ε</sup> älé <sup>ε</sup> winoxwe		lāxes
b. ʔisʔəliw <sup>i</sup> inux <sup>wi</sup>		lax <sup>i</sup> s
c. ʔis-ʔəlix <sup>w</sup> -inux <sup>w</sup> =i		la=x <sup>i</sup> s
d. RED-sea.mammal.hunting-PROF=DEM		PREP=OBJ1=3.POSS
e. sea-mammal hunters		into their
f. Then q	all the hunters went aboard their	
g. Well, then, it is said	that all the sea-mammal hunters went aboard their	

<sup>35</sup> I follow Boas (1935a:93) in translating this word as “belongings,” although elsewhere (1948:329), he indicates that “clothing” is a more literal translation.

<sup>36</sup> Boas (1948:108).

18.

a. éǎléwats!e	xwáxwEXwagwema.
b. ʔiʔəliwaçi	x <sup>w</sup> ax <sup>w</sup> əx <sup>w</sup> ag <sup>w</sup> əma.
c. ʔi-ʔəlix <sup>w</sup> -açi	x <sup>w</sup> a-x <sup>w</sup> ə-x <sup>w</sup> ak <sup>w</sup> -əm=a
d. RED-sea.mammal.hunting-HOLLOW.CONTAINER	RED-RED-canoe-DIM=DEM
e. containers for hunting sea mammals	little canoes.
f. small hunting canoes	
g. little sea-mammal-hunting canoes.	

19.

a. wä, la <sup>ε</sup> EM <sup>ε</sup> läe	yúDEX <sup>u</sup> ts!âle	yáqela	LE <sup>ε</sup> wis
b. wε laʔəmíəʔi	yudəx <sup>w</sup> çoli	yaqila	ləw <sup>is</sup>
c. wε la-ñ-íə=i	yudəx <sup>w</sup> -ço-Gola=i	? <sup>37</sup>	luʔ=is
d. well SEQ-OI-QUOT=DEM	three-IN-TOGETHER <sup>38</sup> =SBJ	PN	with=3.POSS
e. Well and then, it is said	they were three	Yaqila	and his
	inside together		
f. and <i>q</i> there were three in one canoe, <i>Yaqela</i> and his			
g. Well, and then it is said that there were three together inside [the canoe], Yaqila and his			

20.

a. ma <sup>ε</sup> lókwe	lÓLE <sup>ε</sup> le <sup>ε</sup> yá.	wä	lá <sup>ε</sup> laxäe
b. ma <sup>ε</sup> luk <sup>w</sup> i	luələí <sup>y</sup> a.	wε	la <sup>ε</sup> axəʔi
c. maʔí-uk <sup>w</sup> =i	lu-lu <sup>l</sup> iʔ=a	wε	la-íə-xəʔə=i
d. two-HUMAN=DEM	RED-nephew=DEM	well	SEQ-QUOT-ALSO <sup>39</sup> =SBJ
e. two	nephews.	Well	then, also, it is said
f. two nephews. Then <i>q</i> there were also			
g. two nephews. Well, then, it is also said that			

<sup>37</sup> I use question marks in the third tier to indicate that I am unable to segment a sequence into its constituent morphemes.

<sup>38</sup> Boas (1947:361).

<sup>39</sup> Boas (1947:234).

21.

a. yúdeχ <sup>w</sup> ts!ále	yáyag.EXTS!a	LE <sup>ε</sup> wís	ts!áts!a <sup>ε</sup> ya
b. yudəχ <sup>w</sup> čole	yayaGəχčá	ləwís	čáčáya
c. yudəχ <sup>w</sup> -čó-Gola=i	?	luʔ=is	ča-čáya
d. three-IN-TOGETHER=SBJ	PN	with=3.POSS	RED-younger.sibling
e. they were three inside together	YayaGəχčá	with his	younger brothers
f. three in one canoe, <i>Yáyag.EXTS!a</i> and his younger brothers,			
g. there were three together in [another canoe], YayaGəχčá and his younger brothers,			

22.

a. yEXS	álé <sup>ε</sup> winoxwäe	yáqela
b. yəχs	ʔəliwínuχ <sup>w</sup> əʔi	yaqila
c. yə=χs	ʔəlix <sup>w</sup> -inúχ <sup>w</sup> =əʔi	?
d. PRONOM=SUBORD	sea.mammal.hunting-PROF=DEM.SUBORD	PN
e. as that one	was a sea-mammal hunter	Yaqila
f. for <i>Yaqela</i> was the sea hunter		
g. as that one, Yaqila, was the sea-mammal hunter		

23.

a. yES	εnE <sup>ε</sup> mémutasá	naÉNSX·äsa
b. yəs	nəṁimutasá	naʔənsxESA
c. yə=s	nəm-ima-ut=asa	na-nƏS-SXε=sa
d. PRONOM=OBJ2	one-CLASS <sup>40</sup> -FELLOW <sup>41</sup> =GEN	RED <sup>42</sup> -rot-TOOTH=GEN
e. of	clan of the	Dirty-Teeth of the
f. of the numaym <i>NaÉnsx-a</i> of the		
g. of the clan Naʔənsxa of the		

24.

a. g.ósg-imúχwe.	wä, lá <sup>ε</sup> läe	álé <sup>ε</sup> winoxwe
b. Gusgimúχ <sup>w</sup> i.	wε laʔəʔi	ʔəliwínuχ <sup>w</sup>
c. Gus-giməχ <sup>w43</sup> =i	wε la-ʔa=i	ʔəlix <sup>w</sup> -inúχ <sup>w</sup> =i
d. ʔ-ʔ=DEM	well SEQ-QUOT=SBJ	sea.mammal.hunting-PROF=SBJ
e. Gusgimúχ <sup>w</sup>	Well then, it is said	was a sea-mammal hunter
f. Koskimo. (See below)		
g. Gusgimúχ <sup>w</sup> . (See below)		

<sup>40</sup> Boas (1947:324).

<sup>41</sup> Boas (1947:355).

<sup>42</sup> See Boas (1947:248–249).

<sup>43</sup> See Boas (1966:42).

25.

a. yāyag.EXTS!asa	εnεmémutasa	q!áL!enoxwasa	g·áp!enox <sup>u</sup> .
b. yayaGəχčasa	ńəmimutasa	qoχinuχ <sup>w</sup> asa	gopinuχ <sup>w</sup> .
c. ?=sa	ńəm-ima-ut=asa	qoχ-inuχ <sup>w</sup> =asa	gop-inuχ <sup>w</sup>
d. PN=GEN	one-CLASS-FELLOW=GEN	?-TRIBE=GEN	?-TRIBE
e. YayaGəχča of the	clan of the	Q'oχinuχ <sup>w</sup> of the	Gopinuχ <sup>w</sup>
f. <i>Yāyag.EXTS!a q</i> was the sea hunter of the numaym <i>Q!áL!ēnox<sup>u</sup></i> of the <i>G·áp!ēnox<sup>u</sup></i>			
g. Well, then, it is said that YayaGəχča was the sea-mammal hunter of the clan Q'oχinuχ <sup>w</sup> of the Gopinuχ <sup>w</sup> .			

26.

a. wä,	la <sup>ε</sup> ém <sup>ε</sup> lāe	εnemáx <sup>ε</sup> id	séx <sup>ε</sup> wida
b. we	laʔəmʔəʔi	ńəmaxʔid	siχ <sup>w</sup> wida
c. we	la-m̄-ʔa=i	ńəm-a-xʔid	siχ <sup>w</sup> -xʔid-a
d. well	SEQ-OI-QUOT=SJB	one-?-MOM	paddle-MOM-?
e. Well	and then, it is said	simultaneously <sup>44</sup>	started to paddle
f. and <i>q</i> they started paddling at the same time,			
g. Well, and then it is said that they started to paddle simultaneously,			

27.

a. láqexs	hāyáqāx
b. laqixs	həyaqəʔax
c. la=q=iχs	hi-aqa=əʔiχ <sup>45</sup>
d. PREP=OBJ1.PRON=SUBORD	straight-GO.PAST <sup>46</sup> =SUBORD.DEM
e. when were more than	
f. as there were more than	
g. when there were more than	

<sup>44</sup> Boas (1935a:94): “at the same time.”

<sup>45</sup> See the seventh entry in the chart of subordinate forms in Boas (1947:274).

<sup>46</sup> Boas (1947:237).

28.

a. ma <sup>ɛ</sup> ʔtsɛmg·ustɛwe
b. maʔtɕəmgustəwi
c. maʔt-sGəmgusto=i
d. two-MULTIPLE.OF.TEN <sup>47</sup> =DEM
e. twenty
f. twenty
g. twenty

29.

a. éäléwats!äs
b. ʔiʔəliwaçɛs
c. ʔi-ʔəlix <sup>w</sup> -açi=as
d. RED-sea.mammal.hunting-HOLLOW.CONTAINER=GEN
e. containers for hunting sea mammals
f. small sea hunting
g. little sea-mammal-hunting

30.

a. x̣wāx̣wɛx̣wagwema	wä,	lá <sup>ɛ</sup> läe	lág-ää	lax
b. x <sup>w</sup> ax <sup>w</sup> əx <sup>w</sup> ag <sup>w</sup> əma.	wɛ	laʔəʔi	lagəʔə	laχ
c. x <sup>w</sup> a-x <sup>w</sup> ə-x <sup>w</sup> ak <sup>w</sup> -əm=a.	wɛ	la-ʔa=i	la-gəʔə	la=χ
d. RED-RED-canoe-DIM=DEM	well	SEQ-QUOT=SBJ	go-ARRIVE	PREP=OBJ1
e. little canoes.	Well,	then, it is said	they arrived	at
f. canoes. Then they arrived at				
g. canoes. Well, then, it is said that they arrived at				

31.

a. k!áwaq.	wä	lá <sup>ɛ</sup> läe	wāx·
b. ḳawaq.	wɛ	laʔəʔi	wax
c. ?	wɛ	la-ʔa=i	wax
d. GN.	well	SEQ-QUOT=SBJ	not.knowing.whether.successful <sup>48</sup>
e. ḳawaq.	Well	then, it is said	they tried
f. K-āwaq. Then q they would			
g. K'awaq. Well, then, it is said that they tried to			

<sup>47</sup> See Boas (1947:277).

<sup>48</sup> Boas (1948:65).

32.

a.	álāx	q!ása	láxa	lāq.
b.	?alεχ	qasa	laχa	laq.
c.	?alε=χ	qasa	la=χa	la=q
d.	search=OBJ1	sea.otter	PREP=OBJ1	PREP=OBJ1.PRON
e.	search for	sea otters	at the [place]	at it.
f.	search for sea otters that might be there,			
g.	search for sea otters at that [place].			

33.

a.	wā	k!eyás <sup>ε</sup> lat!a	q!áso <sup>ε</sup> s	lāq.	wā	lá <sup>ε</sup> lāe
b.	wε	kiyos!afa	qasu?s	laq.	wε	la!ə?i
c.	wε	kiyos-!a-!a	qá-su? <sup>s</sup>	la=q	wε	la-!a=i
d.	well	none-QUOT=OBJ1	find-PASS=OBJ2	PREP=OBJ1.PRON	well	SEQ-QUOT=SBJ
e.	Well but none,	found by them	at it.	Well then,	it is said	
f.	it is said,					
g.	but <i>q</i> none were found there. Then <i>q</i>					
g.	Well, it is said that none were found by them at that [place]. Well, then, it is said that					

34.

a.	sēx <sup>ε</sup> wid	qa <sup>ε</sup> s	lā <sup>ε</sup>	lax	á <sup>ε</sup> yāāx·siwe <sup>ε</sup> .
b.	siχ <sup>w</sup> wid	qa?s	le?	laχ	?ayə?əxsiwe?
c.	siχ <sup>w</sup> -x?id	qa? <sup>s</sup>	la-i?	la=χ	?-xsiu-e?
d.	paddle-MOM	PURP=3.POSS	go-NMLZ	PREP=OBJ1	?-RIVERMOUTH-LOC1
e.	they started	in order to	go	to	?ayə?əxsiwi?
	to paddle				
f.	they started paddling and went to A <sup>ε</sup> yāax·siwe <sup>ε</sup>				
g.	they started paddling in order to go to ?ayə?əxsiwe?.				

35.

a.	wā,	la <sup>ε</sup> ém <sup>ε</sup> lāe	q!áxa	q!éneme	q!ása	lax
b.	wε	la?əmlə?i	qaxa	qinəmi	qasa	laχ
c.	wε	la-!ā=i	qá=χa	qī-nəm=i	qasa	la=χ
d.	well	SEQ-OI-QUOT=DEM	find=OBJ1	many-NOM=DEM	sea.otter	PREP=OBJ1
e.	Well	and then, it is said	they found	many	sea otters	at
f.	and now <i>q</i> they found many sea otters					
g.	Well, then, it is said that they found many sea otters in					

36.

a. äwí <sup>ε</sup> stäsa	εmek·ála.
b. ʔəwiʔstəsa	məkola.
c. ʔu-siʔsta=asa	mək <sup>w</sup> -ola.
d. locative-AROUND=GEN	round.object.is.located <sup>49</sup> -STATIONARY.ON.WATER <sup>50</sup>
e. the environs of the	island.
f. all around the island.	
g. the area around the island.	

37.

a. wä,	la <sup>ε</sup> ém <sup>ε</sup> läe	q!áp!ex·sä	yāqela	lō <sup>ε</sup>
b. wε	laʔəm!əʔi	qapixε	yaqila	luʔ
c. wε	la-m̄-fa=i	qā-ap̄-i-xε	?	luʔ
d. well	SEQ-OI-QUOT=DEM	be.situated <sup>51</sup> -MUTUAL <sup>52</sup> -ʔ-?STILL	PN	with
e. Well,	and then, it is said	still remained together	Yaqila	with
f. And q	Yaqela and Yāyag.EXTS!a	kept together,		
g. Well,	and then it is said that	Yaqila and YayaGəχça	stayed together.	

38.

a. yāyag.EXTS!a.	wä,	la <sup>ε</sup> ém <sup>ε</sup> lāwise	gwēla <sup>ε</sup> La <sup>ε</sup> yeda
b. yayaGəχça.	wε	laʔəm!awisi	g <sup>w</sup> ilaʔxayida
c. ?	wε	la-m̄-fa-wis=i	g <sup>w</sup> it̄-aʔ-xiʔ=ida
d. PN	well	SEQ-OI-QUOT-CONN=SBJ	scatter-ʔ-AT.SEA <sup>53</sup> =SBJ
e. YayaGəχça.	Well	and so, then, it is said	scattered at sea the
f. (See below)			
g. (See below)			

39.

a. éäléwats!e	xwáxwεxwagwemsa
b. ʔiʔəliwaçi	x <sup>w</sup> ax <sup>w</sup> əx <sup>w</sup> ag <sup>w</sup> əmsa
c. ʔi-ʔəlix <sup>w</sup> -açi	x <sup>w</sup> a-x <sup>w</sup> ə-x <sup>w</sup> ak <sup>w</sup> -əmsa
d. RED-sea.mammal.hunting-HOLLOW.CONTAINER	RED-RED-canoe-DIM=GEN
e. hollow containers for hunting sea mammals	little canoes of the
f. (See below)	
g. (See below)	

<sup>49</sup> Cf. Boas (1948:145).

<sup>50</sup> Boas (1947:239).

<sup>51</sup> Lincoln and Rath (1981:371).

<sup>52</sup> Boas (1947:245).

<sup>53</sup> Boas (1947:377).

40.

a. é̂s̄á̂l̄é̂winoxwe	lax
b. ʔisʔəliw̄inux̄ <sup>w</sup> i	laχ
c. ʔis-ʔəlix̄ <sup>w</sup> -inux̄ <sup>w</sup> =i	la=χ
d. RED-sea.mammal.hunting-PROFESSIONAL=DEM	PREP=OBJ1
e. sea-mammal hunters	according to
f. and so <i>q</i> the small hunting canoes of the sea hunters were scattered in	
g. Well, and so then it is said that the little sea-mammal hunting canoes of the sea-mammal hunters scattered in accordance with	

41.

a. g.w̄é̂ḡ·ilasasa	q!áq!asāaxs
b. G <sup>w</sup> igil̄asasa	q̄āq̄asəʔaxs
c. G <sup>w</sup> i <sup>54</sup> -gil̄a-as=asa	q̄a-q̄asa-a=χs
d. thus-GO.IN.DIRECTION <sup>55</sup> -WAY.OF <sup>56</sup> =GEN	RED-sea.otter-TRY.TO.GET <sup>57</sup> =SUBORD
e. procedure of the	trying for [i.e. hunting for] sea otters when
f. the way it is done in sea otter hunting when	
g. the method of hunting for sea otters, when	

42.

a. x·Êmêst̄endāaxa	q!ása	qâs
b. xə̂m̄iʔst̄əndəʔax̄a	q̄asa	qaʔs
c. xə̂m̄-siʔsta-nd=əʔə=χ̄a	q̄asa	qaʔ=s
d. snare-AROUND-LOC3=SUBORD.DEM=OBJ2	sea.otter	PURP=3.POSS
e. they trap by encircling the	sea otters	and
f. they surround the sea otters		
g. they surround the sea otters and		

<sup>54</sup> Here, I have followed Lincoln and Rath (1981:317) as opposed to Boas (1948:322).

<sup>55</sup> Boas (1947:354).

<sup>56</sup> Boas (1947:319).

<sup>57</sup> Boas (1947:309).

43.

a. hādʒexstále <sup>ε</sup>	qa <sup>ε</sup>
b. hazəχstáleʔ	qaʔ
c. has-əχsta-əla-iʔ	qaʔ
d. make.loud.noise <sup>58</sup> -VOICE <sup>59</sup> -CONT-NMLZ	PURP
e. being noisy	so that
f. shouting in order to	
g. make noise so that	

44.

a. wíbaliseme <sup>s</sup>	wä	la <sup>ε</sup> em <sup>ε</sup> láwise
b. wibalisəmiʔs.	wε	laʔəmíawisi
c. wi-ba-lis-əm-iʔ=s	wε	la-n̄-fa-wis=i
d. fail-HORIZ.END-BEACH-ʔ-NMLZ=3.POSS	well	SEQ-OI-QUOT-CONN=SBJ
e. fail to be on the shore.	Well	and then, it is said
f. drown them. And so <i>q</i>		
g. [the sea otters] cannot get to the shore. Well, and then it is said that		

45.

a. k!wág-ila	la	dzáqwa.	la <sup>ε</sup> em <sup>ε</sup> lāe	q!eyóla
b. k̄ <sup>w</sup> εʔgila la	la	zaq <sup>w</sup> a.	laʔəmíəʔi	q̄əyuλa
c. k̄ <sup>w</sup> aȳ-gila	la	zaq <sup>w</sup> -a	la-n̄-fa=i	q̄əy-uλ-a
d. quite-GO.IN.DIRECTION <sup>60</sup> then evening-ʔ <sup>61</sup> SEQ-OI-QUOT=SBJ				many-OBTAIN-ʔ <sup>62</sup>
e. it was towards	then evening.	And then,		obtained many
		it is said		
f. it was towards evening and <i>q</i>				
g. it was towards evening. And then it is said that				

<sup>58</sup> Boas (1947:89).

<sup>59</sup> Boas (1947:305).

<sup>60</sup> Boas (1947:354).

<sup>61</sup> I do not know whether this terminal morpheme *-a/=a* is a demonstrative clitic of the type that often occurs at the end of sentence-final verbs (Boas 1947:257) or a “default verb ending” (Black and Greene 2010:6).

<sup>62</sup> It is conceivable that this final morpheme is a form of the subject marker *=ida* (see Table IV in Boas [1947:253] and Paragraph 5 in Boas [1947:256]).

46.

a. wǎókwe	és̚álé̚winox <sup>u</sup> xá	q!ása.
b. wəʔuk <sup>w</sup> i	ʔisʔəliw̄inuy <sup>w</sup> χá	qása.
c. wəʔuk <sup>w</sup> =i	ʔis-ʔəlix <sup>w</sup> -inuy <sup>w</sup> =χá	qása
d. other=DEM	RED-sea.mammal.hunting-PROFESSIONAL=OBJ1	sea.otter
e. the other	sea-mammal hunters	sea otters.
f.	the other hunters had caught many sea otters.	
g.	the other sea-mammal hunters caught many sea otters.	

47.

a. wǎ	lá̚lǎe	k!eyás	yán̄em̄lása
b. wɛ	laʔəʔi	ḱiyos	yanəm̄lása
c. wɛ	la-ʔa=i	ḱiyos	ya-anəm̄-ʔa=asa
d. well	SEQ-QUOT=SBJ	none	act <sup>63</sup> -OBTAINED-QUOT=OBJ2
e. Well	then, it is said	there was nothing	caught, it is said, by the
f.	Then <i>q</i> there was no game now of the		
g.	Well, and then it is said that there was nothing caught by the		

48.

a. maʔts!áqe	χwáχwɛχwagwema,	yɛx	yāqela
b. maʔḱaqi	x <sup>w</sup> ax <sup>w</sup> əx <sup>w</sup> ag <sup>w</sup> əma,	yəχ	yaqila
c. maʔl-čaq=i	x <sup>w</sup> a-x <sup>w</sup> ə-x <sup>w</sup> ak <sup>w</sup> -əm=a	yə=χ	?
d. two-LONG=DEM	RED-RED-canoes-DIM=DEM	PRONOM=OBJ1	PN
e. two	little canoes	those ones	Yaqila
f.	two small canoes (of) <i>Yaqela</i>		
g.	two little canoes [belonging to] that <i>Yaqila</i>		

49.

a. l̄ōlǎe	yáyag.EXTS!a.	wǎ,	la̚ém̄láwise
b. luʔəʔi	yayaGəχčá.	wɛ	laʔəm̄láwisi
c. luʔ-ʔa=i	?	wɛ	la-ḱ̄-ʔa-wis=i
d. with-QUOT=DEM	PN	well	SEQ-OI-QUOT-CONN=SBJ
e. with, it is said	YayaGəχčá.	Well	and so, then, it is said
f.	and <i>Yáyag.EXTS!a</i> , and so <i>q</i>		
g.	and, it is said, <i>YayaGəχčá</i> . Well, and so then it is said that		

<sup>63</sup> Boas (1947:44).

50.

a. g.álabáʔye	yāqela	l̩ɔ̃ <sup>ε</sup>	yāyag,EXTS!ases
b. galabáʔi	yaqila	luʔ	yayaGəχčasis
c. gal-ba-eʔ=i	?	luʔ	?=s=is
d. first-HORIZ.END-LOC1=SBJ	PN	and	PN=GEN=3.POSS
e. first at the end were	Yaqila	and	YayaGəχčá of their
f. <i>Yaqela</i> and <i>Yāyag,EXTS!a</i> were the first among their			
g. <i>Yaqila</i> and <i>YayaGəχčá</i> were first in front [of the hunting party] of their			

51.

a. é̃s̃ <sup>ε</sup> ālé <sup>ε</sup> winox <sup>w</sup> u <sup>t</sup> e.		wä,	la <sup>ε</sup> ɛm <sup>ε</sup> läe
b. ʔisʔəliwinuχ <sup>w</sup> wuti.		wɛ	laʔəm <sup>l</sup> əʔi
c. ʔis-ʔəlix <sup>w</sup> -inuχ <sup>w</sup> -wut=i		wɛ	la-ɾ̃ <sup>n</sup> -f̃a=i
d. RED-sea.mammal.hunting-PROF-FELLOW=DEM	well		SEQ-OI-QUOT=SBJ
e. fellow sea-mammal hunters.	Well	and then,	it is said
f. sea hunting fellows, and <i>q</i>			
g. fellow sea-mammal hunters. Well, and then it is said that			

52.

a. āláq	p! <sup>ED</sup> EX· <sup>ε</sup> ída.	wä	lá <sup>ε</sup> läe
b. ʔəlaq	ḑədəxʔida.	wɛ	la <sup>l</sup> əʔi
c. ʔəlaq	ḑəd-xʔid=a	wɛ	la-f̃a=i
d. almost	dark-MOM=DEM	well	SEQ-QUOT=SBJ
e. almost	it started to be dark.	Well	then, it is said
f. it began to be nearly dark. Then <i>q</i>			
g. it was almost getting to be dark. Well, then, it is said that			

53.

a. yāqela	dóx <sup>ε</sup> walelaxa	ɛwálase	q!ása
b. yaqila	doχwáχəlaχa	wálasí	qása
c. ?	doq <sup>w</sup> -gəʔaχəla=χa	wálas=i	qása
d. PN	see-SUDDENLY=OBJ1	large=DEM	sea.otter
e. Yaqila	suddenly saw	large	sea otter
f. <i>Yaqela</i> saw a large sea otter			
g. <i>Yaqila</i> suddenly saw a large sea otter			

54.

a. dzágwε <sup>ε</sup> nákwɛla.	wä	lá <sup>ε</sup> läe
b. zag <sup>w</sup> ə <sup>n</sup> ak <sup>w</sup> əla.	wε	la <sup>l</sup> ə <sup>ʔ</sup> i
c. zak <sup>w</sup> - <sup>n</sup> ak <sup>w</sup> əla.	wε	la- <sup>f</sup> a=i
d. spread.apart.with.hands <sup>64</sup> -GRADUAL.MOTION <sup>65</sup>	well	SEQ-QUOT=SBJ
e. swimming along.	Well	then, it is said
f. swimming along.		
g. swimming along. Well, then, it is said that		

55.

a. <sup>ε</sup> mεg <sup>w</sup> áp!alaxa	x·íxsemala.
b. m̄əg <sup>w</sup> ápalaχa	xixsəməla.
c. m̄ək <sup>w</sup> -ap-ala=χa	xix-sGəm-ala
d. round.object.is.located <sup>66</sup> -NAPE.OF.NECK <sup>67</sup> -LOC2=OBJ1	blaze-ROUND-CONT
e. it had on the back of its neck	a round blazing object
f. On the nape of its neck <i>q</i> was a ball of fire.	
g. it had a round blazing object on the back of its neck.	

56.

a. wä, lá <sup>ε</sup> läe	yáqela	SEX· <sup>ε</sup> ídeq.	wä, lá <sup>ε</sup> läe		
b. wε	la <sup>l</sup> ə <sup>ʔ</sup> i	yaqila	səx <sup>ʔ</sup> idəq.	wε	la <sup>l</sup> ə <sup>ʔ</sup> i
c. wε	la- <sup>f</sup> a=i	?	sək-x <sup>ʔ</sup> id=q	wε	la- <sup>f</sup> a=i
d. well	SEQ-QUOT=SBJ	PN	spear-MOM=OBJ1.PRON	well	SEQ-QUOT=SBJ
e. Well	then, it is said	Yaqila	threw a harpoon at it.	Well	then, it is said
f. Then <i>q</i>	<i>Yaqela</i>	speared it.			
g. Well, then, it is said that	Yaqila	speared it.	Well, then, it is said that		

57.

a. ógwaqa	SEX· <sup>ε</sup> íde	yáyag.EXTS!äxa	εwá <sup>l</sup> ase	q!á <sup>s</sup> a.	wä
b. ʔug <sup>w</sup> aqa	səx <sup>ʔ</sup> idi	yayaGəχ <sup>č</sup> εχa	wá <sup>l</sup> asi	qá <sup>s</sup> a.	wε
c. ʔug <sup>w</sup> aqa	sək-x <sup>ʔ</sup> id=i	?=χa	wá <sup>l</sup> as=i	qá <sup>s</sup> a	wε
d. also	spear-MOM=SBJ	PN=OBJ1	large=DEM	sea.otter	well
e. also	threw a harpoon	YayaGəχ <sup>č</sup> a	large	sea otter.	Well,
		at the			
f. <i>Yáyag.EXTS!a q</i>	also speared the large sea otter,				
g. YayaGəχ <sup>č</sup> a	also speared the large sea otter.	Well,			

<sup>64</sup> Boas (1948:193).

<sup>65</sup> Boas (1947:347).

<sup>66</sup> Boas (1948:145).

<sup>67</sup> Boas (1947:314).

58.

a. g.Él <sup>ε</sup> EM <sup>ε</sup> láwise	la	εwɪ <sup>ε</sup> la	k.ʎEXSEMá <sup>ε</sup> ye
b. gəlʔəmɫawisi	la	wíɫa	kəχsəməyí
c. gəl-rɪ̃-ɫa-wis=i	la	wíɫ-a	kəq-sGəm-eʔ=i
d. first-CONN-QUOT-CONN=SBJ	then	all-ʔ	load.is.located <sup>68</sup> -ROUND-LOC1=SBJ
e. and so as soon as	then	all	were on the surface of the round body <sup>69</sup>
f. and so <i>q</i> as soon as			
g. and so it is said that as soon as all			

59.

a. L.ÉLEG-ekwás	láxa	q!ása	láe
b. ʎiʎəgək <sup>w</sup> as	laχa	qása	laʔi
c. ʎi-ʎək-k <sup>w</sup> =as	la=χa	qása	la=i
d. RED-notch <sup>70</sup> -PASS=3.POSS	PREP=OBJ1	sea.otter	then=?
e. their harpoon points <sup>71</sup>	in the	sea otter	then
f. their spears had hit the sea otter,			
g. their harpoon points were on the sea otter, then			

60.

a. L.ʎástox <sup>ε</sup> wideda	q!ása	qa <sup>ε</sup> s	ék.ʎe <sup>ε</sup> ste <sup>ε</sup>
b. ʎástuxwídida	qása	qaʔs	ʔiʎiʔsteʔ
c. ʎas-ʔstu-xʔid=ida	qása	qaʔ=s	ʔiʎ-siʔsta-iʔ
d. seaward-PATH <sup>72</sup> -MOM=SBJ	sea.otter	PURP=3.POSS	up-GO.IN.DIRECTION <sup>73</sup> -NMLZ
e. started to go seaward the	sea otter	and	went up
f. the sea otter went out seaward and went up			
g. the sea otter began to go seaward and went upward			

<sup>68</sup> Lincoln and Rath (1981:251).

<sup>69</sup> Here, I follow Boas (1947:343), one of whose glosses for *-sGəm* is “round surface.”

<sup>70</sup> Boas (1948:427).

<sup>71</sup> Boas (1948:427).

<sup>72</sup> Cf. Boas (1947:343).

<sup>73</sup> Boas (1947:343) glosses this suffix as “around,” but I believe that in some cases, it means ‘to go in a direction.’

61.

a. lāxənts	ɛnā́lax.	wä,	la'ém'läe
b. laxənc	ñalax.	wε	laʔəmləʔi
c. la=χ=ənc	ñá-əla=iχ	wε	la-rñ-í-a=i
d. PREP=OBJ1=INCL.POSS	sky <sup>74</sup> -CONT=DEM	well	SEQ-OI-QUOT=DEM
e. to our	sky.	Well	and then, it is said
f. toward our sky, and <i>q</i>			
g. to our sky. Well, and then it is said that			

62.

a. qwélx·əlxí.á́laxa		ma'ɛts!áqe
b. q <sup>w</sup> əlxəlxalaxa		maʔícaqi
c. q <sup>w</sup> əlx-əl-χlá-əla=χa		maʔí-caq=i
d. gather.long.things <sup>75</sup> -?-BEHIND-CONT=OBJ1		two-LONG=DEM
e. it dragged behind the		two
f. it was dragging behind the two		
g. it dragged behind [itself] the two		

63.

a. xwáxwəxwagwəmxs	láe	ék·!ələla
b. x <sup>w</sup> ax <sup>w</sup> əx <sup>w</sup> ag <sup>w</sup> əmxs	laʔi	ʔíkutəla
c. x <sup>w</sup> a-x <sup>w</sup> ə-x <sup>w</sup> ak <sup>w</sup> -əməχs	la=əʔi	ʔík-ut-əla
d. RED-RED-canoe-DIM=SUBORD then=SUBORD.DEM up-GO.IN.DIRECTION <sup>76</sup> -CONT		
e. little canoes when	then	it was going upward
f. small canoes as it was going upward		
g. little canoes as it was going upward,		

64.

a. qa <sup>ɛ</sup> s	lä <sup>ɛ</sup>	k!wədedzódxənts
b. qaʔs	ləʔ	k <sup>w</sup> ədəzudxənc
c. qaʔ=s	la-iʔ	k <sup>w</sup> ət-zu-ud=χ=ənc
d. PURP=3.POSS	go-NMLZ	stick.on <sup>77</sup> -FLAT-TRANS=OBJ1=INCL.POSS
e. and	then	stuck onto the flat surface, our
f. and stuck on our		
g. and then it stuck onto our		

<sup>74</sup> Lincoln and Rath (1981:131) list “firmament” among the meanings of this root.

<sup>75</sup> Boas (1948:342).

<sup>76</sup> Boas (1947:334).

<sup>77</sup> Boas (1948:304).

65.

a. $\epsilon\acute{n}\acute{a}lax.$	wä, h $\acute{e}\epsilon$ me	q!á $\acute{s}ax$ -deda	k!wä $\epsilon$ ma $\epsilon$ dzâ $\acute{e}ye$
b. $\acute{n}alax.$	w $\epsilon$ he $\acute{m}i$	q $\acute{a}sa$ xdida	k $^w$ a $\acute{m}a$ ?zo $\acute{y}i$ .
c. $\acute{n}a$ - $\acute{e}la=i\chi$	w $\epsilon$ he- $\acute{m}=i$	q $\acute{a}sa$ -xdi= $\acute{e}da$	k $^w$ a-?-zu-e? $\acute{e}i$ <sup>78</sup>
d. sky-CONT=DEM	well that-OI=SBJ	sea.otter-PAST=SBJ	sit-?-FLAT-LOC1=DEM
e. sky.	Well and that	former sea otter	Pleiades.
		was the	
f. sky.	That was the sea otter, the Pleiades,		
g. sky.	Well, and that [constellation], the Pleiades, is the former sea otter. <sup>79</sup>		

66.

a. wä,	h $\acute{e}\epsilon$ em $\epsilon$ l $\acute{a}wis$	ál $\acute{e}w$ adzâ $\acute{e}ya$
b. w $\epsilon$	he? $\acute{e}m$ l $\acute{a}wis$	? $\acute{e}li$ wazo $\acute{y}a$
c. w $\epsilon$	he- $\acute{m}$ -l $\acute{a}$ -wis	? $\acute{e}lix^w$ -zu-e? $\acute{e}a$
d. well	that-OI-QUOT-CONN	sea.mammal.hunting-FLAT-LOC1=DEM <sup>80</sup>
e. Well	and so that is	Orion's Belt <sup>81</sup>
f. and so q	that is the hunter in the sky (Orion)	
g. Well,	and so it is said that that one, Yaqila, is Orion's Belt.	

67.

a. yEX	yáqela.	wä,	h $\acute{e}\epsilon$ mis
b. y $\acute{e}\chi$	yaqila.	w $\epsilon$	he $\acute{m}is$
c. y $\acute{e}=\chi$	?	w $\epsilon$	he- $\acute{m}$ -wis
d. PRONOM=OBJ1	PN	well	that-OI-CONN
e. that	Yaqila.	Well	and so that
f. Yaqela,	and		
g. Well,	and so that one,		

<sup>78</sup> Boas (1948:306; 1947:324) provides examples of words beginning with the sequence k $^w$  $\acute{e}m$ -, formed from k $^w$ a-, “to sit,” and - $\acute{e}m$ , “nearby.” I do not know whether k $^w$ a $\acute{m}a$ ?zo $\acute{y}i$  can be interpreted as related to these forms.

<sup>79</sup> In assigning the Pleiades the role of subject and translating this as an “equative” sentence, I am following Littell (2012). I believe the same understanding of this sentence underlies Boas’s translation of it, but Boas tries to maintain the syntax of the original text, obscuring the sentence’s equative meaning.

<sup>80</sup> My morphemic break-down follows Boas (1947:212).

<sup>81</sup> Here, I have followed Boas’s dictionary (1948:14), which glosses a similar form,  $\acute{e}luzo $\acute{y}i$$ , as Orion’s Belt, rather than Boas’s translation (1935a:94) of the form  $\acute{e}liwazo $\acute{y}a$$  as “Orion.” This allows us to interpret the form  $\acute{e}liw $\acute{e}m$ os $\acute{e}w$ i$  in the next sentence as Orion, in line with Boas’s dictionary (1948:14, citing the attestation of this word in “Star Story”), and in contrast to his ambiguous translation (1935a:94) of this form as “the hunter with him,” which does not seem to take into account the passive suffix - $\acute{e}w$ .

68.

a. ááǎléwé <sup>ε</sup> nâse <sup>ε</sup> we	yáyag. <sub>EXTS!</sub> a	hēt
b. ?a?əliwĩnosəwĩ	yayaGəχčá.	het
c. ?a-?əlix <sup>w</sup> -inũ-su?= <sub>I</sub>	?	he-t
d. RED-sea.mammal.hunting-AT.PASSERBY <sup>82</sup> -PASS=SBJ	PN	that-?
e. Orion was	YayaGəχčá.	That
f. the hunter with him is <i>Yáyag.<sub>EXTS!</sub>a</i> . And		
g. YayaGəχčá, is Orion. The		

69.

a. lág·ilas	q!áleda	és <sup>ε</sup> álé <sup>ε</sup> winoxwaq
b. lagĩtas	qalida	?is?əliwĩnuχ <sup>w</sup> aq
c. la-gĩt=as	qá-əla=ida	?is-?əlix <sup>w</sup> -inuχ <sup>w</sup> =q
d. go-REASON=GEN	find-CONT=SBJ	RED-sea.mammal.hunting-PROF=OBJ1.PRON
e. reason	knew the	sea-mammal hunters it
f. therefore the hunters know about them,		
g. reason why the sea-mammal hunters knew it [i.e. these events]		

70.

a. yEXS	εnǎχwa <sup>ε</sup> mǎε	dóqwəlaqəxs
b. yəχs	ǎx <sup>w</sup> amə?i	duq <sup>w</sup> əlaqĩχs
c. yə=χs	ǎx <sup>w</sup> -a-ĩ=ə?i	duq <sup>w</sup> -əla=q=χs
d. PRONOM=SUBORD	all-?-OI=SUBORD.DEM	see-CONT=OBJ1.PRON=SUBORD
e. because	all	saw it when
f. for they all saw them		
g. is because they all saw when		

71.

a. láε	ék·!otɛla	qa <sup>ε</sup> s
b. la?i	?iķułəla	qa?s
c. la=ə?i	?iķ-uł-əla	qa?=s
d. then=SUBORD.DEM	up-GO.IN.DIRECTION-CONT	PURP=3.POSS
e. then	they were going up	and
f. going up and		
g. they [i.e. the sea otter, Yaqila, and YayaGəχčá] went up and		

<sup>82</sup> Boas (1947:239).

72.

a. lä <sup>ε</sup>	k!wɛt!áLEla	lax	la	ǎx <sup>ε</sup> átsa
b. lɛ?	ǩ <sup>w</sup> əfaχəla	layχ	la	ʔəχʔaca
c. la-i?	ǩ <sup>w</sup> ət-gəʔaχəla	la=χ	la	ʔəχ-as=sa
d. go-NMLZ	stick.on <sup>83</sup> -SUDDENLY	PREP=OBJ1	then	be.in.position <sup>84</sup> -PLACE=GEN
e. then	suddenly stuck on	to	then	place of the
f.	sticking where the place is of			
g.	then suddenly stuck to the new place of			

73.

a. ǎléwadzâ <sup>ε</sup> ye	LE <sup>ε</sup> wá	k!wá <sup>ε</sup> ma <sup>ε</sup> dzâ <sup>ε</sup> ye
b. ʔəliwazoýi	λəwá	ǩ <sup>w</sup> aŋaʔzoýi
c. ʔəlix <sup>w</sup> -zu-eʔ=i	λuʔ=a	ǩ <sup>w</sup> a-ʔ-zu-eʔ=i
d. sea.mammal.hunting-FLAT-LOC1=DEM	with=SBJ <sup>85</sup>	sit-ʔ-FLAT-LOC1=DEM
e. Orion's Belt	and the	Pleiades
f.	Orion and of the Pleiades	
g.	Orion's belt and the Pleiades	

74.

a. LE <sup>ε</sup> wá	ǎǎléwē <sup>ε</sup> nâSE <sup>ε</sup> we.	wä,
b. λəwá	ʔaʔəlix <sup>w</sup> inōsəwí.	wɛ
c. λuʔ=a	ʔa-ʔəlix <sup>w</sup> -inō-suʔ=i	wɛ
d. with=SBJ	RED-sea.mammal.hunting-AT.PASSERBY-PASS=DEM	well
e. and the	Orion.	Well
f.	and of the one who joins in sea hunting.	
g.	and Orion. Well,	

<sup>83</sup> Boas (1948:304).

<sup>84</sup> Boas (1948:11).

<sup>85</sup> See Paragraph 5 in Boas (1947:256).

75.

a. hē <sup>ε</sup> mis	g·āg·ELElats	la	lēg.adedā
b. her <sup>̄</sup> mis	gegəλəlac	la	liGadida
c. he-r <sup>̄</sup> n-wis	gey <sup>86</sup> -gəλəla-as=s	la	liq-ad=ida
d. that-OI-CONN	come.from <sup>87</sup> -MOTION <sup>88</sup> -PLACE=GEN	then	name-HAVE=SBJ
e. and so that is	the origin of	then	had names the
f. And so, from this			
g. and so that is the origin of [the fact that]			then the stars had as names

76.

a. t!ót!āses	lēLEg.EM	qaxs	lāe
b. tūfosis	liλəGəm	qaxs	la?i
c. tūtu=as=is	li-liq-ə̄m	qa?=χs	la=ə?i
d. star=OBJ2=3.POSS	RED-name-PASS	CAUSE=SUBORD	then=SUBORD.DEM
e. stars, their	names	because	then
f. these stars have their names, for			
g. their [current] names, because then			

77.

a. ts!Ek·!āf <sup>ε</sup> idedā	és <sup>ε</sup> ālēwinoxwaxa	g·ālā
b. čəkał?idida	?is?əliw <sup>̄</sup> inuχ <sup>w</sup> aχa	galē
c. čəkał-χ?id=ida	?is-?əlix <sup>w</sup> -inuχ <sup>w</sup> =aχa	gal-a=i
d. tell.news <sup>89</sup> -MOM=SBJ	RED-sea.mammal.hunting-PROF=OBJ1	first-?=DEM
e. told the news the	sea-mammal hunters the	first
f. the sea hunters told the first		
g. the sea-mammal hunters told as news to the first		

<sup>86</sup> Although Boas (1947:351) analyzes *gegəλəla* as a derivative of the root *gəy-*, “to be somewhere” (Boas 1948:246), I believe that the root *gey-*, “to move from a certain place, to come from” (Boas 1948:252) better fits the meaning of the word (which Boas [1947:351] translates as, “to come from”).

<sup>87</sup> Boas (1948:252).

<sup>88</sup> Cf. Boas’s (1947:242) gloss for this suffix: “country lying in a certain direction.”

<sup>89</sup> Boas (1948:210).

78.

a. g.ósg·imuxwa	YES	g.wéx·éidāasax	yáqela
b. Gusgimux <sup>wa</sup>	yəs	Gwixʔidəʔasaχ	yaqila
c. Gus-giməx <sup>w=a</sup>	yə=s	Gwi-xʔid-as=aχ	?
d. ʔ-ʔ=DEM	PRONOM=OBJ2	thus-MOM-WAY.OF <sup>90</sup> =OBJ1	PN
e. Gusgimux <sup>w</sup>	regarding that	matter	Yaqila
f. Koskimo all that happened to <i>Yaqela</i>			
g. Gusgimux <sup>w</sup> regarding the matter of <i>Yaqila</i>			

79.

a. l̥ō <sup>ε</sup>	yāyag.EXTS!a	l̥é <sup>ε</sup> wís	mókwe	lé <sup>ε</sup> lota.
b. λuʔ	yayaGəχčá	ləwís	muk <sup>w</sup> i	liʔəluta. <sup>91</sup>
c. λuʔ	?	λuʔ=is	mu-uk <sup>w</sup> =i	lilut=a
d. with	PN	with=3.POSS	four-HUMAN=DEM	fellow.riding <sup>92</sup> =DEM
e. with	YayaGəχčá	with their	four	fellow passengers.
f. and <i>Yāyag.EXTS!a</i> and the four men of their crew,				
g. and <i>YayaGəχčá</i> and their four fellow passengers.				

80.

a. wä,	la <sup>ε</sup> Em	lába.
b. wε	laʔəm	laba.
c. wε	la-t̥n̥	la-ba
d. well	then-OI	gO-HORIZ.END
e. Well	and then	it has gone to the end. <sup>93</sup>
f. and that is the end.		
g. Well, and then it has gone to the end.		

### 3 List of abbreviated suffixes

3.POSS: Third-person possessive (borrowed from Rosenblum 2013). See Boas (1947:254) and Anderson (1984:29–30).

<sup>90</sup> Boas (1947:318–319).

<sup>91</sup> This word is a plural form exhibiting stem modification (see Boas 1947:248–249).

<sup>92</sup> Here, I follow Boas (1948:402) in glossing this form as “fellow riding.” The word *lilut*, which is the singular form of *liʔəluta* (Boas 1948:402), may be derived via reduplication from *la-*, “go” (following, roughly, the reduplication pattern described by Boas [1947:248–249] for words beginning with the sounds *m*, *n*, *l*, *t*, and *ʔ*) combined with the suffix *-ut*, “fellow.” The resulting word undergoes further reduplication to yield *liʔəluta*, the plural form that appears in “Star Story.”

<sup>93</sup> I have borrowed this translation (which I also use in my sentence-level translation tier) directly from Berman (1991:337).

CONN: Connective (borrowed from Rosenblum 2013). See Boas (1947:338) and Berman (1991:370–380).

CONT: Continuative aspect (borrowed from Rosenblum 2013). See Boas (1947:291, 306–307) and Black and Greene (2010).

DEM: Demonstrative (borrowed from Rosenblum 2013). See Boas (1947:527–528) and Nicolson and Werle (2009:25–30).

DIM: Diminutive (borrowed from Rosenblum 2013). See Boas (1947:301).

FLAT: This gloss labels the suffix *-zu*, which denotes flat surfaces (such as, in “Star Story,” the sky (Boas 1947:212)). See Boas (1947:345).

HORIZ.END: This gloss labels the suffix *-ba*, denoting the “end of a long horizontal object” (Boas 1947:336).

INCL.POSS: Inclusive possessive (both parts of this composite gloss are borrowed from Rosenblum 2013). This gloss labels forms indicating joint possession by both the speaker and addressee (Boas 1947:251).

GEN: Genitive (borrowed from Rosenblum 2013; see also Boas 1947:259).

GN: Geographic name.

LOC1, LOC2, LOC3: See Section 1 Introduction above.

LONG: This gloss is used to label the suffix *-čaq*, which normally functions as a classifier that attaches to numerals used to count “long” objects (Boas 1947:240, 346). Regarding Kwak’wala “numeral classifiers,” see Berman (1990:2–11).

MOM: Momentaneous aspect (borrowed from Rosenblum 2013). See Boas (1947:290–291) and Black and Greene (2010).

NMLZ: “Nominalizer” (borrowed from Rosenblum 2013). I have used this gloss to label the suffix *-iʔ*, which can turn a verbal form into a noun that means, roughly, “the act of [verb]ing” (Katie Sardinha and Patrick Littell, personal communications; see Boas (1947:274) with regard to the use of the nominalizing suffix *-iʔ* in verbs following the purposive *qaʔ-*).

NOM: Nominal. I have used this gloss to label the suffix *-nəm*, which appears at the end of some nouns and which Boas (1947:347) describes as a “nominal formative suffix.” I do not know whether this suffix carries specific meaning beyond its function of turning roots into nouns.

OBJ1: “Primary object” (borrowed from Rosenblum 2013). OBJ1 is equivalent to what Boas describes as the “objective” case. See Boas (1947:284–286) and Rosenblum (2013:231–233).

OBJ2: “Secondary object” (borrowed from Rosenblum 2013). OBJ2 is equivalent to what Boas describes as the “instrumental” case. See Boas (1947:284–286) and Rosenblum (2013:231–233).

OI: “Old (known) information” (borrowed from Rosenblum 2013:253). See Boas (1947:335) and Berman (1991:374–380).

PASS: Passive (borrowed from Rosenblum 2013). See Boas (1947:241), Levine (1980), and Rosenblum (2013).

PAST: I have used this gloss to label the past-tense suffix *-xdi*, which denotes the “transition from present to past, from existence to non-existence,” or pluperfect tense (Boas 1947:367; see also Boas 1947:288, 290).

PN: Personal name.

PREP: Preposition. See Anderson (1984:25) and Rosenblum (2014). See, also, Boas’s comments regarding “indirect objects” (i.e. prepositional phrases) (Boas 1947:255, 285).

PROF: Professional. I have used this gloss to label the suffix *-inuχ<sup>w</sup>*, which can mean, “a person who does an act habitually, professionally” (Boas 1947:326).

PRON: Pronoun. I add this gloss to OBJ1 and OBJ2 when the morpheme that is being identified is a pronoun, rather than a pronominal form. A pronominal form indicates the case and deictic proximity of the noun that follows; a pronoun stands in place of a noun, indicating case as well as, sometimes, deictic proximity and visibility (see the tables in Boas 1947:252–253; deictic/visibility-marking third-person pronouns are listed in Table IIa (1947:252), as well as in Boas’s introduction to the section entitled “Paradigms” (1947:260)). Regarding the distinction between pronominal forms and pronouns, see Boas (1947:281). See, also, Rosenblum (2013:231–232).

PRONOM: Pronominal. In contrast with PRON, which labels pronominal clitics, I use PRONOM to gloss word-initial elements that Boas (1947:257–258) terms “nominal or adjectival forms” of the “independent personal pronoun.”

PURP: Purposive (borrowed from Rosenblum 2013). See Boas (1947:274).

QUOT: Quotative (borrowed from Rosenblum 2013). See Boas (1910b:496, 1947:245, 377) and Berman (1991:357–369).

RED: Reduplication (borrowed from Rosenblum 2013). “Plurality, repetition, [and] distribution are expressed,” in many cases, via reduplication, but “Many suffixes require some form of reduplication or of stem expansion, not only those [suffixes] implying some kind of repetition” (Boas 1947:219). Regarding patterns of reduplication and other forms of stem modification, see Boas (1947:220–223,

232–234, 246–251). Regarding the expression of plurality in Kwak’wala, see Boas (1932, 1947:206, 291–294).

SEQ: Sequential (borrowed from Rosenblum 2013). I have used this gloss to label the auxiliaries *la-* and *gaχ-*. See Berman (1991:324–336).

SBJ: Subject (borrowed from Rosenblum 2013).

SUBORD: Subordination. I use this gloss to label the subordinating clitic = $\chi$ s and associated demonstrative clitics (the latter are glossed as ‘SUBORD.DEM’). See Boas (1947:274–275).

TRANS: Transitivity. I have used this gloss to label the transitive suffix that takes the forms *-d*, *-nd*, and *-ud* depending on its phonetic environment (Boas 1947:273, 365).

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# **P.S.: more Lower Chehalis loans in Chinook Jargon, and ləwálməš revitalization<sup>1</sup>**

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**Abstract:** M. Dale Kinkade's unfinished work on Lower Chehalis/ləwálməš provides the starting point for study of just how words of this language came to be integrated into the nascent pidgin, Chinook Jargon/CJ (cf. Kinkade et al. 2010). Here I review a large number of potential ləwálməš-to-CJ loans to add to the Kinkade et al. corpus. I show that a handful actually originated in other Coast Salish languages, while candidate Chinookan etymologies for several cannot be ruled out, and a few were published as Chinook Jargon only by mistake. The remainder expand by about 150% the number of reliable ləwálməš > CJ loans. Of these, quite a few represent the sole evidence of lexemes otherwise unknown to us in the rather limited documentation of ləwálməš, creating the singular situation where a pidgin language is important for revitalizing its lexifier.

**Keywords:** ləwálməš, Lower Chehalis, Tsamosan, Shoalwater Bay, Chinook Jargon, pidginization, revitalization

## **1 Introduction: P.S. – there are other ləwálməš loans into CJ**

Since early in the recorded history of Chinook Jargon (CJ), scholars have noted the presence of a thick stratum of loans from Lower Chehalis Salish (ləwálməš). This is a language of the Maritime division within the Tsamosan branch of the Salish family (Kroeber 1999:4). For a few decades, ləwálməš material was frequently mistaken for the unrelated Chinookan – since many villages were bilingual (Scouler 1841, Tolmie 1884) – or for the pidgin CJ (for example by Gill 1909, as we will discuss), when not outright unidentified (Meares 1791:266, Hale 1846 according to Gibbs 1863a:v). But it did not take long for a consensus to emerge that the language known simply as 'Chehalis' in various spellings was among the four or so main contributors to the word stock of this quintessentially multi-lexifier pidgin (Gibbs 1863a, Eells 1894, Shaw 1909).

As is expected in an apparently new language such as the pidgin/creole CJ, the composition of the lexicon varies geographically and chronologically (compare Drechsel 2014:83 on Maritime Polynesian Pidgin and Jahr 1996 on Russenorsk). Observations of this fact abound in the CJ literature, for example Gibbs':

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Many [words] formerly employed have become in great measure obsolete, while others have been locally introduced. Thus, at the Dalles of the Columbia, various terms are common which would not be intelligible at Astoria or on Puget Sound (1863a:vii).

This is seconded by Le Jeune's specification in interior British Columbia of a large number of lexemes "used only in other districts" (1924), and Eells' testimony of having often witnessed the introduction of new vocabulary in CJ (1894:307).

All sources agree on a significant number of łəwálməš > CJ loans. By my count Kinkade et al. (2010) identify 39 by surveying various sources. Examination of additional documents reveals a more nuanced picture of variation: Gibbs tallied 32 such words (1863a:viii), Shaw counts 36 (1909:xii), and Eells 64 of them (1894:308). In the community of the Grand Ronde Indian Reservation in Oregon, quite a number of Jargon words that have not necessarily been so identified in the past appear to be not just Salish, but most likely łəwálməš, in origin (Chinuk Wawa Dictionary Project 2012).

The łəwálməš component of the Jargon has not been accepted without criticism. Shaw, quoting from a manuscript CJ compendium of Eells', captures the controversy in a few lines:

In the appendix [of Swan 1857] is quite a full vocabulary, – 327 words. Judge Swan lived on Shoalwater Bay, Wash., near the [Lower] Chehalis and Chinook Indians, and he gives quite a number of words which are given by no other writer, which he says are of Chehalis origin. Gibbs rejects many of these, because he thinks that Swan imperceptibly used them as Chinook Jargon, but that they did not properly belong to the language, but to the Chehalis. I [Eells] have inserted them as being a part of the Jargon of that region at that time, as certainly many English words now in use on Puget Sound are a part of the Jargon of this time and place. The environment always affects the language (1909:xvi).

The facts bear out this judgment by Eells, whose knowledge of łəwálməš came from firsthand experience. (Boas' 1890 notes in the American Philosophical Society archives, S2b.1, include reelicitations of Eells' work on the language.) At Bay Center, Washington, where it was aboriginally spoken, a still greater number of items demonstrably originating in this language is consistently found in local CJ, cf. Boas (1892). Native speakers took pains to characterize such loans as non-łəwálməš (cf. Harrington 1942).

The net outcome is that there are many more loans from łəwálməš in CJ than even Kinkade et al. (2010) enumerated. No study to date, however, has both explicitly presented the entire set of such loans and evaluated the claims to their status as łəwálməš. This is the primary goal of the present study.

I have sought here to evaluate all CJ words that both resemble known Salish forms and, due to being used in or adjacent to łəwálməš territory, had a likelihood of originating in this language. This geographic limitation was premised on the need to filter out the considerable stock of later loans from other Salish languages in regions to the north, such as *lahanfut* 'to confess' and *putah* 'goodbye' from Shuswap/Secwepemctsin (Robertson 2011:20). For the same reason, I have

omitted any words of Gibbs’s lower-Columbia region dictionary (1863CJ) to which he assigns a ‘Nisqually’ or ‘Puget Sound’ Central Coast Salish source. Those etymologies seem accurate, for example his *máh-lie* ‘to forget’ exactly corresponds with the modern Lushootseed simplex  $\sqrt{b}áli$  (Bates et al. 1994), versus the Tsamosan complex  $\sqrt{m}ál(‘)q-ni-x^{(w)}$  (Kinkade 1991, 2004).

My main sources of *ləwálməš* data beyond the Kinkade et al. paper of 2010 were several further works of scholarship which more or less explicitly suggest numerous *ləwálməš* items as CJ vocabulary: Swan (1857), Gibbs (1863a), Gill (1909), Harrington (1942), Chinuk Wawa Dictionary Project (2012), and Kinkade (n.d.).

The mode of this study is descriptive, with the intention of introducing even more *ləwálməš* data to the Salish linguistics community, but I will end on the secondary theme that the information collected here can be applied to language revitalization. In this way I hope to pay an appropriate homage to Salish conference founders Dale Kinkade and Larry and Terry Thompson for their invaluable gift of a sustained interchange between scholars and Native communities.

## 2 Beware of false positives

A number of the items collected in the database for this study are certainly or most likely *not* instances of *ləwálməš* borrowings into the pidgin. The several reasons for therefore excluding them are touched on in the following notes, which include a good deal of comparative data from other languages for obvious reasons.

### 2.1 Sorry, wrong language

A small number of the CJ literature’s items that closely resemble known Salish forms, but whose source language was not definitively indicated in the original literature, have clear origins in other languages than *ləwálməš*. Some are simply from other Coast Salish languages: one has its likeliest etymology in Tillamook, as Chinuk Wawa Dictionary Project (2012) suggests and as shown in Table 1:<sup>2</sup>

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<sup>2</sup>CJ forms are bolded and italicized in the tables, to facilitate comparisons. I present the most relevant possible documented forms from the Chinookan and Tsamosan local speech of southwest Washington – CJ’s earliest region of use – as well as any other languages relevant to the discussion. (PS=Proto-Salish; PIS=Proto-Interior Salish.) Lack of a known equivalent in the literature is signaled in the tables by ‘?’. Citations from primary data are coded by the speaker’s initials in capitals, the researcher’s initials in lowercase, the date, the microfilm reel number (for Harrington), the page (or text name ‘Qoneqone’), and entry number in our database’s transcription. Morphemic breaks are not generally indicated; depending on the source, hyphens reflect 19<sup>th</sup>-century anglophone practices in rendering Native languages in writing, or bound stems. Example words are generally transcribed into Americanist phonetics wherever possible; the exceptions preserving pre-modern spellings are enclosed <in angled brackets>.

**Table 1** CJ < Tillamook

language	word	gloss	source
<i>Chinook Jargon</i>	<kwad'-dis>	'whale'	<i>Gibbs (1863a)</i>
Chinookan	<é-ko-li>	idem	Gibbs (1863b)
Tillamook	q <sup>h</sup> anís	idem	Harrington (1942)
Upper Chehalis	sk <sup>w</sup> úyx <sup>w</sup>	idem	Kinkade (1991)
Quinault	qálan	idem	Modrow ([1971])
ləwálməš	syəláx <sup>w</sup>	idem	ELjh1942.17.423

Lushootseed – presumably the dialect of southern Lushootseed spoken in the vicinity of the Hudson Bay Company's Fort Nisqually, established in 1833 as the first sustained White presence on the head of Puget Sound (Suttles and Lane 1990:499) – supplied names for certain fur-bearing animals. These are shown in Table 2:

**Table 2** CJ < Lushootseed

language	word	gloss	source
<i>Chinook Jargon</i>	<quit-chad'dy>	'rabbit'	<i>Swan (1857)</i>
Chinookan	<kun'ne-mun'ne>	idem	Gibbs (1863b)
Lushootseed	k <sup>w</sup> əčdi?	idem	Bates et al. (1994)
	k <sup>w</sup> əčidi?	idem	(ibid.)
Upper Chehalis	x <sup>w</sup> áyčs	idem	Kinkade (1991)
ləwálməš	ski?px <sup>w</sup> a?	idem	ISmk19780913.62
<i>Chinook Jargon</i>	<skud'zo>	'squirrel'	<i>Swan (1857)</i>
Chinookan	<e-kau-tau>	'pine squirrel'	Gibbs (1863b)
	<skwis-skwis>	idem	(ibid.)
Lushootseed	sqəd'ú?	'squirrel'	Bates et al. (1994)
ləwálməš	sk <sup>w</sup> əyúx <sup>w</sup>	idem	ISmk19781130.41

The ləwálməš cognate for 'squirrel' is a very close match for the CJ, and better yet, northern ləwálməš dialects in fact affricate /y/ to /j/ (that is [dʒ]; thus jəl-á? 'come and help!' versus southern yəl-á? idem, NBmk19670426.65–66). Even so, the Lushootseed form corresponds even more closely in phonology.

Lushootseed is less definitely a potential source of two more words in the same fur-trade semantic domain, shown in Table 3:

**Table 3** CJ < probable Lushootseed

language	word	gloss	source
Chinook Jargon	<skad>	‘mole’	Swan (1857)
Chinookan	?		
Lushootseed	<i>pəlqʷáči?</i>	‘mole’	Bates et al. (1994),
	<i>qad</i>	‘back up’	(ibid.)
Upper Chehalis	<i>sqan̓</i>	‘gopher’	Kinkade (1991)
ləwálməš	<i>pəkʷálməš</i>	‘mole’	
Chinook Jargon	<skubʹby-you>	‘skunk’	Swan (1857)
Chinookan	<o-pún-pun>	idem	Gibbs (1863b)
Lushootseed	<i>sqəbyá?</i>	idem	Bates et al. (1994)
Upper Chehalis	<i>sqəmyú</i>	idem	Kinkade (1991)
ləwálməš	<i>hayí?</i>	idem	ELjh1942.420

Both CJ words in Table 3 appear Lushootseed- (or Twana-) like, in that they contain oral stops where Salish cognates show nasals. But they possess closer known cognates in Tsamosan. With regard to <skad>, we know that 19<sup>th</sup>-century anglophone recorders of ləwálməš and neighboring languages frequently wrote glottalized *n̓* as an oral stop, with or without nasal segments preceding it. (Compare *tsūntn* ‘yaka’ [CJ for ‘he, she’] for ləwálməš *cán̓* in Cooper 1854, and *taqualant* ‘ear’ for ləwálməš *t=(?ə-)qʷəlán̓* ‘DEF.NONF=(2.S.POSV-)ear’ in Lee and Frost 1846:342.) As for <skubʹby-you>, <m> often interchanged with <b> (for example, just about every occurrence of a ‘b’ in Gibbs’ 1863b Chinookan is phonologically an *m*). That fact bolsters the case for non-Lushootseed etymologies here. But in any case, ləwálməš is known to use completely different forms in both instances, so we can leave this question open and move on.

One word now integrated into ləwálməš is nonetheless a loan from CJ, which most likely inherited it from the earlier Haida pidgin, via the intervening ‘Nootka Jargon’. (See CWDP 2012, s.v. *hilu*, for details on these convolutions). Table 4 compares these forms with Chinookan and Tsamosan negators.

**Table 4** CJ < Nootka Jargon < Haida

language	word	gloss	source
<i>Chinook Jargon</i>	<halo>	'NEG'	(Palmer 1838)
Chinookan	<i>nikšt</i>	idem	Boas (1910:668)
łəwálməš	<i>hilu</i>	idem	ISmk19781015.10
	<i>mílt</i>	idem	LHcs19670817.1503 <sup>3</sup>
Cowlitz	<i>míltá</i>	idem	Kinkade (2004)
Haida	<i>hi-lu</i>	idem	CWDP (2012)

A couple of other Nootka Jargon words are Nuuchahnulth in origin (again see CWDP 2012 for details), though they have resemblances to Salish. Table 5 illustrates:

**Table 5** CJ < Nootka Jargon < Nuuchahnulth

language	word	gloss	source
<i>Chinook Jargon</i>	<i>húyhuy</i>	'trade'	CWDP (2012)
Chinookan	<i>-xəmuta</i>	'barter'	Boas (1910:615)
łəwálməš	<i>ləq</i>	'buy'	NBcs19670524.516
	<i>táx<sup>w</sup></i>	idem	LHcs0817.1499
Upper Chehalis	<i>táx<sup>w</sup>iwi</i>	'sell'	Kinkade (1991)
	<i>x<sup>w</sup>iy<sup>x</sup>iy<sup>í</sup></i>	'greedy, stingy'	(ibid.)
Nuuchahnulth	<i>ħaʔuyi</i>	'trade, barter, swap'	CWDP (2012)
<i>Chinook Jargon</i>	<i>mə́k<sup>h</sup>mək</i>	'eat'	CWDP (2012)
Chinookan	<i>-wulʔ(?)</i>	idem	Boas (1910:590)
łəwálməš	<i>ʔl</i>	idem	ISmk19780911.97
	<i>múx<sup>w</sup>m</i>	'go + try to get s.t. to eat from s.o.'	ISmk19781128.13
Upper Chehalis	<i>mə́q<sup>w</sup>mə́q<sup>w</sup>tn</i>	'swallow repeatedly'	Kinkade (1991)
Chinookan	<i>magmaq</i>	'gulping down'	CWDP (2012)
Nuuchahnulth	< <i>mar<sup>h</sup>orma-q</i> >	'choice wheatmeal' [sic, for 'whalemeat']	Oxford Dictionary of English (2010:827) <sup>4</sup>

One word has a reasonable łəwálməš etymology, but a better one in Kalapuyan.

<sup>3</sup>łəwálməš still routinely used its inherited Salish negator *mílt* in the 1890s, as seen in Charles Cultee's usage (Boas 1890), but by the time further documentation was performed in the 20<sup>th</sup> century, speakers almost exclusively negated with the borrowed *hilu*.

<sup>4</sup>This is an unusual authority to cite here, but no corresponding form could be located in Powell and Callicum (1991).

**Table 6** CJ < Kalapuyan

language	word	gloss	source
<i>Chinook Jargon</i>	<i>túx</i>	‘saliva’	<i>CWDP (2012)</i>
Chinookan	<i>-mxti</i>	idem	Boas (1910:608)
łəwálməš	<i>túx<sup>w</sup>sč</i>	‘to spit out’	ISmk19781128.46
Kalapuyan	<i>taφ</i>	‘spit, saliva’	<i>CWDP (2012)</i>

And a few items match forms in languages widely enough dispersed in the Pacific Northwest to be considered areally shared.

**Table 7** CJ < > areally shared

language	word	gloss	source
<i>Chinook Jargon</i>	<i>áx</i>	‘excrement’	<i>CWDP (2012)</i>
Chinookan	<i>áx</i>	‘cough up’	( <i>ibid.</i> )
Sahaptin	<i>áx</i>	‘yucky, icky’	( <i>ibid.</i> )
Upper Chehalis	<i>ʔəx<sup>w</sup>ínustn</i>	‘he defecated’	Kinkade (1991)
<i>Chinook Jargon</i>	<i>nəʔ</i>	‘dear; honey’	<i>CWDP (2012)</i>
Chinookan	<i>?</i>		
Sechelt	<i>náq</i>	‘dear (term of affection for anyone)’	Beaumont (2011)
<i>Chinook Jargon</i>	<i>ó</i>	‘oh’	<i>CWDP (2012)</i>
Chinookan	<i>u</i>	idem	Boas (1910:635)
łəwálməš	<i>ʔú</i>	idem	CCfb1890Qoneqone3.1
Kalapuyan	<i>úʔ</i>	idem	Jacobs (1945:247)
Sahaptin	<i>au</i>	idem	Jacobs (1929:219)
<i>Chinook Jargon</i>	< <i>kah</i> ’- <i>kah</i> >	‘crow’	Gibbs (1863a)
Chinookan	< <i>ská</i> - <i>ha</i> >	idem	Gibbs (1863b)
łəwálməš	<i>ská</i>	idem	ISmk19780911.21
Quileute	<i>káʔyoʔ</i>	idem	Powell and Woodruff (1976)

Finally, a word for European-style dishware has no clear etymology or language of origin, as Table 8 shows. (The trail ends where the unrelated Quinault and Quileute display the same form; Quileute *b* < \**m*.)<sup>5</sup>

<sup>5</sup>This word is first documented by Hale (1846), then by Gibbs (1863a), both in the lower Columbia River region. Checking dictionaries of Coast Salish (Lushootseed: Bates et al. 1994, Klallam: Montler 2012, Sechelt: Beaumont 2011), Southern Wakashan (Nuuchahnulth: Powell and Callicum 1991), and Northern Wakashan (Heiltsuk: Rath 1981), I found no occurrences of this as a loan word. Its present distribution in Native languages – restricted to the northerly Pacific Coast of Washington state – suggests both (A) its rapid obsolescence in CJ and (B) its persistence only in ‘backwater’ areas where the

**Table 8** CJ < indeterminate source

language	word	gloss	source
<i>Chinook Jargon</i>	<i>məláx</i>	‘pan, dishpan’	<i>ELjh1942.18.448</i>
Chinookan	< <i>á-bo-wa</i> >	‘dishes’	Gibbs (1863b)
łəwálməš	<i>smətáʔ</i>	idem	NBmk19670519.18
	<i>cilíłnm</i>	‘pans, dishes, plates for eating’	CCfb1890.24
Upper Chehalis	<i>caḵʷáłxʷ</i>	‘pan, bowl, dish’	Kinkade (1991)
Quinault	<i>maláx</i>	‘basin, dish pan’	Modrow ([1971])
Quileute	<i>bá-lax</i>	‘tin metal, pie tin’	Powell and Woodruff (1976)

## 2.2 Long-term Chinookan-łəwálməš sharing

Quite a number of CJ words beyond this can be ascribed to łəwálməš with varying degrees of confidence. However, the complication here is that sustained joint settlement and linguistic contact has led to the lexicon of Chinookan possessing many forms that are practically indistinguishable from those in its Salish neighbor. In some cases a corresponding łəwálməš form is not known, but Tsamosan relatives have one, suggesting possible cognacy (Table 9).<sup>6</sup>

**Table 9** CJ < indeterminate Chinookan / łəwálməš

language	word	gloss	source
<i>Chinook Jargon</i>	< <i>chis</i> >; < <i>tsish</i> >	‘cold’	( <i>Gill 1909</i> )
Chinookan	< <i>ts’his</i> >; < <i>tsus</i> >	idem	Gibbs (1863b)
łəwálməš	<i>pamás</i>	idem	NBmk19670405.130
Upper Chehalis	<i>łiš</i>	idem	Kinkade (1991)
<i>Chinook Jargon</i>	<i>čxi</i> ; < <i>chee</i> >	‘immediately; new’	<i>CWDP (2012)</i>
Chinookan	<i>čxi</i>	idem	( <i>ibid.</i> )
łəwálməš	<i>či</i>	‘and’	ISmk19781014.23
<i>Chinook Jargon</i>	<i>ícxut</i>	‘bear’	<i>CWDP (2012)</i>
Chinookan	<i>iičxut</i>	idem	( <i>ibid.</i> )
łəwálməš	<i>čátxʷn̓</i>	idem	Kinkade et al. (2010)

pidgin had both (i) early taken hold and (ii) remained in use longer than in the sections of the state such as Shoalwater Bay and the corridor from Fort Vancouver to Puget Sound that were first settled by Whites.

<sup>6</sup>Starting with this section, some examples will be accompanied by background discussion, at times fairly extensive but confined to footnotes to keep the exposition simple.

language	word	gloss	source
<i>Chinook Jargon</i>	<i>kúyʔ</i>	<i>'hopefully; wishing that...'</i>	<i>CWDP (2012)</i>
Chinookan	< <i>qui</i> >	'will; let us; shall'	( <i>ibid.</i> )
łəwálməš	<i>kʷíʔ</i>	'give'	ISmk19781015.166 <sup>7</sup>
<i>Chinook Jargon</i>	<i>lili</i>	<i>'long time'</i>	<i>CWDP (2012)</i>
Chinookan	<i>lili</i>	idem	( <i>ibid.</i> )
łəwálməš	<i>nácýəq</i>	'after a long time'	ISmk19781014.49
	<i>táʔxʷ</i>	'far'	NBcs19670405.145
Upper Chehalis	<i>lil-</i>	'far away'	Kinkade (1991)
<i>Chinook Jargon</i>	<i>lipʰlip</i>	<i>'boil'</i>	<i>CWDP (2012)</i>
Chinookan	<i>laplap</i>	idem	( <i>ibid.</i> )
łəwálməš	<i>púp-</i> <i>ʔúqʷs-</i>	'boil' 'boil (cook)'	ISmk19781014.207 LHcs19670619.414
<i>Chinook Jargon</i>	<i>na</i>	<i>'Q'</i> <sup>8</sup>	<i>CWDP (2012)</i>
Chinookan	<i>na</i>	idem	( <i>ibid.</i> )
łəwálməš	<i>na</i>	idem	ISmk19781014.179
<i>Chinook Jargon</i>	<i>qáləs</i>	<i>'raccoon'</i>	<i>CWDP (2012)</i>
Chinookan	<i>iqʷalás</i>	idem	( <i>ibid.</i> )
łəwálməš	<i>qʷáls</i>	idem	ELjh1942.17.407
<i>Chinook Jargon</i>	<i>spúʔuq</i>	<i>'grey'</i>	<i>CWDP (2012)</i>
Chinookan	<i>šbuq</i>	idem	( <i>ibid.</i> )
łəwálməš	<i>páqʷ</i>	idem	EL1942.17.484
<i>Chinook Jargon</i>	<i>číqʰwaʔ</i>	<i>'piss-ant'</i>	<i>CWDP (2012)</i>
Chinookan	<i>ačíqʰa</i>	idem	( <i>ibid.</i> )
łəwálməš	<i>čəsqiýəq</i>	'ant'	ISmk19780911.84
Upper Chehalis	<i>číqʰa-</i>	'step on'	Kinkade (1991)
<i>Chinook Jargon</i>	<i>úmaʔ</i>	<i>'feed'</i>	<i>CWDP (2012)</i>
Chinookan	<i>-ʔim</i>	idem	<i>CWDP (2012)</i>
łəwálməš	<i>ʔúm-</i>	idem	ISmk19781014.74

<sup>7</sup>Compare the grammaticalization of a verb 'give' into permissive/imperative markers in Mandarin Chinese (Sun 2003) and Russian (Aikhenvald 2010:350).

<sup>8</sup>I.e. polar-question marker. This is an enclitic in both Chinookan and Salish.

language	word	gloss	source
Chinook Jargon	<i>káwtin</i>	'squirrel'	CWDP (2012)
Chinookan	<i>ikáutən</i>	idem	(ibid.)
łəwálməš	<i>skʷəyúxʷ</i>	idem	ISmk19781130.41
	<i>skʷatət</i>	idem	ISmk19780911.66
Chinook Jargon	<i>kʷiš</i>	'exclamation of refusal'	CWDP (2012)
Chinookan	<i>kš</i>	'oh!'	(ibid.)
łəwálməš	<i>kʷš</i>	idem	ELjh1942.18.418
Chinook Jargon	<i>pləx</i>	'aphrodisiac'	CWDP (2012)
Chinookan	<i>ipləx</i>	'medicine'	CWDP (2012)
łəwálməš	?		
Upper Chehalis	<i>pləx</i>	'aphrodisiac'	Kinkade (1991)
Chinook Jargon	<i>ítəxʷítəxʷ</i>	'oyster'	CWDP (2012)
	<chet'-lo>	idem	Gibbs (1863a)
Chinookan	<i>ítəxwítəxw</i>	idem	(ibid.)
łəwálməš	<i>čəšəxʷ</i>	idem	ISmk19780911.53
Lushootseed	<i>łúxʷłúxʷ</i>	idem	Bates et al. (1994)
Chinook Jargon	<a-yah'-whul>	'borrow'	Gibbs (1863a) <sup>9</sup>
	<i>yáxʷəl</i>	'borrow'	CWDP (2012)
Chinookan	<hul-ge'-bish-ta>	idem	Gibbs (1863b)
PS	<i>*kʷul</i>	idem	(Kuipers 2002) <sup>10</sup>
Chinook Jargon	<youtl>	'glad'	Gibbs (1863a)
Chinookan	<i>yułl, yuł</i>	idem	CWDP (2012)
Lushootseed	<i>juʔil</i>	idem	Bates et al. (1994)
łəwálməš	ʔ <sup>11</sup>		

<sup>9</sup>Both variants (<a-yah'-whul>, *yáxwəl*) appear to carry Chinookan argument-marking prefixes (cf. Swanton 1900:214) and a root <hul>/<whul>/<xʷəl>, but because the CJ word is traced by Gibbs to łəwálməš (1863a), I examine a possible native Salish etymology.

<sup>10</sup>In Tsamosan, Cowlitz inherits this Proto-Salish root as *kʷústm-* (Kinkade 2004) plausibly from PS *\*kʷú(l)-st(ə)w-m*, borrow-CAUS-AD [agent demotion] (for these two grammatical morphemes, cf. Kroeber 1999:26–27, 95). (For loss of coda *\*l* in this branch, compare Upper Chehalis *lé-ʔ* 'far' <√lil-, Kinkade 1991.) Upper Chehalis has it also (with its regular *\*k>č* shift, and *\*l>y*) in *čó.yaʔ* 'borrow' (Kinkade 1991). Could the root be an old loan between Chinookan and łəwálməš? A posttonic alternation *k>(k)x* is known in Chinookan (Boas 1910:568).

<sup>11</sup>In the Lushootseed form, *j* is a historical development from PS *\*y*. The final sequence *-il* is a "stem-forming suffix, common on experiencer stems" (Bates et al. 1994:116); such a suffix has not been identified in Tsamosan, cf. Kinkade (1991, 2004). The important claim here is that there exists a Salish root *\*yuʔ*, which conceivably developed as łəwálməš

language	word	gloss	source
<i>Chinook Jargon</i>	<ka-wak'>	'to fly'	Gibbs (1863a)
Chinookan	-ka/-ku	idem	(Boas 1911:662)
łəwálməš	qawáq	idem	ELjh1942.18.398
<i>Chinook Jargon</i>	<haht-haht>	'duck'	Gibbs (1863a)
Chinookan	xátxat	idem	Kinkade (1991)
Upper Chehalis	xátxat	idem	Kinkade (1991)
Quinault	xatxát	'swan'	Modrow ([1971])
<i>Chinook Jargon</i>	<paht'l>	'full'	Gibbs (1863a)
Chinookan	pał	idem	Boas (1910:620)
łəwálməš	lác̣	idem	ISmk19781014.165
	pól	'thick'	ISmk19781014.128
<i>Chinook Jargon</i>	<tagh'-um>	'six'	Gibbs (1863a)
Chinookan	táxm	idem	Boas (1910:637)
łəwálməš	sítəč	idem	LHcs19670817.1453
	təxám	'eight' [six]	LHcs19670817.1455 <sup>12</sup>
<i>Chinook Jargon</i>	<tot>	'uncle'	Gibbs (1863a)
Chinookan	tata	idem	Boas (1910:607)
Upper Chehalis	táta-	idem	Kinkade (1991)
łəwálməš	tá?í	idem	(Kinkade et al 2010)

(unattested!) *yú?əl* 'glad-INTENSIFIER' (about that suffix cf. Robertson 2014:122). Such a form could have been loaned into neighboring Chinookan in a pronunciation ending in a nonejective, *yúł*, because there exists *t-ł* variation in łəwálməš words, e.g. [čá?ł] for /čá?ł/ 'three' (NBcs19670615.10) and [łəł] for /łəł/ 'tough, hard' (EOcs19670619.997). <sup>12</sup>*sítəč* is the only word for 'six' that most latter-day speakers gave, but *təxám* is clearly ancestral in Salish and is used elsewhere in Tsamosan such as in Upper Chehalis (Kinkade 1991). Its antecedents are PS *təx* 'to open up, branch out' or \**təq* 'to cross over', both used in words for 'six' (Kuipers 2002), and PS \*-*m* 'AD' (agent demotion; Kroeber 1999:26–27, 95). That *təxám* is only vaguely remembered is evident from one speaker giving it only as an alternative for 'six', and from another's gloss as 'eight' (sic). We can only speculate over the replacement of such a core lexical item. One explanation fitting the Olympic Peninsula milieu is lexical tabooing, the replacement of a lexical item when a person of similar-sounding name had recently died. This custom was practiced by the Lower Chinookan population who were long intermingled with the łəwálməš around Shoalwater Bay (cf. Boas 1892, 1910:666), as well as by fellow Coast Salish groups such as the Twana (Elmendorf 1951). Elmendorf notes that names that became tabooed sometimes originated in other language (p. 206), an observation highly pertinent to *təxám* with its multiple potential etymologies.

language	word	gloss	source
Chinook Jargon	<so-le'-mie> súlmix	'cranberry' idem	Gibbs (1863a) ELjh1942.18.466
Chinookan	<sú-la-mikh>	idem	Gibbs (1863b)
ləwálməš	ʔəsúlmš	idem	ELjh1942.18.466 <sup>13</sup>
Chinook Jargon	sxíláqmi	'looking glass' (mirror)	ELjh1942.18.459
Chinookan	<e-shal-la'-kabt> -okuman	idem 'to look at'	Gibbs (1863b) Boas (1910:662)
	-aqamt	'to look'	Boas (1910:663)
ləwálməš	?		
Upper Chehalis	ʔáʔxčšń	'mirror'	Kinkade (1991) <sup>14</sup>
Chinook Jargon	<smock-smock>	'grouse'	Swan (1857)
Chinookan	<un-whust'wust>	idem	Gibbs (1863b)
ləwálməš	həmsəlč	idem	ELjh1942.18.387
Upper Chehalis	<.smukwā'.m.k>	idem	Kinkade (1991) <sup>15</sup>
Chinook Jargon	<setlokum>	'the game of "hand"'	Gibbs (1863a)
Chinookan	<it-hlo-kum>	idem	Gibbs (1863b)
ləwálməš	ʔiʔlakum	idem	ELjh1942.18.328 <sup>16</sup>

<sup>13</sup>The forms in -x/-<kh> suggest a loan from from ləwálməš – whether to Chinookan or CJ – that antedates the sound shift from \*x>š and suggests the lexical suffix \*mix/mix<sup>w</sup> 'person(s), land, river' etc., which traces back to Proto-Salish (Kuipers 2002), though I have found no correspondent of a root *sul* in Salish. On the other hand, the prefixed ʔə- evokes a direction of loaning back into ləwálməš from Chinookan, where this looks like an unstressed noun gender prefix *a-* or *i-* reduced to schwa (Boas 1910:580–581).

<sup>14</sup>This word is included for two formal reasons, aside from its presumable post-contact origin. The beginning, particularly, of it suggests native ləwálməš material such as [an unattested word] *s-√xil=á=q=mi(n)* (NOM-√do=STEMX=hair=INSTR, cf UCH =*min*), thus 'instrument to do one's hair with'. The end, especially, of this same form is of course a decent match for the Chinookan roots shown. At this point we can only speculate about the sorts of mutual influence among Shoalwater Bay tribal languages that this implies.

<sup>15</sup>The triconsonantal reduplication in the CJ form fits the frequent Chinookan pattern for forming birds' names, though 'grouse' was not found in the sources I consulted (Boas 1910:655). The phonotactics of the reduplicated sequence, with an *s-* initial followed by CVC, are however typical of Salish words and very similar to the Upper Chehalis form, whose etymology is not clear.

<sup>16</sup>The ləwálməš form is an obvious Salish nominalization of a Chinookan loan.

language	word	gloss	source
Chinook Jargon	<moolak>	'elk'	Cox (1832)
Chinookan	-mulak	idem	Boas (1910:598)
łəwálməš	qílt	idem	ELjh1942.17.684

### 2.3 “Mistaken CJ”, as Sam Johnson said

A good many of the łəwálməš forms in one published Chinook Jargon source (Gill 1909) can be proven beyond a reasonable doubt to not belong there. These are among the numerous idiosyncratic additions that Samuel V. Johnson has shown Portland publisher John Kaye Gill to have made in republishing F.N. Blanchet’s 1853 CJ dictionary (Johnson 1978:69ff). Usually Gill notates these words as “O.C.” for “Original Chinook”, that is Chinookan, but several are recognizable as łəwálməš even without Gill’s sporadic label “Che.” for “Chehalis”. (This was the usual label for the łəwálməš tribe and language at the time.)

Of these, roughly half are identifiable as being lifted uncredited from Swan (1857), albeit with some changes to the spellings (Johnson 1978:77ff). The relevant observation to make is that Swan never claimed these to be Chinook Jargon lexemes, presenting them instead in a separate łəwálməš word list. As Johnson observed of certain other CJ dictionaries, this is “mistaken CJ” (1978:21ff). Table 10 illustrates these and one misprint found in Kinkade et al. (2010):

**Table 10** łəwálməš mistakenly called CJ; data sources known

language	word	gloss	source
“CJ”	<cuk'-ko>	'porgy' [a fish]	Swan (1857)
Chinookan	?		
łəwálməš	swənilč	idem	ELjh1942.17.310 <sup>17</sup>
“CJ”	<e-kap'-pa>	'hail'	Swan (1857)
Chinookan	-kápa	'ice'	Boas (1910:601)
łəwálməš	słíləx <sup>w</sup>	idem	ISmk19781015.132
Quinault	qəpux <sup>w</sup> əx <sup>w</sup> łíləx <sup>w</sup>	'little hailstone'	Modrow ([1971]) <sup>18</sup>

<sup>17</sup>The CJ word is of uncertain origin; I have not found a term for the fish 'porgy' in Gibbs (1863b), Boas (1910), and Swanton (1900). The łəwálməš form’s etymology is uncertain but apparently Salish, cf. Upper Chehalis *s-* ‘NOM’, *wən* ‘fold’ and *=it=či* ‘water’ (Kinkade 1991).

<sup>18</sup>Latter-day łəwálməš informants volunteered only (s)łíləx<sup>w</sup>. Chinook Jargon <E-kap'-pa> may have been a loan at the time when Swan documented łəwálməš.

language	word	gloss	source
“CJ”	<has'-litch>	'liver'	Swan (1857)
Chinookan	<i>ipánaqš</i>	idem	CWDP (2012 s.v. liver)
ləwálməš	<i>sxásəlčəc</i>	idem (?)	Kinkade (1991:164)
Upper Chehalis	<i>sáʔš</i>	idem	Kinkade (1991)
	<Sússúltca>	idem	(ibid.) <sup>19</sup>
“CJ”	<kaer-hutch>	'crab'	Swan (1857)
Chinookan	<kal-he'-la>	idem	Gibbs (1863b)
ləwálməš	<i>qíʔxəč</i>	idem	ISmk19780911.54
“CJ”	<met'-chip>	'fire'	Swan (1857)
Chinookan	<o-ól-pits-ki>	idem	Gibbs (1863b)
ləwálməš	<i>máčp</i>	idem	ELjh1942.18.317
“CJ”	<se'-cartl>	'spruce tree'	Swan (1857)
Chinookan	<e-pé-natl'h>	idem	Gibbs (1863b)
ləwálməš	<i>cqát</i>	idem	ELjh1942.17.168
“CJ”	<she-sinch>	'shrimp'	Swan (1857)
Chinookan	?		
ləwálməš	<i>šəyíšnəč</i>	idem	NBcs19670615.1100
“CJ”	<sqintum>	'white man'	Swan (1857)
Chinookan	?		
ləwálməš	<i>sxʷəntm</i>	idem	ISmk19781014.275
“CJ”	<ta-lass'>	'foot'	Swan (1857)
Chinookan	-ps/-pš	idem	Boas (1910:602, 639)
ləwálməš	<i>cálaʔš</i>	'shoes'	ISmk19781129.60
“CJ”	<taerk>	'bone'	Swan (1857)
Chinookan	<i>ikamúkuk</i>	idem	Boas (1910:611)
ləwálməš	<i>ítq</i>	idem	ISmk19781014.256
“CJ”	<i>tam</i>	'what?'	Swan (1857)
Chinookan	<i>tan</i>	idem	Boas (1910:609)
ləwálməš	<i>tám</i>	idem	ISmk19781014.216
“CJ”	<teh'-a-ner>	'jay'	Swan (1857)
Chinookan	-qíšqíš	'blue jay'	Boas (1910:598)
ləwálməš	<i>ítxnaʔ</i>	idem	ELjh1942.18.257

<sup>19</sup>Comparison of the forms in CJ, ləwálməš (which Kinkade 1991 mysteriously tags with a parenthetical '(?)') and Upper Chehalis suggests a root of the approximate form *h/xáʔs/š* and a lexical suffix, both with meanings not yet known to us. For the loss of *h* following the nominalizing prefix *s-*, a mutation not uncommon in Salish, compare PS *\*s-(h)ayas* 'to play' > Songish *siyásə* 'play games' ~ Lillooet *say'səz*, Thompson *séyisiʔ*, Shuswap *séyse*.

language	word	gloss	source
“CJ”	<ten-arts-lets>	‘veins’	Swan (1857)
Chinookan	<te-bek-het-hlau>	idem	Gibbs (1863b)
łəwálməš	?		
Upper Chehalis	wasál (s-)ʔac(‘)-=il(‘)als	idem ‘inside’	Kinkade (1991) (ibid.) <sup>20</sup>
“CJ”	<ten-sah’-wit>	‘bladder’	Swan (1857)
Chinookan	?		
łəwálməš	?		
Upper Chehalis	səxʷ/saxʷ	‘wet’	Kinkade (1991) <sup>21</sup>
“CJ”	<ten-squails>	‘blood’	Swan (1857)
Chinookan	łʔáwilqt	idem	Boas (1910:568)
łəwálməš	sqʷít	idem	ISmk19780911.111
“CJ”	<tens-ho’-mish>	‘arm’	Swan (1857)
Chinookan	-puti	idem	Boas (1910:601)
łəwálməš	sxʷúməč	‘hand’	LHcs19670619.132
“CJ”	<tah’ness>	‘knee’	Swan (1857)
Chinookan	úquxł	idem	Boas (1910:609)
łəwálməš	tánəs	idem	ISmk19781129.58
“CJ”	<ten’-tome>	‘navel’	Swan (1857)
Chinookan	?		
łəwálməš	túm	idem	ISmk19781015.50
“CJ”	<tsole>	‘round’	Kinkade et al. (2010) <sup>22</sup>

The remainder of Gill’s (1909) łəwálməš-origin mistaken CJ items come from a data source that is unidentified as of this writing.

<sup>20</sup>The *ten* at the start of this and other CJ forms in this table is transparently łəwálməš *t*=*n*- ‘DET.NONF= 1.SG.POSV-’, cf. Robertson (2014). The Upper Chehalis word for ‘inside’ is based on the ‘stative’ prefix, exceptionally used as a root in several Upper Chehalis and łəwálməš words, and the lexical suffix meaning ‘side, insides’ (Kinkade 1991).

<sup>21</sup>If this word for ‘bladder’ involves a cognate of the Upper Chehalis root for ‘wet’, the final *t* of the CJ word can plausibly be interpreted as łəwálməš =*t* ‘INSTR’ (cf. Robertson 2014).

<sup>22</sup>The supposed CJ form <*tsole*> in Kinkade et al. (2010) is a misprint for <*tsole-pat*> ‘shotpouch’ (Gibbs 1863a; discussed in Table 13 below), and is not found in CJ sources.

**Table 11** ləwálməš mistakenly called CJ; data sources unknown

language	word	gloss	source
“CJ”	<pa-mas’>	‘cold’	?
Chinookan	-caca	idem	Boas (1910:599)
ləwálməš	pamás	idem	ISmk19781130.83
“CJ”	<oke>	‘cry’	?
Chinookan	-qôcax	idem (sg.)	Boas (1910:612)
ləwálməš	ʔúk <sup>w</sup>	idem	ISmk19781014.225
“Chinook Jargon”	<law’-suk>	‘dance’	?
Chinookan	-wæčk	idem (sg.)	Boas (1910:612)
ləwálməš	láq <sup>w</sup> səq	idem	ISmk19780912.74
“CJ”	<tah-oo>	‘far’	?
Chinookan	kəlá-(?)	idem	Boas (1910:672)
ləwálməš	táʔx <sup>w</sup>	idem	ISmk19781014.4
“CJ”	<ny-ee’-na>, <my-ee’-na>	‘sing/song’	?
Chinookan	čxəm	‘sing shaman’s song’	Boas (1910:588)
ləwálməš	məyínatn	‘sing’	ISmk19781014.59
“CJ”	<skatl>	‘sky’	?
Chinookan	-gušax	idem	Boas (1910:601)
ləwálməš	sqááʔ	idem	ISmk19781130.64
“CJ”	<hook>	‘small’	?
Chinookan	-káic	‘smallness’	Boas (1910:641) <sup>23</sup>
ləwálməš	x <sup>w</sup> úʔk <sup>w</sup>	‘small’	ISmk19781014.85
“CJ”	<clak-oo’>	‘snow’	?
Chinookan	-utk	‘to snow’	Boas (1910:661)
ləwálməš	słáq <sup>w</sup>	‘snow (on the ground)’	ISmk19781130.65
“CJ”	<kais>	‘stone’	?
Chinookan	-qanakš	idem	Boas (1910:604)
ləwálməš	qáyš	idem	ISmk19780913.92

### 3 But there is still much more ləwálməš in CJ than thought

The remainder of the data increases the number of known reliable ləwálməš > CJ loans to 80 from the 39, and one mistaken form shown at the end of Table 10, listed by Kinkade et al. (2010). (I do not repeat the items in that 2010 word list here.) Upper Chehalis, Cowlitz and Quinault forms are presented for comparison here, when known.

<sup>23</sup>This is among the adjectival concepts that receive expression as abstract nouns in Chinookan (Boas 1910:657).

Quite a number of these newly identified loans are given by speakers in the community as łəwálməš, in addition to being identified in the literature as being used in CJ. (CWDP 2012 is the first to suggest łəwálməš etymologies as a possibility for several of these; my label ‘newly identified’ is intended as confirming those speculations.) Table 12 illustrates these items:

**Table 12** CJ < łəwálməš (newly identified)

language	word	gloss	source
<i>Chinook Jargon</i>	<i>áləkš</i>	‘beg’	<i>CWDP (2012)</i>
Chinookan	?		
Upper Chehalis	<i>ʔó:x<sup>w</sup>aš-</i>	idem	Kinkade (1991)
	<i>natáw-</i>	idem	(ibid.)
łəwálməš	<i>ʔáləqš</i>	‘bumming for food; stand watching s.o. eat + wanting food’	ISmk19781128.12
<i>Chinook Jargon</i>	< <i>tsi-ā</i> ’-list>	‘branch’	( <i>Lionnet 1853</i> )
Chinookan	?		
Cowlitz	<i>kálx</i>	idem	Kinkade (2004)
łəwálməš	<i>čálš</i>	idem	ISmk19781130.56
<i>Chinook Jargon</i>	<i>čiča</i>	‘grandmother’	<i>CWDP (2012)</i>
Chinookan	< <i>kl-kuk-ké-ke</i> >	idem on father’s side	Gibbs (1863b)
	< <i>kl-kush-kash’ka</i> >	idem on mother’s side	(ibid.)
Cowlitz	<i>káyʔ</i>	idem	Kinkade (2004)
łəwálməš	<i>čəča</i>	idem	EOcs19670720.742
<i>Chinook Jargon</i>	<i>íləp</i>	‘first; before’	<i>CWDP (2012)</i>
Chinookan	<i>qástən</i>	‘for the first time’	Boas (1910:634)
	<i>-ániwa</i>	‘first’	Boas (1910:659)
łəwálməš	<i>ʔilp</i>	idem	ELjh1942.18.229
<i>Chinook Jargon</i>	<i>k<sup>hw</sup>iʔim</i>	‘grandchild’	<i>CWDP (2012)</i>
Chinookan	<i>qaš</i>	idem said by a man	Boas (1910:612)
	<i>kai</i>	idem said by a woman	(ibid.)
Upper Chehalis	<i>ʔé·m̄c</i>	‘grandchild’	Kinkade (1991)
łəwálməš	<i>k<sup>w</sup>əʔim</i>	idem	ISmk19781129.36
<i>Chinook Jargon</i>	<i>lák<sup>w</sup>ən</i>	‘wipe’	<i>CWDP (2012)</i>
Chinookan	<i>-nalx</i>	idem	Boas (1910:662)
Upper Chehalis	<i>-x<sup>w</sup>ik<sup>w</sup>i</i>	idem	Kinkade (1991)
łəwálməš	<i>lák<sup>w</sup>η</i>	‘wipe it away/off!’	ELjh1942.17.284

language	word	gloss	source
<i>Chinook Jargon</i>	<i>púxən</i>	‘blow’	<i>CWDP (2012)</i>
Chinookan	<i>pu</i>	‘to blow once’	Boas (1910:628)
ləwálməš	<i>púx<sup>w</sup>n</i>	‘blow [on sth., e.g. on fire]’	NBcs19670512.291
<i>Chinook Jargon</i>	<i>qáyax</i>	‘entrails’	<i>CWDP (2012)</i>
Chinookan	<i>-amš</i>	‘guts’	Boas (1910:607)
ləwálməš	<i>qáyx</i>	idem	ISmk19781130.44
<i>Chinook Jargon</i>	<i>sk<sup>w</sup>ič</i>	‘vagina’	<i>CWDP (2012)</i>
Chinookan	?		
ləwálməš	<i>sk<sup>w</sup>əč</i>	idem	BCmk19670511.19
<i>Chinook Jargon</i>	<i>sləhál</i>	‘gambling game’	<i>CWDP (2012)</i>
Chinookan	< <i>e-tlált-lal</i> >	‘game of disks’	Gibbs (1863b)
	< <i>it-hlo-kum</i> >	‘game of hand’	( <i>ibid.</i> )
	<i>kwot-lá-buks</i>	‘game of beaver dice’	( <i>ibid.</i> )
ləwálməš	<i>sləhál</i>	‘gambling game’	ELjh1942.18.229
	<i>ləhál</i>	idem	ELjh1942.18.64924
<i>Chinook Jargon</i>	<i>t<sup>h</sup>əqsín</i>	‘pursue’	<i>CWDP (2012)</i>
Chinookan	<i>-wa</i>	idem	Boas (1910:659)
ləwálməš	<i>təqšín</i>	‘follow s.o., chase s.o.’	ISmk19781014.3
<i>Chinook Jargon</i>	<i>túʔan</i>	‘have’	<i>CWDP (2012)</i>
Chinookan	?		
ləwálməš	<i>túʔn</i>	‘put it away’	ISmk19781015.10925
<i>Chinook Jargon</i>	<i>xúq<sup>h</sup>ən</i>	‘gather’	<i>CWDP (2012)</i>
Chinookan	<i>-piálx</i>	idem	Boas (1910:660)
ləwálməš	<i>x<sup>w</sup>úq<sup>w</sup>n</i>	‘pick it up (e.g. from the floor)’	ELjh1942.18.481
<i>Chinook Jargon</i>	<i>čúmí</i>	‘chair’	<i>CWDP (2012)</i>
Chinookan	<i>-lait</i>	‘sit’	Boas (1910:665)
ləwálməš	<i>čámí</i>	idem	ISmk19780911.43
<i>Chinook Jargon</i>	<i>lək<sup>w</sup>ánu?</i>	‘earring’	<i>CWDP (2012)</i>
Chinookan	< <i>is-ká-lal</i> >	idem	Gibbs (1863b)
ləwálməš	<i>lək<sup>w</sup>ánu?</i>	‘small earring’	NBmk19781129.48

<sup>24</sup>EL says that *ləhál* is the real ləwálməš word, and that *sləhál* is CJ. Note the glottalized resonant in the latter, a phoneme type not documented in other CJ varieties including the phonologically rather conservative Grand Ronde creole (*CWDP 2012:25–29*).

<sup>25</sup>The pronunciation in *CWDP (2012)*, if reflective of etymology, also implies ləwálməš *túʔaʔn* ‘put [it] away!’ (On the morphological formation of the imperative, see Robertson 2014:107–108.)

language	word	gloss	source
<i>Chinook Jargon</i>	<i>pís</i>	'soul'	<i>CWDP (2012)</i>
Chinookan	<i>-kanati</i>	<i>idem</i>	Boas (1910:622)
łəwálməš	<i>spís</i>	<i>idem</i>	ISNBmk19781129.25
<i>Chinook Jargon</i>	<i>qáyɬ</i>	'fishhook'	<i>CWDP (2012)</i>
Chinookan	<i>-kik</i>	'hook'	Boas (1910:601)
łəwálməš	<i>qít-</i>	'fishing with hook & line'	LHcs19670619.121
<i>Chinook Jargon</i>	<i>k'ík'iyans</i>	'straight pin'	<i>CWDP (2012)</i>
Chinookan	< <i>kwé-kwi-ens</i> >	'pin'	Gibbs (1863b)
	< <i>kle-bá-kwo-te</i> >	<i>idem</i>	(ibid.)
Upper Chehalis	<i>k'ík'i-</i>	'sticking in'	Kinkade (1991)
łəwálməš	<i>k'ík'iyáɬst</i>	<i>idem</i>	NBcs19670731.1213
<i>Chinook Jargon</i>	<i>tápsɪn</i>	'patch'	<i>CWDP (2012)</i>
Chinookan	< <i>an-ékʰ-po</i> >	'sew'	Gibbs (1863b)
Upper Chehalis	<i>tálpšn</i>	<i>idem</i>	Kinkade (1991)
Cowlitz	<i>idem</i>	<i>idem</i>	Kinkade (2004)
Quinault	<i>tápn</i>	'patching it'	Modrow ([1971])
łəwálməš	<i>tápsn</i>	'to patch (a canoe or clothes)'	ELjh1942.18.361
<i>Chinook Jargon</i>	<i>xíləməl</i>	'work'	<i>CWDP (2012)</i>
Chinookan	<i>-xučkən</i>	<i>idem</i>	Boas (1910:600)
Upper Chehalis	<i>yús</i>	<i>idem</i>	Kinkade (1991)
Cowlitz	<i>yayús</i>	<i>idem</i>	Kinkade (2004)
łəwálməš	<i>xílməl</i>	<i>idem</i>	ELjh1942.18.386
Quinault	<i>idem</i>	<i>idem</i>	Modrow ([1971])
<i>Chinook Jargon</i>	<i>yánəs</i>	'tooth'	<i>CWDP (2012)</i>
Chinookan	<i>-ačɣ</i>	<i>idem</i>	Boas (1910:601)
Upper Chehalis	<i>yáns</i>	<i>idem</i>	Kinkade (1991)
Cowlitz	<i>idem</i>	<i>idem</i>	Kinkade (2004)
Quinault	<i>ǰəns</i>	<i>idem</i>	Modrow ([1971])
łəwálməš	<i>yánəs</i>	<i>idem</i>	NBmk19670405.66

language	word	gloss	source
Chinook Jargon	čík <sup>w</sup> t	'light, lamp'	ELjh1942.18.370
Chinookan	wax	'light, set afire'	Boas (1910:631)
Upper Chehalis	sqałáx	'light'	Kinkade (1991)
	sk <sup>w</sup> ól	idem	(ibid.)
	q <sup>w</sup> alílt <sup>n</sup>	'lamp'	(ibid.)
Cowlitz	qéxamlt <sup>n</sup>	'light, candle, torch'	Kinkade (2004)
Quinault	jóxul	'light, daylight'	Modrow ([1971])
łəwálməš	čík <sup>w</sup> t	'light'	NBcs19670512.293
Chinook Jargon	ʔápcit	'rudder'	CWDP (2012)
Chinookan	ʔ		
Upper Chehalis	ʔápc <sup>t</sup>	'stern of a canoe, front seat of a car'	Kinkade (1991)
Quinault	łáʔx <sup>w</sup> əc	'stern, the hind part of a canoe'	Modrow ([1971])
łəwálməš	ʔácan (?)	'canoe stern'	CCfb1890.6
Chinook Jargon	púq <sup>w</sup> əłəs	'housefly'	ELjh1942.18.398
Chinookan	<e-bóts-kun>	idem	Gibbs (1863b)
Upper Chehalis	x <sup>w</sup> ayúx <sup>w</sup> aʔ	idem	Kinkade (1991)
	púw <sup>s</sup>	'a fly in mountains'	(ibid.)
Cowlitz	cáwlkaxa	'fly (n.)'	Kinkade (2004)
Quinault	páhkəs	'fly'	Modrow ([1971])
łəwálməš	pəq <sup>w</sup> łs	idem	ELjh1942.18.294
Chinook Jargon	qál	'sugar'	ELjh1942.18.445
Chinookan	<tsee>	'sweet'	Gibbs (1863b)
	<yat-se-bub>	idem	(ibid.)
łəwálməš	qál	'sweet'	LHcs19670619.841
Quinault	idem	idem	Modrow ([1971])
Upper Chehalis	idem	idem	Kinkade (1991)
Cowlitz	idem	idem	Kinkade (2004)
Chinook Jargon	<smet'-ocks>	'large clam'	Gibbs (1863a)
Chinookan	-iʔi	'mud clam'	Boas (1910:598)
	<kláb-o-wa>	'clam (lutraria)'	Gibbs (1863b)
Upper Chehalis	q <sup>w</sup> áliq <sup>n</sup>	'horseclam'	Kinkade (1991)
Cowlitz	sqałít <sup>n</sup>	'large clam sp.'	Kinkade (2004)
Quinault	mátáqs	'horse clams'	Modrow ([1971])
łəwálməš	smətáqs	'clam sp.'	ELjh1942.18.465

language	word	gloss	source
<i>Chinook Jargon</i>	<essa>	'to come'	<i>Gibbs (1863a)</i>
Chinookan	<a-mit-e>	<i>idem</i>	Gibbs (1863b)
	<bat'te>	'come, (imp.) to one person'	( <i>ibid.</i> )
Upper Chehalis	čís-	'come'	Kinkade (1991)
	néʔšaʔ	'come near!'	( <i>ibid.</i> )
Cowlitz	ʔís	'come'	Kinkade (2004)
Quinault	<i>idem</i>	<i>idem</i>	Modrow [1971])
łəwálməš	ʔisaʔ	'come here!'	ISmk19780911.108
<i>Chinook Jargon</i>	<hachr>	'house'	<i>Swan (1857)</i>
Chinookan	tqúʔi	<i>idem</i>	Boas (1910:568)
Cowlitz	ʔáx	<i>idem</i>	Kinkade (2004)
Upper Chehalis	ʔáʔta	<i>idem</i>	Kinkade (1991)
łəwálməš	ʔáš	<i>idem</i>	ISmk19780914.5
Upper Chehalis	<i>idem</i>	<i>idem</i>	Kinkade (1991)
<i>Chinook Jargon</i>	<scal'la-been>	'rifle'	<i>Swan (1857)</i>
Chinookan	<shuk-wa-lál-la>	'gun or musket'	Gibbs (1863b)
Upper Chehalis	<Sállá 'ip'>	'rifle'	Kinkade (1991)
Quinault	ciʔčʔn	'gun'	Modrow ([1971])
łəwálməš	skəlapín	'rifle'	ELjh1942.18.49026
<i>Chinook Jargon</i>	<swaa'wa>	'panther'	<i>Swan (1857)</i>
Chinookan	<e-kwái-ye-wa>	'cougar'	Gibbs (1863b)
	-iqacítak	'panther'	Boas (1910:614)
Upper Chehalis	swá-wa·	'cougar'	Kinkade (1991)
	swáʔwaʔ	<i>idem</i>	( <i>ibid.</i> )
Cowlitz	swáwaʔ	<i>idem</i>	Kinkade (2004)
Quinault	gʷáʔa	<i>idem</i>	Modrow ([1971])
łəwálməš	swáwaʔ	<i>idem</i>	ELjh1942.17.441
<i>Chinook Jargon</i>	<arts'poe>	'flea'	<i>Swan (1857)</i>
Chinookan	<i-na-pu>	<i>idem</i>	Gibbs (1863b)
Upper Chehalis	máčʔn	<i>idem</i>	Kinkade (1991)
Cowlitz	máčʔílaʔ	<i>idem</i>	Kinkade (2004)
Quinault	kʷəšús	<i>idem</i>	Modrow ([1971])
łəwálməš	ʔácpuʔ	<i>idem</i>	ISmk19780913.85

<sup>26</sup>This is a unique nativization of an existing CJ noun into łəwálməš by the addition of the łəwálməš nominalizing prefix *s-* (cf. Robertson 2014:123–124, CWDP 2012, s.v. *karapín*).

language	word	gloss	source
<i>Chinook Jargon</i>	<i>q̄aláp</i>	‘deep’	<i>CWDP (2012)</i>
Chinookan	?		
Quinault	<i>hix<sup>w</sup></i>	<i>idem</i>	Modrow ([1971])
ləwálməš	<i>ḷáp</i>	<i>idem</i>	Kinkade et al. (2010)
Upper Chehalis	<i>idem</i>	<i>idem</i>	Kinkade (1991)
Cowlitz	<i>idem</i>	<i>idem</i>	Kinkade (2004)27
<i>Chinook Jargon</i>	<i>íáq<sup>hw</sup>in</i>	‘lick’	<i>CWDP (2012)</i>
Chinookan	<i>-miqt</i>	<i>idem</i>	Boas (1910:660)
Upper Chehalis	<i>íáq<sup>w</sup>n</i>	‘lick (tr.)’	Kinkade (1991)
Cowlitz	<i>íáq<sup>w</sup>n</i>	‘lick, lap’	Kinkade (2004)
Quinault	<i>íáqs?a<sup>?</sup></i>	‘to lick (off a dish)’	Modrow ([1971])
ləwálməš	<i>íáq<sup>w</sup>n</i>	‘to lick (with tongue)’	LHcs19670619.528

The remainder are certainly at least Tsamosan and, for multiple reasons, more plausibly from *ləwálməš* than from Upper Chehalis, Quinault, or Cowlitz. Of these, typically it is *ləwálməš* that provides the closest phonological and semantic match. It is also the language geographically closest to where each word was first documented – Grand Ronde, Oregon, in most cases. As shown in Table 13, minor differences of form from known *ləwálməš* words characterize several of these. (Phonological differences observed between the source and pidgin languages – such as *q~k* variability, attrition of labiality in stop codas, and addition or removal of glottality – are typical for the pidgin, as a glance through the etymologies in *CWDP 2012* proves.)

<sup>27</sup>A variant of the usual CJ form <*kli*p>/<*klep*> already etymologized by Kinkade et al. (2010).

**Table 13** CJ < łəwálməš (probable, with slight mutations)

language	word	gloss	source
<i>Chinook Jargon</i>	<i>kʷishən</i>	‘toast’	<i>CWDP (2012)</i>
Chinookan	<i>-kčkt</i>	‘roast’	Boas (1910:569)
	<i>-ləkč</i>	idem	Boas (1910:650)
Upper Chehalis	<i>caqáʔn</i>	‘stick for roasting’	Kinkade (1991)
	< <i>k' lk- l</i> >	‘when putting salmon on a roasting stick’	Kinkade (1991)
Cowlitz	< <i>tawa'shweyə</i> >	‘roasting stick’	Kinkade (2004)
Quinault	<i>xʷásatm</i>	‘burning hair (of a seal) or roast’	Modrow ([1971])
	<i>qʷúlim</i>	‘roast by fire’	(ibid.)
	<i>čəlīštəq</i>	‘roast’	(ibid.)
łəwálməš	<i>qʷəšyəps</i>	idem	LHcs19670619.574
<i>Chinook Jargon</i>	<i>pálaks</i>	‘penis’	<i>CWDP (2012)</i>
Chinookan	?		
Cowlitz	<i>səxʷáymini</i>	‘his penis’	Kinkade (2004)
łəwálməš	<i>spólq</i>	idem	BCmk19670511.17
Upper Chehalis	<i>idem</i>	idem	Kinkade (1991)
<i>Chinook Jargon</i>	<i>qóka</i>	‘choke’	<i>CWDP (2012)</i>
Chinookan	<i>-čikčik</i>	‘almost choked’	Boas (1910:632)
Upper Chehalis	<i>qəq-</i>	‘choke’	Kinkade (1991)
	<i>mičlnali-</i>	idem	(ibid.)
Cowlitz	<i>qiqłn</i>	‘choke, hang’	Kinkade (2004)
	<i>kʷukʷápsm</i>	‘choke, stick in the throat’	(ibid.)
Quinault	<i>qáq</i>	‘to choke’	Modrow ([1971])
łəwálməš	<i>qəq</i>	‘choke (on s.t.)’	ISmk19781015.46
<i>Chinook Jargon</i>	<i>łáxan[-]hən</i>	‘deadbeat’	<i>CWDP (2012)</i>
Chinookan	<i>qam</i>	‘lazy’	Boas (1910:632)
Upper Chehalis	<i>łá·xan-</i>	‘hunt’	Kinkade (1991)
Cowlitz	<i>łá·xanm</i>	‘hunt (game), go hunting’	Kinkade (2004)
Quinault	<i>łáćym</i>	‘to hunt’	Modrow ([1971])
łəwálməš	<i>słáʔhnm</i>	‘they went out hunting’	ELjh1942.17.46 <sup>28</sup>

<sup>28</sup>CWDP (2012) suggests that the element *-hən* here may be from English ‘hand’, as if the CW word connoted ‘hunting for a handout’; compare the semantics of the first group of

language	word	gloss	source
Chinook Jargon	<i>číqšət</i>	'brass, copper'	<i>ELjh1942.18.409</i>
Chinookan	<i>iqikás</i>	'brass'	Boas (1910:613)
	<i>iwaḡúmi</i>	'copper'	Boas (1910:616)
Upper Chehalis	< <i>qwe'qetstekan</i> >	idem	Kinkade (1991)
Cowlitz	< <i>.tskwe'.k</i> >	idem	Kinkade (2004)
łəwálməš	<i>číq</i>	'red'	ISmk19781014.63
Quinault	<i>šámšət</i>	'brass'	Modrow ([1971])
Chinook Jargon	<i>qiwčikʷt</i>	'candle'	<i>ELjh1942.18.430</i>
Chinookan	?		
Cowlitz	<i>qéxamłtn</i>	idem	Kinkade (2004)
Quinault	<i>síwqtn</i>	idem	Modrow ([1971])
łəwálməš	<i>qłx<sup>w</sup></i>	'lard (fat)'	NBcs19670405.87
	<i>číkʷt</i>	'light'	NBcs19670512.293 <sup>29</sup>
Chinook Jargon	< <i>sole-pat</i> >	'shot-pouch'	<i>Gibbs (1863a)</i>
Chinookan	< <i>e-kwald</i> >	idem	Gibbs (1863b)
	< <i>o-bá-hwai</i> >	idem	( <i>ibid.</i> )
	<i>-maq</i>	'the act of shooting'	Boas (1910:672)
Upper Chehalis	<i>słtn</i>	'bullet-bag'	Kinkade (1991)
	<i>słl</i>	'bullet, lead, arrow'	( <i>ibid.</i> )
	< <i>Nauwals</i> >	'bullet, lead'	( <i>ibid.</i> )
Cowlitz	<i>słl</i>	'bullet, bullets, shell, shells, gunpowder'	Kinkade (2004)
Quinault	<i>sé?ič</i>	'shot (n.)'	Modrow ([1971])
łəwálməš	<i>čuláp</i>	'round'	Kinkade et al. (2010) <sup>30</sup>

words in Table 11. For the simplification of coda clusters of nasal + obstruent, compare CW *win* 'wind; breath' (CWDP 2012).

<sup>29</sup>The alternation *w>x<sup>w</sup>* is not frequent in łəwálməš, but the semantics here exactly correspond with CJ's widely documented *klis-p'áya* 'candle', literally 'fat-fire/light' (cf. CWDP 2012 s.v. *klis*).

<sup>30</sup>Emma Luscier, in her 1942 reelicitations of Chinook Jargon with J.P. Harrington, did not recognize CJ *sole-pat*, but volunteered łəwálməš *łənáłsł* 'bullet bag'. This word turns out to be an approximate synonym of the first, cf. Upper Chehalis *√łtn* 'receptacle' (used as the first member in compounds), =*ál(=s)* 'round things', and =*tn* 'INSTR', thus 'container for holding shot/bullets'. Supporting my interpretation of the first lexical suffix, Upper Chehalis has <*Nauwals*>, i.e. *√naw=ál(=s)*, 'bullet', where the root – un glossed by Kinkade – is cognate with łəwálməš *náw* 'big' (NBcs19670405.207). (Though its Upper Chehalis uses suggest a meaning 'real; main part', compare *s-√naw=ucn* 'mouth of a man', *√naw=áys* 'top of a tree; end of a road' and *√naw=áps* 'front of a door', Kinkade 1991.) Employing the same main concepts as in *łənáłsł* but in the reverse order, CJ *sole-pat* is almost surely the łəwálməš morphs *čuláp* 'round' in a metaphorical meaning (otherwise

language	word	gloss	source
Chinook Jargon	<i>skáləmən</i>	‘sea otter’	CWDP (2012)
Chinookan	<i>-na(m)námuks</i>	‘otter’	Boas (1910:598, 655)
	<i>-láki</i>	‘sea-otter’	(ibid.)
Upper Chehalis	<i>sáx<sup>w</sup>iyń</i>	‘river otter’	Kinkade (1991)
	<i>pítk<sup>w</sup>l</i>	‘sea otter’	Kinkade (1991)
Cowlitz	<i>idem</i>	idem	Kinkade (2004)
	<i>skálmn</i>	‘otter’	(ibid.)
Upper Chehalis	<i>idem</i>	idem	Kinkade (1991)
Quinault	<i>łək<sup>w</sup>álaqi</i>	‘sea otter’	Modrow ([1971])
	<i>g<sup>w</sup>ásʔups</i>	‘land otter (long tail)’	(ibid.)
łəwálməš	<i>łəq<sup>w</sup>áləq</i>	‘sea otter’	ELjh1942.17.400

#### 4 And now, the best part – these pidgin data help us revitalize łəwálməš

Having opted in Section 2 to exclude quite a lot of the potential łəwálməš > CJ loans from consideration, and ignoring the 39 already established by Kinkade et al. (2010), we have still found the 41 additional items in Section 3 either definitely tracing to łəwálməš or more likely to it than to any Tsamosan congener. This is already an increase of a little more than 100% in the corpus. (It is probable that more will be discovered, like several in the present data set, unlabeled by the numerous CJ lexicographers as to a source language.) An interesting fact is that many of these represent the sole evidence for lexemes otherwise unknown to us in the somewhat limited documentation of łəwálməš.

To continue that theme, 21 more words have their closest known correspondents elsewhere in Tsamosan. But the trend of evidence so far shows that Salish loans in CJ whose sources are clear overwhelmingly trace to łəwálməš, and these 21 items are documented within the lower Columbia and Shoalwater region. On such grounds, we might infer that these data too (Table 14) represent likely łəwálməš material – meaning that we have potentially expanded the corpus of such loans into CJ by as much as 150%.

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unattested) ‘round thing; shot, bullet, lead ball’ and =*i* ‘INSTRUMENT’. This structure in turn parallels its Upper Chehalis synonym  $\sqrt{sil-m}$  ‘bullet bag, hunter’s pouch’ (Upper Chehalis and Cowlitz  $\sqrt{sil}$  ‘bullet, arrow’, Kinkade 1991 and 2004).

**Table 14** CJ < ləwálməš (likely, but indirect evidence)

language	word	gloss	source
<i>Chinook Jargon</i>	<i>qáyʔwa</i>	‘crooked’	<i>CWDP (2012)</i>
Chinookan	<i>-lkik</i>	idem	Boas (1910:665)
Upper Chehalis	<i>qəyít</i>	‘crooked’	Kinkade (1991)
	<i>qəlx<sup>w</sup>-</i>	idem	(ibid.)
	<i>púyi-</i>	idem	(ibid.)
Cowlitz	<i>čúyuk<sup>w</sup>-</i>	idem	Kinkade (2004)
Quinault	<i>júq</i>	idem	Modrow ([1971])
ləwálməš	<i>qəmíyútl̥l̥</i>	‘trout (crooked-mouth)’	ISmk19781130.54
<i>Chinook Jargon</i>	<i>máq</i>	‘gulp’	<i>CWDP (2012)</i>
	<i>mákhmæk</i>	‘eat’	(ibid.)
Chinookan	<i>-wulʔ</i>	‘to swallow’	Boas (1910:660)
Upper Chehalis	<i>máq<sup>w</sup>-</i>	‘swallow’	Kinkade (1991)
Cowlitz	<i>máq<sup>w</sup>m</i>	idem	Kinkade (2004)
Quinault	<i>núq<sup>w</sup></i>	idem	Modrow ([1971])
<i>Chinook Jargon</i>	<i>píʔns</i>	‘bake’	<i>CWDP (2012)</i>
Chinookan	<i>-ši</i>	‘to roast in ashes’	Boas (1910:662)
Upper Chehalis	<i>pənstq</i>	‘by the fire’	Kinkade (1991)
Cowlitz	<i>pənc-</i>	~ ‘prepare (cook) camas’	Kinkade (2004) <sup>31</sup>
Quinault	<i>čəlísstəq</i>	‘to bake in the oven or to roast’	Modrow ([1971])
	<i>klís</i>	‘to bake (in ashes)’	(ibid.)
<i>Chinook Jargon</i>	<i>púʔ</i>	‘fart’	<i>CWDP (2012)</i>
Chinookan	<i>-ʔwəsq<sup>w</sup>əš</i>	‘breaking of wind’	Boas (1910:601)
Upper Chehalis	<i>pó-ʔ</i>	idem	Kinkade (1991)
Cowlitz	<i>póʔ</i>	idem	Kinkade (2004)

<sup>31</sup>Camas is precisely the usual object of *píʔns*, baking in ashes, in Victoria Howard’s narrations (cf. text 13.4 in Jacobs 1936). The root seems to descend from PS *\*pən* ‘besides, parallel, straight’ (Kuipers 2002), in a distinctly Tsamosan sense ‘beside the fire’.

language	word	gloss	source
<i>Chinook Jargon</i>	<i>snás</i>	‘rain’	<i>CWDP (2012)</i>
Chinookan	< <i>slél-hutst</i> >	idem	Gibbs (1863b)
	<i>mə́ǎ</i>	‘wet’	Boas (1910:633)
Upper Chehalis	<i>snús</i>	‘moist, moisture’	Kinkade (1991)
	<i>ɣasíls</i>	‘rain’	( <i>ibid.</i> )
	<i>sá́kʷ</i>	idem	( <i>ibid.</i> )
Cowlitz	<i>sáxʷa-</i>	idem	Kinkade (2004)
	<i>ɣasílʔ</i>	idem	( <i>ibid.</i> )
Quinault	<i>čájəkʷ</i>	idem	Modrow ([1971])
ləwálməš	<i>túls</i>	‘to rain’	LHcs19670619.196 <sup>32</sup>
<i>Chinook Jargon</i>	<i>ísíkʰwən</i>	‘to pinch’	<i>CWDP (2012)</i>
Chinookan	<i>-łkúp</i>	‘being squeezed out (one-eyed)’	Boas (1910:599)
Upper Chehalis	<i>číkʷn</i>	‘pinch’	Kinkade (1991)
Cowlitz	<i>čayápn</i>	idem	Kinkade (2004)
Quinault	<i>míci</i>	idem	Modrow ([1971])
<i>Chinook Jargon</i>	<i>qʰóstəkʷ</i>	‘balm’	<i>CWDP (2012)</i>
Chinookan	?		
Upper Chehalis	<i>qástkʷ</i>	‘mint’	Kinkade (1991)
<i>Chinook Jargon</i>	<i>ɣaxáʔ</i>	‘sacred’	<i>CWDP (2012)</i>
Chinookan	<i>-káwək</i>	‘shaman’s guardian spirit’	Boas (1910:601)
Upper Chehalis	<i>ɣaxáʔ</i>	‘sacred, taboo, forbidden, holy’	Kinkade (1991)
Quinault	<i>ɣaxíʔt</i>	‘holy’	Modrow ([1971])
<i>Chinook Jargon</i>	<i>yáxan</i>	‘judge’	<i>CWDP (2012)</i>
Chinookan	?		
Upper Chehalis	<i>yaxən</i>	‘make a choice, pick out, sort’	Kinkade (1991)
Cowlitz	<i>yáxn</i>	‘make a choice; sort’	Kinkade (2004)
Quinault	<i>čácisxʷu</i>	‘to judge’	Modrow ([1971])
	<i>jáx</i>	‘choose’	( <i>ibid.</i> )

<sup>32</sup> The Salish languages north of Upper Chehalis give this root a different sense ‘greasy’, but match CJ in having the vowel /a/ or /ə/ in it (compare PS \**nu./a.s* ~ ‘greasy; wet’ (Kuipers 2002). One can wonder whether this implies a source for this old CJ word in (a) a Tamosan variety bordering right on the *nas* ‘greasy’ / *nus* ‘wet’ isogloss or (b) Tillamook, little data on which was available to me as I wrote this study. (No Ti cognate was found in searches of Anderson and Harrison 2012.)

language	word	gloss	source
<i>Chinook Jargon</i>	<i>q<sup>w</sup>ić</i>	'hook'	<i>ELjh1942.18.394</i>
Chinookan	- <i>kik</i>	idem	Boas (1910:601)
Upper Chehalis	<i>qét</i>	'fishhook'	Kinkade (1991)
	<i>xé'ns</i>	idem	(ibid.)
	<i>lik<sup>w</sup>n</i>	idem	(ibid.)
Cowlitz	<i>yasán</i>	'hook, net'	Kinkade (2004)
	<i>qétamłtn</i>	'a hook, bait'	(ibid.)
	<i>xə'ns</i>	'fishhook'	(ibid.)
	< <i>ai'kamelTEN</i> >	idem	(ibid.)
Quinault	<i>q<sup>w</sup>ić</i>	idem	Modrow ([1971])
	<i>k<sup>w</sup>i?c</i>	'hook'	(ibid.)
<i>Chinook Jargon</i>	<i>ʔúɽcəċ</i>	'bracelet'	<i>ELjh1942.18.408</i>
Chinookan	< <i>klik</i> '-wal-li>	idem of brass wire	Gibbs (1863b)
Upper Chehalis	<i>ʔó-ćáćá</i>	idem	Kinkade (1991)
Cowlitz	<i>sáwċ</i>	idem	Kinkade (2004)
	<i>támakamn</i>	'bracelet, ring'	(ibid.)
Quinault	<i>ʔuɽcəċəs</i>	idem	Modrow ([1971])
<i>Chinook Jargon</i>	<i>łáćíćáx</i>	'saw' (n.)	<i>ELjh1942.18.422</i>
Chinookan	?		
Upper Chehalis	<i>łiłićxni</i>	idem	Kinkade (1991)
Quinault	<i>łićíćáx</i>	idem	Modrow ([1971])
	<i>k<sup>w</sup>áyałi</i>	idem	(ibid.)
<i>Chinook Jargon</i>	<i>q<sup>w</sup>átš</i>	'trap'	<i>ELjh1942.18.425</i>
Chinookan	- <i>qšil</i>	'fish-trap'	Boas (1910:601)
Upper Chehalis	<i>q<sup>w</sup>átš</i>	idem	Kinkade (1991)
Quinault	<i>idem</i>	idem	Modrow [1971])
Cowlitz	<i>q<sup>w</sup>átx<sup>w</sup></i>	idem	Kinkade (2004)
<i>Chinook Jargon</i>	<i>sácsəćł(?)</i>	'fork'	<i>ELjh1942.18.426</i>
Chinookan	?		
Upper Chehalis	<i>sáčmłn</i>	idem	Kinkade (1991)
Cowlitz	<i>sáčámn</i>	idem	Kinkade (2004)
Quinault	<i>sácsəćłn</i>	idem	Modrow ([1971])

language	word	gloss	source
<i>Chinook Jargon</i>	<i>íəʔqíʔ</i>	'belt'	<i>ELjh1942.18.428</i>
Chinookan	<i>-k<sup>w</sup>ima</i>	idem	Boas (1910:604)
Upper Chehalis	<i>íəqíx<sup>w</sup></i>	idem	Kinkade (1991)
Cowlitz	<i>idem</i>	idem	Kinkade (2004)
Quinault	<i>ííqi</i>	idem	Modrow ([1971])
<i>Chinook Jargon</i>	<i>q̣əyáćq̣əyəx̣</i>	'chain'	<i>ELjh1942.18.432</i>
Chinookan	?		
Upper Chehalis	<i>q̣áyćís</i>	'braid of hair'	Kinkade (1991)
Cowlitz	<i>stək<sup>wiʔ</sup></i>	'braid (n.)'	Kinkade (2004)
Quinault	<i>čanáqa</i>	'to braid (hair)'	Modrow ([1971])
<i>Chinook Jargon</i>	<i>caʔətx<sup>w</sup></i>	'roof (with shingles)'	<i>ELjh1942.18.435</i>
Chinookan	<é-pukt>	'roof tree'	Gibbs (1863b)
Upper Chehalis	<i>ṣḷúú<sup>w</sup>aʔx<sup>w</sup></i>	'roof'	Kinkade (1991)
Cowlitz	<i>x̣áltx<sup>w</sup></i>	idem	Kinkade (2004)
Quinault	<i>cáʔatx<sup>w</sup></i>	'shingles'	Modrow ([1971])
<i>Chinook Jargon</i>	<kush <sup>-is</sup> >	'stockings'	<i>Gibbs (1863a)</i>
Chinookan	<ta-kétl-pa>	'shoes'	Gibbs (1863b)
Upper Chehalis	<i>q<sup>w</sup>úpṣn</i>	idem	Kinkade (1991)
Cowlitz	<i>idem</i>	idem	Kinkade (2004)
Quinault	<i>ṣálṣn</i>	'shoe'	Modrow ([1971])
<i>Chinook Jargon</i>	<kweth>	'proud'	<i>Gibbs (1863a)</i>
Chinookan	<i>yúłl</i>	idem	Boas (1910:616)
łəwálməš	<i>múʔlət</i>	idem	ISmk19781128.41
Quinault	<i>idem</i>	idem	Modrow [1971])
Upper Chehalis	<i>cépḷ</i>	'proud, feel happy'	Kinkade (1991)
Cowlitz	<i>idem</i>	'proud, stuck-up'	Kinkade (2004)
PS	<i>*q̣ax<sup>w</sup></i>	'stiffen, harden, freeze'	(Kuipers 2002)
PIS	<i>*q̣əx<sup>w</sup></i>	'proud'	(ibid.) <sup>33</sup>
<i>Chinook Jargon</i>	<qui <sup>cer</sup> >	'porpoise'	<i>Swan (1857)</i>
Chinookan	<i>-kučkuč</i>	idem	Boas (1910:599)
Upper Chehalis	<i>q<sup>w</sup>ṣíyuʔ</i>	idem	Kinkade (1991)
Quinault	<i>q̣áʔlənuʔ</i>	idem	Modrow ([1971])

<sup>33</sup>In the łəwálməš, Quinault, Upper Chehalis and Cowlitz forms, (ə)ł is a suffix (analyzed as 'intensifier' for łəwálməš by Robertson 2014). The PS root is found in Upper Chehalis meaning 'freeze' (Kinkade 1991). The PIS root – perhaps its descendant – is of course not known in the literature on Coast Salish, but its form and semantics support a hypothetical łəwálməš *\*q̣(ə)x<sup>w</sup>-(ə)ł* 'proud'. See also the footnote at *youtl* in Section 2.2.

language	word	gloss	source
Chinook Jargon	<ska-kairk>	'hawk'	Swan (1857)
Chinookan	šnqitqít	idem	Boas (1910:602)
	-ítíí	idem	Boas (1910:598)
	-'lěap	'fish-hawk'	(ibid.)
	-'npič	'chicken-hawk'	(ibid.)
Upper Chehalis	sx <sup>w</sup> ayát	'hawk'	Kinkade (1991)
Cowlitz	<.swai'a'tok>	'chicken hawk'	Kinkade (2004)
łəwálməš	sx <sup>w</sup> iyát	idem	ELjh1942.17.381 <sup>34</sup>

The data in this table set up the unusual situation of a pidgin language playing an instrumental role in revitalizing its lexifier. This involves a novel sense of the well-established concept of “pidgins (and creoles) in education”; in creolistics, that label implies conducting formal education in the contact-generated language (cf. Migge et al. 2010, Nero 2012).

The idea at hand should be distinguished as well from the novel proposal to remedy loss of agglutinative/polysynthetic Aboriginal languages by, in effect, teaching only lexical items of the ancestral language and using them in a new, analytical, “pidgin” syntax. That is not an outrageous proposal – Powell has suggested such an approach for Quileute (1973), as have Goodfellow and Alfred for Kwak’wala (2002), and the Aboriginal community of Tasmania, Australia has put this strategy into effect with ‘Palawa Kani’, cf. Crowley (2007:3–5). But our revitalization program operates from the quite different assumption that we will be able to reconstruct łəwálməš morphosyntax. (Robertson 2014 is a first progress report.)

Instead, what Chinook Jargon enables us to do is to start filling gaps in the documentary record of łəwálməš, which is reasonably good but finite since this Salish language has had no native speakers in decades. As we move into the next step of morphologically analyzing the łəwálməš words now collected from CJ, we will have quite a useful resource at hand when it comes to decisions about strengthening the vocabulary of łəwálməš for talking about daily life and the local environment. When there is no known łəwálməš expression for a concept, there will be cases where we can still consider CJ words that are obviously from this language, or those that we feel have a probability of representing the old speech, before being forced into raw coinages, calques on other Tsamosan, or loans. (Given the frequency of mutual borrowing, we can expect that both łəwálməš and Chinook Jargon will in turn provide the same service in any restoration of Shoalwater Lower Chinook.)

The field work done by Dale Kinkade and his student Charles Snow provide

<sup>34</sup>łəwálməš speakers agree that this is the only word for ‘hawk’ that they have. No Salish or Chinookan comparanda have been found, but the CJ word’s form better matches Salish than other languages: it looks like a typical noun with *s*-NOM and a root in the form either CVCVC or CVC with commonplace reduplication.

a great deal of the crucial data that these discoveries are based on. Their research is an irreplaceable foundation for our present efforts under the Lower Chehalis Language Project to ‘repatriate’ and revitalize łəwálməš. Borrowing one of the tribal elders’ fine words in the language, we raise our hands in appreciation and say “xásqəʔ” – thanks!

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# New light on pidgin Chinookan: with due credit to Horatio Hale’s “esteemed friend” J. K. Townsend

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**Abstract:** A draft version of the first systematic description of Chinuk Wawa (Chinook Jargon, CW), Horatio Hale’s *The “Jargon,” or trade-language of Oregon*, shows many credits to the American naturalist John K. Townsend, all however dropped in publication. Townsend is also the source of independent CW and Chinookan word-lists. In contrast to Hale’s and later records, the Townsend word-lists show few CW words of ultimate Nootkan, English, or French origin, instead consisting mostly of locally contributed (primarily Chinookan) words and phrases. A number of the CW and Chinookan phrases provide interesting case-studies in Chinookan morphological simplification: the word-forms are Chinookan, but they are missing supposedly obligatory Chinookan inflections. Townsend’s lists may point to a CW variety much closer to Chinookan than the CW described by Hale, a finding which has implications for assessing the role of Chinookan speakers in co-creating the hybrid CW of Hale and later authorities.

## 1 Introduction<sup>1</sup>

A draft version of Horatio Hale’s *The “Jargon,” or trade-language of Oregon* (Hale 1846:635–50, Hale ca. 1841) reveals that this source, the very first comprehensive description of Chinuk Wawa (CW) as a linguistic variety in its own right, drew significantly on contributions from the American naturalist John Kirk Townsend (1809–1851). While those contributions were left wholly unacknowledged in publication, Townsend himself left an independent manuscript word-list identified as follows: “Vocabulary of the language spoken by the Indians in the Columbia & used as the means of communication between them & the Whites. The language as used is much mixed; being composed of Chenook [sic], English, French &c.” This word-list is among a group of word-lists collected by Townsend, including another identified as a “vocabulary of the Chenook [sic] tribe—inhabiting the Columbia River near the sea” (Townsend 1835). Both Hale and Townsend collected their materials in and around Fort Vancouver on the lower Columbia River. Hale’s “Jargon” and Townsend’s “mixed” language are identifiable with the CW of later record; both also collected vocabularies in CW’s principal lexifier language, Chinookan (in Townsend’s terminology: the language of the “Chenook tribe”). While Hale was far and away the more accomplished

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<sup>1</sup> This contribution grew out of a presentation by George Lang and myself to a session of the Society for Pidgin and Creole Linguistics, held at the 86<sup>th</sup> Linguistic Society of America Annual Meeting (Zenk and Lang 2012). The present paper revisits my own take on Townsend’s contribution to the historical record of lower Columbia Chinuk Wawa.

linguist of the two, Townsend's record is of special interest because it suggests that a more strongly Chinookan-influenced variety of CW co-existed with the more English-friendly variety recorded by Hale. Indeed, Townsend's record may shed important light on the role of Chinookan speakers in the pidginization of Chinookan—or in other words, on their key role as co-creators of the hybrid medium that is the CW of later nineteenth-century and twentieth-century record.

## 2 Hale and Townsend

I am not aware of any independent notice of Hale and Townsend's collaboration, beyond the following passage in Hale's draft (omitted, along with all other references to Townsend, from the published version):

As a evidence that this Jargon is in reality a regular & permanent language, I may mention that, after my return, I requested of my esteemed friend Mr. J. K. Townsend whose travels in the Oregon Territory have made his character & attainments well known to the public a list of such words as he retained in his memory & the translation of some phrases to compare with those which I had taken down on the spot. The words & phrases with which he furnished me (the former comprising nearly the whole stock of the idiom) were found to agree very closely with those in my vocabulary. The differences of orthography were only such as must necessarily occur in the attempt to reduce foreign language to writing: the words & constructions were precisely the same (Hale ca. 1841:n.p.).

In Hale's draft version, almost half of his "Jargon" vocabulary items are accompanied by the letter "T" (some letters placed before the item so marked, some placed following in parentheses); and 27 full sentences are explicitly identified as being "from Mr. Townsend." These "T"-marked and "Townsend"-identified entries moreover include many tokens that Hale did not publish. Of the 27 sentences attributed to Townsend in draft, three appear in identical form in the published sketch, two exhibit near identity to published examples, while two more represent common everyday expressions that could easily have been obtained independently; the remainder are missing. Also left out were many words of Chinookan origin, most of which in turn find matches in Townsend's 1835 "mixed" language list. The *Appendix* to this paper lists all the "T"-tagged "Jargon" items in Hale's ca. 1841 draft, cross-tabulated with matches (where available) from Townsend's 1835 "mixed" language list.

Most items on Townsend's latter list appear to be from local languages, especially Chinookan. Although Townsend's preface points out that the language is "mixed" with English and French, those languages are conspicuous by their near absence in the list itself. And only five items there (*Appendix*: come, far, many/much, see, understand) can be attributed to Nootka Jargon—items of ultimate Nootkan origin, but known to have been introduced to the lower Columbia by predominantly English-speaking seafaring traders beginning in 1792 (five additional such items marked "T" appear in Hale's draft: *Appendix*: bad, fight [*also* kill], slave, trade, woman). Not only do Chinookan-identifiable items appear alongside of or in place of English, French, and Nootka-Jargon origin

items known from later sources (see *Appendix*: arm, bone, child, father, fire, God, good, gun, head, house, lake, man, moon, morning, name, nose, salmon, sheep, shoes, star, stone, sun, to-day, wind, wolf, woman, wood); but a number of meanings not met with in later sources show Chinookan terms as well (*Appendix*: back, breast, cheek, creek, fingers, fox, heaven, knee, many/much, (finger-)nail; plus some meanings showing evidently redundant Chinookan synonyms: bad, bird, dog, like/love, sea).

A plausible explanation for the observed differences between Hale’s and Townsend’s versions of CW is that Hale’s record reflects a variety of the language more associated with the foreign presence at Fort Vancouver; while Townsend’s record reflects a variety of the language more associated with indigenous (primarily Chinookan-speaking) people of the lower Columbia. There is actually some supporting internal evidence for this surmise in the two versions of Hale’s sketch.

Sentences (1) and (2) are from the draft list of sentences labeled “from Mr. Townsend.” Like most of the 27 examples listed, Hale did not publish them. I supply interlinear glosses based on my own familiarity with later sources.<sup>2</sup>

(1) Kanséct t’kwahli mihtlait kwāpa maika ilēhi  
 extent? house be-there PREP thy place  
*source translation*: How many houses are in your town?

(2) naika mamuk kikwili naika kēnawi íkata  
 I CAUS-down my every-thing  
 kwāpa naika tílkom mama;  
 PREP my father  
 iáhka mímalust ēnakati klōn ōtlā  
 he die ago three day  
*source translation*: I have buried all my property with my father who died three days ago.

Both of these examples appear to presuppose a Native context. Example (1) would probably only be queried of a Native. And the words given for ‘house’ and for ‘day’ are from Chinookan, where Hale’s published list shows “haus” for the first and “sūn” for the second (*Appendix*: house, day; also, note that while Hale’s draft glosses both ‘day’ and ‘sun’ as “sūn, (*T* otlah)”, his published sketch drops “otlah” for ‘day’ but keeps it as a synonym for ‘sun’). Example (2) appears to show Native cultural content, albeit it may have been supplied by Townsend himself, not directly by a lower Columbia Native.

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<sup>2</sup> Where source transcriptions are sufficiently accurate, I provide italicized simplified respellings of Chinuk Wawa and Chinookan forms, following (for Chinuk Wawa) Chinuk Wawa Dictionary Project (2012) and (for Chinookan) the Chinookan phonemic alphabet in volume 7 of the Handbook of North American Indians (The Northwest), except that I use  $\chi$  instead of  $\text{ç}$  for the uvular fricative.

The following two examples show the same sentence from Hale: (3) as published; (4) as appearing in draft. Conventions as for (1) and (2) above.

- (3) nūsaika sáleks masátsi-tilikūm / Klon nūsaika kākshatl  
 we fight bad-people three we destroy  
*source translation:* We fought the enemy (bad people). We killed three.
- (4) nsaika sáleks Masátsi tilíkam, klon nsaika kakcat  
 we fight bad-people three we destroy  
*source translation:* We fought the Blackfeet & killed three.

Note Hale’s normalized respellings and edited translation in (3). Note also that at the time of Hale’s visit to Fort Vancouver, the Hudson Bay Company was engaged in protracted conflict with the Blackfeet in Montana and Alberta, very far removed from Fort Vancouver on the lower Columbia River. This conflict is far more likely to have involved company employees than local Indians. Hence, the sentence (which may very well represent a local source, since Hale says his examples were written down “as heard from the natives and others”) is much more likely to have been from a fur-company employee than from a local Native.

The following further two examples juxtapose one of the sentences attributed to Townsend in Hale’s draft (5); against a near-match in his published sketch (6):

- (5) ikata pos wēk maika klátawa kēkcutl mauitc  
 what? for not thou go destroy deer  
 pi mákuk sókwalal.  
 and buy gun  
*source translation:* Why don’t you go & kill deer & buy a gun?
- (6) Ikāta maika wek klátawa kākshatl ina,  
 \*qata thou not go destroy beaver  
 \*how?  
 alke maika makok mūskit?  
 later thou buy gun  
*source translation:* Why dost thou not go and kill beaver, and buy a gun?  
 (Hale 1846:645)

It seems unlikely that (5) and (6) were obtained wholly independently; however, they both appear in the draft (in different sections), leaving it uncertain how they are related. The word for ‘gun’ in sentence (5) is from Chinookan, that in sentence (6) is from English (*Appendix:* gun). Although ‘deer’ in (5) is from Nootka Jargon (*vs* Chinookan-derived ‘beaver’ in (6)), Townsend (1835) shows the same word not only as “mixed” language, but as “Chenook” language as well. The placement of the negative adverb *wek* in between subject pronoun and verb in (6) is more characteristic of English-speaking users of the language, versus the more typical indigenous word-order in (5). But what is really telling about these two examples is Hale’s evident misconstrual of “Ikāta” as *qata* ‘how?, why?’

in (6). It is clear elsewhere from his grammar sketch that Hale confuses *ikta* ‘what?’ and *qata* ‘how?, why?’, which are clearly different words in local Native varieties, conflating them to create a single word “Ikāta” translated ‘what?, why?’ (see *Appendix*: what). It is very unlikely that any local indigenous-language speaker would conflate two such obviously different-sounding words (section 3 below); but an English speaker easily could. Townsend’s “Ikata pus” is a much more plausible interrogative in this context: cf. Grand Ronde CW *ikta-pus* ‘whatever for?’ (variant of *pus-ikta* ‘for what?, why?’; Chinuk Wawa Dictionary Project 2012).

Lacking an account of Townsend’s Native sources, and most crucially, how he managed the potentially difficult task of communicating his intentions and working with them, it is by no means clear to what extent his “mixed”-language word-list can be taken as an accurate reflection of register and dialect variation in 1830s-period lower Columbia CW. That there indeed was a contemporaneous “Jargon” variety showing a stronger Chinookan impress than the one described by Hale, is hinted at by Hale himself—in another passage left out of the published sketch.

It should also be noted that the Methodist missionaries established among the Chinooks,—finding the language of that people very difficult of acquisition are accustomed to preach in the Jargon, & have composed hymns in this dialect, which are sung to our common church melodies. As these compositions, however, contain many Chinook words which do not properly belong to the trade-language, they would not be good specimens of its powers (Hale ca. 1841:n. p.).

And is it not unlikely that upon examining his examples from Townsend in detail, Hale revised his initial impression that “the words & phrases with which he furnished me (the former comprising nearly the whole stock of the idiom) were found to agree very closely with those in my vocabulary”? From his point of view, much of Townsend’s “mixed” language would appear, rather, to consist of “Chinook words which do not properly belong to the trade-language.” There may remain yet more to be learned about Townsend’s “mixed” language and Hale’s evident dismissal of it. According to Ives Goddard (personal communication 2011), there are papers from both men at the Library of Congress; while Townsend also has papers at the American Philosophical Society. These all remain to be thoroughly sorted out and evaluated.

### 3 Chinuk Wawa *versus* Chinookan

One of the striking features of the CW in historical use between speakers of English and French, on the one hand, and speakers of lower Columbia indigenous languages, on the other, is the prevalence of phonetic distortions in original source-language word-forms, induced by each side’s tendency to bend the opposite side’s phonologies closer to norms more familiar to itself. Hale was the first linguist to comment on this phenomenon. According to him, the phonology of “Jargon” is really a compromise:

As the Jargon is to be spoken by Chinooks, Englishmen, and Frenchmen, so as to be alike easy and intelligible to all, it must admit no sound which cannot be readily pronounced by all three. The gutturals of the Tshinuk ( $\chi$  and  $q$ ) are softened to  $h$  and  $k$ ;  $t\chi l$  becomes  $kl$  at the beginning of a word, and  $tl$  at the end; ... thus we have  $t\ddot{u}k\acute{e}h$  for  $t\ddot{u}q\acute{e}\chi$  ... ,  $kl\acute{o}sh$  for  $t\chi l\ddot{o}\acute{o}sh$ ... (Hale 1846:640).

Hale (ca. 1841) and Townsend (1835) reveal a more nuanced picture of Fort Vancouver-era CW. Not only does Townsend (1835) show more Chinookan content than Hale; he also alludes to (“guttural”, “squeaking” etc.) Chinookan phonetic features. Hale’s “guttural” “ $\chi$ ” and “ $q$ ” both occasionally appear in his ca. 1841 spellings of CW words, where he uses the same phonetic alphabet for CW that he uses for indigenous languages. For example, the phrase spelled “ $w\acute{e}kt$   $ikt$   $s\ddot{u}n$ ” (glossed ‘one more day, again one day’) in Hale (1846:642) appears in the draft as “ $w\acute{e}\chi t$   $\acute{\iota}\chi t$   $s\ddot{u}n$ ”. He evidently normalized his 1846 spellings to reflect the rule stated above. In lower Columbia Indian CW, words of local indigenous origin retain original “ $\chi$ ” (corresponding to modern Americanist  $x$ ,  $\chi$ ), “ $q$ ” ( $q$ ,  $k'$ ,  $q'$ ), and “ $t\chi l$ ” ( $t$ ,  $\lambda$ ,  $\lambda'$ ), as the comparisons collated in the *Appendix* show.

Very odd indeed is Hale’s choice of the item “ $kl\ddot{o}sh \sim t\chi l\ddot{o}\acute{o}sh$ ” (*Appendix*: good) to illustrate his rule. This could not be a case of Chinooks, Englishmen, and Frenchmen compromising to eliminate Chinookan “gutterals”: the item is from the Nootkan-contributed part of the CW lexicon, known to have been introduced by predominantly English-speaking seafarers. Hale has inadvertently provided evidence that “Chinooks” assimilated an originally indigenous word (cf. Nootka Nootkan  $\lambda u\acute{t}$  ‘pretty, handsome’), introduced to the lower Columbia in distorted form by English-speaking seafarers (cf. Nootka Jargon  $klush$  ‘good, pretty’), thereby yielding the “nativized” lower Columbia pronunciation recorded by Hale and preserved (in the usual form  $t\acute{u}š$  ‘good’) down to the present day (Chinuk Wawa Dictionary Project 2012:148).

One of the most interesting features of Townsend’s two 1835 lists (including the “Chenook tribe” vocabulary along with the “mixed”-language list: the two are not neatly divisible into distinct linguistic varieties) is its paucity of vocabulary items assignable to Nootka Jargon, English, and French, all well represented in later records of CW. That paucity is also apparent in phrasal constructions appearing in the two lists, because these show no verbal compounds formed using the Nootka-derived auxiliary elements *mamuk-* ‘cause to be’ and *chaku-* ‘get to be’ (although the sentences attributed to Townsend by Hale do show some such sentences: e.g. example (2) above). These happen to be two of the most frequently occurring grammatical elements in later records of the language. In a number of the examples discussed in section 5 below, Townsend appears rather to depend on Chinookan models, either attempted complete or reproduced in simplified form—as expanded upon in the next section.

#### 4 Morphologically simplified Chinookan

According to the grammars, there are two basic sentence types in Chinookan:

- The verbal sentence, consisting minimally of a verbal stem inflected for tense/aspect and person. This minimum core may be expanded through the addition of apposed nouns, particles, and independent pronouns.
- The nominal sentence, consisting minimally of a nominal stem inflected for gender and number. An inflected noun may also be used to explicate a subject or object appearing in a verbal sentence. The number-gender (N/G) and/or possessive (POSS) markers of a noun so used agree with any relevant person markers appearing in the verb.

While a Chinookan verbal sentence is supposed to have an inflected verb, and while Chinookan nouns are supposed to appear invariably inflected, occasional exceptions can be spotted in the Chinookan text corpus, e.g. (pcl: particle; n: noun; v: verb):

(7)	<i>mániχ</i>	<i>ʔ-ʔágil</i>	<i>tq'ix</i>	<i>ʔá-kikal</i>
	(pcl)	(n)	(pcl)	(n)
	when	a woman	loves	her husband
		<i>q<sup>w</sup>ap</i>	<i>a-ʔ-ú-məqt-χ</i>	
		(pcl)	(v)	
		nearly	she dies	

‘When a woman loves her husband and she is near death’ (respelled from Boas 1894:253.17).

The nouns *ʔ-ʔágil* and *ʔá-kikal* show the neuter/collective n/g and poss prefixes *ʔ-*, *ʔa-*, used here to refer to an indefinite subject; these agree with the person prefix *ʔ-* (third person neuter/collective) on the main-clause verb *-məqt*. The clause segregated on the first line contains a verbal particle (*tq'ix* ‘love’), but not an inflected verb. Compare:

(8)	<i>tq'ix</i>	<i>a-gá-ʔ-a-χ</i>	<i>ʔ-gá-xiwisx</i>
	(pcl)	(v)	(n)
	like	she does (to) it	her dog

‘She likes her dog’ (respelled from Boas 1894:43.19).

Here, the auxiliary verb *-χ* ‘to do, make, be, act, become’ (the usual accompaniment of a verbal particle in all Chinookan dialects) shows the person markers *g-* (feminine singular subject) and *ʔ-* (neuter object), the former agreeing with POSS *ga-* and the latter with N/G *ʔ-* on the noun *-kiwisx* (the remaining prefix positions are occupied by a tense-aspect marker in the first position, and a directive prefix immediately preceding the verb stem). For all I know (not being a Chinookan expert), the fact that *tq'ix* occurs in a subordinate clause in (7) may constitute an exception to the rule that a verbal particle must be paired with an inflected verb. But this is beside the point: the subject-object and tense/aspect relations of the clause must still be gathered from the context and the clause’s four content words.

Example (9) shows a noun missing its proper N/G prefix: *-kúsait* ‘mink’ should have a masculine singular N/G prefix, agreeing with the third-person masculine singular person prefix *i-* on the verb; *χ-* is a reflexive prefix.

- (9) *ig-i-χ-gúti-čk kúsait*  
 he said Mink  
 ‘Mink said, ...’ (respelled from Boas 1901:23.13).

Compare:

- (10) *š-χ-i-láit-ix i-kúsait k’a í-ia-lxt*  
 they-two be with him Mink and his older brother  
 ‘There was Mink and his older brother’ (respelled from Boas 1901:103.1).

Here, the person marker *š-* (dual) is followed by a relational prefix (*χ-*) and the person marker *i-* (third person masculine singular, indirect object). *i-* in turn agrees with the N/G prefix *i-* on the noun *-kusait*, and the POSS prefix *ia-* on the noun *-lxt*. *-lxt* is also a masculine noun, hence shows the *i-* N/G prefix.

The two kinds of simplification illustrated by examples (7) and (9) are both characteristic of the Chinookan-derived portion of the CW lexicon:

- The basic CW lexicon as known from the mid-nineteenth century on includes many Chinookan verbal particles (including the particle *tq’ix*, *tq’ix* ‘like, love, want’; frequently heard as *tiki*). In CW, these function either as full verbs; or as constituents of verbal compounds formed with the Nootka-Jargon derived auxiliaries *mamuk-* ‘cause to be’ and *čaku-* ‘get to be’ (some can function as both).
- Chinookan N/G and POSS prefixes are usually dropped in CW when the prefixes occur unstressed in Chinookan; but are usually retained when the prefixes occur stressed in Chinookan.

Examples (11) and (12) show two CW sentences from the Catholic missionary corpus, both with CW words derived from Chinookan particles. Example (13) illustrates the rule for retaining or dropping Chinookan N/G and POSS prefixes in CW.

- (11) *Tlush nsaika tikel iaka*  
 should we love him  
 ‘We should love Him’ (Demers et al. 1871:45; cf. *tq’ix/tq’ix* above).

- (12) *Sesu Kli iaka mamuk Maliash pus mamuk kao*  
 Jesus Ch he make marriage to make-tied  
*il-t man pi il-t tluchmen*  
 one man and one woman  
 ‘Jesus Christ instituted Marriage to join one man and one woman’ (Demers et al. 1871:65; *k’au* ‘tied’ is from a Chinookan verbal particle).

(13) Chinuk Wawa	Chinookan	
<i>k'áinuł</i>	<i>i-k'áinuł</i>	tobacco
<i>ícχut</i>	<i>i-łícχut</i>	black bear
<i>cúq</i>	<i>ł-čúq</i>	water
<i>tílxam</i>	<i>tí-lxam</i>	people
<i>siyáxus(t)</i>	<i>š-iá-χušt</i> (his...)	eyes

## 5 Evidence of simplified Chinookan in Townsend's "mixed" language and "Chenook tribe" word-lists

I was able to make varying degrees of sense of about half of the phrases appearing in Townsend's two lists (the mixed language list and the Chenook list). No doubt, more could be done with the remainder, although it is difficult to imagine all of these examples yielding up their secrets—Townsend's handwriting is not easy to make out; and as a glance at his spellings reproduced below will show, he was no systematic linguist.

Examples (14)–(17) show word forms and sentence patterns identical to those of the CW of later record, as shown by the accompanying CW comparisons (spellings and glosses adapted from Chinuk Wawa Dictionary Project 2012). All of these are from the "mixed" language list. In addition, the 27 phrases and sentences attributed to Townsend in Hale (ca. 1841) fall into this category: see examples (1), (2), (5) above.

(14) *nika cumatax mica* I understand you.

(cf. CW:)

*nayka kəmtəks mayka*  
I understand thee

(15) *Icita mica nonnaneech* what do you see?

(cf. CW:)

*ikta maika (na)nanič*  
what? thou see

(16) *nika hiass tekay* I desire it very much

(cf. CW:)

*naika hayaš tiki* (var. of *tq'ix*)  
I greatly want

(17) *nika tekay nonnaneech yaka* I want to see it

(cf. CW:)

*naika tiki (na)nanič yaka*  
I want see him/her/it



(22) unchala[m]ach to eat

(cf. Chinookan:)

*i-m-χóləm-u-χ*

‘You eat (this)!’ (respelled from Boas 1901:249.4).

*a-n-a-n-χóləm-ú-χu-m-a*

‘I will eat it’ (respelled from Boas 1901:99.5).

And of particular interest (as suggesting a simplified or “pidgin” Chinookan), both lists show phrases with Chinookan word-forms, but minus inflections supposed to be obligatory in Chinookan. Examples (23)–(26) are from the “mixed”-language list; examples (27)–(30) are from the “Chenook”-language list. In order not to prejudge these either as incorrect Chinookan or as correct CW, I refrain from citing phrasal comparisons from either language; rather, I simply list matching or near matching word-forms from each.

(23) anācatte naicatlcup I have killed him

(cf. Chinookan:)

*anqadi(x)* ‘long ago’

*naika* ‘1 SG’ (indep prn)

*łq’up* ‘cut’ (verbal pcl)

*łk’up* ‘burst’ (verbal pcl)

*łgup* ‘shoot’ (verbal pcl)

(cf. CW:)

*anqati* ‘long ago; past’

*naika* ‘1 SG’

*łq’up* ‘cut’

*łk’up* ‘burst’

(24) maica Kagh egh You love

(cf. Chinookan:)

*maika* ‘2 SG’ (indep prn)

*k’axš* ‘desire’ (verbal pcl)

(cf. CW:)

*maika* ‘2 SG’

(25) anācatta Kagh egh I have loved

(cf. Chinookan:)

*anqadi(x)* ‘long ago’

*k’axš* ‘desire’ (verbal pcl)

(cf. CW:)

*anqati* ‘long ago; past’

(26) alta nika kipallaolal I now talk

(cf. Chinookan:)

*alta* ‘now’ (adverbial pcl)

*naika* ‘1 SG’ (indep prn)

*i-xš-l-p’alawəla* ‘he is talking’

(cf. CW:)

*alta* ‘now, then’

*naika* ‘1 SG’

- |  |  |
|--|--|
| (27) Kat eyahale misika okook  | what does your nation call this?   |
| (cf. Chinookan:<br><i>qada</i> ‘how?, what?’<br><i>i-iá-χal</i> ‘his name’<br><i>mšaika</i> ‘2 PL’ (indep prn)<br><i>ukuk</i> ‘DEM’                | (cf. CW:)<br><i>qata</i> ‘how?, what?’<br><i>yáχal(i)</i> ‘name’<br><i>m(ə)saika</i> ‘2 PL’<br><i>’ukuk</i> ‘this, that’ |
| (28) masatche mika eken ujamala mik[a]   | you are a rascal   |
| (cf. Chinookan:<br>cf. ? <i>masáčitł</i> ‘pretty’ (pcl)<br><i>maika</i> ‘2 SG’ (indep prn)<br><i>ikun</i> ‘CONJ’<br><i>i-iá-məla</i> ‘his badness’ | (cf. CW:)<br><i>masači</i> ‘bad, mean’<br><i>maika</i> ‘2 SG’  |
| (29) ulke tokte mika   | you will soon be well  |
| (cf. Chinookan:<br><i>ałqi</i> ‘later’ (pcl)<br><i>t’ukdi</i> ‘good’ (n, pcl)<br><i>maika</i> ‘2 SG’ (indep prn)                                   | (cf. CW:)<br><i>ałqi</i> ‘later, in the future’<br><i>t’ukti</i> ‘good’ <sup>3</sup><br><i>maika</i> ‘2 SG’              |
| (30) taktayacha  | he got better  |
| (cf. Chinookan:<br><i>t’ukdi</i> ‘good’ (n, pcl)<br>? <i>iaχka</i> 3 SG MASC (indep prn)<br>? <i>i-χ-a</i> ‘make it’                               | (cf. CW:)<br><i>t’ukti</i> ‘good’<br><i>ya(χ)ka</i> ‘3 SG’   |

Going by the criteria set forth in the Chinookan grammars: (23)–(25) (and probably, (27)) should have inflected verbs; what may be a Chinookan gerund in (26) (-ki- is an intransitivizing prefix used to form gerunds) appears to lack a subject prefix, and what appears to be an inflected noun in (28) does not agree with the subject pronoun to which it is paired; ‘good’ in (29)–(30) could be a noun, in which case it should be inflected, or a verb, in which case it needs an accompanying inflected verb (doubtfully, it may have one in (30)).

## 6 Concluding note

Some of Townsend’s “mixed”-language sentences are clearly identifiable as CW, while some of his “Chenook” sentences at least suggest (without necessarily exemplifying) “good” Chinookan. At the same time, the “Chenook” list also shows examples of CW-looking constructions lacking obligatory Chinookan

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<sup>3</sup> Appearing only in some early word-lists; not part of CW as spoken from the mid-nineteenth century on.

inflections; while the “mixed”-language list shows examples of Chinookan-looking inflections not later met with in CW. In any case, Chinookan inflections are either badly garbled by Townsend, who appears not to have had a clue to their grammatical functions; or they are dropped altogether. Assuming that Townsend was a reasonably apt transcriber, the dropping of Chinookan inflections in most if not all of his examples is most likely to be attributed to his Native source or sources. Presumably, their motivation in doing so was to produce a simplified Chinookan, one that they thought could be more easily understood by a foreigner than “straight” Chinookan would be. What is especially interesting is that their strategies for doing so, insofar as revealed by these examples (which, notwithstanding their fragmentary nature, do add significantly to the very slight previous historical record of early cross-language communication on the lower Columbia) result in word-orders suggestive of the CW of late-nineteenth and twentieth-century record—pronoun-subject preceding an active verb: (23), (24), (26); pronoun subject following a predicate-adjective (or predicate-noun): (28) and (29), and probably, (30); adverbial elements usually coming clause-first: (23), (26), (27), (29) (CW Dictionary Project 2012:30–51).

No doubt, the CW word-orders evident in Townsend’s examples could also reflect, at least to some extent, his Native source(s)’ familiarity with the CW of the period. But as I have noted, expected Chinookan inflections are occasionally dropped even in Chinookan, judging by examples in the Chinookan text corpus. While CW and Chinookan are clearly very different orders of language, the “line” between them is not necessarily always sharply etched. This is especially so in the earliest sources documenting both varieties—among which Townsend’s vocabulary receives attention for the first time here.

It is this fuzzy line between Chinookan and CW revealed by this and other early sources, taken in conjunction with the largely intact Chinookan word-forms characterizing the CW of later record, that has led me to my own perspective on the much disputed genesis of CW (see Thomason 1983, Samarin 1986, 1996, Grant 1996, Lang 2008:55–121 for other perspectives). This perspective is summed up in the following passage from a contribution by Tony Johnson and myself to a recent collection of essays on Chinookan culture and history.

One striking feature of Chinuk Wawa is that the part of its basic lexicon derived from lower Columbia languages, comprising at least half of the 500–700 simple (that is, noncompounded) words in most frequent use on the lower river, includes many words derived from Chinookan pronouns, nouns, and particles, but comparatively speaking hardly any derived from Chinookan inflected verbs. . . .

Any hypothesis concerning Chinuk Wawa’s origin and early development must account for these facts of linguistic form, which taken together point to a systematic avoidance of Chinookan morphological complexity. Note that while the Chinookan morphology of Chinuk Wawa’s large Chinookan contribution is unmistakably simplified, it is by no means mangled—as we might expect had it originated with foreigners’ reproductions of Chinookan words whose internal constituencies they did not comprehend. . . . [At the same time,] lower Columbia Chinuk Wawa in its fully crystallized historical form . . . owes much to the early American and British seafarers. It was they who contributed the Nootkan-

derived auxiliaries *mamuk-* (‘make, do, cause to be’) and *chagu-* (‘become, get to be’), which Chinookans learned to use in place of the Chinookan inflected auxiliary verb *-x* [*-χ*] (‘make, do, become’ . . .). Substituting Nootka Jargon *mamuk-* and *chagu-* for Chinookan *-x* would have removed much of the necessity for using Chinookan verbs and associated nominal prefixes, setting the stage for a Chinookan-derived lexicon in which verbs and nominal agreement prefixes were simply avoided. Chinookans could have drawn upon a pre-existing lower Columbia pidgin, or upon Chinookan foreigner-talk, or upon both, to constitute such a lexicon.

For all their reputed difficulty, Chinookan languages also feature a lexicon distinguished by an exceptionally large number of words of simple morphological form—in particular, its plethora of uninflected (or minimally inflected . . .) particles, many of which in turn convey onomatopoeic or semi-onomatopoeic sound-associations . . . . While Chinookan clearly deserves its historical reputation for difficulty, it also comes with a considerable repertoire of built-in means for its own simplification. It is indeed not impossible that both of these aspects of Chinookan are rooted in the historical position of Chinookans as regional trade middlemen. Further linguistic, socio-historical, and even archeological investigation (insofar as it helps to document the extent and intensity of aboriginal trade) may yet further clarify the disputed genesis and early development of Chinuk Wawa (Zenk and Johnson 2013:279–82).

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Appendix “Jargon” items in Hale (ca. 1841) attributed to “T” (Townsend); with matches (where available) from Townsend’s (1835) “mixed” language list

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend’s (1835) “mixed” language	CW (<English, Eng) <French, Fr) <Nookta Jarg, NJ) <Salish, S)	<Chinookan (Chn): LC:Lower Ch) KC:Kathlamet Ch UC:Upper Ch
about, concerning / kwapa	kuapá, kopá (T kwāpa)		<i>kapa, kapá;</i> <i>kuga, kugá</i>	KC, UC <i>kupá, kʷábá</i> (there)
arm / limán	T itcalikt	itch a li_cht	<i>limá</i> (<Fr)	KC <i>i-čá-yu</i> (my ...); LC <i>i-čá-putitk</i> (her) forearms
back / *	T itcakūst	itch a coosh, Kiäcow		KC <i>i-íá-kučx</i> (his ...; ? <i>i-čá-...</i> my ...); <i>i-čí-gal</i> (my backbone)
bad / masátsi, mashátshii; pīshak, pēshak	msatsi, masátci; (T masátsi, pī’cak)	majátsee, etärmalee	<i>masáči</i> (bad, mean); <i>pišák</i> (bad, rough) (<NJ)	KC <i>i-íá-məla</i> (he is...); UC <i>ídámła</i> (they are...)
beads / kamōšuk	kamósok (T kamūsak)		<i>kamúsak</i>	LC <i>t-kamúsak</i>
big-belly / *	iákwatin	qua’ttin (belly)	<i>k’wətin</i>	
bird / kalákala	kalákala (T)	Callackala; Skillalocose (pl)	<i>kaláqala</i>	cf Chn <i>-ga</i> (to fly), <i>-galal</i> (flying); LC <i>ł-láax-uks</i> (birds)
black / klāi	T klāil	’k’lai-ail	<i>ʔtʔil</i>	LC <i>ʔt.íl, KC, UC ʔəl</i>
blue / *	khi’íl (T spok)	spok (blue)	<i>ʔtʔil</i> ‘black’, <i>spúʔuq</i> ‘ash, grey, faded’	LC <i>ʔt.íl; Chn ʃpuk, ʃpək</i>

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend's (1835) "mixed" language	CW (<English, Eng) (<French, Fr) (<Nookta Jarg, NJ) (<Salish, S)	<Chinookan (Chn): LC:Lower Ch KC:Kathlamet Ch UC:Upper Ch
bone / stōn	stōne-sic (T iōtso)	Eotso	ʂton (<Eng)	KC i-ía-q'úču (his ...s), LC ú-úču (shell) <sup>1</sup> Chn kanamdkwšt
both / kanamākst	kanimākst (T kánamākst)		kanumdkwšt	Chn kanamdkwšt
bow / ūpítłki, ōpítłki	ūpítłki, (T ōpítłki)	Opítłkai	úpł'iki	LC ú-pł'iki
brandy / ōlapítski-tsōk	T ōlapítski tsok		(see fire, water)	(see fire, water)
bread / sāpelil	sāpelil, (T caplī 'l)	Shappleel	saplł	UC a-sáblal
breast / *	T skōlom	quin'nm		cf? KC č-ía-čk'un-pa (on his clavicles)
broken, thrown down / *	mac	Maush (to cast away)	maš	
brother (older) / kāpo, kāpūhu	kapo, kapxu, (T kaffo)	Capho (brother)	kápuxu (o. sibling)	LC kápuxu (o. sibling!)
brother (younger) / au	au (T)	Aw	au	LC au (y bro!)
canoe / kanēm	kanēm (T kaním)	K'nnimm	kaním	LC i-kaním
cattle / músmus	músmus (T)	Moos-moos	músmus	

<sup>1</sup> The KC and LC stems appear to be related: KC -q'úču; LC -(?)úču. LC -(?)úču is 'shell' with feminine u-; quite likely, it was 'bone' with masculine i-, hence paralleling the KC.

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend's (1835) "mixed" language	CW (<English, Eng) (<French, Fr) (<Nookta Jarg, NJ) (<Salish, S)	<Chinookan (Chn): LC:Lower Ch KC:Kathlamet Ch UC:Upper Ch
cheek / *	T melóqtan	Mel'logh'tan		UC a-ia-miq'tan (his...)
child / tánas	T atilkáskas	'Atlcascas (Child), Kas Kas (small boy)	tánás (<NJ)	UC íl-k'ášk aš (baby), i-k'ášk aš (boy)
chin / *	T skánakwāst	Scowaqwast		
cloth / pasése	pacíci, pasése, (T pasísi)		pasísi	LC †-pašíši
come / tshako	tcako (T)	chako	čáku (<NJ)	
creek / *	T éqel	ekh'el		LC í-qyít, UC wá-qat
dark / pólakli, klāil	klāil (T pūlakli)	(see black, night)	(see black, night)	(see black, night)
day / sūn	sun, (T otlah)		(see sun)	(see sun)
dog / kāmūks	T kāmoks	Kahmux, 'ehcutcut, 'Kaiwis	kámukš	LC u-gu-xámukš (my...), †-ktiwuš; KC i-k'útk'ut
earth / ilēhi, ílahi	ílahi, ilēhi (T)	Ailagh hè	ílŕi, ilŕi	LC í-lí-i, KC í-lx, í-lix, UC wí-lx
eat / mākamak	mākamak, (T mókamok)		mākmak	UC mágmag 'gulping down'
elk / mōlak	mólak, (T molak)		múlak	Chn i-múlak
eye / siáhos	siáhust, siáhos, (T? siáhost)	Ceāghhoost	siyáxus(t)	LC, KC s-íá-χust, UC is-íá-xus (his...)

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend's (1835) "mixed" language	CW (<English, Eng) (<French, Fr) (<Nookta Jarg, NJ) (<Salish, S)	<Chinookan (Chn): LC:Lower Ch KC:Kathlamet Ch UC:Upper Ch
far / saiā	saia, saiá (T)	Sia	sayá (<NJ)	
father / pāpa, ōluman, tīlikūm-máma	pápa, óluman, (T tilkom-mama)	tí'cummama, stl'bmama	papá (<Fr), úľman (<Eng)	LC tǝ-mi-mama (your...; tilxam: see people)
fearful, strong / *	skokóm, (T skukūm)		skúkum (strong), skúkúm (fearful) (? <S)	
fight / saleks, kākshat	kákcāt, (T kākçot)		sáľiks (angry); kākšat (whip) (<NJ)	
fingers / *	T klőkcin	Klukshin		LC u-kši (a ...); UC tǝ-mi-kši (your hand)
fire / paia	paia, (T ōlapitski)	Ool'pitskee	páya (<Eng); úľipcki (see eat)	LC u-?úľapčkix (see eat)
food / mákamak	mákamak, (T mókamok)			
foolish / pílton	pílton (T)		píľdan (<Eng) <sup>2</sup>	
fox / *	T tiskáukau			UC (i-)'t'isquau
friends / siks	siks, (T cikš)		šikš	LC i-šikš, šikš!

<sup>2</sup> Supposed to be derived from the name of one of the American sea captains who traded at the mouth of the Columbia River. Apparently original to Chinuk Wawa.

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend's (1835) "mixed" language	CW (<English, Eng) <French, Fr) <Nookta Jarg, NJ) <Salish, S)	<Chinookan (Chn): LC:Lower Ch KC:Kathlamet Ch UC:Upper Ch
God / sákali-taie	tománuas, sakale~ sahale-taie, (T kánom)	Kannūm	t'amánwas (spirit-power), saxali-taji (God), ikánam (myth)	LC t-t'amánwas, saxali (high); tayi' chief (-NJ), ikánam (myth)
good / klósh	klós, kloc, (T itóкта)	Etókteh	tuš (<NJ); t'ukti	Chn t-t'úkdi
grand-mother / *	tcits, (T báäkāka)		čič (<S)	LC gák'i (grmother!), u-mí-k'ík'i (your...)
green / pitshish	pitcíc, (T pitcíc)	pitchish	pčix	Chn pčix
gun / müskit	múskit, (T sókwala)	Sukwallal	máskit (<Eng), sáqwalala	LC šš-q'walala
head / latēt	latēt, (T itsóktok)		latēt (<Fr)	LC i-qtq (a ...), í-čá-qtq (her..., my...)
heaven / *	T kūsah	Koosah	kúsax (sky)	LC t-gúšax (sky)
here (this)	ókok, (T ūkuk)	Oocook (here)	(see that, this)	(see that, this)
house / haus	haus, (T tkwá'hi)	T'qaghle	haus	KC t-qúti, UC it-g'wáti
how much, how many / kántsh'ak, kántsek	kántciak, kántci, (T kónsec[t])		qánčič(x)	LC qánčix, UC qánčix
hungry / olo	ólo, (T ölu)	Olo	úlu	LC ú-lu
ice ("heavy water") / túl-tsook	T tiltsook		(see tired, water)	(see tired, water)

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend's (1835) "mixed" language	CW (<English, Eng) (<French, Fr) (<Nookta Jarg, NJ) (<Salish, S)	<Chinookan (Chn): LC:Lower Ch KC:Kathlamet Ch UC:Upper Ch
kill / kākshatl, māmuk mēmēlust	kākcatl, (T kākcotl), T māmuk mēmēlust		kākšat (whip) (NJ), mamuk- mīmēlust (make-dead = 'kill': see make)	LC †-mīmēlust (dead)
knee / *	T koq <sup>h</sup> ol	Kogh'ul		LC u-ia-q'uy† (his...)
knife / ōpūtsah	ōpitsa	opitsāgh, okewekkah	ūpcaχ	LC ūpcaχ; u-qiwiq̄i
lake / lēk	lēk, (T ikakōtli)	ekacōtlee	leyk (<Eng)	LC i-kak'ū†itx
land / ilēhi	T ilēhi		(see earth)	(see earth)
lie (deceive) / kliminēkwit	kliminēkwit, (T kapcuála)	Klaminihoot (a lie), Capsu-Allah (to steal)	λ'amínxwat (lie), kápšwala (steal)	LC, KC i-λ'mínxut (a lie)
lightning ("fire above") / sāhali-olapitski	T sāhali ōlapitski		(see fire, God)	(see fire, God)
like, love / tūkéh	tūkéh (T káqaq)	tekay (want), *Kagh egh (love; "very guttural")	tq̄'ix, tiki	Chn tq̄'ix (like), UC k'axš (desire); (cf ? S xaʔá- (love [stem])
long ago / *	ánkati, (T á'nakūti)		ánqati	LC ánqati
make / māmuk, māmok	mamok, (T mamuk)		mámuk (<NJ)	
man / man	man, (T skotlēlekom)	'Scōtlailecum	man (<Eng)	LC †-gutl̄kamk (person)

<b>gloss/spelling in Hale 1846 (*only in Hale ca. 1841)</b>	<b>Hale ca. 1841</b>	<b>Townsend's (1835) "mixed" language</b>	<b>CW (&lt;English, Eng/ &lt;French, Fr) &lt;Nookta Jarg, NJ) &lt;Salish, S)</b>	<b>&lt;Chinookan (Chn): LC:Lower Ch KC:Kathlamet Ch UC:Upper Ch</b>
many, much / haú	haú, haiō (T)	Oghooway (much), hyo (many)	hayú (<NJ)	LC úxuit (much)
moon / mūn	mún, (T uktlémn)	Ooktlemin	mun (<Eng)	LC u-kləmín
morning / tánas-sún	tánas-son (T etcókti)		tánas-sán (little-sun = 'AM'; < NJ + Eng)	KC i-ga-čúktix (early AM)
mother / náa	náa, náhka, (T ná)			LC †-gá-na.a (her...); †-iá-na.a (his...)
nail (finger) / *	T klaqwarte	ʔkighwarte (nails)		UC a-†xwádi
name / iáhále, nēm	iahale (T)		nim (< Eng); yáχal(i)	LC i-ia-χal, KC, UC i-ia-χliw (his...)
night / pólakli, pūlakli	pólakle, (T pūlakli)	Pólaklee	pūlakli	KC pūlakli (at ...)
none / hēio, hīlu	hīlu, helo, (T helu)	haloo	hīlu <sup>3</sup>	
nose / nōs	nōs, (T itsókotc)		nus (<Eng)	KC i-č-kri (my...), UC i-ia-kč (his...)
people / tilikūm	T tilikūm	Tʔhlicum	tílixam (person, people)	LC tí-bxam, tí-laxam (people)
perhaps / klunās	klonās, (T klunās)	Klu'nass	χ'únas	LC χ'únas

<sup>3</sup> Ross Clark (personal communication 2010) has presented evidence for an NJ origin, ultimately from Hajda *hi.lu* 'be finished'.

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend's (1835) "mixed" language	CW (<English, Eng) (<French, Fr) (<Nookta Jarg, NJ) (<Salish, S)	<Chinookan (Chn): LC:Lower Ch KC:Kathlamet Ch UC:Upper Ch
potatoes / *	<i>T pasaiuks wápatus</i>		<i>pasáyuks</i> (French, White); <i>wáptu</i> (potatoes) <sup>4</sup>	
powder, gun / pólali, púlali	pólali, ( <i>T</i> púlali)		<i>pólali</i> (? <Fr)	
property, goods / íkta, ikta	íkta, ( <i>T</i> íkata)		<i>íkda</i> (thing)	LC í-kta (thing)
quick / *	haiák, ( <i>T</i> haiók)		<i>áyaaq</i> , <i>ayáq</i>	Chn <i>áyaaq</i> , <i>ayáq</i>
river / ēmatl, aibalt	<i>T</i> íbalt	aibalt		LC, KC <i>í-mat</i> (river, bay, ocean)
salmon / sámŭn	sámŭn, ( <i>T</i> kwánaq)	'quanagh	<i>sámən</i> (<Eng)	LC <i>i-gwáinat</i>
sea / wikōma, haias tsok	<i>T</i> wikōma	Wecōma	<i>sálcəq<sup>w</sup></i> (<Eng + Chn <i>caq<sup>w</sup></i> : water)	cf LC <i>wíkwa</i> , <i>wígwa</i> (ocean; - <i>ma</i> suffix?)
see / nánanitsh, nānitsh	nānitc, ( <i>T</i> nānanitc)	nonnaneech	( <i>na</i> ) <i>nánič</i> (<NJ)	
sheep / lemutón	mutan, lemutón, ( <i>T</i> āsínkwa)		<i>límqto</i> (<Fr)	cf? KC <i>í-šixq</i> (mt. goat)
shoes / shūs	cúz, stíkcuz, ( <i>T</i> kittélpo)	'k'tl'ph	<i>šus</i> (<Eng); <i>tqłpa</i>	LC <i>dá-gjłpa</i> (moccasins), UC <i>id-íd-gjłba</i> (his...)

<sup>4</sup> Of uncertain origin; perhaps from Kalapuyan *-pdu*, *-pdu?* 'Sagittaria latifolia' (also known as "Indian potato"), with the Upper Chinook nominal prefix *wa-*. *pasaiuks* is for CW *pasáyuks* 'French' (also sometimes used for 'White').

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend's (1835) "mixed" language	CW (<English, Eng) (<French, Fr) (<Nookta Jarg, NJ) (<Salish, S)	<Chinookan (Chn): LC:Lower Ch KC:Kathlamet Ch UC:Upper Ch
sister (older) / likpō, likpūnū <sup>5</sup>	kāpo, (T āts)	Ik'p'ho (girl)	kápxu (o. sibling) ac (y. sister; sister)	(see brother—older)
sister (younger) / ats	ao, (T likpho)	Ik'p'ho (girl)	ac (y. sister; sister), au (y. bro.; bro.)	(see brother—younger)
sibling (older) / *	kapo, kapho	Capho (brother)	kápxu (o. sibling)	LC kápxu (o. sibling!)
slave / mítcimōs	mítcimōs "(?)", ilaŋeti, (T mīstcemīs)		mīstcimīs (<NJ); iláitix	Chn i-láitix (male slave)
sleep / mōšūm, mūsōm	mosom, musom (T)	moosum	mūsūm (<S)	
so, thus / kākwa	kákwa, kwákwa, (T kékwa)		kákwa (<NJ)	
star / tilit, tshiltshil	tilit, tčiltcil, (T koqkāqnap)	K'ghkaghnap	člčil	KC t-q'ixánap, UC i-k'áxanapx
stone / stōn	stón, (T k nāks)	K'nnaks	štón (<Eng)	LC †-qánakš, UC i-qánakš
stop! / *	alke! "(?)", (T kwāpot)		đŋi (later), kápit (stop)	Chn đŋi (later), LC kápit, kupit (enough)
strong / skokōm, skukūm	skokōm, (T skukūm)		šukūm (strong) (?<S)	

<sup>5</sup> I was unable to find local indigenous-language matches for the spellings likpō, likpūnū, (and likpho, attributed to T: see sister (older)). Gibbs (1863:15) explains them as "probably a corruption of KUP-HO [CW/Chn kápxu: see brother (older)]."

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend's (1835) "mixed" language	CW (<English, Eng) (<French, Fr) (<Nootka Jarg, NJ) (<Salish, S)	<Chinookan (Chn): LC:Lower Ch KC:Kathlamet Ch UC:Upper Ch
sun / sùn, òtlah	son, (T òtlah)	òtlagh "(tl very guttural & squeaking)"	son	LC u-?úʔax
surely / nawítka	nawítka, nawítika (T)		nawítka	LC nawítka
talk / wāwa	T wāwa	Kipallaolal	wāwa	KC, UC wāwa (talking—pcl), a-wāwa (speech—n), <sup>6</sup> UC ux <sup>wip</sup> 'aláwala (talking)
teeth / lítān	lidán, (T yīnis)	Yee'nis	lítá (<Fr); yānas (<S)	
terrible / *	skukúm	Skookúm (devil, spirit), Skook'm (hell)	skukúm (something dangerous) (?<S)	
that way / iáwa	iáwa, (T yówa)		yawá	LC yáwa
that, this, there, & c. / ókok, (T ūkuk) ūkuk	ókok, (T ūkuk)	Oocook (here)	úʔkuk (that, this)	LC úʔkuk (there, that)
they / klaska	klaska (T)	Klaska (it)	ʔáska	LC ʔáska (it, they)
this / ókok, ūkuk	ókok, (T ūkuk)	Oocook (here)	(see: that)	(see: that)
tired / túl, ʔl	tol, til (T)	til	til	LC, KC tal, til

<sup>6</sup> Cf. also: Nootka Jargon *wawa* 'talk'.

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend's (1835) "mixed" language	CW (<English, Eng) (<French, Fr) (<Nookta Jarg, NJ) (<Salish, S)	<Chinookan (Chn): LC:Lower Ch KC:Kathlamet Ch UC:Upper Ch (see: this)
to-day / ōkuk-sūn	ōksān, ōkok~ūkuk son, (T ūkuk ūtlah)		uk-sān (uk + san; see: this, day)	
toe / *	T tlpíc	t'lpish		UC <i>t'pás</i> (foot)
trade / mákuk, mákok	makok, (T makuk)		<i>máku</i> k (buy; <NJ)	
understand / kúmataks	kóm'taks, (T kómataks)	Cum a tax	<i>kám'taks</i> (<NJ)	
water / wāta, tsok, tsūk, tshōk	wāta, tsuk~tsok, tcok, (T tsok)	Tshuk "(gutteral)"	<i>cuq</i> ( <sup>w</sup> )	LC <i>t-čūq</i> ( <sup>w</sup> )
what (also 'why') / káta, íkāta <sup>7</sup>	káta, ik'ta, (T íkāta)	Icita, Aksōhah	<i>íkda</i> (what?), <i>qáta</i> (how?)	Chn <i>í-ktā</i> (what), <i>qáda</i> (how, what); (cf ? S <i>ʔák<sup>w</sup>u</i> INTER)
white / tūkōp	tkōp, (T tkūp)	Tkooop	<i>t'k'up</i>	Chn <i>t'k'up</i>
who / klaksta	tlaksta, klaksta (T)	tlaksta	<i>táksta</i>	LC <i>táksta</i>
wind / win, itsōt	win, itsót, (T kómahūts)	K'mmáhātʔ (air)	<i>win</i>	cf ? LC <i>í-čáx</i> , <i>í-kxat</i> (wind), <i>í-ká.amtq</i> (SW wind)
wish / tūkéh, takéh	takeh, tok'é, tokéh, (T tékéh)		(see like, love)	(see like, love)

<sup>7</sup> Hale confuses two words which from an indigenous point of view are phonetically quite distinct—hence very unlikely to have confused local Indians.

gloss/spelling in Hale 1846 (*only in Hale ca. 1841)	Hale ca. 1841	Townsend's (1835) "mixed" language	CW (<English, Eng) <French, Fr) <Nookta Jarg, NJ) <Salish, S)	<Chinookan (Chn): LC:Lower Ch) KC:Kathlamet Ch UC:Upper Ch
wolf / lilū, tálapas	lilū, (T klékāho [large], tálapas [small])	lflu (wolf; <Fr), t'dlapas (coyote)	lflu (wolf; <Fr), t'dlapas (coyote)	Chn i-t'dlapas (coyote); KC ʔ-lfq'amu (wolf)
woman / klōtshman, klūtshman	klōtshman, (T klūtshmin)	Agh'keil	ʔūčmən (<NJ)	LC u-ʔūtk'wil
wood / stik	stik, (T kēmě'něk)	Kom'monok	stik (<Eng.l)	cf? KC tš-maqu
yellow / kaukauwak	T kaukauwōk	Kow-kow-wuk	k'auk'áuwiq	LC i-k'auk'áuwiq (Oregon grape) <sup>8</sup>

<sup>8</sup> Oregon grape (*Berberis* spp) is the source of a yellow dye used in local Native basketry.



# **Part IV**

Collaborations, indigenous voices,  
and stories

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# Three Okanagan stories about priests\*

John Lyon  
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**Abstract:** This paper consists of three narratives involving priests, from three different fluent speakers of Okanagan (a.k.a. Nsyílxcən, Colville-Okanagan, and Nqílxcən), a southern Interior Salish language. After introductory notes, each narrative is presented in the original language, followed by an analyzed, interlinear version including a near-phonemic transcription, parsed forms, glosses, stem/word level translations, and sentence translations. For an explanation of the five-line interlinear format I utilize, see Lyon (2016).

**Keywords:** Okanagan, Interior Salish, morphology, narrative, documentation

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**1 Conversation with the priest**

This narrative was told by George Lezard, of the Penticton Indian Reserve, in 1966, when he was 85 years old, and recorded by Randy Bouchard. The narrative was originally transcribed by Larry Pierre, also of the Penticton Indian Reserve, in August 1970 using an early orthography developed by Bouchard. What follows is the original narrative given in a NW Americanist orthography, and a grammatical analysis and English translation, not present in the original document.

**1.1 Okanagan**

p iksmáʔtím iʔ naʔt qʷɔaylqs iʔ cáwtət, iʔ sqʷlqʷlstwíxʷtət.

kn scqíltx uʔ kʷu kic iʔ qʷɔaylqs iʔ l incítxʷ. kicx, uʔ cúntəm isnqslxʷ, “xʷúywi ʔacəcáʔwi”, uʔ ʔacəcáʔ isnqslxʷ, isqʷsqʷasʔíʔaʔ. ixíʔ ʔácəcəʔaʔ uʔ ʔəcməncut, náʔkʷəm ixíʔ mat iʔ l snmɔpmíst iʔ ʔəcməncútəms, t̥i piq, t̥əʔáʔaʔt, uʔ k̥lqʷílp̥sm.

wiʔsʔəcməncút, uʔ kʷu cus “wayʔ”.

uʔ cun, “kn ksxʔkínaʔxʔ?”

kʷu cus, “kʷaʔ ksnmɔpmístaʔxʔ.”

uʔ cun, “kʷaʔ lut iʔ k̥l sámaʔ, kn t̥ ksnmɔpmístaʔxʔ!”

kʷu cus, “kʷaʔ lut kn t̥ sámaʔ, kn qʷɔaylqs.”

uʔ cun, “wayʔ kʷ qʷɔaylqs, náʔəmʔ kʷ sámaʔ!”

ixíʔ uʔ kʷu cus, “uc kʷ c̥kʷúləm iʔ l skɔáciw̥sʔ?”

cun, “kʷaʔ lut t̥ k̥ʷúləm iʔ k̥ʷíncútn t skɔáciw̥s axaʔ iʔ l təmxʷúlaʔxʷ.” cun “anwí kʷ sámaʔ, mat wayʔ xʷic̥xtms t skɔáciw̥s iʔ k̥ʷíncútn.” cun “iʔ sc̥táʔkʷs iʔ k̥ʷíncútn axáʔ iʔ l təmxʷúlaʔxʷ, naqs s̥əlx̥ɔáʔt, uʔ naqs ʔyáʔnəʔxʷ, uʔ nqspintk, wayʔ t̥i ixíʔ t̥i kaʔʔís iʔ sc̥táʔkʷs”. cun, “anwí kʷ sámaʔ, mat wayʔ ixíʔ xʷic̥ʔts yaʔyáʔt iʔ kʷu scuʔtxʷ.”

ixíʔ uʔ kʷu cus, “uc kʷ cʔíʔən iʔ l scəlkstásqəʔ t s̥liqʷ?”

cun, “kʷaʔ lut ixíʔ t̥a nk̥stan iʔ s̥liqʷ t̥ iksʔíʔnəm, ixíʔ kn sqilxʷ.” cun “iʔ s̥ʔaʔcínəm iʔ sc̥kʷúl̥s iʔ k̥ʷíncútn iʔ s̥liqʷ. lut t̥ cúntəm iʔ sqilxʷ “nínw̥iʔs, iʔ l naqs s̥əlx̥ɔáʔt, lut aksʔíʔnəm iʔ s̥ʔaʔcínəm” iʔ t̥ k̥ʷíncútn. t̥i wayʔ k̥ʷúl̥l̥ iʔ sqilxʷ, uʔ ksʔíʔiʔs iʔ s̥liqʷ məʔ laʔkín ʔl̥al mi wayʔ t̥ ksʔíʔiʔs. kəm̥ laʔkín k̥íwəlx, k̥im lut ksʔaʔəʔnúy̥s mi wayʔ t̥ ksʔíʔiʔs.” cun “anwí kʷ sámaʔ, mat wayʔ xʷic̥ʔts iʔ k̥ʷíncútn t̥ lut t̥ aksʔíʔnəm iʔ l naqs s̥əlx̥ɔáʔt iʔ s̥liqʷ.”

ixí? uł k<sup>w</sup>u cus “uc k<sup>w</sup> c-*kapswala?* tl *łucmən?*” (i? l ncnuk<sup>w</sup>cn scúnəms, “naq<sup>w</sup> i? tl tkłmilx<sup>w</sup>”)

cun “k<sup>w</sup>a? lut ixí? t snaq<sup>w</sup>. lut ixí? ta nkstan.” cun “i? k<sup>w</sup>łncútn k<sup>w</sup>ułs i? sqəłtmix<sup>w</sup>, uł k<sup>w</sup>ułs i? tkłmilx<sup>w</sup>. ixí? ksk<sup>w</sup>úla?xləx, uł x<sup>w</sup>a?twíłx i? sqilx<sup>w</sup>. ksq<sup>w</sup>ı́cťsəlx i? təmx<sup>w</sup>úla?x<sup>w</sup> i? t cwíłx<sup>w</sup>.”

ixí? i? sq<sup>w</sup>lq<sup>w</sup>łstwíx<sup>w</sup>tət c?łłt ka?łs. ixí? uł sic itlí? tı yałyáłt stım təcłla? nix<sup>w</sup> k<sup>w</sup>u q<sup>w</sup>lq<sup>w</sup>łtułts.

k<sup>w</sup>u cus “k<sup>w</sup>a? spu?úsc i? k<sup>w</sup>łncútn ki? wíkəntəm axá? i? təmx<sup>w</sup>úla?x<sup>w</sup>.”

cun “way, way cmystín, way wnix<sup>w</sup> ascq<sup>w</sup>lq<sup>w</sup>łłt, way wnix<sup>w</sup> i? k<sup>w</sup>łncútn ixí? spu?úsc ki? wíkntx<sup>w</sup> axá? i? təmx<sup>w</sup>úla?x<sup>w</sup>.” cun “náxəmł anwí k<sup>w</sup> q<sup>w</sup>łaylqs, anwí a? cx?it i? k<sup>w</sup>ułntx<sup>w</sup> a? nkstan axá? i? l təmx<sup>w</sup>úla?x<sup>w</sup> k<sup>w</sup> ła? ckiex!”

ixí? uł t́aq<sup>w</sup>cin i? automobil kł tkłmkńiłx<sup>w</sup>. nak<sup>w</sup>əm ?aksłáxt. nix<sup>w</sup> q<sup>w</sup>łaylqs ilí? i? kłmut nák<sup>w</sup>əm.

uł cun “nák<sup>w</sup>əm k<sup>w</sup> ksłáxt. táli? way x<sup>w</sup>rəp asłáxt.”

ixí? uł x<sup>w</sup>təpńúmt uł ixí? k<sup>w</sup>łs i? stətmıms, uł ixí? słux<sup>w</sup>pams, lut nix<sup>w</sup> k<sup>w</sup>u ta ła? cınst. ixí? way.

## 1.2 Interlinear analysis

(1)	p	iksmaýłtım		i?
	p	in-ks-√may-łt-ım		i?
	2PL.ABS	1SG.POSS-FUT-tell.story-APPL.POSS-MID		DET
	you.all	I.will.tell.you		the
	na?ł	q <sup>w</sup> łaylqs	i?	cáwtət, i?
	na?ł	√q <sup>w</sup> łay=lqs	i?	√cáwt-tt i?
	CONJ	black=robe	DET	doings-1PL.POSS DET
	with	priest	what	we.did what

sq<sup>w</sup>lq<sup>w</sup>łstwíx<sup>w</sup>tət.

s-q<sup>w</sup>ł•√q<sup>w</sup>ł-st-wíx<sup>w</sup>-tt

NMLZ-C<sub>1</sub>C<sub>2</sub>.PL•speak-CAUS-RECP-1PL.POSS

we.argued.about.it

‘I’m going to tell you about what we did with the priest, what we argued about.’



- (4) ixíʔ ʔácəcqaʔ uʔ ʃəcməncut, nákʷəm ixíʔ  
 ixíʔ √ʔác•c•qaʔ uʔ √ʃc-m-ncut nákʷm ixíʔ  
 DEM outside•INT.PL• CONJ get.ready-APPL-REFL EVID DEM  
 they went.outside and he.got.ready indeed he
- mat iʔ l snmymíst iʔ  
 mat iʔ l s-n+√my+p-míst iʔ  
 EPIS DET LOC NMLZ-LOC+know+INCH-INTR.REFL DET  
 must something.known what
- ʃəcməncútəms, t̃i piq, tətáqʔt,  
 √ʃc-m-ncút-m-s t̃i piq tə(•)√táq+aʔt  
 get.ready-APPL-REFL-MID-3POSS EMPH white short+STAT  
 he.was.getting.ready just white short
- uʔ kʔqʷ ílpsm.  
 uʔ k+√tqʷ=ílps-m  
 CONJ RES+hang=neck-MID  
 and his.neck.was.hanging[?]

‘They went outside and the priest got ready, he must have known what he was getting ready for, he was white, and short, and his neck was hanging down[?].’<sup>1</sup>

- (5) wiʔsʃəcməncút, uʔ kʷu cus  
 √wiʔ+s+√ʃc-m-ncút, uʔ kʷu √cun-nt-s  
 finish+NMLZ+get.read-APPL-REFL CONJ 1SG.ABS say-DIR-3ERG  
 he.finished.getting.himself.ready and me he.told
- “way’”.  
 way’  
 yes  
 hello

‘He got finished getting himself ready and he told me “Hello.”’

- (6) uʔ cun, “kn ksxʔkínaʔx?”  
 uʔ √cun-nt-n kn ks-x+√ʔkín-aʔx  
 CONJ say-DIR-1SG.ERG 1SG.ABS FUT-DRV+do.what-INCEPT  
 and I.told.him I am.going.to.do.what

‘And I said to him “What am I supposed to do?”’

<sup>1</sup>I am unsure what *kʔqʷ ílpsm* refers to. It could refer to the priest’s neck hanging down, or to his wearing a cross around his neck. None of the fluent elders I consulted knew the word either.

- (7)  $k^w u$  cus, “ $k^w a?$   
 $k^w u$   $\sqrt{\text{cun-nt-s}}$   $k^w a?$   
 1SG.ABS say-DIR-3ERG INTERJ  
 me he.told

$k^w n m y p m \acute{i} s t a ? x .$   
 $k^w s - n + \sqrt{\text{my+p-m\acute{i}st-a?x}}$   
 FUT-LOC+know+INCH-INTR.REFL-INCEPT  
 will.confess

‘He told me “You have to confess.”’<sup>2</sup>

- (8)  $u\ddot{t}$  cun, “ $k^w a?$  lut i?  $\acute{k}l$   $s\acute{a}m a?$ ,  
 $u\ddot{t}$   $\sqrt{\text{cun-nt-n}}$   $k^w a?$  lut i?  $\acute{k}l$   $s\acute{a}m a?$   
 CONJ say-DIR-1SG.ERG INTERJ NEG DET LOC white.person  
 and I.told.him not the to white.person

$kn$   $\acute{t}$   $k^w s n m y p m \acute{i} s t a ? x !$   
 $kn$   $\acute{t}$   $k^w s - n + \sqrt{\text{my+p-m\acute{i}st-a?x}}$   
 1SG.ABS NEG.EMPH FUT-LOC+know+INCH-INTR.REFL-INCEPT  
 I will.confess

‘And I said to him “I won’t confess to a white person.”’

- (9)  $k^w u$  cus, “ $k^w a?$  lut  $kn$   $\acute{t}$   
 $k^w u$   $\sqrt{\text{cun-nt-s}}$   $k^w a?$  lut  $kn$   $\acute{t}$   
 1SG.ABS say-DIR-3ERG INTERJ NEG 1SG.ABS NEG.EMPH  
 me he.told not I

$s\acute{a}m a?$ ,  $kn$   $\acute{q}^w \acute{\gamma} a y l q s .$   
 $s\acute{a}m a?$   $kn$   $\sqrt{\acute{q}^w \acute{\gamma} a y = l q s}$   
 white.person 1SG.ABS black=robe  
 white.person I priest

‘He told me “But I’m not just a white person, I’m a priest.”’

- (10)  $u\ddot{t}$  cun, “ $w a \acute{y}$   $k^w$   $\acute{q}^w \acute{\gamma} a y l q s$ ,  $n \acute{a} \acute{x} \acute{o} m \acute{t}$   
 $u\ddot{t}$   $\sqrt{\text{cun-nt-n}}$   $w a \acute{y}$   $k^w$   $\sqrt{\acute{q}^w \acute{\gamma} a y = l q s}$   $n \acute{a} \acute{x} m \acute{t}$   
 CONJ say-DIR-1SG.ERG yes 2SG.ABS black=robe CONJ  
 and I.told.him yes you priest but

$k^w$   $s\acute{a}m a ? !$   
 $k^w$   $s\acute{a}m a ?$   
 2SG.ABS white.person  
 you white.person

‘And I told him “Yes you’re a priest, but you’re still a white person!”’

<sup>2</sup>What is transcribed as  $k^w a?$  in (7) may be concealing a second person singular subject clitic  $k^w$ , hence Lottie’s translation of this stanza. It is also possible that the transcription is correct, and that an infinitive-like, subjectless interpretation is available, akin to “To confess”.

- (11) ixíʔ uʔ k<sup>w</sup>u cus, “uc k<sup>w</sup> ck<sup>w</sup>úʔlòm  
 ixíʔ uʔ k<sup>w</sup>u √cun-nt-s uc k<sup>w</sup> c-√k<sup>w</sup>úʔl-m  
 DEM CONJ 1SG.ABS say-DIR-3ERG DUB 2SG.ABS CUST-work-MID  
 then and me he.told do you work  
 iʔ 1 skʔacíʔws?”  
 iʔ 1 s+k+√ʔac=iʔws  
 DET LOC NMLZ+RES+tie=middle  
 the on Sunday

‘Then he told me “Do you work on Sundays?”’

- (12) cun, “k<sup>w</sup>aʔ lut t̄ k<sup>w</sup>úʔlòm iʔ  
 √cun-nt-n k<sup>w</sup>aʔ lut t̄ √k<sup>w</sup>úʔl-m iʔ  
 say-DIR-1SG.ERG INTERJ NEG NEG.EMPH make-MID DET  
 I.told.him not he.made the  
 k<sup>w</sup>ʔncútn t skʔacíʔws axaʔ iʔ 1  
 √k<sup>w</sup>ʔncút+tn t s+k+√ʔac=iʔws axaʔ iʔ 1  
 make-REFL+INS OBL NMLZ+RES+tie=middle DEM DET LOC  
 creator Sundays this the on  
 t̄mx<sup>w</sup>úʔlaʔx<sup>w</sup>.”  
 √t̄mx<sup>w</sup>=úʔlaʔx<sup>w</sup>  
 land=land  
 land

‘I told him “Well, the Creator didn’t make Sundays in this land!”’

- (13) cun “anwí k<sup>w</sup> sámaʔ, mat waỵ  
 √cun-nt-n anwí k<sup>w</sup> sámaʔ mat waỵ  
 say-DIR-1SG.ERG 2SG.INDEP 2SG.ABS white.person EPIS yes  
 I.told.him you you white.person must.be yes  
 x<sup>w</sup>içxtms t skʔacíʔws  
 √x<sup>w</sup>iç-xt-m-s t s+k+√ʔac=iʔws  
 give-APPL.BEN-2SG.OBJ-3ERG OBL NMLZ+RES+tie=middle  
 he.gave.to.you Sundays  
 iʔ k<sup>w</sup>ʔncútn.”  
 iʔ √k<sup>w</sup>ʔncút+tn  
 DET make-REFL+INS  
 the creator

‘I told him “You’re are white person, the Creator must have given you Sundays.”’



- (16) *ixíʔ uʔ k<sup>w</sup>u cus, “uc k<sup>w</sup> cʔíʔən*  
*ixíʔ uʔ k<sup>w</sup>u √cun-nt-s uc k<sup>w</sup> c-√ʔíʔən*  
 DEM CONJ 1SG.ABS say-DIR-3ERG DUB 2SG.ABS CUST-eat  
 then and me he.told do you eat
- iʔ 1 scəlkstásqət t sʔiq<sup>w</sup>ʔ*  
*iʔ 1 s+√cəl=kst=ásqət t s+√ʔiq<sup>w</sup>*  
 DET LOC NMLZ+five=hand=day OBL NMLZ+meat  
 the on Friday meat

‘And then he told me “Do you eat meat on Fridays?”’

- (17) *cun, “k<sup>w</sup>aʔ lut ixíʔ ʔa nʔkstan*  
*√cun-nt-n k<sup>w</sup>aʔ lut ixíʔ ʔa n+√ks+tan*  
 say-DIR-1SG.ERG INTERJ NEG DEM NEG.EMPH LOC+bad+INS  
 I.told.him not that sin
- iʔ sʔiq<sup>w</sup> ʔ iksʔíʔnəm, iʔ*  
*iʔ s+√ʔiq<sup>w</sup> ʔ in-ks-√ʔíʔn-m ixíʔ*  
 DET NMLZ+meat COMP 1SG.POSS-FUT-eat-MID DEM[?]  
 the meat if I.will.eat.it
- kn sqilx<sup>w</sup>ʔ*  
*kn s+√qilx<sup>w</sup>*  
 1SG.ABS NMLZ+native.person  
 I native.person

‘I told him “Well, it wouldn’t be a sin for me to eat meat, I’m an Indian.”’<sup>4</sup>

- (18) *cun “iʔ sʔaʔcínəm iʔ*  
*√cun-nt-n iʔ s(+)/√ʔaʔ(=)cín(-)m iʔ*  
 say-DIR-1SG.ERG DET deer DET  
 I.told.him the deer what
- sc<sup>k</sup>wúʔs iʔ k<sup>w</sup>Incútn iʔ*  
*s-c-√k<sup>w</sup>úʔ-s iʔ √k<sup>w</sup>ʔ-ncút+tn iʔ*  
 NMLZ-CUST-make-3POSS DET make-REFL+INS DET  
 he.made the creator the
- sʔiq<sup>w</sup>ʔ*  
*s+√ʔiq<sup>w</sup>*  
 NMLZ+meat  
 meat

‘I told him “The Creator made deer for meat.”’

<sup>4</sup>Fluent speakers often shorten the demonstrative *ixíʔ* to *iʔ*, which makes it phonetically equivalent to a determiner. The syntactic context is such that I think the last occurrence of *iʔ* in this stanza is actually a demonstrative, and so I give the predicted full form in line 2.

- (19) “lut t̄ cúntəm iʔ sq̄lɿx<sup>w</sup>  
 lut t̄ √cún-nt-m iʔ s+√q̄lɿx<sup>w</sup>  
 NEG NEG.EMPH say-DIR-PASS DET NMLZ+native.person  
 not they.were.told the native.people
- “ńńwíʔs, iʔ l naqs s̄x̄əl̄x̄áɿt, lut  
 ńńwíʔs, iʔ l naqs s+xl̄•√x̄áɿt lut  
 in.a.while DET LOC one NMLZ+C<sub>1</sub>C<sub>2</sub>.CHAR•clear+STAT NEG  
 in.a.while the on one day not
- aksʔífnəm iʔ s̄ʔaʔcínəm” iʔ t  
 an-ks-√ʔífn-m iʔ s(+)<sup>w</sup>√ʔaʔ(=)cín(-)m iʔ t  
 2SG.POSS-FUT-eat-MID DET deer DET OBL  
 you.will.eat.it the deer the by
- k̄<sup>w</sup>lncútn.”  
 √k̄<sup>w</sup>l̄-ncút+tn  
 make-REFL+INS  
 creator

“‘The creator didn’t say to the Indians ‘On this one day, don’t eat the deer.’ ”’

- (20) “t̄i waȳ k̄<sup>w</sup>úɿl̄ iʔ sq̄lɿx<sup>w</sup>, uʔ  
 t̄i waȳ √k̄<sup>w</sup>úɿl̄ iʔ s+√q̄lɿx<sup>w</sup> uʔ  
 EMPH yes make•C<sub>2</sub>.LC DET NMLZ+native.person CONJ  
 just born the native.people and
- ksʔífiʔs iʔ s̄t̄iq<sup>w</sup> mət̄ laʔkín  
 ks-√ʔífi-iʔ-s iʔ s+√t̄iq<sup>w</sup> m̄t̄ la+√ʔkín  
 FUT-eat-MID-3POSS DET NMLZ+meat CONJ at+when  
 they.will.eat.it the meat and.then when
- ʔl̄al mi waȳ t̄ ksʔífiʔs.”  
 √ʔl̄•al mi waȳ t̄ ks-√ʔífi-iʔ-s  
 stop•C<sub>2</sub>.LC COMP.FUT yes COMP FUT-eat-MID-3POSS  
 they.die will.be finish when they.will.eat.it

“‘As soon as the People were born, they will eat meat, and then when they die will be when they finish eating meat.’ ”’

- (21) “kəm̄ laʔkín kíwəlx, kím lut  
 kím̄ la+√ʔkín √kíw+lx kím lut  
 CONJ at+when old+AUT except NEG  
 or when old.body except not
- ksʔatənúys mi way †  
 ks-ʔat•√ʔtɪn+uȳ-s mi way †  
 FUT-C<sub>1</sub>C<sub>2</sub>.PL•eat+able.to-3POSS COMP.FUT finish COMP  
 they.will.manage.to.eat.it will.be finish when
- ksʔfiʔs.”  
 ks-√ʔfɪ-iʔ-s  
 FUT-eat-MID-3POSS  
 they.will.eat.it

“Or when they get old, except if they can’t manage to eat it anymore, will be when they finish eating meat.”<sup>5</sup>

- (22) cun “anwí k<sup>w</sup> sámaʔ, mat  
 √cun-nt-n anwí k<sup>w</sup> sámaʔ mat  
 say-DIR-1 SG.ERG 2SG.INDEP 2SG.ABS white.person EPIS  
 I.told.him you you white.person must.be
- waȳ x<sup>w</sup>ic̄ʔts iʔ k<sup>w</sup>lncútn †  
 waȳ √x<sup>w</sup>ic̄-ʔt-s iʔ √k<sup>w</sup>l-ncút+tn †  
 yes give-APPL.POSS-3ERG DET make-REFL+INS COMP  
 yes he.gave.it.[to.you] the creator that
- lut † aksʔfɪnəm iʔ l naqs  
 lut † an-ks-√ʔfɪn-m iʔ l naqs  
 NEG COMP 2SG.POSS-FUT-eat-MID DET LOC one  
 not that you.will.eat.it the on one
- sxəlʃált iʔ stiq<sup>w</sup>.”  
 s+xl̄•√ʃált+t iʔ s+√ʔtiq<sup>w</sup>  
 NMLZ+C<sub>1</sub>C<sub>2</sub>.CHAR•clear+STAT DET NMLZ+meat  
 day the meat

‘I told him, “But you’re white, and the Creator must have given you something, so that you can’t eat meat one day (out of the week).”’

<sup>5</sup>The morpheme *uȳ* in *ks-ʔat•√ʔtɪn+uȳ-s* may be combination of the applicative *-nu-* ‘manage to’ (with the initial /n/ coalescing with the final /n/ in *√ʔtɪn*) followed by *-iʔ-* ‘able to’ (Mattina 1987:25), but this is unclear.

- (23) ixíʔ uʔ k<sup>w</sup>u cus “uc k<sup>w</sup>  
 ixíʔ uʔ k<sup>w</sup>u √cun-nt-s uc k<sup>w</sup>  
 DEM CONJ 1SG.ABS say-DIR-3ERG DUB 2SG.ABS  
 then and me he.told do you
- c-kapswala?* tl *ʔucmən?*”  
*c-kapshwala?* tl *ʔucmən*  
 CUST-steal.[CHINUK.WAWA] LOC woman.[CHINUK.WAWA]  
 steal from women
- (iʔ 1 ncnuk<sup>w</sup>cn scúnəms,  
 iʔ 1 n+cnuk<sup>w</sup>=cn s-√cun-m-s  
 DET LOC LOC+Chinook=language NMLZ-say-MID-3POSS  
 the in Chinook.Jargon it’s.said
- “naq<sup>w</sup> iʔ tl tkʔmilx<sup>w</sup>”  
 naq<sup>w</sup> iʔ tl tkʔmilx<sup>w</sup>  
 steal DET LOC woman  
 steal the from woman

‘Then he told me “Do you steal from women?” (In the Chinook Jargon they say, steal from a woman.)’<sup>6</sup>

- (24) cun “k<sup>w</sup>aʔ lut ixíʔ t<sup>ʔ</sup> snaq<sup>w</sup>. lut  
 √cun-nt-n k<sup>w</sup>aʔ lut ixíʔ t<sup>ʔ</sup> s+√naq<sup>w</sup> lut  
 say-DIR-1SG.ERG INTERJ NEG DEM NEG.EMPH NMLZ+steal NEG  
 I.told.him not that stealing not
- ixíʔ ʔa nkʔstan.”  
 ixíʔ ʔa n+√kʔs+tan  
 DEM NEG.EMPH LOC+bad+INS  
 that sin

‘I told him “That’s not stealing, that isn’t a sin.”’

- (25) cun “iʔ k<sup>w</sup>ʔncútn k<sup>w</sup>uʔs iʔ  
 √cun-nt-n iʔ √k<sup>w</sup>ʔ-ncút+tn √k<sup>w</sup>uʔ-nt-s iʔ  
 say-DIR-1SG.ERG DET make-REFL+INS make-DIR-3ERG DET  
 I.told.him the creator it.made.it the
- sqəʔtmíx<sup>w</sup>, uʔ k<sup>w</sup>uʔs iʔ tkʔmilx<sup>w</sup>.”  
 s+√qʔ+√tmíx<sup>w</sup> uʔ √k<sup>w</sup>uʔ-nt-s iʔ tkʔmilx<sup>w</sup>  
 NMLZ+man+land and make-DIR-3ERG DET woman  
 man and it.made.it the woman

‘I told him “The Creator made the men, and he made the women.”’

<sup>6</sup>This is an interesting case of code-switching between Okanagan and Chinuk Wawa, where one CW lexical item carries an Okanagan affix, and two CW items are linked by an Okanagan preposition.

- (26) “ixíʔ kskʷúláʔxləx, uʔ xʷaʔtwíʔx iʔ  
 ixíʔ ks-√kʷúl-aʔx-lx uʔ √xʷaʔt+wíʔx iʔ  
 DEM FUT-make-INCEPT-PL CONJ many+DEV DET  
 he will.make.them and become.more the  
 sqilxʷ.”  
 s+√qilxʷ  
 NMLZ+native.person  
 native.people

“‘He will keep on making them, and the People will increase.’”

- (27) “ksqʷíctəlx iʔ təmxʷúláʔxʷ iʔ t  
 ks-√qʷíct+t-slx iʔ √tmxʷ=úláʔxʷ iʔ t  
 FUT-full+STAT-3PL.POSS DET land=land DET LOC  
 they.will.fill.it the land the with  
 cwíʔxʷ.”  
 √cw=íʔxʷ.  
 put.there=person  
 places.to.live

“‘They will fill the land with places to live.’”<sup>7</sup>

- (28) ixíʔ iʔ sqʷlqʷlstwíxʷtət cʔǰíʔ  
 ixíʔ iʔ s-qʷl•√qʷl-st-wíxʷ-tət c-√ʔǰíʔ  
 DEM DET NMLZ-C<sub>1</sub>C<sub>2</sub>.PL•speak-CAUS-RECP-1PL.POSS CUST-be.like  
 that what we.argued.about.it like  
 t kaʔʔís.  
 t kaʔʔís  
 OBL three  
 three.things

‘That’s what we argued with each other about, like those three things.’

- (29) ixíʔ uʔ sic itlíʔ ʔi yaʔyáʔt stiṁ  
 ixíʔ uʔ sic itlíʔ ʔi yaʔ•√yáʔt s+√tiṁ  
 DEM CONJ new DEM EMPH C<sub>1</sub>C<sub>2</sub>.PL•all NMLZ+what  
 then and then from.that just every thing  
 ʔækʔlaʔ nixʷ kʷu qʷlqʷlʔtuʔts.  
 ʔc+√kʔlaʔ nixʷ kʷu qʷl•√qʷl-tuʔt-s  
 LOC+DEM also 1SG.ABS C<sub>1</sub>C<sub>2</sub>.PL•speak-TR-3ERG  
 towards.here also me he.talked.about.it.to

‘And then there was a lot of other things he also wanted to talk to me about.’<sup>8</sup>

<sup>7</sup>Mattina (1987:11) states that √cw=íʔxʷ only occurs in compounds, and so its occurrence here in isolation is somewhat unexpected.

(30)	k <sup>w</sup> u	cun	“k <sup>w</sup> aʔ	spuʔúsc	
	k <sup>w</sup> u	√cun-nt-s	k <sup>w</sup> aʔ	s+√puʔús-s	
	1 SG.ABS	say-DIR-3ERG	INTERJ	NMLZ+what.one.desires-3POSS	
	me	he.told		what.it.wants	
	iʔ	k <sup>w</sup> íncútn	kiʔ	wíkəntəm	axáʔ iʔ
	iʔ	√k <sup>w</sup> í-ncút+tn	kiʔ	√wík-nt-m	axáʔ iʔ
	DET	make-REFL+INS	COMP.OBL	see-DIR-1 PL.ERG	DEM DET
	the	creator	that	we.see.it	this the
		təmx <sup>w</sup> úlaʔx <sup>w</sup> .”			
		√tmx <sup>w</sup> =úlaʔx <sup>w</sup>			
		land=land			
		land			

‘He told me “Well, it’s what the Creator wants, for us to look after the land.”’

(31)	cun	“waỵ,	waỵ	cmystín,	waỵ
	√cun-nt-n	waỵ	waỵ	c-√my-st-ín	waỵ
	say-DIR-1 SG.ERG	yes	yes	CUST-know-CAUS-1 SG.ERG	yes
	I.told.him	yes	yes	I.know.it	yes
	wnix <sup>w</sup>	ascq <sup>w</sup> lq <sup>w</sup> ílt,		waỵ	wnix <sup>w</sup>
	wníx <sup>w</sup>	an-s-c-q <sup>w</sup> l•√q <sup>w</sup> ílt		waỵ	wníx <sup>w</sup>
	true	2SG.POSS-NMLZ-CUST-C <sub>1</sub> C <sub>2</sub> .PL•speak+STAT		yes	true
	true	what.you.say		yes	true
	iʔ	k <sup>w</sup> íncútn	ixíʔ	spuʔúsc	
	iʔ	√k <sup>w</sup> í-ncút+tn	ixíʔ	s+√puʔús-s	
	DET	make-REFL+INS	DEM	NMLZ+what.one.desires-3POSS	
	the	creator	that	what.it.wants	
		kiʔ	wíkntx <sup>w</sup>	axáʔ iʔ	təmx <sup>w</sup> úlaʔx <sup>w</sup> .”
		kiʔ	√wík-nt-x <sup>w</sup>	axáʔ iʔ	√tmx <sup>w</sup> =úlaʔx <sup>w</sup>
		COMP.OBL	see-DIR-2SG.ERG	DEM DET	land=land
		that	you.see.it	this the	land

‘I told him “Yes, yes, I know, it’s true what you say, it’s true that what the Creator wants is for *you* to look after the land.”’<sup>9</sup>

<sup>8</sup>Mattina (1994:207) states that “-*tuAt*- marks the introduction into the sentence of a new direct object, with the concomitant demotion of the object person marker to indirect object.”

<sup>9</sup>The protagonist seems to reinterpret the priest’s intended first person plural *inclusive* pronoun in (30) as *exclusive* in (31), hence the bitterly ironic interpretation.

- (32) cun                    “náǰəmǰ    anwí            k<sup>w</sup>            ǰ<sup>w</sup>ǰaylqs,  
√cun-nt-n            náǰmǰ        anwí            k<sup>w</sup>            √ǰ<sup>w</sup>ǰay=lqs  
say-DIR-1SG.ERG    but            2SG.INDEP    2SG.ABS    black=robe  
I.told.him            but            you            you            priest
- anwí            aǰ        cxǰit            iǰ        k<sup>w</sup>uǰntx<sup>w</sup>            aǰ  
anwí            iǰ        c-√xǰit            iǰ        √k<sup>w</sup>uǰ-nt-x<sup>w</sup>            iǰ  
2SG.INDEP    DET        CUST-first    DET        make-DIR-2SG.ERG    DET  
you            the        first            who        you.made.it            a
- nkstan            axáǰ    iǰ        1        tǰmx<sup>w</sup>úlaǰx<sup>w</sup>            k<sup>w</sup>  
n+√k<sup>s</sup>+tan        axáǰ    iǰ        1        √tmx<sup>w</sup>=úlaǰx<sup>w</sup>            k<sup>w</sup>  
LOC+bad+INS    DEM    DET        LOC        land=land            2SG.ABS  
sin            this        the        on        land            you
- ǰaǰ        ckicx!”  
ǰaǰ        c+√kic-x  
COMP    CISL+arrive-INTR  
when    came

‘I told him “But you’re a priest, you’re the first one to make sin on this land, when you came!”’

- (33) ixíǰ    uǰ        ǰáǰ<sup>w</sup>cin            iǰ        automobil    kǰ  
ixíǰ    uǰ        √ǰáǰ<sup>w</sup>(=)cin    iǰ        automobil    kǰ  
DEM    CONJ    hollar            DET    automobile    LOC  
then    and    it.honked        a        car            over.at
- tǰmkñiǰx<sup>w</sup>.  
t+√k<sup>m</sup>=kñ=iǰx<sup>w</sup>  
RES+body.part=back=house  
outside

‘And then an automobile honked outside.’

- (34) nak<sup>w</sup>əm            ǰaksǰáǰt.            nix<sup>w</sup>            ǰ<sup>w</sup>ǰaylqs            ilíǰ    iǰ  
nak<sup>w</sup>m            ǰakǰ-s+√ǰáǰt            nix<sup>w</sup>            √ǰ<sup>w</sup>ǰay=lqs            ilíǰ    iǰ  
EVID            have-NMLZ+friend    also        black=robe        DEM    DET  
it.turned.out    he.has.a.friend        also        priest            there    who
- kǰmut            náǰ<sup>w</sup>əm.  
kǰ-√mut        náǰ<sup>w</sup>m  
have-sit        EVID  
sit.down        it.turned.out

‘It turned out he had a friend. Another priest was sitting there, it turned out.’

- (35) uʔ cun “nák<sup>w</sup>əm k<sup>w</sup> ksłáǵt.  
uʔ √cun-nt-n nák<sup>w</sup>m k<sup>w</sup> kł-s+√łáǵt.  
CONJ say-DIR-1SG.ERG EVID 2SG.ABS have-NMLZ+friend  
and I.told.him it.turns.out you have.a.friend
- táli? way x<sup>w</sup>rəráp asłáǵt.”  
táli? way √x<sup>w</sup>r+áp an-s+√łáǵt  
very yes shake•C<sub>2</sub>.LC+INCH 2SG.POSS-NMLZ+friend  
very yes in.a.hurry your.friend

‘And I told him “Seems that you have a friend. Your friend is really in a hurry.”’

- (36) ixí? uʔ x<sup>w</sup>tətpnúmt uʔ ixí?  
ixí? uʔ √x<sup>w</sup>t+pnúmt uʔ ixí?  
DEM CONJ jump.up•C<sub>2</sub>.LC+INCH-have.without.choice CONJ DEM  
then and he.jumped.up and then
- k<sup>w</sup>łǵs i? stətmíms,  
√k<sup>w</sup>łǵ-nt-s i? s+t•tm•√tím-s,  
pull.off-DIR-3ERG DET NMLZ+C<sub>1</sub>.DIM•C<sub>2</sub>.PL•what-3POSS  
he.pulled.it.off the his.clothing
- uʔ ixí? słuǵ<sup>w</sup>pams, lut nix<sup>w</sup> k<sup>w</sup>u  
uʔ ixí? s-√tuǵ<sup>w</sup>p-am-s, lut nix<sup>w</sup> k<sup>w</sup>u  
CONJ DEM NMLZ-run.out-MID-3POSS NEG again 1SG.ABS  
and then he.ran.out not again me
- ta ła? cinsts.  
ta ła? c-√cín-st-s.  
NEG.EMPH COMP CUST-say.what-CAUS-3ERG  
when he.said.what

‘And then he jumped up quickly, and pulled off what he was wearing, and he ran out. He never said anything else to me.’

- (37) ixí? way.  
ixí? way  
DEM finish  
that finished  
‘That’s all.’

## 2 Smokey and the priest

This story was told by Nellie Guitierrez, Upper Nicola Indian Band, at an Elder’s Gathering in Quilchena BC sometime in 1978 or 1979. It was recorded by Yvonne Hébert, and deposited as part of a larger collection in the Royal Museum of BC.

Below is my transcription of the narrative. Thanks to Lynne Jorgesen for assistance on English transcriptions and translations, and for place name information.

## 2.1 Okanagan

tí kmax í? sáma? í? cawts, í? ncəw'caw'cintəm. kím axá? ʔapná? í? sáma? ʔa? k'cawt í? p iksməy'tín, í? q'w'ʔáyqls.

tl *Merritt* q'sápi k<sup>w</sup>a? ití? mat *four or five houses in Merritt*. uʔ axá? í? *settlers* atlá? uʔ k'l *Aspen Grove* k'a?ʔá?ms. ixí? cx<sup>w</sup>úyəms tí? q'w'ʔáyqls, í? *Saturday* məʔ x<sup>w</sup>uy məʔ k'ʔaxts í? səmsáma?.

ixí? sx<sup>w</sup>uys tl *Merritt* k<sup>w</sup>uk<sup>w</sup> k'l *Courtney Lake*. wiks í? citx<sup>w</sup>, k<sup>w</sup>uk<sup>w</sup> acpəpá?x<sup>w</sup>.

cut k<sup>w</sup>uk<sup>w</sup> “atá? way’ myaʔ nk<sup>w</sup>k<sup>w</sup>ʔac, way’ c’uy. way’ alá? iksíwəm axá? í? sáma? uc kn kspúlxa?x.”

ixí? sx<sup>w</sup>uys, k<sup>w</sup>uk<sup>w</sup> ʔacəntís í? nməlk<sup>w</sup>ápa?st í? sk<sup>w</sup>inpəla?sqáʔa?ts. caʔcʔálxs sic x<sup>w</sup>uy k'l citx<sup>w</sup>, k'ʔnpuwáps í? sáma?.

cúntəm k<sup>w</sup>uk<sup>w</sup> “*Come in!*” lut t' cn?uʔx<sup>w</sup>s. npəlk', npuwápəm, cúntəm k<sup>w</sup>uk<sup>w</sup> “*Come in!*”

ixí? scíʔxs uʔ x<sup>w</sup>uy k'l *doors*, k'ʔnwəlq'íps í? *door* uʔ axá? í? q'w'ʔáyqls.

cus k<sup>w</sup>uk<sup>w</sup> “sxʔkinx, q'w'ʔáyqls? nk<sup>w</sup>k<sup>w</sup>ʔac uʔ k<sup>w</sup> cx<sup>w</sup>ylwis?” cut “k<sup>w</sup>[a?] mat cíxəçt.” cúntəm k<sup>w</sup>uk<sup>w</sup> “o, mat lut tí k<sup>w</sup> ʔa cʔíʔən.”

cut k<sup>w</sup>uk<sup>w</sup> “lut. inx'mínk inkəwáp k<sup>w</sup>u aksʔam'tím, tanmús incá lut k<sup>w</sup>u ʔam'tíx<sup>w</sup>. ikskʔacálq<sup>w</sup>əm alá? mi k<sup>w</sup>u ʔam'tíx<sup>w</sup>, ʔk<sup>w</sup>k<sup>w</sup>ʔast mi ik'lí? kn x<sup>w</sup>uy... k'l n*Garcia* kn ksx<sup>w</sup>úya?x, k'l *Johnny Garcia* uʔ l *Merritt*, late way’.”

cúntəm k<sup>w</sup>uk<sup>w</sup> “*sure*. x<sup>w</sup>uyx, x<sup>w</sup>uysk<sup>w</sup> ankəwáp k'l *stockyard* mi ʔamntíx<sup>w</sup>.”

ilí? x<sup>w</sup>uysts í? kəwáps, ʔamntís. n?uʔx<sup>w</sup> k<sup>w</sup>uk<sup>w</sup> uʔ way’ cəíx'ʔtəm í? kscʔíʔəns, í?... *Smokey Tisəm* í? sk<sup>w</sup>ists í? ʔəçç'çá?p í? sáma?.

cúntəm k<sup>w</sup>uk<sup>w</sup> “way’ k<sup>w</sup> ksʔíʔəna?x, way’ cʔíx axá? í?... í? cəíx'ʔtəmən akscʔíʔən.”

cus k<sup>w</sup>uk<sup>w</sup> “cak<sup>w</sup> lut aks-*bother*, way’ núnwí?ts kn ʔíʔən, k<sup>w</sup>u aksk<sup>w</sup>úk<sup>w</sup>stəm.”

ixí? sʔíʔəns í? q'w'ʔáyqls, wi?cín.

cúntəm k<sup>w</sup>uk<sup>w</sup> atá? í? t *settler* ilí? mat “uc k<sup>w</sup>u ksməʔmscúta?x?”

cúntəm k<sup>w</sup>uk<sup>w</sup> i? t q<sup>w</sup>ʔaylqs, “way, we’ll pass the... we’ll pass the time.”

cúntəm k<sup>w</sup>uk<sup>w</sup> “way ʔast.” ixí? sma?mscúts.

cúntəm k<sup>w</sup>uk<sup>w</sup> “mat k<sup>w</sup> ks?ítx, way.”

cut k<sup>w</sup>uk<sup>w</sup> atá? *Smokey Tisem* “way kn ks?ítx, mat nix<sup>w</sup> anwí k<sup>w</sup> ks?ítx.”

ixí? cus, cus k<sup>w</sup>uk<sup>w</sup> “way ilí? mi k<sup>w</sup> ʔqíl x mət alá? incákkn. *Not too close apart.*” cus k<sup>w</sup>uk<sup>w</sup> “*Alright.*”

ixí? scus i? sáma?, “*Who’s going to put the light out?*” uʔ candle k<sup>w</sup>a? i? ʔasəs?áwst, ʔácənt, i? candle i? cík<sup>w</sup>sxəns.

cúntəm k<sup>w</sup>uk<sup>w</sup> atá? t... i? t akłowner i? t citx<sup>w</sup>s “swit úí? ksʔəwntís i? cík<sup>w</sup>sxən?”

cúntəm k<sup>w</sup>uk<sup>w</sup> a? cnk<sup>w</sup>əʔsámaʔs “incá kn nínwíʔs k<sup>w</sup> ʔa? nstilsx kəm anwí k<sup>w</sup> ʔa? nstilsx, wtntix<sup>w</sup>, ʔəwntíx<sup>w</sup>.”

cut k<sup>w</sup>uk<sup>w</sup> “way mi ʔəwntín, *if you are ready, you just say so!*”

*He said “Yes, I’m ready.” The priest said “Yes, I’m ready.” He took his pistol and he shot the candle, and the light went out!*

*He got so scared he never hardly moved. He laid there and listened to him, if he snored, finally he heard him snoring and he got up and he sneaked out. He moved from there to Johnny Garcia’s house. And Johnny Garcia told him when he got there “What’s the matter with you, Father? What did you come so late for?”*

*“Well,” he said “It was still kind of daylight when I come to this next place here and I asked him if I could camp there. And he said to me “alright”, he was good to me, until we was going to bed, and he asked me “Who’s gonna put the light out?” So I told him, I said “You can put it out, I’m ready now.” He said “You sure?” He said “Yes.” Smokey took his pistol and he shot the light and it went out!*

*That’s all!*

## 2.2 Interlinear analysis

- (1) ù kmax i? sáma? i? cawts, i?  
 ù kmax i? sáma? i? √cawt-s i?  
 EMPH only DET white.person DET doings-3POSS DET  
 juwt only the white.person what he.did what

ncəw̄caw̄cín̄təm.  
 n+cw̄•√caw̄=cín-nt-m  
 LOC+RED•repeat=language-DIR-PASS  
 repeated.words

‘This is just what a white person did, what was repeated.’<sup>10</sup>

- (2) k̄im axá? ʔapná? i? sáma? ʔa? k̄cawt  
 k̄im axá? ʔapná? i? sáma? ʔa? k̄-√cawt  
 but DEM now DET white.person COMP POSS-doings  
 but this now the white.person whose doings

i? p iksm̄ȳʔtín,  
 i? p in-ks-√m̄ȳ-ʔt-ín  
 DET 2PL.ABS 1SG.POSS-FUT-tell-APPL.POSS-1SG.ERG DET  
 that you.all I.will.tell.about the

q̄<sup>w</sup>ʔáȳlqs.  
 √q̄<sup>w</sup>ʔáȳ=lqs  
 black=robe  
 priest

‘But now what this white person did is what I’m going to tell you, a priest.’

- (3) t̄l Merritt q̄sápi k<sup>w</sup>a? ití? mat *four or five houses*  
 t̄l Merritt q̄sápi k<sup>w</sup>a? ití? mat four or five houses  
 LOC Merritt long.ago INTERJ DEM EPIS four or five houses  
 from Merritt long.ago there must.be four or five houses

*in Merritt.*  
 in Merritt  
 in Merritt  
 in Merritt

‘A long time ago, there must’ve been four or five houses in Merritt.’

<sup>10</sup>Compare this to the first sentence of previous story. Both stanzas end with headless relatives which refer to the speaking event.

- (4) uł axá? i? settlers atlá? uł kł Aspen Grove  
 uł axá? i? settlers atlá? uł kł Aspen Grove  
 CONJ DEM DET settlers DEM CONJ LOC Aspen Grove  
 and these the settlers from.here over to Aspen Grove

kaʔhá?ms.  
 √kaʔhá?-m-s  
 after.that-MID-3POSS  
 they.went.after.that

‘And these settlers from here and over to Aspen Grove settled there.’

- (5) ixí? cx<sup>w</sup>úyəms ti? q̣<sup>w</sup>ʔaylqs, i? Saturday  
 ixí? c+√x<sup>w</sup>úy-m-s ití? √q̣<sup>w</sup>ʔay=lqs ixí? Saturday  
 DEM CISL+go-MID-3POSS DEM black=robe DEM Saturday  
 then he.came.along just priest the Saturday

məł x<sup>w</sup>uy məł ḳʔaxts i?  
 mł x<sup>w</sup>uy mł √ḳʔa-xt-s i?  
 CONJ go CONJ pray-APPL.BEN-3ERG DET  
 and.then he.went and.then he.prayed.for.them the

səmsáma?  
 sm•√sáma?  
 C<sub>1</sub>C<sub>2</sub>.PL•white.person  
 white.people

‘A priest came along there, it was a Saturday and he went and prayed for the white people up there.’

- (6) ixí? sx<sup>w</sup>uys tl Merritt k<sup>w</sup>uk<sup>w</sup> kł Courtney Lake.  
 ixí? s-√x<sup>w</sup>uy-s tl Merritt k<sup>w</sup>uk<sup>w</sup> kł Courtney Lake  
 then NMLZ-go-3POSS LOC Merritt EVID LOC Courtney Lake  
 then he.went from Merritt they.say to Courtney Lake

‘They say he went from Merritt to Courtney Lake.’<sup>11</sup>

- (7) wiks i? citx<sup>w</sup>, k<sup>w</sup>uk<sup>w</sup> acpəpá?x<sup>w</sup>.  
 √wik-nt-s i? citx<sup>w</sup> k<sup>w</sup>uk<sup>w</sup> ac-p̣•√pá<?>x<sup>w</sup>  
 see-DIR-3ERG DET house EVID STAT-C<sub>1</sub>.RES•shining<INCH>  
 he.saw.it a house they.say it.was.lit.up

‘He saw a house, they say there was a light shining in there.’

<sup>11</sup>Courtney Lake is right off the highway, between Aspen Grove and Merritt.

- (8) cut k<sup>w</sup>uk<sup>w</sup> “atá? way’ myaɫ nk<sup>w</sup>k<sup>w</sup>?ac, way’  
cut k<sup>w</sup>uk<sup>w</sup> atá? way’ myaɫ n+k<sup>w</sup>(•)√k<sup>w</sup>?ac way’  
say EVID DEM yes too.much LOC+late yes  
he.said they.say here yes too dark yes  
ć?uy. way’ alá? iksíwəm axá? i?  
√<ć?>uy way’ alá? in-ks-√síw-əm axá? i?  
dark.<INCH> yes DEM 1SG.POSS-FUT-ask-MID DEM DET  
getting.dark yes here I.will.ask this the  
sáma? uc kn kspúlxa?x.”  
sáma? uc kn ks-√púlxa?x  
white.person DUB 1SG.ABS FUT-camp-INTR  
white.person if I will.camp

‘He said “Now, it is too late, it is getting dark. I will ask this white person here if I can camp here.”’

- (9) ixí? sx<sup>w</sup>uys, k<sup>w</sup>uk<sup>w</sup> ɣacəntís i? nməlk<sup>w</sup>ápa?st  
ixí? s-√x<sup>w</sup>uy-s, k<sup>w</sup>uk<sup>w</sup> √ɣac-nt-ís i? n+√məlk<sup>w</sup>=ápa?st  
DEM NMLZ-go-3POSS EVID tie-DIR-3ERG DET LOC+whole=crotch  
then he.went they.say he.tied.it the stallion  
i? sk<sup>w</sup>inpəla?sqáxa?s.  
i? s-√k<sup>w</sup>in=pla?+s+√qáxa?-s.  
DET NMLZ-take=middle+NMLZ+horse-3POSS  
that he.lead.the.horse

‘He went, and he tied his stud horse up that he was leading along.’

- (10) caŋcɣálxš sic x<sup>w</sup>uy kɫ citx<sup>w</sup>,  
caŋ•√cɣá+lx-s sic x<sup>w</sup>uy kɫ citx<sup>w</sup>  
C<sub>1</sub>C<sub>2</sub>.PL•bathe+AUT-3POSS new go LOC house  
he.washed.himself before he.went to house  
kɫnpuwáps i? sáma?.  
kɫ+n+√puw=áp-s i? sáma?  
DRV+LOC+beat=door-3POSS DET white.person  
he.knocked.on.the.door the white.person

‘He washed before he went to the house, he knocked on the white person’s door.’

- (11) cúntəm k<sup>w</sup>uk<sup>w</sup> “Come in!”  
√cún-nt-m k<sup>w</sup>uk<sup>w</sup> come in  
say-DIR-PASS EVID come in  
he.was.told they.say come in

‘He was told “Come in!”’

- (12) lut t' cnʔuʔx<sup>w</sup>s.  
 lut t' c+n+√ʔuʔx<sup>w</sup>-s  
 NEG NEG.EMPH CISL+LOC+enter-3POSS  
 not he.came.in

‘The priest didn’t come in.’

- (13) nḡəlk, nḡuəpəm, cúntəm k<sup>w</sup>uk<sup>w</sup> “Come in!”  
 n+√ḡəlk, n+√ḡuəpəm=áp-m, √cún-nt-m k<sup>w</sup>uk<sup>w</sup> come in  
 LOC+turn LOC+beat=door-MID say-DIR-PASS EVID come in  
 he.turned he.was.knocking he.was.told they.say come in

‘The priest turned and was knocking, and the settler told him “Come in!”’

- (14) ixíʔ sctíʔxs uʔ x<sup>w</sup>uy k̄l  
 ixíʔ s-c-√tíʔ-x-s uʔ x<sup>w</sup>uy k̄l  
 DEM NMLZ-CUST-stand-INTR-3POSS CONJ go LOC  
 then he.was.standing and he.went to  
 doors, k̄ʔnḡəlk̄íʔs iʔ door uʔ  
 door-s k̄ʔ+n+√wíʔ=íp-s iʔ door uʔ  
 door-3POSS DRV+LOC+open=door-3POSS DET door CONJ  
 his.door he.opened.the.door the door and  
 axáʔ iʔ q̄<sup>w</sup>ʔaylqs.  
 axáʔ iʔ √q̄<sup>w</sup>ʔay=lqs  
 DEM DET black=robe  
 this the priest

‘The settler stood up and went to his door, he opened the door and there was this priest.’

- (15) cus k<sup>w</sup>uk<sup>w</sup> “sxʔkinx, q̄<sup>w</sup>ʔaylqs?  
 √cun-nt-s k<sup>w</sup>uk<sup>w</sup> s-x+√ʔkin-x √q̄<sup>w</sup>ʔay=lqs  
 say-DIR-3ERG EVID NMLZ-DRV+do.what-INTR black=robe  
 he.told.him they.say what.happened priest  
 nk<sup>w</sup>k<sup>w</sup>ʔac uʔ k<sup>w</sup> cx<sup>w</sup>ylwis?  
 n+k<sup>w</sup>(•)√k<sup>w</sup>ʔac uʔ k<sup>w</sup> c-√x<sup>w</sup>y+lwis  
 LOC+late CONJ 2SG.ABS CUST-go+here.and.there  
 late and you are.travelling

‘He told the priest “What happened, priest? It’s late and you’re travelling around!”’

- (16) cut “k<sup>w</sup>[aʔ] mat cíx̄cəxt.”  
 cut k<sup>w</sup> mat cíx̄•√c̄x̄+t  
 say 2SG.ABS EPIS RED•hot+STAT  
 he.said you must.be very.hot

‘He said “You must be hot.”’<sup>12</sup>

- (17) cún̄təm k<sup>w</sup>uk<sup>w</sup> “o, mat lut t̄i k<sup>w</sup>  
 √cún-nt-m k<sup>w</sup>uk<sup>w</sup> o mat lut t̄i k<sup>w</sup>  
 say-DIR-PASS EVID oh EPIS NEG EMPH 2SG.ABS  
 he.was.told they.say oh must.be not just you  
 t̄a cʔíʔən.”  
 t̄a c-√ʔíʔn  
 NEG.EMPH CUST-eat  
 eating

‘The settler said “Oh, you must not have had anything to eat yet.”’<sup>13</sup>

- (18) cut k<sup>w</sup>uk<sup>w</sup> “lut. inx̄mínk inkəwáp k<sup>w</sup>u  
 cut k<sup>w</sup>uk<sup>w</sup> lut in-√x̄mínk in-kwáp k<sup>w</sup>u  
 say EVID NEG 1SG.POSS-want 1SG.POSS-horse 1SG.ABS  
 he.said they.say no I.want my.horse me  
 aksʔamł̄tím, tanmús incá lut  
 an-ks-√ʔamn-ł̄t-ím tanmús incá lut  
 2SG.POSS-FUT-feed-POSS.APPL-MID no.use 1SG.INDEP NEG  
 you.will.feed.him.for it’s.no.use me not  
 k<sup>w</sup>u t̄ ʔamł̄tíx<sup>w</sup>.”  
 k<sup>w</sup>u t̄ √ʔamn-ł̄t-íx<sup>w</sup>  
 1SG.ABS NEG.EMPH feed-POSS.APPL-2SG.ERG  
 me you.will.feed

‘The priest said “No, I want for you to feed my horse for me, there’s no point in you feeding me.”’

<sup>12</sup>Here is another case where *k<sup>w</sup>aʔ* probably conceals a second person subject *k<sup>w</sup>*.

<sup>13</sup>There are several points in this story where the switch-over from active to passive voice does not necessarily correspond to primary vs. secondary discourse participants. At times, it is difficult to know whether it is Smokey or the priest that is talking.

- (19) “iksƙɿacáŋq<sup>w</sup>əm                      aláʔ    mi                      k<sup>w</sup>u  
in-ks-k+√ɿac=áŋq<sup>w</sup>-m                      aláʔ    mi                      k<sup>w</sup>u  
1 SG.POSS-FUT-RES+tie=post-MID    DEM    FUT.COMP    1 SG.ABS  
I.will.tie.it                                      here    before              me
- ʔamɿtix<sup>w</sup>,                                      ʔk<sup>w</sup>k<sup>w</sup>ɿast                                      mi  
√ʔamn-ɿt-ix<sup>w</sup>                                      ʔ(+)<sup>w</sup>k<sup>w</sup>(•)√k<sup>w</sup>ɿas(+)<sup>t</sup>                                      mi  
feed-POSS.APPL-2SG.ERG    morning                                      FUT.COMP  
you.feed                                      morning                                      will
- iklɿʔ    kn                      x<sup>w</sup>uy...    kɿ    nGarcia    kn  
iklɿʔ    kn                      x<sup>w</sup>uy    kɿ    n+Garcia    kn  
DEM    1 SG.ABS    go    LOC    LOC+Garcia    1 SG.ABS  
to.there    I                      go    to    Garcia    I
- ksx<sup>w</sup>úyaʔx,    kɿ    Johnny    Garcia    uʔ    l  
ks-√x<sup>w</sup>úy-aʔx    kɿ    Johnny    Garcia    uʔ    l  
FUT-go-INTR    LOC    Johnny    Garcia    CONJ    LOC  
will.go                      to    Johnny    Garcia    and    at
- Merritt, late way.*  
Merritt, late way  
Merritt late yes  
Merritt late already

‘The priest said “I will tie my horse to the post before you feed me, and in the morning I will go there to Garcia, I will go to Johnny Garcia’s in Merritt, it’s already late.”’<sup>14</sup>

- (20) cúntəm                      k<sup>w</sup>uk<sup>w</sup>    “sure.    x<sup>w</sup>uyx,    x<sup>w</sup>uysk<sup>w</sup>    ankəwáp  
√cún-nt-m                      k<sup>w</sup>uk<sup>w</sup>    sure    √x<sup>w</sup>uy-x    √x<sup>w</sup>uy-sk<sup>w</sup>    an-√kwáp  
say-DIR-PASS    EVID    sure    go-IMP    go-IMP.TR    2SG.POSS-horse  
he.was.told    they.say    sure    go    take.him    your.horse
- kɿ    stockyard    mi                      ʔamntíx<sup>w</sup>.”  
kɿ    stockyard    mi                      √ʔamn-nt-íx<sup>w</sup>  
LOC    stockyard    FUT.COMP    feed-DIR-2SG.ERG  
to    stockyard    and                      you.feed.him

‘The settler said “Sure, go, take your horse to the stockyard and feed him.”’

- (21) ilɿʔ    x<sup>w</sup>uysts                      iʔ    kəwáps,    ʔamntís.  
ilɿʔ    √x<sup>w</sup>uy-st-s                      iʔ    √kwáp-s    √ʔamn-nt-ís  
DEM    go-CAUS-3ERG    DET    horse-3POSS    feed-DIR-3ERG  
at.there    he.took.him                      the    his.horse    he.fed.him

‘Then the priest took his horse, and fed it.’

<sup>14</sup>Garcia is a place up above Merritt, going towards Princeton, between Courtney Lake and Merritt.

- (22) nʔuɬx<sup>w</sup>      k<sup>w</sup>uk<sup>w</sup>      uɬ      way̌      cɛ́ixɬtəm  
 n+√ʔuɬx<sup>w</sup>      k<sup>w</sup>uk<sup>w</sup>      uɬ      way̌      c-√cɛ́ix-ɬt-əm  
 LOC+enter      EVID      CONJ      yes      CUST-warm-POSS.APPL-MID  
 he.went.inside      they.say      and      already      he.was.warming.it.up.for.him

iʔ      kscʔíʔəns,      iʔ...      *Smokey Tisəm*      iʔ  
 iʔ      ks-c-√ʔíʔn-s      ixíʔ      *Smokey Tisəm*      iʔ  
 DET      UPOSS-CUST-eat-3POSS      DEM      *Smokey Tisəm*      DET  
 what      he.was.going.to.eat      it.was      *Smokey Tisəm*      the

sk<sup>w</sup>ists      iʔ      ʔə́xʔxáʔp      iʔ  
 s+√k<sup>w</sup>ist-s      iʔ      ʔx̌•√ʔx̌á+p      iʔ  
 NMLZ+name-3POSS      DET      C<sub>1</sub>C<sub>2</sub>.CHAR•grow+INCH      DET  
 his.name      the      old.man      the

sámaʔ.  
 sámaʔ  
 white.person  
 white.person

‘The priest went inside and he was already warming up what he was going to eat. . . *Smokey Tisəm* was the name of the old white man.’<sup>15</sup>

- (23) cúntəm      k<sup>w</sup>uk<sup>w</sup>      “way̌      k<sup>w</sup>      sʔíʔənaʔx,      way̌  
 √cún-nt-m      k<sup>w</sup>uk<sup>w</sup>      way̌      k<sup>w</sup>      ks-√ʔíʔn-aʔx      way̌  
 say-DIR-PASS      EVID      yes      2SG.ABS      NMLZ-eat-INTR      yes  
 he.was.told      they.say      yes      you      will.eat      already

cʔíx      axáʔ      iʔ...      iʔ      cɛ́ixɬtəmən  
 c<ʔ>íx      axáʔ      iʔ      iʔ      √cɛ́ix-ɬt-m-n  
 hot<INCH>      DEM      DET      DET      hot-POSS.APPL-2SG.OBJ-1SG.ERG  
 hot      this      the      what      I.warmed.it.up.for.you

akscʔíʔən.”  
 an-ks-c-√ʔíʔn  
 2SG.POSS-UPOSS-CUST-eat  
 what.you.will.eat

‘*Smokey* said “Yes, you eat now, it’s hot, I warmed it up for you.”’

<sup>15</sup>The surname *Tisəm* is unusual, and its correct spelling is unclear to me. I render it as close to its phonetic pronunciation as possible.

- (24) cus k<sup>w</sup>uk<sup>w</sup> “cak<sup>w</sup> lut aks-*bother*,  
 √cun-nt-s k<sup>w</sup>uk<sup>w</sup> cak<sup>w</sup> lut an-ks-*bother*  
 say-DIR-3ERG EVID DEON NEG 2SG.POSS-FUT-*bother*  
 he.told.him they.say should not you.will.bother
- waỵ nínwíʔs kn ʔfə̀n, k<sup>w</sup>u  
 waỵ nínwíʔs kn ʔfən k<sup>w</sup>u  
 yes in.a.while 1SG.ABS eat 1SG.ABS  
 yes in.a.while I eat me
- aksk<sup>w</sup>úk<sup>w</sup>stəm.”  
 an-ks-√k<sup>w</sup>úk<sup>w</sup>-st-m  
 2SG.POSS-FUT-do.much.for-CAUS-MID  
 you.do.much.for

‘The priest said “You shouldn’t bother, but I will eat, thank you.”’

- (25) ixíʔ sʔfə̀ns iʔ q̣<sup>w</sup>ʔaylqs, wiʔcín.  
 ixíʔ s-√ʔfən-s iʔ √q̣<sup>w</sup>ʔay=lqs √wiʔ=cín  
 DEM NMLZ-eat-3POSS DET black=robe finish=food  
 then he.ate the priest he.finished.eating

‘Then the priest ate, and he finished eating.’

- (26) cúntəm k<sup>w</sup>uk<sup>w</sup> atáʔ iʔ t settler ilíʔ mat  
 √cún-nt-m k<sup>w</sup>uk<sup>w</sup> atáʔ iʔ t settler ilíʔ mat  
 say-DIR-PASS EVID DEM DET OBL settler DEM EPIS  
 he.was.told they.say at.here the by settler there must.be
- “uc k<sup>w</sup>u ksmaʔmscútaʔx?”  
 uc k<sup>w</sup>u ks-√maʔm-scút-aʔx  
 DUB 1PL.ABS FUT-play.cards-REFL-INCEPT  
 can we will.play.cards

‘The priest was told by this settler there “Can we play cards?”’

- (27) cúntəm k<sup>w</sup>uk<sup>w</sup> iʔ t q̣<sup>w</sup>ʔaylqs, “waỵ, we’ll pass  
 √cún-nt-m k<sup>w</sup>uk<sup>w</sup> iʔ t √q̣<sup>w</sup>ʔay=lqs waỵ we’ll pass  
 say-DIR-PASS EVID DET OBL black=robe yes we’ll pass  
 he.was.told they.say the by priest yes we’ll pass
- the... we’ll pass the time.”  
 the we’ll pass the time  
 the we’ll pass the time  
 the we’ll pass the time

‘The priest told Smokey “Yes, we’ll pass the... we’ll pass the time.”’

- (28) cúntəm k<sup>w</sup>uk<sup>w</sup> “way̌ ǰast.”  
 √cún-nt-m k<sup>w</sup>uk<sup>w</sup> way̌ √ǰas+t  
 say-DIR-PASS EVID yes good+STAT  
 he.was.told they.say yes that’s.good  
 ‘The priest told him “That’s good.”’
- (29) ixíʔ smaʔmscúts.  
 ixíʔ s-√maʔm-scút-s.  
 DEM NMLZ-play.cards-REFL-3POSS  
 and.then they.played.cards  
 ‘And then they played cards.’
- (30) cúntəm k<sup>w</sup>uk<sup>w</sup> “mat k<sup>w</sup> ksʔítx, way̌.”  
 √cún-nt-m k<sup>w</sup>uk<sup>w</sup> mat k<sup>w</sup> ks-√ʔítx way̌  
 say-DIR-PASS EVID EPIS 2SG.ABS have-sleep yes  
 he.was.told they.say must.be you are.sleepy yes  
 ‘The priest told him “You must be sleepy, yeah.”’
- (31) cut k<sup>w</sup>uk<sup>w</sup> atáʔ *Smokey Tisem* “way̌ kn ksʔítx,  
 cut k<sup>w</sup>uk<sup>w</sup> atáʔ *Smokey Tisem* way̌ kn ks-√ʔítx  
 say EVID DEM *Smokey Tisem* yes 1SG.ABS have-sleep  
 he.said they.say here *Smokey Tisem* yes I am.sleepy  
 mat nix<sup>w</sup> anwí k<sup>w</sup> ksʔítx.”  
 mat nix<sup>w</sup> anwí k<sup>w</sup> ks-√ʔítx  
 EPIS also 2SG.INDEP 2SG.ABS have-sleep  
 must.be also you you are.sleepy  
 ‘Then *Smokey Tisem* said “Yes, I’m sleepy, you must be sleepy too.”’
- (32) ixíʔ cus, cus k<sup>w</sup>uk<sup>w</sup> “way̌ ilíʔ mi  
 ixíʔ √cun-nt-s √cun-nt-s k<sup>w</sup>uk<sup>w</sup> way̌ ilíʔ mi  
 DEM say-DIR-3ERG say-DIR-3ERG EVID yes DEM FUT.COMP  
 then he.told.him he.told.him they.say yes there will  
 k<sup>w</sup> ʔq̄ilx mət aláʔ incákn.”  
 k<sup>w</sup> √ʔq̄+ilx mʔ aláʔ incákn  
 2SG.ABS lay.down+AUT CONJ DEM 1SG.INDEP-1SG.ABS  
 you lay.down and.then here I  
 ‘*Smokey* told the priest “You lay down over there and I’ll lay down here.”’
- (33) “*Not too close apart.*” cus k<sup>w</sup>uk<sup>w</sup> “*Alright.*”  
 not too close apart √cun-nt-s k<sup>w</sup>uk<sup>w</sup> alright  
 not too close apart say-DIR-3ERG EVID alright  
 not too close apart he.told.him they.say alright  
 ‘“*Not too close apart.*” *Smokey* told him “That’s alright.”’

- (34) ixíʔ scus iʔ sámaʔ, “Who’s going  
 ixíʔ s-√cun-nt-s iʔ sámaʔ who’s going  
 DEM NMLZ-say-DIR-3ERG DET white.person who’s going  
 then he.told.him the white.person who’s going
- to put the light out?” uʔ candle kʷaʔ  
 to put the light out uʔ candle kʷaʔ  
 to put the light out CONJ candle COMP  
 to put the light out and it.was.a.candle because
- iʔ ʔasəsʔáwst, ʔácənt, iʔ candle iʔ  
 iʔ ʔas(●)s(+)/ʔáw(-)st ʔác-nt iʔ candle iʔ  
 DET old.timers see-DIR DET candle DET  
 what old.timers you.see the candle the
- číʔ<sup>w</sup>sxəns.  
 √číʔ<sup>w</sup>=sxn-s  
 light=round.object-3POSS  
 light

‘Then the priest asked the white guy (Smokey) “Who’s going to put the light out?”, because it was a candle that the old timers, you see, they used candles for lights.’<sup>16</sup>

- (35) cúntəm kʷukʷ atáʔ t... iʔ t akʔowner iʔ  
 √cún-nt-m kʷukʷ atáʔ t iʔ t akʔ-owner iʔ  
 say-DIR-PASS EVID DEM OBL DET OBL have-owner DET  
 he.was.told they.say here by the by owner the
- t citxʷs “swit úfiʔ ksʔəwntís  
 t √citxʷ-s swit úfiʔ ks-√ʔw-nt-ís  
 OBL house-3POSS who CONJ FUT-extinguish-DIR-3ERG  
 of his.house who and.then he.will.put.it.out
- iʔ číʔ<sup>w</sup>sxənʔ”  
 iʔ √číʔ<sup>w</sup>=sxn  
 DET light=round.object  
 the light

‘The owner of the house, Smokey, said “Who’s going to put the light out?”’

<sup>16</sup>I am unsure about the etymology and correct transcription of ʔasəsʔáwst ‘old timers’. Sarah McLeod pronounces the word closer to ʔasəsʔúst.

- (36) cúntəm k<sup>w</sup>uk<sup>w</sup> aʔ cnk<sup>w</sup>ətsámaʔs  
 √cún-nt-m k<sup>w</sup>uk<sup>w</sup> aʔ c-√nk<sup>w</sup>+1+√sámaʔ-s  
 say-DIR-PASS EVID DET CUST-friend+CONJ+white.person-3POSS  
 he.was.told they.say the his.white.friend

“incá kn nínwíʔs k<sup>w</sup> ʔaʔ  
 incá kn nínwíʔs k<sup>w</sup> ʔaʔ  
 1SG.INDEP 1SG.ABS in.a.while 2SG.ABS COMP  
 me I in.a.while you if

nstilsx kəm anwí k<sup>w</sup>  
 n+√st=ils-x km anwí k<sup>w</sup>  
 LOC+think=thoughts-INTR CONJ 2SG.INDEP 2SG.ABS  
 think or you you

ʔaʔ nstilsx, wntix<sup>w</sup>,  
 ʔaʔ n+√st=ils-x √wt-nt-ix<sup>w</sup>  
 COMP LOC+think=thoughts-INTR put-DIR-2SG.ERG  
 if think you.put.it

ʔəwntíx<sup>w</sup>.  
 √ʔw-nt-íx<sup>w</sup>  
 extinguish-DIR-2SG.ERG  
 you.put.it.out

‘Smokey said to his white friend “I will if you think so, or you can if you think so, you put it out.”’

- (37) cut k<sup>w</sup>uk<sup>w</sup> “way mi ʔəwntín, if  
 cut k<sup>w</sup>uk<sup>w</sup> way mi √ʔw-nt-ín if  
 say EVID yes FUT.COMP extinguish-DIR-1SG.ERG if  
 he.said they.say yes will I.put.it.out if

*you are ready, you just say so!*  
 you are ready you just say so  
 you are ready you just say so  
 you are ready you just say so

‘The priest said “Yes, I will put it out, if you are ready, just say so!”’<sup>17</sup>

He said “Yes, I’m ready.” The priest said “Yes, I’m ready.” He took his pistol and he shot the candle, and the light went out!

He got so scared he never hardly moved. He laid there and listened to him, if he snored, finally he heard him snoring and he got up and he sneaked out. He moved from there to Johnny Garcia’s house. And Johnny Garcia told him when he got there “What’s the matter with you, Father? What did you come so late for?”

“Well,” he said “It was still kind of daylight when I come to this next place here and I asked him if I could camp there. And he said to me “Alright”, he was

<sup>17</sup>Nellie Gutierrez switches to English for the rest of the narrative.

good to me, until we was going to bed, and he asked me “Who’s gonna put the light out?” So I told him, I said “You can put it out, I’m ready now.” He said “You sure?” He said “Yes.” Smokey took his pistol and he shot the light and it went out!

That’s all!

### 3 The four brothers story (kmúsməs iʔ snɔʔiws smiʔmáɣ)

This story was told by Kiláwnaʔ (Andrew McGinnis), of the Penticton Indian Reserve in Penticton, BC, on October 9, 2014. It was transcribed and translated by John Lyon and Sʔímlaʔx<sup>w</sup> (Michele K. Johnson), with Kiláwnaʔ. The story appears in an unanalyzed form in *iʔ ʔəxəxʔáap iʔ smaʔmáɣ*’s “Our Elders’ Stories”, edited by Sʔímlaʔx<sup>w</sup> (Johnson 2015). Sarah McLeod and Lottie Lindley helped me with transcribing and translating this version.

Kiláwnaʔ originally heard the story from Nx<sup>w</sup>ímkn (Harry Robinson).

#### 3.1 Okanagan

isk<sup>w</sup>íst kiʔláwnaʔ. ismsámaʔ sk<sup>w</sup>íst *Andrew McGinnis*. kiw<sup>w</sup> kn ksmáɣmíxaʔx ixíʔ ɔsáɣpi t smaʔmáɣ.

way<sup>w</sup> aláʔ ʔə tax<sup>w</sup>sámaʔ, iʔ ylmíx<sup>w</sup>əm, kmúsməs iʔ tɪ sq<sup>w</sup>síʔs. ʔəʔʔəʔənləx iʔ l sklax<sup>w</sup>, wiʔwiʔcínləx. cus iʔ sq<sup>w</sup>sq<sup>w</sup>asíʔaʔs, “ʔaʔ ʔəlap p iksq<sup>w</sup>əlq<sup>w</sup>ílstəm, ʔk<sup>w</sup>k<sup>w</sup>ʔast. x<sup>w</sup>uyx, púlxiw!”

way... pulx iʔ sq<sup>w</sup>sq<sup>w</sup>asíʔaʔs. ʔəlap k<sup>w</sup>k<sup>w</sup>ʔast, cʔəʔʔəʔənləx, wiʔwiʔcínləx. cut iʔ ylmíx<sup>w</sup>əm “way<sup>w</sup> ʔast p iksk<sup>w</sup>əlkw<sup>w</sup>ílstəm iʔ t təmx<sup>w</sup>úlaʔx<sup>w</sup>. iʔ sxʔitx, k<sup>w</sup> x<sup>w</sup>uy tac k<sup>w</sup> nʔíʔlɪtk, lk<sup>w</sup>u.....t. mypnúntx<sup>w</sup> stiɰ aʔ ckw<sup>w</sup>úlsəlx yaʔyaʔʔt, x<sup>w</sup>ʔit aksmɣpənwiʔə. nuk<sup>w</sup>spíntk mi p ʔcyaʔp aláʔ. uʔ iʔ knaqs k<sup>w</sup> wtímtk, ixíʔ iklíʔ k<sup>w</sup> x<sup>w</sup>uy, lk<sup>w</sup>ut. mypnúntx<sup>w</sup> stiɰ aʔ ckw<sup>w</sup>úlsəlx, nuk<sup>w</sup>spíntk. uʔ iʔ knaqs tac k<sup>w</sup> sklax<sup>w</sup>tan. t k<sup>w</sup> x<sup>w</sup>u.....y lk<sup>w</sup>ut. mypnúntx<sup>w</sup> yaʔ.....t aʔ ckw<sup>w</sup>úlsəlx.” uʔ iʔ tətwiʔ iʔ stʔíwtaʔx, cut “k<sup>w</sup> x<sup>w</sup>uy tac k<sup>w</sup> sk<sup>w</sup>əʔptaɰ. lk<sup>w</sup>ut aksx<sup>w</sup>uy, yaʔ.....t mypnúntx<sup>w</sup> stiɰ.” cut “way<sup>w</sup>.”

ixíʔ sx<sup>w</sup>úysəlx. x<sup>w</sup>ú.....yləx, x<sup>w</sup>úyləx lk<sup>w</sup>ák<sup>w</sup>əlx, mypnúsəlx.

ixíʔ iʔ sxʔitx tac k<sup>w</sup> nʔíʔlɪtk. kic iʔ sckw<sup>w</sup>əlstəmʔáltəm, nkʔəcaʔsqáʔaʔ. ixíʔ ilíʔ iʔ sk<sup>w</sup>úlsəms. yaʔ.....t iʔ stiɰ mypnús, t ksqəysqáʔaʔs yaʔt, k<sup>w</sup>x<sup>w</sup>sqáʔaʔ. yaʔt iʔ stiɰ mypnús iʔ k<sup>w</sup> stəmʔált, iʔ k<sup>w</sup> sənkləcaʔsqáʔaʔ. nuk<sup>w</sup>spíntk.

uʔ iʔ knaqs iʔ tətwiʔ x<sup>w</sup>uy, tac k<sup>w</sup> wtímtk. kic aʔ ckw<sup>w</sup>ánʔqam, scəcəmáʔaʔq. ixíʔ yaʔ.....t mypnús, yaʔt iʔ stiɰ iʔ k<sup>w</sup> scəcəmáʔaʔq. t ksk<sup>w</sup>úlsəms itíʔ, k<sup>w</sup>úlsəms iʔ... ʔaʔ ksnləqíwəsəm iʔ sk<sup>w</sup>ánʔq mi plal t ʔast. aks... t siwʔk<sup>w</sup>, nʔísusəm, cʔxiʔ taʔkín iʔ ksnʔísusəm mi ʔast. lut ʔa myaʔ ksx<sup>w</sup>ʔíts.

uþ i? knaqs tac kl sklx<sup>w</sup>tan. x<sup>w</sup>u<sup>.....</sup>y lk<sup>w</sup>ut, ya<sup>...ŷ</sup>t i? sti<sup>m</sup>  
mynús iklí?.

uþ i? tət<sup>wít</sup> i? stʔíwtaʔx, x<sup>w</sup>uyx i? kl ksx<sup>w</sup>uys. lk<sup>w</sup>u<sup>.....</sup>t.  
keníwsəs i? kwkáwpoy, i? cnáq<sup>w</sup>xəlx. ilíʔ ksnxíyəm. taft ya<sup>...ŷ</sup>t  
i? sti<sup>m</sup> náq<sup>w</sup>əmsəlx. taft xʔit, xʔit i? snaq<sup>w</sup>. ixíʔ yaʔyá<sup>...ŷ</sup>t mypnús  
i? tət<sup>wít</sup>, snaq<sup>w</sup>.

taft uþ nuk<sup>w</sup>spíntk ət cx<sup>w</sup>yx<sup>w</sup>úyləx. i? tət<sup>wít</sup>, taft ki? cniyíls,  
kíkəm ksníptəm i? spənʔkín mi t<sup>x</sup>uyləx. ilí<sup>...ʔ</sup>, “ax! way<sup>ʔ</sup> kn  
k<sup>t</sup>x<sup>w</sup>úyaʔx.” ət t<sup>x</sup>uyləx, t<sup>i</sup> k<sup>t</sup>q<sup>w</sup>tí<sup>w</sup>waʔs i? l kəwáps, səpsqáxaʔ.  
cəlsqáxaʔ, i? kəwáps t<sup>x</sup><sup>w</sup>úsəcaʔ, taft ʔáy<sup>x</sup><sup>w</sup>t i? kəwáps. x<sup>w</sup>uy kl  
səntəwstsqáxaʔtən, tliʔ kiʔ sk<sup>w</sup>ums i? n<sup>c</sup>əlq<sup>w</sup>iʔsqáxaʔtəns. nʔut<sup>x</sup><sup>w</sup>.  
way<sup>ʔ</sup>, way<sup>ʔ</sup> yáʔtəlx yáʔpəlx.

cut i? ylmíx<sup>w</sup>əm, “way<sup>ʔ</sup> límləmt p t<sup>c</sup>yaʔp. hahúy, púl<sup>x</sup>wi! nus  
kiʔ xlap mi p máy<sup>n</sup>cut, k<sup>w</sup>u t<sup>i</sup> wiʔwiʔcín.” ixíʔ i? tət<sup>wít</sup> taʔlíʔ kínt,  
way<sup>ʔ</sup>. ixíʔ sʔətxílsəlx.

xlap t<sup>k</sup><sup>w</sup>k<sup>w</sup>ʔast, ʔəʔʔíʔənləx, wiʔwiʔcínləx. cus i? sxʔitx, “k<sup>w</sup>  
x<sup>w</sup>uy, máy<sup>n</sup>cútaʔx! sti<sup>m</sup> ascmypnwíʔən anwíʔ?” cut “way<sup>ʔ</sup>, ah kn  
x<sup>w</sup>u<sup>.....</sup>y kl lk<sup>w</sup>ut. keníwsən aʔ c<sup>k</sup><sup>w</sup>əlstəmíʔáltəm i? stəmíʔalts, i?  
nk<sup>t</sup>caʔsqáxaʔ, yaʔt ixíʔ. ilíʔ kn k<sup>w</sup>úləm. taft mypnun ya<sup>...ŷ</sup>t i? sti<sup>m</sup>  
i? ksxʔkínəm i? stəmíʔált i? sən<sup>k</sup>caʔsqáxaʔ. ilíʔ iks<sup>k</sup><sup>w</sup>x<sup>w</sup>sqáxaʔm  
uþ iksʔəʔamnəlx uþ ixíʔ yaʔt mypnun.” cut i? ylmíx<sup>w</sup>əm, “ah,  
way<sup>ʔ</sup> xast ascmypnwíʔən.”

itlíʔ knaqs, k<sup>ʔ</sup> wtímtk kiʔ x<sup>w</sup>uy. cut, “kn x<sup>w</sup>uy k<sup>ʔ</sup> wtímtk kl  
lk<sup>w</sup>u<sup>...t</sup>. keníwsən i? scəcəməʔaʔqaʔx, k<sup>w</sup>án<sup>t</sup>qám. yaʔt i? sti<sup>m</sup>  
mypnun, i? liplí, patáks, haʔyk<sup>w</sup>, s<sup>x</sup>úk<sup>w</sup>əm.” cut, “mypnun i?  
liplí iklíʔ kaʔ c<sup>k</sup><sup>w</sup>úləmsəlx... yaʔt taʔlíʔ xast. uþ i? lawán.  
mypnun iklíʔ kaʔ c<sup>k</sup><sup>w</sup>úləmsəlx i? la... i? sc<sup>k</sup><sup>w</sup>úləmsəlx t lkalát.  
ixíʔ yaʔt iscmypənwíʔən.” cut i? ylmíx<sup>w</sup>əm, “ah way<sup>ʔ</sup>, taft xast  
ascmypnwíʔən.”

cus i? tət<sup>wít</sup>, “hahuy! anwí ascmypnwíʔən?” mu<sup>...t</sup> i?  
tət<sup>wít</sup>. cut, “way<sup>ʔ</sup>. way<sup>ʔ</sup> t<sup>ə</sup>x<sup>w</sup> aʔiʔ kn ks<sup>m</sup>áy<sup>n</sup>cútaʔx. lut t<sup>ʔ</sup> xast  
iscmypnwíʔən.” cut, “kn x<sup>w</sup>u<sup>.....</sup>y lk<sup>w</sup>ut, keníwsən i? kəwkáwboy,  
x<sup>w</sup>ʔítəlx. náq<sup>w</sup>əms i? cnáq<sup>w</sup>xəlx. taft xʔítəlx i? l snaq<sup>w</sup>. t<sup>i</sup>  
i? xiʔmíx sti<sup>m</sup> uþ x<sup>m</sup>ínksəlx uþ náq<sup>w</sup>əmsəlx. taft xʔítləx. ixíʔ  
iscmypnwíʔən.”

mu<sup>...t</sup> i? ylmíx<sup>w</sup>əm, taft uþ picx<sup>w</sup>t. cut “way<sup>ʔ</sup>. taʔlíʔ k<sup>w</sup>  
cnáq<sup>w</sup> xʔít.” “ax, ki<sup>w</sup>”, cut. cut, “way<sup>ʔ</sup> xast, t<sup>ə</sup>x<sup>w</sup> way<sup>ʔ</sup>, taʔlíʔ  
qílt ispuʔús. inkəwáp i? s<sup>x</sup>əxsqáxaʔs, cnʔac i? t n<sup>t</sup>əwstsqáxaʔtən.  
ixíʔ aksnáq<sup>w</sup>əminəm l nk<sup>w</sup>k<sup>w</sup>ʔac. lut t<sup>ʔ</sup> náq<sup>w</sup>əməntx<sup>w</sup>, xlap k<sup>w</sup>

ikfáciwsəm.” cut i? tətwtít, “way íxí? nínwí?ns náq<sup>w</sup>əmən.”

nk<sup>w</sup>k<sup>w</sup>?ac i? ylmíx<sup>w</sup>əm i? səx<sup>w</sup>k<sup>w</sup>əlk<sup>w</sup>úfəms, x<sup>w</sup>?it ałí? x<sup>w</sup>úyləx i? l səntəwstsqáxa?tən uł xəlxlákəkəlx. i? knaqs kámтіws, i? knaqs i? tk<sup>w</sup>ənk<sup>w</sup>ínplá?ns, i? knaqs tk<sup>w</sup>ənk<sup>w</sup>ínpst. “ah... tı k<sup>w</sup>a? x?kínəm axá? mi náq<sup>w</sup>əms? tk<sup>w</sup>ənk<sup>w</sup>ínx? íxí? knaqs, íxí? knaqs. ya...?t uł tałt way lut, way kn kfacíwsəm isq<sup>w</sup>sí?a?, áłi? way cun.” íxí? x<sup>w</sup>u...y uł ?itx.

i? tətwtít lut t? ?itx, kłax<sup>w</sup> way. nt?qpəncútx kł səntəq<sup>w</sup>mín. ilí? kylwíca? i? ylmíx<sup>w</sup>əm i? sc<sup>w</sup>úfłs i? wine. íxí? k<sup>w</sup>í...lks uł kł səntəwstsqáxa?tən, ká?ítət. nčx<sup>w</sup>ám, íxí? skłłəqłáqəłqs. x<sup>w</sup>uy i? tətwtít, n?ułx<sup>w</sup> kł səntəwstsqáxa?tən. cúsəlx, “k<sup>w</sup> səx?kína?x?” cut, “isnixł ksnáq<sup>w</sup>əmisəlx ya?xís i? sənkłca?sqáxa?. alá? p ikskənxítəm i? txtəntím.” “ah, way xst” cut, “k<sup>w</sup> mutx.”

mut i? tətwtít, aclkapúh. ?ayxáxa?, sí...swst uł... ?ayxáxa? uł síswst. cúsəlx “stím íxí?” “íxí? wine k<sup>w</sup>a?” “tla? k<sup>w</sup>u sa?siwst, k<sup>w</sup>u máyxtwíx<sup>w</sup> uł xlap.” o, uł nxłíksisłx, íxí? nkáwsəlx. cut “way kím i? naqs axá?” íxí? nix<sup>w</sup> nxłíksisłx. o, íxí? nkáwsəlx, íxí? uł way. máyxtwíx<sup>w</sup>əlx, xst i? spu?úsəlx. cutəlx “ha k<sup>w</sup> kłnix<sup>w</sup>?” cut “lut. kł tkəmknitx<sup>w</sup> i? kylwíca?, íxí? cn?úłx<sup>w</sup>stəm alá? kłwíwsəntəm, íxí? uł ksxəlpstím.” cútləx “way.” ck<sup>w</sup>ilł i? kylwíca?, kłwíwsisəlx. kłx<sup>w</sup>il i? wínesəlx. sa?síwsisəlx, sa?síwsisəlx. xst i? spu?úsəlx. q<sup>w</sup>a?f<sup>w</sup>áfləx.

íxí...? uł ?ətxílxəlx. axá? i? kámтіws, yax<sup>w</sup>t i? tl kəwáps. a? ck<sup>w</sup>ənk<sup>w</sup>ínpst, ilí? uł scəqaqínk. uł axá? tk<sup>w</sup>ənk<sup>w</sup>ínpla?ns, íxí? nix<sup>w</sup> axá? yax<sup>w</sup>t. yaft ?ətxílxəlx. íxí? k<sup>w</sup>is i? kəwáps, i? sənkłca?sqáxa?. x<sup>w</sup>uysts k nscícu? ki? fácəntis. íxí? ki? x<sup>w</sup>uy uł fłqíləx.

łk<sup>w</sup>k<sup>w</sup>?ast. íxí? ylmíx<sup>w</sup>əm k?awsfács i? kəwáps. axá? i? kámтіws, kámтіws i? l kylwíca?. sta?xíləm “whoa...?” uł yax<sup>w</sup>t. axá? tk<sup>w</sup>ənk<sup>w</sup>ínpla?ns, íxí? nix<sup>w</sup>... ta...táłt picx<sup>w</sup>t, x<sup>w</sup>uy uł kiex. ?ayxáxa? uł sa<sup>w</sup>t i? tətwtít. cut “ankəwáp, k nscícu? ki? fəcəntín, xá?antík<sup>w</sup> ła? aspu?ús!” tałt picx<sup>w</sup>t i? ylmíx<sup>w</sup>əm. xá?ntís i? kəwáps uł tałt... .

?íłən, wi?cín, wi?wi?cínłəx. “way nak<sup>w</sup>əm ta?lí? k<sup>w</sup> nq<sup>w</sup>nq<sup>w</sup>múł,” cut, “ka?fís kím ?asíl ascnáq<sup>w</sup>. ?apná? sənk<sup>w</sup>k<sup>w</sup>?ac inkłyx<sup>w</sup>tíca?, inkłyx<sup>w</sup>tíca? k<sup>w</sup>u aksnáq<sup>w</sup>əməłtəm.” “oh, way, íxí? nínwí?ns náq<sup>w</sup>əməłtsən.”

na?ł tkłmilx<sup>w</sup>s fłqəlfləlx. “tı k<sup>w</sup>a? scx?kínx mi k<sup>w</sup>u náq<sup>w</sup>əms axá? inkłyx<sup>w</sup>tíca?? ilí? kn fłqíləx, nk<sup>w</sup>k<sup>w</sup>?ác.” nk<sup>w</sup>k<sup>w</sup>?ac íxí? i...?. . . mat scx?kínx?

ixí? ?ácqa? í? ylmíx<sup>w</sup>əm, nłəx<sup>w</sup>ꝑam í? tətúwít. cus í? tkłmílx<sup>w</sup> í? ylmíx<sup>w</sup>əm “kałáxəx! iksk<sup>w</sup>aním axá? í? kłyx<sup>w</sup>tíca?. ití? mi kylx<sup>w</sup>íca?n í? tətúwít, way<sup>ꝑ</sup> púlstən.” ta?xíləm, kłcək<sup>w</sup>əntís í? kłyx<sup>w</sup>tíca?, ?ácqa?.

ixí? cn?ułx<sup>w</sup> í? ylmíx<sup>w</sup>əm, ksłqłlxa?x. “x?kínəm ikłyx<sup>w</sup>tíca??” “k<sup>w</sup>a? k<sup>w</sup> scútxa?x kylx<sup>w</sup>íca?m isq<sup>w</sup>sí?, way<sup>ꝑ</sup> pulstx<sup>w</sup>.” “ahahahaha”, tı cut. “luta? c?xílstən ití?.” pícx<sup>w</sup>t, way<sup>ꝑ</sup> náq<sup>w</sup>əms í? kłyx<sup>w</sup>tíca?. ixí? łqłlx uł ?ítx.

łlap ?əł?łłənłəx, í? tətúwít ?łłən, tı sal. tałt pícx<sup>w</sup>t í? ylmíx<sup>w</sup>əm. tałt nq<sup>w</sup>nq<sup>w</sup>múł í? sq<sup>w</sup>sí?s. cus “way<sup>ꝑ</sup>. ?apná? nk<sup>w</sup>k<sup>w</sup>?ac í? sənkałmən, lut lk<sup>w</sup>ut ití?” cut “aksnáq<sup>w</sup>əminem í? q<sup>w</sup>?aylqs. tałt ksqłłtkəm.” “lut t<sup>ꝑ</sup> yałt í? təmtəmútəns, x<sup>w</sup>təłscút, x<sup>w</sup>təłscút mi k<sup>w</sup>intx<sup>w</sup>.” cut “way<sup>ꝑ</sup>.”

nínwí?s ixí? kłax<sup>w</sup>, ixí? x<sup>w</sup>uy uł łqłłəx. nk<sup>w</sup>k<sup>w</sup>?ac... mat way<sup>ꝑ</sup> l ?ásil í? słlaps... í? sənkałmən lut lk<sup>w</sup>ut. x<sup>w</sup>əłpəncút l sənkałmən. kłıkłíks í? cłk<sup>w</sup>scən, yałt t nꝑ?ax<sup>w</sup> í? sənkałmən. xəcməncút í? t q<sup>w</sup>?aylqs í? təmtəmútəns. ixí? q<sup>w</sup>?aylqs x<sup>w</sup>uy ?ácqa?. “ax! cnꝑ?ax<sup>w</sup> í? sənkałmən! scx?kínəx?” x<sup>w</sup>əłpəncút ikłí?, n?ułx<sup>w</sup>.

ixí? í? tətúwít a? cł?am. tac?xłł. scx<sup>w</sup>uys í? q<sup>w</sup>?aylqs, í? tətúwít ?áxəłmncut, ?aymíwsntm. tı łłap ixí? q<sup>w</sup>yq<sup>w</sup>yxínəms. ixí? uł kł?am í? tətúwít. ?áxəłməncut, cus í? q<sup>w</sup>?aylqs “cx<sup>w</sup>uyx alá?!” q<sup>w</sup>?aylqs x<sup>w</sup>uy alá?, q<sup>w</sup>yq<sup>w</sup>yxínəm. cúntəm t tətúwít “təłtáłt kí? k<sup>w</sup> xast t q<sup>w</sup>?aylqs. k<sup>w</sup>úłəntx<sup>w</sup> ask<sup>w</sup>úł alá? í? l təmx<sup>w</sup>úla?x<sup>w</sup>. ixí? ck<sup>w</sup>úłstəmən, k<sup>w</sup> isk<sup>w</sup>əłstíłən áłi? ta?łí? k<sup>w</sup> xast t q<sup>w</sup>?aylqs.” ixí? uł q<sup>w</sup>əłq<sup>w</sup>łłsts. cut “way<sup>ꝑ</sup>, k<sup>w</sup> iksx<sup>w</sup>úystəm k<sup>w</sup> nwlst. tı yał k<sup>w</sup> ksqłłtkəm mi x<sup>w</sup>úystəmən, way<sup>ꝑ</sup> mat k<sup>w</sup> xast t q<sup>w</sup>?aylqs. yałyałłt astəmtím x<sup>w</sup>ılstx<sup>w</sup> alá?” x<sup>w</sup>ılsts, kłtəməlx<sup>w</sup>ncút í? q<sup>w</sup>?aylqs, n?amúts í? l łáqna?. q<sup>w</sup>íłtəm kł sənklkłáka?łən, kí? kłəx<sup>w</sup>pəntís. ixí? uł x<sup>w</sup>uy łqłłəx.

łk<sup>w</sup>k<sup>w</sup>?ast, ixí? í? likók q<sup>w</sup>əłq<sup>w</sup>łłt. “ax, way<sup>ꝑ</sup> kn kicx!”

ılí? uł ?əł?łłənłəx l łk<sup>w</sup>k<sup>w</sup>?ast. cus a? l?íws, “way<sup>ꝑ</sup>, x<sup>w</sup>uyx kł sənklkłáka?łən mi k<sup>w</sup>xəntíx<sup>w</sup> í? q<sup>w</sup>?aylqs, mat way<sup>ꝑ</sup> kłyt!” o, tałt uł kłyt. x<sup>w</sup>uy, axá? ckłax<sup>w</sup>p í? q<sup>w</sup>?aylqs í? l sənklkłáka?łən. tł<sup>w</sup>əłntis, tıłx í? q<sup>w</sup>?aylqs, “ha k<sup>w</sup>u yałp?” “k<sup>w</sup>u yałp! kłw, isq<sup>w</sup>sí?a? ck?xłlməstəms!”

ixí? x<sup>w</sup>uy, ?łłən, ?əł?łłənłəx. nstils “í? q<sup>w</sup>?aylqs, way<sup>ꝑ</sup> úłi? way<sup>ꝑ</sup> way<sup>ꝑ</sup>, ka?łís.” cus í? tətúwít “way<sup>ꝑ</sup>, way<sup>ꝑ</sup> k<sup>w</sup> x<sup>w</sup>up, way<sup>ꝑ</sup> k<sup>w</sup>u x<sup>w</sup>úpəntx<sup>w</sup>.”

ixí? kí? way<sup>ꝑ</sup> ismáymáy. isk<sup>w</sup>íst kí?łáwna?.

### 3.2 Interlinear analysis

- (1) isk<sup>w</sup>íst                      kiʔláwnaʔ.  
 in-s(+)<sub>√</sub>k<sup>w</sup>íst              kiʔláwnaʔ  
 1SG.POSS-name    grizzly.bear  
 my.name                      grizzly.bear  
 ‘My name is Grizzly Bear.’

- (2) ismsámaʔ                                      sk<sup>w</sup>íst              *Andrew McGinnis.*  
 in-sm•<sub>√</sub>sámaʔ                                      s(+)<sub>√</sub>k<sup>w</sup>íst    Andrew    McGinnis  
 1SG.POSS-C<sub>1</sub>C<sub>2</sub>.PL•white.person    name              Andrew    McGinnis  
 my.white.person’s                                      name              Andrew    McGinnis  
 ‘My white person’s name is Andrew McGinnis.’

- (3) kiw̃    kn                      ksmaʔmíxaʔx                      ixíʔ    q̣sá••pi    t  
 kiw̃    kn                      ks-<sub>√</sub>maʔ-míxaʔx                      ixíʔ    q̣sápi    t  
 yes    1SG.ABS    FUT-tell-INCEPT                      DEM    long.ago    OBL  
 yes    I                      am.going.to.tell.about    this    long.ago  
  
 smaʔmáy.  
 s+maʔ•<sub>√</sub>máy  
 NMLZ+C<sub>1</sub>C<sub>2</sub>.PL•tell  
 story

‘Yes, I’m going to tell you an old time story.’

- (4) waỹ    aláʔ    ʔə                      tax<sup>w</sup>sámaʔ,                      iʔ    ylmíx<sup>w</sup>əm,    kmúsməs  
 waỹ    aláʔ    ʔ                      tax<sup>w</sup>+<sub>√</sub>sámaʔ                      iʔ    ylmíx<sup>w</sup>m,    k(+)<sub>√</sub>mús(•)<sub>√</sub>ms  
 yes    DEM    before    have+white.person    DET    chief              four[human]  
 yes    here    before    with.white.people    the    chief              four  
  
 iʔ    tl                      sq<sup>w</sup>síʔs.  
 iʔ    tl                      s+<sub>√</sub>q<sup>w</sup>síʔ-s  
 DET    LOC    NMLZ+son-3POSS  
 the    from    his.sons

‘Here, before the white people came, there was a chief, he had four sons.’

- (5) ʔəʔʔənləx                      iʔ    l                      sklax<sup>w</sup>,                      wiʔwiʔcínləx.  
 ʔə<sub>√</sub>ʔʔənl-x                      iʔ    l                      s+<sub>√</sub>klax<sup>w</sup>,                      wiʔ•<sub>√</sub>wiʔ=cín-lx.  
 C<sub>1</sub>C<sub>2</sub>.PL•eat-3PL    DET    LOC    NMLZ+evening    C<sub>1</sub>C<sub>2</sub>.PL•finish=food-3PL  
 they.ate                      the    in    evening                      they.finished.eating

‘They had supper and finished eating.’

- (6) cus iʔ sq<sup>w</sup>sq<sup>w</sup>asíʔaʔs, “ʔaʔ  
 √cun-nt-s iʔ s+q<sup>w</sup>s•√q<sup>w</sup>asíʔ+aʔ-s, ʔaʔ  
 say-DIR-3ERG DET NMLZ+C<sub>1</sub>C<sub>2</sub>.PL•son+DRV-3POSS COMP  
 he.told.them the his.sons when
- ǰlap p iksq<sup>w</sup>əlq<sup>w</sup>ílstəm,  
 ǰlap p in-ks-q<sup>w</sup>l•√q<sup>w</sup>íl-st-m  
 tomorrow 2PL.ABS 1SG.POSS-FUT-C<sub>1</sub>C<sub>2</sub>.PL•speak-CAUS-MID  
 tomorrow you.all I.will.talk.to
- ʔk<sup>w</sup>k<sup>w</sup>ʔast.”  
 ʔ(+k<sup>w</sup>(•)√k<sup>w</sup>ʔas(+t)  
 morning  
 morning

‘He told his sons, “Tomorrow I’m going to talk to you all, in the morning.”’

- (7) “x<sup>w</sup>uyx, púlxiwi!”  
 √x<sup>w</sup>uy-x √púlxi-wi  
 go-IMP go.to.bed-PL  
 go go.to.bed  
 ‘“Go on, go to bed!”’

- (8) way̌... pulx iʔ sq<sup>w</sup>sq<sup>w</sup>asíʔaʔs.  
 way̌ pulx iʔ s+q<sup>w</sup>s•√q<sup>w</sup>asíʔ+aʔ-s  
 yes go.to.bed DET NMLZ+C<sub>1</sub>C<sub>2</sub>.PL•son+DRV-3POSS  
 yes go.to.bed the his.sons  
 ‘His sons went to bed.’

- (9) ǰlap k<sup>w</sup>k<sup>w</sup>ʔast, cʔaʔʔíʔənləx,  
 ǰlap ʔ(+k<sup>w</sup>(•)√k<sup>w</sup>ʔas(+t) c-ʔaʔ•√ʔíʔn-lx  
 tomorrow morning CUST-C<sub>1</sub>C<sub>2</sub>.PL•eat-3PL  
 next.day morning they.were.eating
- wíʔwiʔcínləx.  
 wíʔ•√wíʔ=cín-lx.  
 C<sub>1</sub>C<sub>2</sub>.PL•finish=food-3PL  
 they.finished.eating

‘The next morning, they were eating, and they finished eating.’

- (10) cut iʔ ylmíx<sup>w</sup>əm “way<sup>ʔ</sup> ǰast p  
cut iʔ ylmíx<sup>w</sup>m way<sup>ʔ</sup> √ǰas+t p  
say DET chief yes good+STAT 2PL.ABS  
said the chief yes good you.all  
iks<sup>w</sup>əlk<sup>w</sup>úlštəm iʔ t təmx<sup>w</sup>úlaʔx<sup>w</sup>.”  
in-ks-k<sup>w</sup>l•√k<sup>w</sup>úl(-)st-m iʔ t √tmx<sup>w</sup>=úlaʔx<sup>w</sup>  
1SG.POSS-C<sub>1</sub>C<sub>2</sub>.PL•send-MID DET OBL land=land  
I.will.send.out.to.work the with land

‘The chief said “Yes, it’d be good if I sent you out into the world.”’

- (11) “iʔ sxʔitx, k<sup>w</sup> x<sup>w</sup>uy tac k̄ nʔǰl̄tk,  
iʔ s+√xʔit-x k<sup>w</sup> x<sup>w</sup>uy tac k̄l n+√ʔǰl̄l(=)tk  
DET NMLZ+first-INTR 2SG.ABS go over LOC LOC+north  
the oldest you go over to north  
lk<sup>w</sup>u<sup>w</sup>……t.”  
√lk<sup>w</sup>=ut  
far=place  
far.away

‘“The oldest one, you go over to the north, a long long way.”’

- (12) “mypnúntx<sup>w</sup> stím aʔ  
√my+p-nú-nt-x<sup>w</sup> stím aʔ  
know+INCH-manage.to-DIR-2SG.ERG what DET  
you.find.out what  
ck<sup>w</sup>úlsəlx yaʔyaʔt, x<sup>w</sup>ʔit  
c-√k<sup>w</sup>úls-slx yaʔ•√yaʔt x<sup>w</sup>ʔit  
CUST-work-CAUS-3PL.ERG C<sub>1</sub>C<sub>2</sub>.PL•gather+STAT many  
they.are.working.at everything much  
aksmypənwf̄ən.”  
an-ks-√my+p=nwf̄n  
2SG.POSS-FUT-know+INCH=information  
you.will.learn

‘“You find out what everyone is working at, you’ll learn a lot of new things.”’

- (13) “nuk<sup>w</sup>spíntk mi p ʔcyaʔp  
nuk<sup>w</sup>+s+√pín(=)tk mi p ʔ+c+√yaʔ+p  
one+NMLZ+year COMP.FUT 2PL.ABS return+CISL+gather+INCH  
one.year before you.all come.back  
aláʔ.”  
aláʔ  
DEM  
here

‘“In a year’s time, you all come back here again.”’

- (14) “uł i? knaqs ḳ wtímtk, xi? ḳli? k<sup>w</sup>  
uł i? k(+) $\sqrt$ naqs ḳl  $\sqrt$ wtím(=)tk ixí? iḳlí? k<sup>w</sup>  
CONJ DET one[HUMAN] LOC south DEM DEM 2SG.ABS  
and the one to south then to.there you

x<sup>w</sup>uy, lk<sup>w</sup>ut.”  
x<sup>w</sup>uy  $\sqrt$ lk<sup>w</sup>=ut  
go far=place  
go far.away

““And one will go to the south, you go really far over there.””

- (15) “mynnúntx<sup>w</sup> stím a?  
 $\sqrt$ my+p-nú-nt-x<sup>w</sup> stím a?  
know+INCH-manage.to-DIR-2SG.ERG what DET  
you.find.out what

ck<sup>w</sup>úlsəlx, nuk<sup>l</sup>wspíntk.”  
c- $\sqrt$ k<sup>w</sup>úł-st-slx nuk<sup>l</sup>w+s+ $\sqrt$ pín(=)tk  
CUST-work-CAUS-3PL.ERG one+NMLZ+year  
they.are.working.at one.year

““You find out what they do there, for one year.””

- (16) “uł i? knaqs tac ḳl sḳlx<sup>w</sup>tan.”  
uł i? k(+) $\sqrt$ naqs tac ḳl s+ $\sqrt$ ḳlx<sup>w</sup>+tan  
CONJ DET one[HUMAN] over LOC NMLZ+evening+INS  
and the one over to west

““And one will go over to the west.””

- (17) “í k<sup>w</sup> x<sup>w</sup>u<sup>u</sup>uy lk<sup>w</sup>ut.”  
í k<sup>w</sup> x<sup>w</sup>uy  $\sqrt$ lk<sup>w</sup>=ut  
EMPH 2SG.ABS go far=place  
just you go far.away

““Just go really far.””

- (18) “mynnúntx<sup>w</sup> ya<sup>u</sup>ıt a?  
 $\sqrt$ my+p-nú-nt-x<sup>w</sup>  $\sqrt$ yaıt a?  
know+INCH-manage.to-DIR-2SG.ERG gather+STAT DET  
you.find.out everything that

ck<sup>w</sup>úlsəlx.”  
c- $\sqrt$ k<sup>w</sup>úł-st-slx  
CUST-work-CAUS-3PL.ERG  
they.are.working.on

““You find out everything they are doing, the way people live there.””

- (19) uʔ iʔ tətʔwít iʔ stʔíwtaʔx, cut  
 uʔ iʔ t(•)√twít iʔ s+√tʔíw+t-aʔx cut  
 CONJ DET boy DET NMLZ+youngest+STAT-INTR say  
 and the boy the youngest.one he.said

“k<sup>w</sup> x<sup>w</sup>uy tac kíl sk<sup>w</sup>əʔʔptañ.”  
 k<sup>w</sup> x<sup>w</sup>uy tac kíl s+√k<sup>w</sup>ʔ(+p)tañ  
 2SG.ABS go over LOC NMLZ+sunrise+INS  
 you go over to east

‘And to the youngest boy the chief said “You go over to the east.”’

- (20) “lk<sup>w</sup>ut aksx<sup>w</sup>uy, ya<sup>...</sup>ʔt  
 √lk<sup>w</sup>=ut an-ks-√x<sup>w</sup>uy, √yaʔt  
 far=place 2SG.POSS-FUT-go gather+STAT  
 far.away you.will.go all

mypnúntx<sup>w</sup> stím.”  
 √my+p-nú-nt-x<sup>w</sup> stím  
 know+INCH-manage.to-DIR-2SG.ERG what  
 you.will.find.out thing

‘“You’ll go a long long ways, but you’ll learn from it.”’

- (21) cut “way.”  
 cut way  
 say yes  
 he.said yes

‘The youngest said “Okay.”’

- (22) ixíʔ sx<sup>w</sup>úysəlx.  
 ixíʔ s-√x<sup>w</sup>úy-slx  
 DEM NMLZ-go-3PL.POSS  
 then they.went

‘So they went.’

- (23) x<sup>w</sup>ú<sup>...</sup>yləx, x<sup>w</sup>úyləx lk<sup>w</sup>ák<sup>w</sup>əlx,  
 √x<sup>w</sup>úy-lx, √x<sup>w</sup>úy-lx √lk<sup>w</sup>•ák<sup>w</sup>-lx,  
 go-3PL go-3PL far•C<sub>2</sub>.LC-3PL  
 they.went they.went they.were.getting.far.away

mypnúśəlx.  
 √my+p-nú-nt-slx  
 know+INCH-manage.to-DIR-3PL.ERG  
 they.learned.it

‘They were going, going along getting farther away, and they found out how others lived.’

- (24) ixí? i? sxʔitx tac k̄l nʔiʔl̄tk.  
 ixí? i? s+√xʔit-x tac k̄l n+√ʔiʔl̄(=)tk  
 DEM DET NMLZ+first-INTR over LOC LOC+north  
 that the oldest over to north

‘The oldest one went towards the north.’

- (25) kic i? sck<sup>w</sup>əʔstəmʔáltəm,  
 kic i? s-c-√k<sup>w</sup>ʔ+s+√ʔm(=)ʔált-m,  
 arrive DET NMLZ-CUST-work+NMLZ+cattle-MID  
 get.there the ones.who.work.with.cattle

nkʔcaʔsqáxaʔ.  
 √nk(=)ʔcaʔ(+s(+))√qáxaʔ  
 horses  
 horses

‘He got to a place he could learn about raising cattle and horses.’

- (26) ixí? ilí? i? sk<sup>w</sup>úləms.  
 ixí? ilí? i? s+√k<sup>w</sup>úl-m-s  
 DEM DEM DET NMLZ+work-MID-3POSS  
 then there what he.worked.at

‘And he worked there.’

- (27) ya<sup>...</sup>ʔt i? sti<sup>m</sup> mypnús, t  
 √yaʔ+t i? sti<sup>m</sup> √my+p-nú-nt-s t  
 gather+STAT DET what know+INCH-manage.to-DIR-3ERG OBL  
 every thing he.found.out.about

ksqəyʔsqáxaʔs yaʔt, k<sup>w</sup>x<sup>w</sup>sqáxaʔ.  
 ks-√qəyʔ+s+√qáxaʔ-s √yaʔ+t √k<sup>w</sup>x<sup>w</sup>+s+√qáxaʔ  
 FUT-write+NMLZ+horse-3POSS gather+STAT untie+NMLZ+horse  
 branding.a.horse everything taking.a.saddle.off

‘He learned about everything, how to brand a horse and everything, and how to take the saddle off the horse.’

- (28) yaʔt i? sti<sup>m</sup> mypnús i?  
 √yaʔ+t i? sti<sup>m</sup> √my+p-nú-nt-s i?  
 gather+STAT DET what know+INCH-manage.to-DIR-3ERG DET  
 every thing he.found.out the

k̄l stəmʔált, i? k̄l sənkl̄caʔsqáxaʔ.  
 k̄l s+√ʔm(=)ʔált, i? k̄l s+√nk(=)ʔcaʔ(+s(+))√qáxaʔ  
 LOC NMLZ+cattle DET LOC NMLZ+horses  
 about cattle the about horses

‘He learned everything about cattle, and about horses.’

(29) nu<sup>k</sup>w sp<sup>i</sup>ntk.  
 nu<sup>k</sup>w+s+√pín(=)tk.  
 one+NMLZ+year  
 one.year  
 ‘For one year.’

(30) uʔ iʔ knaqs iʔ tət<sup>w</sup>ít x<sup>w</sup>uy, tac k̄  
 uʔ iʔ k(+)<sub>v</sub>naqs iʔ t(•)<sub>v</sub>twít x<sup>w</sup>uy tac k̄l  
 CONJ DET one[HUMAN] DET boy go over LOC  
 and the one the boy he.went over to  
 wtímtk.  
 √wtím(=)tk  
 south  
 south

‘And one of the boys went over to the south.’

(31) kic aʔ c<sup>k</sup>w ánt<sup>q</sup>am,  
 kic aʔ c-√k<sup>w</sup>ánt<sup>q</sup>-am  
 arrive DET CUST-plant=crop-MID  
 get.there the farming  
 scəcəmáʔaʔq.  
 s-c-c•√cm̄=áʔaʔq-x  
 NMLZ-CUST-C<sub>1</sub>.DIM•small=seed-INTR  
 small.seeds

‘He got to where they were farming, planting small seeds.’

(32) ixíʔ yaʔt mypnús, yaʔt  
 ixíʔ √yaʔt √my+p-nú-nt-s √yaʔt  
 DEM gather+STAT know+INCH-manage.to-DIR-3ERG gather+STAT  
 then everything he.learned.about every  
 iʔ stím iʔ k̄l scəcəmáʔaʔq.  
 iʔ stím iʔ k̄l s+c•√cm̄=áʔaʔq  
 DET what DET LOC NMLZ+C<sub>1</sub>.DIM•small=seed  
 thing the about small.seeds

‘He learned about everything, everything about small seeds.’

- (33) ɬ ks<sup>k</sup>wúləms itʔ, k<sup>w</sup>úləms iʔ... ɬaʔ  
 ɬ ks-√k<sup>w</sup>úl-m-s itʔ √k<sup>w</sup>úl-m-s iʔ ɬaʔ  
 COMP FUT-work-MID-3POSS DEM work-MID-3POSS DET COMP  
 when he.would.work there he.worked.on the when
- ksnələqíwsəm iʔ sk<sup>w</sup>an̩tq mi  
 ks-n+√lq=iws-m iʔ s+√k<sup>w</sup>an̩=tq mi  
 FUT-LOC+pull=middle-MID DET NMLZ+plant=crop COMP.FUT  
 he.would.weed the garden so.that
- plal t ʃast.  
 √pl•al t √ʃas+t.  
 grow•C<sub>2</sub>.LC OBL good+STAT  
 grow good

‘When he worked there he worked on pulling, weeding the garden so that it’d grow good.’

- (34) aks... t siwɬk<sup>w</sup>, npísusəm, cʔxíɬ taʔkín  
 aks... t siwɬk<sup>w</sup> n+√pís=us-m c-√ʔxíɬ ta+√ʔkín  
 OBL water LOC+irrigate=area-MID CUST-be.like at+do.like  
 water he.irrigated like what
- iʔ ksnpísusəm mi ʃast.  
 iʔ ks-n+√pís=us-m mi √ʃas+t  
 DET FUT-LOC+irrigate=area-MID COMP.FUT good+STAT  
 he.would.irrigate so.that it.is.good

‘And with water, he’d irrigate with ditches, one has to irrigate it so that it is good.’

- (35) lut ɬa myaɬ ksx<sup>w</sup>ʔíts.  
 lut ɬa myaɬ ks-√x<sup>w</sup>ʔíts  
 NEG NEG.EMPH too.much UPOSS-many-3POSS  
 not too much

‘Not too much.’

- (36) uɬ iʔ knaqs tac k̩l sk̩lx<sup>w</sup>tan.  
 uɬ iʔ k(+)<sub>√</sub>naqs tac k̩l s+√k̩lx<sup>w</sup>+tan  
 CONJ DET one[HUMAN] over LOC NMLZ+evening+INS  
 and the one over to west

‘And one of them went towards the west.’

- (37) x<sup>w</sup>u<sup>.....</sup>y lk<sup>w</sup>ut, ya<sup>...ŋ</sup>t i? sti<sup>ʔ</sup>m  
 x<sup>w</sup>uy √lk<sup>w</sup>=ut √yaŋ+t i? sti<sup>ʔ</sup>m  
 go far=place gather+STAT DET what  
 he.went far.away every thing
- mypnúš iklíʔ.  
 √my+p-nú-nt-s iklíʔ  
 know+INCH-manage.to-DIR-3ERG DEM  
 he.found.out.about there

‘He went a really long ways, he found out about how everything operates over there.’

- (38) uʔ i? tətʷít i? stʔíwtaʔx, x<sup>w</sup>uyx  
 uʔ i? t(•)√twít i? s+√tʔíw+t-aʔx √x<sup>w</sup>uy-x  
 CONJ DET boy DET NMLZ+youngest+STAT-INTR go-INTR  
 and the boy that was.the.youngest he.went
- i? kíl ksx<sup>w</sup>uys.  
 i? kíl ks-x<sup>w</sup>uy-s  
 DET LOC UPOSS-go-3POSS  
 the to where.he.was.going

‘And the youngest boy, he went to where he was going.’

- (39) lk<sup>w</sup>u<sup>.....</sup>t.  
 √lk<sup>w</sup>=ut  
 far=place  
 far.away

‘Really really far.’

- (40) kcníwšəs i? kwkápoy, i?  
 √kcn=íwš-nt-s i? kw•kápoy i?  
 fall.in.with=middle-DIR-3ERG DET C<sub>1</sub>C<sub>2</sub>.PL•cowboy DET  
 he.fell.in.with some cowboys that.were
- cnáq<sup>w</sup>xəlx.  
 c-√náq<sup>w</sup>-x-lx  
 CUST-steal-INTR-3PL  
 they.were.stealing

‘He met up with some cowboys that were stealing things.’

- (41) ilíʔ ksxníʔəm.  
 ilíʔ kʔ-s-n+√xíʔ-m  
 DEM get-NMLZ-LOC+mix.with.people-MID  
 there he.got.mixed.up.with.them

‘He got mixed up with those people.’

- (42) taʔt yaʔʔʔt iʔ stiṃ náqʷəmsəlx.  
 √taʔ+t √yaʔ+t iʔ stiṃ √náqʷ-m-nt-səlx  
 straight+STAT gather+STAT DET what steal-APPL-DIR-3PL.ERG  
 sure every thing they.stole.it

‘They sure stole everything.’

- (43) taʔt xʔit, xʔit iʔ snaqʷ.  
 √taʔ+t xʔit xʔit iʔ s+√naqʷ  
 straight+STAT best best DET NMLZ+steal  
 really best best the stealing

‘Really the best, they’re the best thieves.’

- (44) ixíʔ yaʔyaʔʔt mypnús iʔ  
 ixíʔ yaʔ•√yaʔ+t √my+p-nú-nt-s iʔ  
 DEM C<sub>1</sub>.C<sub>2</sub>.PL•gather+STAT know+INCH-manage.to-DIR-3ERG DET  
 everything he.learned.it the

tətwít, snaqʷ.  
 t(•)√twít s+√naqʷ  
 boy NMLZ+steal  
 boy stealing

‘That’s all this young boy learned about, was stealing.’

- (45) taʔt uʔ nukʷspíntk əʔ cxʷyxʷúyləx.  
 √taʔ+t uʔ nukʷ+s+√pín(=)tk ʔ c+xʷy•√xʷúy-lx  
 straight+STAT CONJ one+NMLZ+year COMP C<sub>1</sub>S<sub>1</sub>+C<sub>2</sub>.PL•go-3PL  
 sure and one.year before they.all.come

‘And one year went by before they all came home.’

- (46) iʔ tətwít, taʔt kiʔ cniyíʔls,  
 iʔ t(•)twít √taʔ+t kiʔ c-n+√piy=ʔls  
 DET boy straight+STAT COMP.OBL CUST-LOC+happy=thoughts  
 the boy sure that he.was.happy

kíʔkəm ksníʔptəm iʔ spənʔkín  
 kí(•)√kəm ks-n+√ʔp+t-m iʔ s-pn+√ʔkín  
 almost FUT-LOC+forget+STAT-MID DET NMLZ-when+do.what  
 almost he.would.forget when

mi ʔxʷúyləx.  
 mi ʔ+√xʷúy-lx  
 COMP.FUT return+go-3PL  
 will they.returned

‘The boy was really having a great time, but just about forgot when they were going home.’

- (47) ilí...ʔ,            “ax!      wayʔ    kn            kɫx<sup>w</sup>úyaʔx.”  
 ilíʔ                ax        wayʔ    kn            ks-ɫ+√x<sup>w</sup>úy-aʔx  
 DEM                INTERJ    yes    1SG.ABS    FUT-return+go-INCEPT  
 he.was.there    \*ʔ#!      yes    I            will.go.back

‘He was there, and said “I’m going to go now.”’

- (48) əʔ            ɫx<sup>w</sup>uyəʔx,            ʔi            kɫq<sup>w</sup>tí·waʔs            iʔ    1  
 ɫ            ɫ+√x<sup>w</sup>uy-ɫx            ʔi            k+√ɫq<sup>w</sup>(=)t(=)íwaʔ-s    iʔ    1  
 COMP    return+go-3PL        EMPH    RES+bent.over-3POSS    DET    LOC  
 when    he.was.going.back    just    he.was.bent.over            the    on

kəwáps,            səpsqáǰaʔ.  
 √kwáp-s        √sp+s+√qáǰaʔ  
 horse-3POSS    whip+NMLZ+horse  
 horse            he.whipped.his.horse

‘When he went back, oh, he was just bent over his horse, he whipped his horse.’

- (49) ʔəʔsqáǰaʔ,            iʔ            kəwáps            tǰ<sup>w</sup>úsəcaʔ,  
 √ʔl+s+√qáǰaʔ            iʔ            √kwáp-s            t+√ǰ<sup>w</sup>ús•s=caʔ,  
 stand+NMLZ+horse    DET    horse-3POSS        RES+foam•C<sub>2</sub>.LC=skin  
 he.stopped.the.horse    the    his.horse            its.skin.was.foaming

taʔt            ʔáyǰ<sup>w</sup>t    iʔ            kəwáps.  
 √taʔ+t        ʔáyǰ<sup>w</sup>t    iʔ            √kwáp-s  
 straight+STAT    tired    DET    horse-3POSS  
 sure            tired    the    his.horse

‘He stopped his horse, its skin was foaming like soap, his horse got really tired.’

- (50) x<sup>w</sup>uy        ɫl            səntəwstsqáǰaʔtən,  
 x<sup>w</sup>uy        ɫl            s+n+√tʔwst+s+√qáǰaʔ+tn  
 go            LOC    NMLZ+LOC+stand.in.line+NMLZ+horse+INS  
 he.went    to        barn

tliʔ            kiʔ            sk<sup>w</sup>ums            iʔ  
 itlíʔ            kiʔ            s-√k<sup>w</sup>um-s            iʔ  
 DEM            COMP.OBL    NMLZ-store-3POSS    DET  
 from.there    that            he.stored.it            the

n̄əʔlq<sup>w</sup>iʔsqáǰaʔtəns.  
 n+√ʔlq<sup>w</sup>+iʔ+s+√qáǰaʔ+tn-s  
 LOC+place.on[?]+DRV+NMLZ+horse+INS-3POSS  
 his.saddle

‘He went to the barn, from there that he hung up his saddle.’

(51) nʔuɬx<sup>w</sup>.  
 n+√ʔuɬx<sup>w</sup>  
 LOC+enter  
 he.went.inside  
 ‘He went inside.’

(52) way̌, way̌ yáɬtəlx yáɬpəlx.  
 way̌ way̌ √yáɬ+t-lx √yáɬ+p-lx  
 yes yes gather+STAT-3PL gather+INCH-3PL  
 yes already all.of.them they.arrived  
 ‘Yes, they were all already home.’

(53) cut iʔ ylmíx<sup>w</sup>əm, “way̌ límləmt p  
 cut iʔ ylmíx<sup>w</sup>m way̌ lím•√lm+t p  
 say DET chief yes C<sub>1</sub>C<sub>2</sub>.CHAR•glad+STAT 2PL.ABS  
 said the chief yes it.is.very.good you.all  
 ɬcyáɬp.”  
 ɬ+c+√yaɬ+p  
 return+CISL+gather+INCH  
 came.back  
 ‘The chief said “I’m glad you all came home.”’

(54) “hahúy, púlxiwi! ʔnus kiʔ ʃlap  
 ha(•)húy √púlxi-wi ʔnínwiʔs kiʔ ʃlap  
 okay go.to.bed-PL in.a.while COMP.OBL tomorrow  
 okay go.to.bed in.a.little.while that tomorrow  
 mi p máy̌ncut, k<sup>w</sup>u tl  
 mi p √máý̌-ncut k<sup>w</sup>u tl  
 COMP.FUT 2PL.ABS tell-REFL 1PL.ABS LOC  
 will you.all tell.about we  
 wiʔwiʔcín.”  
 wiʔ•√wiʔ=cín  
 C<sub>1</sub>C<sub>2</sub>.PL•finish=food  
 finish.eating

“‘Okay, go to bed! In a little while, tomorrow, you all will tell stories when we get done eating tomorrow.’”

(55) ixíʔ iʔ tətwiʔ taʔlíʔ kínt, way̌.  
 ixíʔ iʔ t(•)√twiʔ taʔlíʔ √kínt+t way̌  
 DEM DET boy very afraid+STAT yes  
 that the boy very afraid yes  
 ‘That boy was very afraid, yes.’

- (56) ixíʔ sʔətʃílsəlx.  
 ixíʔ s-√ʔtx=ílx-slx  
 DEM NMLZ-sleep=AUT-3PL.POSS  
 then they.went.to.sleep  
 ‘They all went to sleep.’

- (57) ʃlap ʔk<sup>w</sup>k<sup>w</sup>ʕast, ʔəʔʔíʔənləx,  
 ʃlap ʔ(+k<sup>w</sup>(•)√k<sup>w</sup>ʕas(+t) ʔʔ•√ʔíʔn-lx  
 tomorrow morning C<sub>1</sub>C<sub>2</sub>.PL•eat-3PL  
 next morning they.were.eating  
 wiʔwiʔcínləx.  
 wiʔ•√wiʔ=cín-lx  
 C<sub>1</sub>C<sub>2</sub>.PL•finish=food-3PL  
 they.finished.eating

‘The next morning, they were eating, and they finished eating.’

- (58) cus iʔ sxʔitx,  
 √cun-nt-s iʔ s-√xʔit-x  
 say-DIR-3ERG DET NMLZ-first-INTR  
 they.chief.told.him the oldest  
 “k<sup>w</sup> x<sup>w</sup>uy, mə́ncútaʔx! stím  
 k<sup>w</sup> x<sup>w</sup>uy √mə́-ncút-aʔx stím  
 2SG.ABS go tell-REFL-INTR what  
 you go tell.us what

ascmɣpnwíʔən anwíʔ”  
 an-s-c-√my+p=nwíʔn anwí  
 2SG.POSS-NMLZ-CUST-know+INCH=information 2SG.INDEP  
 you.learned.about you

‘The chief said to the oldest, “You go ahead, tell something! What did you learn about?”’

- (59) cut “way, ah kn x<sup>w</sup>u<sup>••••</sup>y kíl lk<sup>w</sup>ut.”  
 cut way ah kn x<sup>w</sup>uy kíl √lk<sup>w</sup>=ut  
 say yes ah 1SG.ABS go LOC far=place  
 he.said yes ah I went to far.away

‘The oldest said “Okay, I went really far away.”’



- (63) cut iʔ ylmíx<sup>w</sup>əm, “ah, way<sup>ʔ</sup> ʃast  
 cut iʔ ylmíx<sup>w</sup>m ah, way<sup>ʔ</sup> √ʃas+t  
 say DET chief ah yes good+STAT  
 he.said the chief ah yes it.is.good

ascmynwíʔən.”

an-s-c-√my+p=nwíʔn

2SG.POSS-NMLZ-CUST-know+INCH=information

what.you.learned

‘The chief said “Ah, that’s good what you learned.”’

- (64) tliʔ knaqs, k̄ wtímtk kiʔ x<sup>w</sup>uy.  
 itlíʔ k(+)<sup>ʔ</sup>√naqs k̄l √wtím(=)tk kiʔ x<sup>w</sup>uy  
 DEM one[HUMAN] LOC south COMP.OBL go  
 from.there one to south that he.went

‘And from the other one, that went to the south.’

- (65) cut, “kn x<sup>w</sup>uy k̄ wtímtk k̄l lk<sup>w</sup>u<sup>•</sup>t.”  
 cut kn x<sup>w</sup>uy k̄l √wtím(=)tk k̄l √lk<sup>w</sup>=ut  
 say 1SG.ABS go LOC south LOC far=place  
 he.said I went to south to far.away

‘He said “I went a long ways to the south.”’

- (66) “kcníwsən iʔ  
 √kcn=íws-nt-n iʔ  
 fall.in.with=middle-DIR-1SG.ERG DET  
 I.fell.in.with the

scəcəmáʔaʔqaʔx,

s-c-c(•)√cm=áʔaʔq-aʔx

NMLZ-CUST-C<sub>1</sub>.DIM•small=seed-INTR

ones.who.plant.seeds

k<sup>w</sup>ánʔqám.

√k<sup>w</sup>án=ʔq-ám

plant=crop-MID

who.were.farming

yaʔt iʔ stím mypnun,

√yaʔt iʔ stím √my+p-nu-nt-n

gather+STAT DET what know+INCH-manage.to-DIR-1SG.ERG

every thing I.learned.about.it

iʔ liplí, patáks, haʔyk<sup>w</sup>, sʃúʔk<sup>w</sup>əm.”

iʔ liplí patáks haʔyk<sup>w</sup> s(+)<sup>ʔ</sup>√ʃúʔk<sup>w</sup>(-)m

DET peas potatoes onions carrots

the peas potatoes onions carrots

‘“I fell in with ones who were planting seeds, farmers. I learned about everything, peas, potatoes, onions, carrots.”’

(67)	cut,	“mynpun		iʔ	liplí	iklíʔ
	cut	√my+p-nu-nt-n		iʔ	liplí	iklíʔ
	say	know+INCH-manage.to-DIR-1 SG.ERG	DET	pease	DEM	
	he.said	I.learned.it		the	peas	to.there
	ká	ck <sup>w</sup> úlomsəlx...		yaʔt		taʔlíʔ
	kaʔ	c-√k <sup>w</sup> úl-m-st-slx		√yaʔ+t		taʔlíʔ
	COMP.OBL	CUST-work-APPL-CAUS-3PL.ERG		gather+STAT		very
	where	they.were.working		everything		very
	ǰast.	uʔ	iʔ	lawán.”		
	√ǰas+t	uʔ	iʔ	lawán.		
	good+STAT	CONJ	DET	oats		
	good	and		oats		

‘He said “I learned about peas there where they were working, everything was really good. And oats.”’

(68)	“mynpun			iklíʔ
	√my+p-nu-nt-n			iklíʔ
	know+INCH-manage.to-DIR-1 SG.ERG		DEM	
	I.learned.it		to.there	
	ká	ck <sup>w</sup> úlsəlx		iʔ
	kaʔ	c-√k <sup>w</sup> úl-st-səlx		iʔ
	COMP.OBL	CUST-work-CAUS-3PL.ERG	DET	
	where	they.worked.on.it		the
	la...	iʔ	sc <sup>w</sup> úlomsəlx	
	lawán	iʔ	s-c-√k <sup>w</sup> úl-m-slx	
	oats	DET	NMLZ-CUST-work-MID-3PL.POSS	
	oats	that	they.made.it	
	t	lkalát.	ixíʔ	yaʔt
	t	lkalát	ixíʔ	√yaʔ+t
	OBL	bread	DEM	gather+STAT
		bread	that	everything
		iscmypoñwíʔən.”		
		in-s-c-√my+p=ñwíʔn		
		1 SG.POSS-NMLZ-CUST-know+INCH=information		
		what.I.learned.about		

‘“There I learned about how they made oats, that’s what they made bread from. I learned all that.”’<sup>18</sup>

<sup>18</sup>Andrew McGinnis says that he meant to say ‘flour’ rather than ‘oats’ in this stanza, i.e. ‘what they make bread from’.

- (69) cut iʔ ylmíx<sup>w</sup>əm, “ah way, taʔt ʃast  
 cut iʔ ylmíx<sup>w</sup>m ah way<sup>ʔ</sup> √taʔ+t √ʃas+t  
 say DET chief ah yes straight+STAT good+STAT  
 he.said the chief ah yes very good

ascm̥pənwíʃən.”

an-s-c-√my+p=nwíʃn

2SG.POSS-NMLZ-CUST-know+INCH=information

what.you.learned

‘The chief said, “Oh yes, that’s really good what you learned.”’

- (70) cus iʔ tətwít, “hahuy! anwí  
 √cun-nt-s iʔ t(•)twít hahuy anwí  
 say-DIR-3ERG DET boy okay 2SG.INDEP  
 he.told.him the boe okay you

ascm̥pənwíʃən?”

an-s-c-√my+p=nwíʃn

2SG.POSS-NMLZ-CUST-know+INCH=information

what.you.learned

‘The chief told the youngest boy “Okay, what did you learn?”’

- (71) mu<sup>\*\*\*\*</sup>t iʔ tətwít.  
 mut iʔ t(•)√twít  
 sit DET boy  
 just.sitting the boy

‘The boy was just sitting there.’

- (72) cut, “way. way ʔəx<sup>w</sup> aʃiʔ kn  
 cut way way ʔx<sup>w</sup> aʃiʔ kn  
 say yes yes EVID COMP 1SG.ABS  
 he.said yes yes guess I

ksm̥aýncútaʔx. lut tʔ ʃast

ks-√m̥aý-ncút-aʔx lut tʔ √ʃas+t

FUT-tell-REFL-INCEPT NEG NEG.EMPH good+STAT

will.tell not good

iscm̥pənwíʃən.”

in-s-c-√my+p=nwíʃn

1SG.POSS-NMLZ-CUST-know+INCH=information

what.I.learned

‘He said “Yes. Okay, I guess I’ll tell. But it is not good what I’ve learned.”’

- (73) cut, “kn x<sup>w</sup>u<sup>.....</sup>y lk<sup>w</sup>ut, kcníw<sup>s</sup>ən  
cut kn x<sup>w</sup>uy √lk<sup>w</sup>=ut √kcn=íw<sup>s</sup>-nt-n  
say 1SG.ABS go far=place fall.in.with=middle-DIR-1SG.ERG  
he.said I went far.away I.fell.in.with  
i? kəwkáwboy, x<sup>w</sup>?ítəlx. ná<sup>k</sup>wəms i?  
i? kw•káwboy √x<sup>w</sup>?ít-lx √ná<sup>k</sup>w-m-s i?  
DET C<sub>1</sub>C<sub>2</sub>.PL•cowboy many-3PL EVID-3POSS DET  
some cowboys many.of.them it.turned.out that  
cnáq<sup>w</sup>xəlx.”  
c-√náq<sup>w</sup>-x-lx  
CUST-steal-INTR-3PL  
they.were.stealing

‘The boy said “I went a long ways, I fell in with some cowboys, a lot of them. It turned out they were stealing things.”’

- (74) “tałt x?ítəlx i? l snaq<sup>w</sup>. t̃  
√tał+t √x?ít-lx i? l s+√naq<sup>w</sup> t̃  
straight+STAT best-3PL DET LOC NMLZ+steal EMPH  
sure they.were.the.best the at stealing just  
i? xi?míx stím uł ǰmínksəlx uł  
i? √xi? (=)míx stím uł √ǰmínk-nt-slx uł  
DET whatever what CONJ want-DIR-3PL.ERG CONJ  
whatever thing and they.wanted.it and  
náq<sup>w</sup>əmsəlx.”  
√náq<sup>w</sup>-m-nt-slx  
steal-APPL-DIR-3PL.ERG  
they.stole.it

‘“They’re good thieves. Just whatever they wanted, they’d steal it.”’

- (75) “tałt x?ítəlx. ixí?  
√tał+t √x?ít-lx ixí?  
straight+STAT best-3PL DEM  
sure best that  
iscmypənwífən.”  
in-s-c-√my+p=nwífn  
1SG.POSS-NMLZ-CUST-know+INCH=information  
what.I.learned

‘“They were really good thieves. That’s what I learned.”’

- (76) mu<sup>\*\*\*\*</sup>t iʔ ylmíx<sup>w</sup>əm, taʔt uʔ picx<sup>w</sup>t.  
 mut iʔ ylmíx<sup>w</sup>m √taʔ+t uʔ √picx<sup>w</sup>+t  
 sit DET chief straight+STAT CONJ disgusted+STAT  
 just.sitting the chief sure and he.was.disgusted

‘The chief was just sitting there, he was really disgusted.’

- (77) cut “way. taʔlíʔ k<sup>w</sup> cnáq<sup>w</sup> xʔít.”  
 cut way taʔlíʔ k<sup>w</sup> c-√náq<sup>w</sup> xʔít  
 say yes very 2SG.ABS CUST-steal best  
 he.said yes really you stole best

‘The chief said, “Okay. Do you really steal good?”’<sup>19</sup>

- (78) “ax, kiw”, cut.  
 ax kiw cut  
 INTERJ yes say  
 yes he.said

‘“Yes”, the boy said.’

- (79) cut, “way ʔast, təx<sup>w</sup> way, taʔlíʔ qilt  
 cut way √ʔas+t tɔx<sup>w</sup> way taʔlíʔ √qil+t  
 say yes good+STAT EVID yes very sick+STAT  
 he.said yes thats.good kind.of yes very sore  
 ispuʔús.”  
 in-s+√puʔ(=)ús  
 1SG.POSS-NMLZ+heart  
 my.heart

‘The chief said “Well good, I kind of feel sorry.”’

- (80) “inkəwáp iʔ sʔəʔsqáʔaʔs, cnʔac  
 in-√kwáp iʔ s+√ʔʔ+s+√qáʔaʔ-<sup>s</sup> c-n+√ʔac  
 1SG.POSS-horse DET NMLZ+fast+NMLZ+horse-3POSS STAT-LOC+tied  
 my.horse the fast.horse is.tied.up  
 iʔ t ntəwstsqáʔaʔtən. ixíʔ  
 iʔ t n+√tʔwst+s+√qáʔaʔ+tn ixíʔ  
 DET OBL LOC+stand.in.line+NMLZ+horse+INS DEM  
 the barn that  
 aksnáq<sup>w</sup>əminəm 1 nk<sup>w</sup>k<sup>w</sup>ʔac.”  
 an-ks-√náq<sup>w</sup>-min-m 1 n(+)<sup>w</sup>k<sup>w</sup>(•)k<sup>w</sup>ʔac  
 2SG.POSS-FUT-steal-APPL-MID LOC night  
 you.will.steal.it at tonight

‘“My race horse it is tied up at the barn. You’re going to steal it tonight.”’

<sup>19</sup>There is no question marker *ha* in this sentence, but AM translates this as a question, which makes sense given the boy’s next statement.

- (81) “lut t náq<sup>w</sup>əməntx<sup>w</sup>,                      ʃlap k<sup>w</sup>  
 lut t                      √náq<sup>w</sup>-m-nt-x<sup>w</sup>                      ʃlap k<sup>w</sup>  
 NEG NEG.EMPH steal-APPL-DIR-2SG.ERG tomorrow 2SG.ABS  
 not                      you.steal.it                      tomorrow you

ikʃácíwsəm.”  
 in-ks-k+√ʃác=íws-m  
 1SG.POSS-FUT-RES+tie=middle-MID  
 I.will.hang

“‘If you don’t steal it, I will hang you tomorrow,” the chief said.’

- (82) cut iʔ tətʷít, “way<sup>y</sup> ixíʔ níńwíʔs  
 cut iʔ t(•)√twít way<sup>y</sup> ixíʔ níńwíʔs  
 say DET boy yes DEM in.a.while  
 he.said the boy yes that in.a.while

náq<sup>w</sup>əmən.”  
 √náq<sup>w</sup>-m-nt-n  
 steal-APPL-DIR-1SG.ERG  
 I.will.steal.it

‘The boy said “Yes, okay, I will steal it.”’

- (83) nk<sup>w</sup>k<sup>w</sup>ʔac iʔ ylmíx<sup>w</sup>əmə iʔ səx<sup>w</sup>k<sup>w</sup>əlk<sup>w</sup>úləms,  
 n(+)<sup>w</sup>(•)k<sup>w</sup>ʔac iʔ ylmíx<sup>w</sup>m iʔ sx<sup>w</sup>+k<sup>w</sup>ʔ•√k<sup>w</sup>úl-m-s  
 night DET chief DET OCC+C<sub>1</sub>C<sub>2</sub>.PL•work-MID-3POSS  
 night the chief the his.workers

x<sup>w</sup>ʔit aʃíʔ x<sup>w</sup>úyləx iʔ l  
 x<sup>w</sup>ʔit aʃíʔ √x<sup>w</sup>úy-lx iʔ l  
 many COMP go-3PL DET LOC  
 many they.went the in

səntəwstsqáǰaʔtən                      uʃ  
 s+n+√tʷst+s+√qáǰaʔ+tn                      uʃ  
 NMLZ+LOC+stand.in.line+NMLZ+horse+INS                      CONJ  
 barn                      and

xəlxlákəkəlx.  
 xl•√xlák•k-lx  
 C<sub>1</sub>C<sub>2</sub>.PL•whirl•C<sub>2</sub>.LC-3PL  
 they.all.sat.around

‘At night, the chief’s workers were there, there’s a lot of them, they went in the barn and they all sat around.’<sup>20</sup>

<sup>20</sup>The form *xəlxlákəkəlx* literally means “they were turning around”, but several speakers I have consulted say it can also mean ‘sitting around in a circle’, in cases where a room is full.

- (84) iʔ knaqs kámʔíw̃s, iʔ knaqs iʔ  
 iʔ k(+)<sub>√</sub>naqs k+<sub>√</sub>ʔamt=íw̃s iʔ k(+)<sub>√</sub>naqs iʔ  
 DET one[HUMAN] RES+sit=middle DET one[HUMAN] DET  
 the one got.on.a.horse the one that
- tk<sup>w</sup>ənk<sup>w</sup>ínpláʔs, iʔ knaqs  
 t+k<sup>w</sup>n•<sub>√</sub>k<sup>w</sup>ín=pláʔ-nt-s iʔ k(+)<sub>√</sub>naqs  
 RES+C<sub>1</sub>C<sub>2</sub>.PL•take=handle-DIR-3ERG DET one[HUMAN]  
 he.took.the.lead the one
- tk<sup>w</sup>ənk<sup>w</sup>ínpst̃s.  
 t+k<sup>w</sup>n•<sub>√</sub>k<sup>w</sup>ín=ps-nt-s  
 RES+C<sub>1</sub>C<sub>2</sub>.PL•take=tail-DIR-3ERG  
 he.held.the.tail

‘One got on a horse, another took the lead, and one followed behind, holding his tail.’

- (85) “ah... ʔi k<sup>w</sup>aʔ xʔkínə̃m axáʔ mi  
 ah ʔi k<sup>w</sup>aʔ x+<sub>√</sub>ʔkín-m axáʔ mi  
 ah EMPH INTERJ DRV+do.what-MID DEM COMP.FUT  
 ah just how this will
- náq<sup>w</sup>əmsʔʔ  
<sub>√</sub>náq<sup>w</sup>-m-nt-s  
 steal-APPL-DIR-3ERG  
 he.steal.it

‘The chief said “How is he gonna steal this horse?”’

- (86) “tk<sup>w</sup>ənk<sup>w</sup>ínxʔ ixíʔ knaqs, ixíʔ knaqs.”  
 t+k<sup>w</sup>n•<sub>√</sub>k<sup>w</sup>ínx ixíʔ k(+)<sub>√</sub>naqs ixíʔ k(+)<sub>√</sub>naqs  
 RES+C<sub>1</sub>C<sub>2</sub>.PL•how.many DEM one[HUMAN] DEM one[HUMAN]  
 how.many.people that one that one

‘“How many are there? There’s one, and there’s one.”’

- (87) “ya<sup>h</sup>ʔt      uʔ      taʔt              way<sup>h</sup> lut,      way<sup>h</sup> k  
 √yaʔt      uʔ      √taʔt              way<sup>h</sup> lut      way<sup>h</sup> kn  
 gather+STAT      CONJ      straight+STAT      yes      NEG      yes      1 SG.ABS  
 all              and      sure              yes      no      yes      I  
  
 kʔaciʔwsəm                      isq<sup>w</sup>siʔaʔ,                      áʔiʔ  
 ks-k+√ʔac=iʔws-m              in-s+√q<sup>w</sup>siʔ+aʔ                      áʔiʔ  
 FUT-RES+tie=middle-MID      1 SG.POSS+NMLZ+son+DRV      COMP  
 will.hang.him                      my.son                      because  
  
 way<sup>h</sup>      cun.”  
 way<sup>h</sup>      √cun-nt-n  
 yes      say-DIR-1 SG.ERG  
 already      I.told.him

‘The chief said “There’s no way, I’m going to hang my son, that’s what I told him.”’

- (88) ixíʔ      x<sup>w</sup>u<sup>h</sup>y      uʔ      ʔitx.  
 ixíʔ      x<sup>w</sup>uy      uʔ      ʔitx  
 DEM      go              CONJ      sleep  
 then      he.went      and      he.slept

‘The chief went and slept.’

- (89) iʔ      tətʔwít      lut      t̃              ʔitx,      kʔax<sup>w</sup>      way<sup>h</sup>.  
 iʔ      t(•)√twít      lut      t̃              ʔitx      kʔax<sup>w</sup>      way<sup>h</sup>  
 DET      boy              NEG      NEG.EMPH      sleep      evening      yes  
 the      boy              not              sleep      evening      already

‘The boy did not sleep, it was already evening.’

- (90) ntr̥pəncút-x                      k̃l      sənʔəq<sup>w</sup>mín.  
 n+√tr̥q+p-ncút-x                      k̃l      s+n+√ʔq<sup>w</sup>+mín  
 LOC+stomp+INCH-REFL-INTR      LOC      NMLZ+LOC+storage.place+INS  
 he.ran                      to      cellar

‘He ran to the cellar.’

- (91) ilíʔ      kylwícaʔ                      iʔ      ylmíx<sup>w</sup>əm      iʔ  
 ilíʔ      k+√ylw=ícaʔ                      iʔ      ylmíx<sup>w</sup>m      iʔ  
 DEM      RES+twist.twig=outer.covering      DET      chief              DET  
 there      barrel                      the      chief              that

sck<sup>w</sup>úʔs                      iʔ      wine.  
 s-c-√k<sup>w</sup>úʔ-s                      iʔ      wine  
 NMLZ-CUST-make-3POSS      DET      wine  
 he.made.it                      the      wine

‘There was a barrel of wine that the chief made.’

- (92) ixí? k<sup>w</sup>í...lks u† k̄l  
 ixí? √k<sup>w</sup>íl<sup>k</sup>-nt-s u† k̄l  
 DEM roll-*DIR*-3*ERG* CONJ LOC  
 then he.rolled.it until to
- səntəwstsqáxa?tən, k̄a?ítət.  
 s+n+√t̄wst+s+√qáxa?+tn √k̄a?ít•t  
 NMLZ+LOC+stand.in.line+NMLZ+horse+INS near•C<sub>2</sub>.LC  
 barn he.approached

‘He rolled the barrel until he got near the barn.’

- (93) n̄cx<sup>w</sup>ám, ixí? sk̄l̄əq̄l̄áq̄əlqs.  
 n+√c̄x<sup>w</sup>-ám ixí? s-k̄l̄+λ̄q̄•√λ̄áq̄=lqs  
 LOC+pour.in-MID DEM NMLZ-*DRV*+C<sub>1</sub>C<sub>2</sub>.PL•pocket=dress  
 he.poured.it then he.stuck.them.under.his.shirt

‘He poured some (into two bottles) and stuck them under his shirt.’

- (94) x<sup>w</sup>uy i? tətwít, n?u†x<sup>w</sup> k̄l  
 x<sup>w</sup>uy i? t(•)wít n+√?u†x<sup>w</sup> k̄l  
 go DET boy LOC+enter LOC  
 he.went the boy he.went.in to

səntəwstsqáxa?tən.  
 s+n+√t̄wst+s+√qáxa?+tn  
 NMLZ+LOC+stand.in.line+NMLZ+horse+INS  
 barn

‘The boy went, and entered into the barn.’

- (95) cú səlx, “k<sup>w</sup> səx?kína?x?”  
 √cún-nt-slx k<sup>w</sup> s-x+√?kín-a?x  
 say-*DIR*-3*PL.ERG* 2*SG.ABS* NMLZ-*DRV*+do.what-*INTR*  
 they.told.him you are.doing.what

‘They told him “What are you doing?”’

- (96) cut, “isnixl̄ ksnáq̄<sup>w</sup>əmisəlx  
 cut in-s-√nixl̄ ks-√náq̄<sup>w</sup>-m-nt-islx  
 say 1*SG.POSS*-NMLZ-*hear* FUT-steal-*APPL-DIR*-3*PL.ERG*  
 he.said I.heard they.will.steal.it

ya?x̄ís i? sənkl̄ca?sqáxa?.”  
 ya?x̄ís i? s(+).√nk(=)l̄ca?(+).s(+).√qáxa?  
 DEM DET horse  
 that.one.over.there the horse

‘The boy said “I heard that they’re going to steal that horse.”’

- (97) “alá? p ikskənxítəm i?  
 alá? p in-ks-√kn-xít-m i?  
 DEM 2PL.ABS 1SG.POSS-FUT-help-BEN-MID DET  
 here you.all I.will.help

txʔəntím.”  
 t+√xt-nt-ím  
 RES+take.care.of-DIR-PASS  
 it.will.be.taken.care.of

‘‘I’m here to help you take care of him.’’

- (98) “ah, wayʔ xast” cut, “k<sup>w</sup> mutx.”  
 ah wayʔ √xas+t cut k<sup>w</sup> √mut-x  
 ah yes good+STAT say 2SG.ABS sit-INTR  
 ah yes its.good he.said you sit.down

‘‘Ah, that’s good’’ they said, ‘‘You can sit down.’’

- (99) mut i? tətʔwít, aclkapúh.  
 mut i? t(•)√twít ac-√lkapúh  
 sit DET boy STAT-coat  
 sat.down the boy with.his.coat

‘The boy sat down with his coat.’

- (100) ʔayxáxaʔ, síʔswst uʔ... ʔayxáxaʔ uʔ  
 ʔayxáxaʔ síʔ√swst uʔ ʔayxáxaʔ uʔ  
 in.a.little.while C<sub>1</sub>.DIM•drink CONJ in.a.little.while CONJ  
 in.a.little.while he.sipped and in.a.little.while and

síswst.  
 síʔ√swst  
 C<sub>1</sub>.DIM•drink  
 he.sipped

‘After a little while, the boy would take a sip, and then after a little while, take another sip.’

- (101) cúšəlx “stím ixíʔ?”  
 √cún-nt-slx stím ixíʔ  
 say-DIR-3PL.ERG what DEM  
 they.told.him what that

‘They told him ‘‘What is that?’’

- (102) “ixíʔ wine k<sup>w</sup>aʔ.”  
 ixíʔ wine k<sup>w</sup>aʔ  
 DEM wine INTERJ  
 that wine see?

‘‘It’s wine, see?’’ the boy said.<sup>21</sup>

- (103) “tlaʔ      k<sup>w</sup>u      saʔsiwst,      k<sup>w</sup>u      maʔxtwix<sup>w</sup>  
 atlaʔ      k<sup>w</sup>u      saʔ+√siwst      k<sup>w</sup>u      √maʔ-xt-wix<sup>w</sup>  
 DEM      1PL.ABS      DRV+drink      1PL.ABS      tell-APPL.BEN-RECP  
 from.here      we      drinking      we      tell.each.other.stories
- uʔ      ʃlap.”  
 uʔ      ʃlap  
 CONJ      tomorrow  
 until      tomorrow

‘“Let’s start drinking and tell stories here until morning.”’

- (104) o,      ʔ      nxʃi,      ixíʔ  
 oh      uʔ      n+√xʃ=iks-nt-islx      ixíʔ  
 oh      CONJ      LOC+pass.around=hand-DIR-3PL.ERG      DEM  
 oh      and      they.passed.it.around      then
- nkáwsəlx.  
 n+√káw-nt-slx.  
 LOC+gone-DIR-3PL.ERG  
 they.finished.it

‘Oh, they passed it around until they finished it.’<sup>22</sup>

- (105) cut      “waʔ      kím      iʔ      naqs      axáʔ.”  
 cut      waʔ      kím      iʔ      naqs      axáʔ  
 he.said      yes      CONJ      DET      one      DEM  
 he.said      yes      but      the      one      this

‘He said, “But there’s one more here.”’

- (106) ixíʔ      nix<sup>w</sup>      nxʃi.      oh,      ixíʔ  
 ixíʔ      nix<sup>w</sup>      n+√xʃ=iks-nt-íslx      oh      ixíʔ  
 DEM      also      LOC+pass.around=hand-DIR-3PL.ERG      oh      DEM  
 that      also      they.passed.it.around      oh      then
- nkáwsəlx,      ixíʔ      uʔ      waʔ.  
 n+√káw-nt-slx      ixíʔ      uʔ      waʔ  
 LOC+gone-DIR-3PL.ERG      DEM      CONJ      finish  
 they.finished.it      that      and      finished

‘And then they passed that one around too. Oh, they finished that one, and that was it.’

<sup>21</sup>LL mentions that *k<sup>w</sup>aʔ* is used in these contexts “if they didn’t know what it was”, hence the colloquial meaning in line 4 “see?”.

<sup>22</sup>Nearly all of the form *n+√xʃ=iks-nt-islx* ‘they passed it around’ is truncated in this stanza, and in (106).

- (107) mǎyxtwíx<sup>w</sup>ǎlx,                      ǎxast                      iʔ                      spuʔúsǎlx.  
 √mǎy-xt-wíx<sup>w</sup>-lx                      √ǎxas+t                      iʔ                      s+√puʔús-slx  
 tell-BEN-RECP-3PL                      good+STAT                      DET                      NMLZ+heart-3PL.POSS  
 they.told.each.other.stories                      good                      the                      their.hearts  
 ‘They told stories to each other, and they were very happy.’
- (108) cutǎlx                      “ha    k<sup>w</sup>                      kʎnix<sup>w</sup>?”  
 √cut-lx                      ha    k<sup>w</sup>                      kʎ-nix<sup>w</sup>  
 say-3PL                      Q                      2SG.ABS                      have-more  
 they.said                      do                      you                      have.more  
 ‘They said “Do you have any more?”’
- (109) cut                      “lut.”  
 cut                      lut  
 say                      no  
 he.said                      no  
 ‘He said “No.”’
- (110) “kʎl                      tkǎmkniʎx<sup>w</sup>                      iʔ                      kylwiʎaʔ,  
 kʎl                      t+√km=kn=iʎx<sup>w</sup>                      iʔ                      k+ylw=iʎaʔ  
 LOC                      RES+body.part=back=house                      DET                      RES+twist.twig=outer.surface  
 to                      outside                      a                      barrel  
  
 ixíʔ                      cnʔúʎx<sup>w</sup>stǎm                      aláʔ  
 ixíʔ                      c+n+√ʔúʎx<sup>w</sup>-st-m                      aláʔ  
 DEM                      CISL+LOC+enter-CAUS-1PL.ERG                      DEM  
 that                      we.bring.it.in                      here  
  
 kʎwíwsǎntǎm,                      ixíʔ                      uʔ  
 kʎ+√ʔw=iʎws-nt-m                      ixíʔ                      uʔ  
 DRV+poke=middle-1PL.ERG                      DEM                      CONJ  
 we.poke.a.hole.in.it                      then  
  
 ksǎǎlpstím.”  
 ks-√ǎl(+)-p-st-ím  
 FUT-tomorrow-CAUS-1PL.ERG  
 we.will.make.it.tomorrow  
 ‘‘There’s a barrel outside, let’s bring that in, and poke a hole in it. We’ll be at it all night.’’
- (111) cútlǎx                      “way.”  
 √cút-lx                      way  
 say-3PL                      yes  
 they.said                      okay  
 ‘They said “Okay.”’

- (112) ck<sup>w</sup>ilk̄ iʔ kylwicaʔ,  
 c-√k<sup>w</sup>ilk̄ iʔ k+√y1w=içaʔ  
 CUST-roll DET RES+twist.twig=outer.surface  
 he.rolled.it the barrel

k̄tʔwíwsisəlx.  
 k̄tʔ+√tʔw=iws-nt-isəlx  
 DRV+poke=middle-DIR-3PL.ERG  
 they.poked.a.hole.in.it

‘He rolled it in and they poked a hole in it.’

- (113) k̄tʔx̄wil iʔ wínesəlx. saʔsíwsisəlx,  
 k̄tʔ(+)<sub>√</sub>x̄wil iʔ wíne-slx saʔ+<sub>√</sub>síws-nt-isəlx  
 much DET wine-3PL.POSS DRV+drink-DIR-3PL.ERG  
 much the their.wine they.drunk.it

saʔsíwsisəlx.  
 saʔ+<sub>√</sub>síws-nt-isəlx  
 DRV+drink-DIR-3PL.ERG  
 they.drunk.it

‘They had a lot of wine. They kept drinking and drinking it.’

- (114) x̄ast iʔ spuʔúsəlx. q<sup>w</sup>aŋq<sup>w</sup>áŋləx.  
 √x̄as+t iʔ s+<sub>√</sub>puʔús-slx q<sup>w</sup>aŋ•<sub>√</sub>q<sup>w</sup>áŋ-lx  
 good+STAT DET NMLZ+heart-3PL.POSS C<sub>1</sub>C<sub>2</sub>.PL•drunk-3PL  
 good the their.hearts they.got.drunk

‘They were really very happy. They all got drunk.’

- (115) ixíʔ ʔ otxílxəlx.  
 ixíʔ uʔ √ʔtx+ílx-lx  
 DEM CONJ sleep+AUT-3PL  
 then they.went.to.sleep

‘Then they went to sleep.’

- (116) axáʔ iʔ k̄amtíws, yax<sup>w</sup>t iʔ tl kəwáps.  
 axáʔ iʔ k+<sub>√</sub>ʔamt=iws √yax<sup>w</sup>+t iʔ tl √kwáps-s  
 DEM DET RES+sit=middle fall.off+STAT DET LOC horse-3POSS  
 this on.the.horse he.fell.off the from his.horse

‘The one who was on the horse fell off his horse.’

- (117) aʔ ck<sup>w</sup>ənk<sup>w</sup>ínpsɬs, ilíʔ uʔ  
 aʔ c-k<sup>w</sup>n•√k<sup>w</sup>ín=ps-st-s ilíʔ uʔ  
 DET CUST-C<sub>1</sub>C<sub>2</sub>.PL•take=tail-CAUS-3ERG DEM CONJ  
 the one.holding.the.tail there and

scəqɑqínk.  
 s-√cəq•aq=ínk  
 NMLZ-lay•C<sub>2</sub>.LC=back  
 he.fell.off.backwards

‘The one following behind, he fell off backwards.’

- (118) uʔ axáʔ tk<sup>w</sup>ənk<sup>w</sup>ínplaʔs, ixíʔ nix<sup>w</sup>  
 uʔ axáʔ t+k<sup>w</sup>n•√k<sup>w</sup>ín=plaʔ-nt-s ixíʔ nix<sup>w</sup>  
 CONJ DEM RES+C<sub>1</sub>C<sub>2</sub>.PL•take=handle-DIR-3ERG DEM also  
 and this.one he.held.the.reins then also

axáʔ yax<sup>w</sup>t.  
 axáʔ √yax<sup>w</sup>+t  
 DEM fall.off+STAT  
 he fell.down

‘And this one that took the lead also fell down.’

- (119) yaʔt ʔətɬílxəlɬ.  
 √yaʔ+t √ʔtɬ+ílx-lɬ  
 gather+STAT sleep+AUT-3PL  
 everyone they.fell.asleep

‘Everybody went to sleep.’

- (120) ixíʔ k<sup>w</sup>is iʔ kəwáps, iʔ  
 ixíʔ √k<sup>w</sup>in-nt-s iʔ √kwáp-s iʔ  
 DEM take-DIR-3ERG DET horse-3POSS DET  
 then he.took.it the his.horse the

sənkɬcáʔsqáǰaʔ.  
 s(+)/√nk(=)ɬcáʔ(+)/s(+)/qáǰaʔ  
 horse  
 horse

‘The boy took his horse.’



- (126) axáʔ tk<sup>w</sup>ənk<sup>w</sup>ínplaʔs, ixíʔ nix<sup>w</sup> ...  
 axáʔ t+k<sup>w</sup>n•√k<sup>w</sup>ín=plaʔ-nt-s ixíʔ nix<sup>w</sup>  
 DEM RES+C<sub>1</sub>C<sub>2</sub>.PL•take=handle-DIR-3ERG DEM also  
 this.one who.took.the.reins him too

‘This one who took the lead, him too...’

- (127) ta•••••táʔt picx<sup>w</sup>t, x<sup>w</sup>uy uʔ kicx.  
 ta•√táʔt √picx<sup>w</sup>+t x<sup>w</sup>uy uʔ √kic-x  
 C<sub>1</sub>•straight+STAT disgusted+STAT go CONJ arrive-INTR  
 sure disgusted he.went and he.got.there

‘The chief was really disgusted, he went and got there.’

- (128) ʔayxáxaʔ uʔ sax<sup>w</sup>t iʔ tətʔwít.  
 ʔayxáxaʔ uʔ √sax<sup>w</sup>+t iʔ t(•)√tʔwít.  
 a.little.while CONJ come.down+STAT DET boy  
 it.was.a.little.while before he.came.down the boy

‘It was a little while before the boy came downstairs.’

- (129) cut “ankəwáp, k̄ nscícuʔ  
 cut an-√kwáp k̄l n+s+ćí(•)√cuʔ  
 say 2SG.POSS-horse LOC LOC+NMLZ+underbrush  
 he.said your.horse to the.bushes

- kiʔ ʔacəntín, ʔaʔantík<sup>w</sup> ʔaʔ  
 kiʔ √ʔac-nt-ín √ʔaʔ-nt-ík<sup>w</sup> ʔaʔ  
 COMP.OBL tie-DIR-1SG.ERG look.for-DIR-IMP.TR COMP  
 where I.tied.him.up look.for.it if

aspuʔús!”  
 an-s+√puʔús  
 2SG.POSS-NMLZ+heart  
 you.want

‘The boy said “Your horse, I tied it up in the bushes. Look for it if you want to!”’

- (130) taʔt picx<sup>w</sup>t iʔ ylmíx<sup>w</sup>əm.  
 √taʔt √picx<sup>w</sup>+t iʔ ylmíx<sup>w</sup>m  
 straight+STAT disgusted+STAT DET chief  
 sure he.was.disgusted the chief

‘The chief was really disgusted.’

<sup>23</sup>My analysis of the first word in this stanza is tentative. It could be *staʔəlmít* ‘in a little while’ (SM, p.c.)

- (131) ʒaʔntís iʔ kəwáps uʔ taʔt...  
 √ʒaʔ-nt-ís iʔ √kwáp-s uʔ √taʔ+t  
 look.for-DIR-3ERG DET horse-3POSS CONJ straight+STAT  
 he.looked.for.it the his.horse and sure  
 ‘He looked for his horse, and he was really (disgusted).’

- (132) ʔʃən, wiʔcín, wiʔwiʔcínləx.  
 ʔʃən √wiʔ=cín wiʔ•√wiʔ=cín-lx  
 eat finish=food C<sub>1</sub>C<sub>2</sub>.PL•finish=food-3PL  
 he.ate he.finished.eating they.finished.eating  
 ‘He ate, he finished eating, they finished eating.’

- (133) “way’ nak’wəm taʔlíʔ k<sup>w</sup> nq’w,” cut,  
 way’ nak’w m taʔlíʔ k<sup>w</sup> nq’w•√nq’w-m+úʔ cut  
 yes EVID very 2SG.ABS C<sub>1</sub>C<sub>2</sub>•steal-MID+very say  
 yes indeed very you thief he.said  
 “kaʔʃís kím ʔasíl ascnáq’w.”  
 kaʔʃís kím ʔasíl an-s-c-√náq’w  
 three CONJ two 2SG.POSS-NMLZ-CUST-steal  
 three more two to.steal

‘The chief said “Yes, you’re a very good thief, you’re going to steal good two or three more times.”’

- (134) “ʔapnáʔ sən<sup>w</sup>k<sup>w</sup>ʔac inkʔyx<sup>w</sup>ʔícaʔ,  
 ʔapnáʔ s+n(+)<sup>w</sup>k<sup>w</sup>(•)√k<sup>w</sup>ʔac in-kʔ+√yx<sup>w</sup>+t=ícaʔ  
 now NMLZ+night 1SG.POSS-DRV+lower+STAT=covering  
 now night my.bottom.sheets  
 inkʔyx<sup>w</sup>ʔícaʔ k<sup>w</sup>u  
 in-kʔ+√yx<sup>w</sup>+t=ícaʔ k<sup>w</sup>u  
 1SG.POSS-DRV+lower+STAT=covering 1SG.ABS  
 my.bottom.sheets me  
 aksnáq’wəməʔtəm.”  
 an-ks-√náq’w-m-ʔt-m  
 2SG.POSS-FUT-steal-APPL-APPL.POSS-MID  
 you.will.steal.them.from

‘The chief said “Tonight, it’s my bottom sheets. You’re going to have to steal my bottom sheets,” the chief said.’

- (135) “oh, way’ ixíʔ níńwíʔs náq’wəməʔtsən.”  
 oh way’ ixíʔ níńwíʔs √náq’w-m-ʔt-s-n  
 oh yes DEM in.a.while steal-APPL-APPL.POSS-2SG.OBJ-1SG.ERG  
 oh yes then in.a.while I.steal.them.from.you  
 ‘“Oh, yes, I’ll steal them from you, no problem,” the boy said.’

- (136) naʔt tkʰmilx<sup>w</sup>s t̚qəl̚l̚xəl̚x.  
 naʔt √tkʰmilx<sup>w</sup>-s √t̚q-**l**•l̚x-l̚x  
 CONJ woman-3POSS lay.down-C<sub>1</sub>.PL•AUT-3PL  
 with his.wife they.lay.down  
 ‘With his wife, they went to bed.’

- (137) “t̚i k<sup>w</sup>aʔ scxʔkínx  
 t̚i k<sup>w</sup>aʔ s-c-x+√ʔkín-x  
 EMPH INTERJ NMLZ-CUST-DRV+do.what-INTR  
 just how  
 mi k<sup>w</sup>u náq<sup>w</sup>əms axáʔ  
 mi k<sup>w</sup>u √náq<sup>w</sup>-m-nt-s axáʔ  
 COMP.FUT 1SG.ABS steal-APPL-DIR-3ERG DEM  
 will me he.steal.it.from these  
 ink̚t̚yx<sup>w</sup>t̚ícaʔ?  
 in-k̚t̚+√yx<sup>w</sup>+t=ícaʔ  
 1SG.POSS-DRV+lower+STAT=covering  
 my.bottom.sheets

‘The chief said “How is he going to steal my bottom sheets from under me?”’

- (138) “ilíʔ kn t̚q̚l̚əx, nk<sup>w</sup>k<sup>w</sup>ʔác.”  
 ilíʔ kn √t̚q̚+l̚x n(+)<sup>w</sup>(•)√k<sup>w</sup>ʔác  
 DEM 1SG.ABS lay.down+AUT night  
 there I am.laying.down tonight  
 ‘I’ll be laying there, tonight,” he said.

- (139) nk<sup>w</sup>k<sup>w</sup>ʔac ixíʔ i<sup>••••</sup>ʔ mat  
 n(+)<sup>w</sup>(•)√k<sup>w</sup>ʔac ixíʔ iʔ mat  
 night DEM DET EPIS  
 it.was.nighttime then supposed  
 scxʔkínx?  
 s-c-x+√ʔkín-x?  
 NMLZ-CUST-DRV+do.what-INTR  
 to.do.what  
 ‘Then it was nighttime, how is he going to do it?’

- (140) iʔ ʔácqaʔ iʔ ylmíx<sup>w</sup>əm, nłəx<sup>w</sup>ʔpam iʔ  
 ixíʔ ʔácqaʔ iʔ ylmíx<sup>w</sup>m n+√ʔx<sup>w</sup>ʔp-am iʔ  
 DEM go.outside DET chief LOC+run.in-MID DET  
 then he.went.outside the chief he.ran.in the

tətwít.

t(•)√twít

boy

boy

‘Then the chief went outside. The boy ran inside.’

- (141) cus iʔ tkłmílx<sup>w</sup> iʔ ylmíx<sup>w</sup>əm “kátáxəx!  
 √cun-nt-s iʔ √tkłmílx<sup>w</sup>-s iʔ ylmíx<sup>w</sup>m √kátáx-x  
 say-DIR-3ERG DET woman-3POSS DET chief that.way-IMP  
 he.told.her the woman the chief move.over

iksk<sup>w</sup>aním axáʔ iʔ kłyx<sup>w</sup>tícaʔ.”

in-ks-√k<sup>w</sup>an-ím axáʔ iʔ kł+√yx<sup>w</sup>+t=ícaʔ

1 SG.POSS-FUT-take-MID DEM DET DRV+lower+STAT=covering

I.will.take these the sheets

‘The boy told the chief’s wife “Move over! I’m going to take these sheets!”’<sup>24</sup>

- (142) “itíʔ mi kylx<sup>w</sup>ícaʔn iʔ tətwit,  
 itíʔ mi k+√ylx<sup>w</sup>=ícaʔ-nt-n iʔ t(•)√twit  
 DEM COMP.FUT RES+wrap=covering-DIR-1 SG.ERG DET boy  
 there will I.wrap.him.up the boy

wáy púlstən.”

wáy √púl(-)st-n

yes kill.[CAUS]-1 SG.ERG

already I.killed.him

‘‘I’m going to wrap the boy up, I killed him already.’’

<sup>24</sup>There is no 3rd person possessive *-s* pronounced on *tkłmilx<sup>w</sup>* ‘woman’, which means that the beginning of the stanza could translate to ‘The chief told the woman...’. In this case, the audience would presumably understand that ‘the chief’ in this case refers to the boy, and that the woman mistakenly thinks that the boy is in fact the chief.

- (143) taʔxíləm, kʰcəkʷəntís iʔ kʰyxʷtícaʔ,  
 ta+√ʔxíł-m kʰ+√ckʷ-nt-ís iʔ kʰ+√yxʷ+t=ícaʔ  
 at+do.like-MID DRV+pull-DIR-3ERG DET DRV+lower+STAT=covering  
 he.did.like.that he.pulled.them.away the sheets

ʔácqaʔ.  
 ʔácqaʔ  
 go.outside  
 he.went.outside

‘He pulled away the bottom sheets and went outside.’

- (144) ixíʔ cnʔuʔxʷ iʔ ylmíxʷəmə, ksʰqíłxaʔx.  
 ixíʔ c+n+√ʔuʔxʷ iʔ ylmíxʷmə ks-√ʔq+íłx-aʔx  
 DEM CISL+LOC+enter DET chief FUT-lay.down+AUT-INCEPT  
 then he.went.inside the chief he.was.going.to.lay.down

‘Then the chief went back inside, and he was going to go to bed.’

- (145) “xʔkínəmə ikʰyxʷtícaʔ?”  
 x+√ʔkín-m in-kʰ+√yxʷ+t=ícaʔ  
 DRV+do.what-MID 1SG.POSS-DRV+lower+STAT=covering  
 what.happened.to my.bottom.sheets

‘“What happened to my bottom sheets?” said the chief.’

- (146) “kʷaʔ kʷ scútxaʔx kylxʷícaʔm  
 kʷaʔ kʷ s-√cút(-)x-aʔx k+√ylxʷ=ícaʔ-m  
 INTERJ 2SG.ABS NMLZ-say-INTR RES+wrap=covering-MID  
 well you were.saying were.wrapping.up

isqʷsíʔ, way pulstxʷ.”  
 in-s+√qʷsíʔ way pul(-)st-xʷ  
 1SG.POSS-NMLZ+son yes kill.[CAUS]-2SG.ERG  
 my.son already you.killed.him

‘“Well, you said that you were going to wrap my son up, and you killed him already,” said his wife.’

- (147) “ahahahaha”, ʔi cut. “lutaʔ cʔxíłstən  
 ahahahaha ʔi cut lutaʔ c-√ʔxíł-st-n  
 ahahahaha EMPH say NEG CUST-do.like-CAUS-1SG.ERG  
 ahahahaha just he.said not I.did.that

itíʔ.”  
 itíʔ  
 DEM  
 there

‘“Ahahahaha” is all he said. “I didn’t do that.”’

- (148) picx<sup>w</sup>t, way<sup>7</sup> náq<sup>w</sup>əms iʔ  
 √picx<sup>w</sup>+t way<sup>7</sup> √náq<sup>w</sup>-m-nt-s iʔ  
 disgusted+STAT yes steal-APPL-DIR-3ERG DET  
 he.was.disgusted yes he.stole.them the

k̄t̄yx<sup>w</sup>tícaʔ.  
 k̄t̄+√yx<sup>w</sup>+t=ícaʔ  
 DRV+lower+STAT=covering  
 bottom.sheets

‘He was disgusted, because the boy stole the bottoms sheets.’

- (149) ixíʔ ɬq̄ɪlx uɬ ʔitx.  
 ixíʔ √ɬq̄+ɪlx uɬ ʔitx.  
 DEM lay.down+AUT CONJ sleep  
 then he.lay.down and he.slept

‘Then he went to bed and slept.’

- (150) ʃlap ʔəɬʔf̄ənɬəx, iʔ tətʷít ʔf̄ən, t̄i sal̄.  
 ʃlap ʔɬ•√ʔf̄ən-lx iʔ t(•)√twít ʔf̄ən t̄i sal̄  
 tomorrow C<sub>1</sub>C<sub>2</sub>.PL•eat-3PL DET boy eat EMPH calm  
 tomorrow they.were.eating the boy he.ate just calm

‘The next day, they were eating, the boy was just eating away like nothing happened.’

- (151) taɬt picx<sup>w</sup>t iʔ ylmíx<sup>w</sup>əm.  
 √taɬ+t √picx<sup>w</sup>+t iʔ ylmíx<sup>w</sup>m  
 straight+STAT disgusted+STAT DET chief  
 sure he.was.disgusted the chief

‘The chief was really disgusted.’

- (152) taɬt nq̄<sup>w</sup>nq̄<sup>w</sup>múɬ iʔ sq<sup>w</sup>síʔs.  
 √taɬ+t nq̄<sup>w</sup>•√nq̄<sup>w</sup>-m+úɬ iʔ s+√q<sup>w</sup>síʔ-s  
 straight+STAT C<sub>1</sub>C<sub>2</sub>•steal-MID+very DET NMLZ+son-3POSS  
 sure thief the his.son

‘His son was a really good thief!’

- (153) cus “waȳ. ʔapnáʔ nk<sup>w</sup>k<sup>w</sup>ʔac iʔ  
 √cun-nt-s waȳ ʔapnáʔ n(+)k<sup>w</sup>(•)√k<sup>w</sup>ʔac iʔ  
 say-DIR-3ERG yes now night DET  
 he.told.him okay now tonight the

sənkaʔmən, lut lk<sup>w</sup>ut itíʔ.”  
 s+n+√kaʔ+mn lut √lk<sup>w</sup>=ut itíʔ  
 NMLZ+LOC+pray+INS NEG far=place DEM  
 church not far.away there

‘The chief told the boy “Okay, tonight it’s the church, it isn’t far there.”’

- (154) cut “aksnáq<sup>w</sup>əminem iʔ q<sup>w</sup>ʔaylqs.  
cut an-ks-√náq<sup>w</sup>-min-em iʔ √q<sup>w</sup>ʔay=lqs  
say 2SG.POSS-FUT-steal-APPL-MID DET black=robe  
he.said you.will.steal.him the priest

taʔt ksqíltkəm.”  
√taʔ+t kʔ-s+√qíl(=)tk-m  
straight+STAT get-NMLZ+body-MID  
sure get.body.and.all

‘He said “You’re going to steal the priest, body and all.”’

- (155) “lut ʔ yaʔt iʔ təmtəmút,  
lut ʔ √yaʔ+t iʔ tm•√tm=út+tn-s  
NEG NEG.EMPH gather+STAT DET C<sub>1</sub>C<sub>2</sub>.PL•thing=place+INS-3POSS  
not all the his.rob

x<sup>w</sup>təlsćút, x<sup>w</sup>təlsćút mi  
√x<sup>w</sup>t=lsćút √x<sup>w</sup>t=lsćút mi  
lose=clothes lose=clothes COMP.FUT  
take.off.his.clothes take.off.his.clothes before

k<sup>w</sup>intx<sup>w</sup>.”  
√k<sup>w</sup>in-nt-x<sup>w</sup>  
take-DIR-2SG.ERG  
you.take.him

“Not all his robes, you have to take them off, and then take them.”’

- (156) cut “way.”  
cut way  
say yes  
he.said okay

‘The boy said “Okay.”’

- (157) nínwíʔs ixíʔ klax<sup>w</sup>, iʔ... x<sup>w</sup>uy uʔ  
nínwíʔs ixíʔ klax<sup>w</sup> ixíʔ x<sup>w</sup>uy uʔ  
in.a.while DEM evening DEM go CONJ  
yes in.a.while it.was.evening then he.went and

ʔqíłəx...  
√ʔqí+ílx  
lay.down+AUT  
he.laid.down

‘After a little while it was evening, and he went to bed.’

- (158) nk<sup>w</sup>k<sup>w</sup>?ac [kax... ] mat way l ?ásil  
 n(+ )k<sup>w</sup>(•)k<sup>w</sup>?ac mat way l ?ásil  
 night EPIS yes LOC two  
 night must.be already at two.o'clock
- i? sǰlaps, i? sǰnkáǰmǰn lut  
 i? s-ǰlap-s, i? s+n+√/káǰ+mn lut  
 DET NMLZ-tomorrow-3POSS DET NMLZ+LOC+pray+INS NEG  
 the morning the church not
- lk<sup>w</sup>ut.  
 √/lk<sup>w</sup>=ut  
 far=place  
 far.away

‘That night, it must’ve been two o’clock in the morning, the church wasn’t far.’

- (159) x<sup>w</sup>ǰpǰncút l sǰnkáǰmǰn.  
 √/x<sup>w</sup>ǰ+p-ncút l s+n+√/káǰ+mn  
 get.up+INCH-REFL LOC NMLZ+LOC+pray+INS  
 he.rushed.over to church

‘The boy rushed to the church.’

- (160) kǰikǰiks i? ǰik<sup>w</sup>scǰn,  
 k+ǰik•√/ǰik-nt-s i? √/ǰik<sup>w</sup>=scǰn  
 RES+C<sub>1</sub>C<sub>2</sub>.PL•light.lamp-DIR-3ERG DET light=round.object  
 he.lit.them.up the lights
- yaǰt t nǰ?ax<sup>w</sup> i?  
 √/yaǰ+t t n+√/ǰ<?>ax<sup>w</sup> i?  
 gather+STAT OBL LOC+shine<INCH> DET  
 all shining the

sǰnkáǰmǰn.  
 s+n+√/káǰ+mn  
 NMLZ+LOC+pray+INS  
 church

‘He lit up all the lights, the church was all lit up.’

- (161) ǰǰcmǰncút i? t ǰ<sup>w</sup>ǰaylqs i?  
 √/ǰc-m-ncút i? t √/ǰ<sup>w</sup>ǰay=lqs i?  
 get.ready-APPL-REFL DET OBL black=robe DET  
 he.got.ready the with priest the
- tǰmtǰmútǰns.  
 tm•√/tm=út+tn-s  
 C<sub>1</sub>C<sub>2</sub>.PL•thing=place+INS-3POSS  
 his.robe

‘The boy put on the priest’s robe.’

- (162) ixíʔ q̣ʷʔaylqs xʷuy ʔácqaʔ.  
 ixíʔ √q̣ʷʔay=lqs xʷuy ʔácqaʔ  
 DEM black=robe go outside  
 then the.priest went outside

‘The priest went outside.’

- (163) “ax! cnpʔaxʷ iʔ sənkáʔmən!  
 ax c-n+√p̣ʔaxʷ iʔ s+n+√káʔ+mn  
 INTERJ STAT-LOC+shine<INCH> DET NMLZ+LOC+pray+INS  
 shining the church

scxʔkínəxʔ”  
 s-c-x+√ʔkín-x  
 NMLZ-CUST-DRV+do.what-INTR  
 what.is.happening

‘“Oh, the church is all lit up! What’s going on?”’

- (164) xʷəp̣əncút iklʔ, nʔutxʷ.  
 √xʷṭ+p-ncút iklʔ n+√ʔutxʷ  
 get.up+INCH-REFL DEM LOC+enter  
 he.rushed.over to.there he.went.in

‘The priest rushed over there and went inside.’

- (165) ixíʔ? iʔ tətʷít aʔ ckʔam. tacʔxiʔ.  
 ixíʔ iʔ t(•)√twít aʔ c-√kʔa-m ta+c-√ʔxiʔ  
 DEM DET boy DET CUST-pray-MID at+CUST-be.like  
 that the boy was.praying like.that

‘The boy was praying, just like that.’

- (166) scxʷuys iʔ q̣ʷʔaylqs, iʔ tətʷít  
 s-c+√xʷuy-s iʔ √q̣ʷʔay=lqs iʔ t(•)√twít  
 NMLZ-CISL+go-3POSS DET black=robe DET boy  
 he.came.to.him the priest the boy

ʔáx̣əlmncut, ʔaymíʔsntm.  
 √ʔáxl+m-ncut √ʔaym=iʔs-nt-m  
 turn.around+APPL-REFL cross=middle-DIR-PASS  
 he.turned.around he.made.the.sign.of.the.cross

‘The priest went up to him, the boy turned around and made the sign of the cross.’

- (167) ʔ̣ ʔ̣ḷap ixíʔ q̣ʷyq̣ʷyxínəms.  
 ʔ̣ √ʔ̣ḷ+ap ixíʔ q̣ʷy•√q̣ʷy(=)xín-m-s  
 EMPH stop+INCH DEM C<sub>1</sub>.C<sub>2</sub>.PL•kneel-MID-3POSS  
 just he.stopped then he.got.on.his.knees

‘The priest just stopped and got on his knees.’

- (168) ixíʔ uʔ kʲa-m iʔ tətʷít.  
 ixíʔ uʔ √kʲa-m iʔ t(•)√twít  
 DEM CONJ pray-MID DET boy  
 then and he.was.praying the boy

‘And the boy just kept on praying.’

- (169) ʔáǰəlməncut, cus iʔ q̣ʷʕaylqs  
 √ʔáǰl-m-ncut √cun-nt-s iʔ √q̣ʷʕay=lqs  
 turn.around-APPL-REFL say-DIR-3ERG DET black=robe  
 he.turned.around he.told.him the priest

“cxʷuyx aláʔ!”  
 c+√xʷuy-x aláʔ  
 CISL+go-IMP DEM  
 come here

‘The boy turned around, and he told the priest “Come here!”’

- (170) q̣ʷʕaylqs xʷuy aláʔ, q̣ʷyq̣ʷyxínəmə.  
 √q̣ʷʕay=lqs xʷuy aláʔ q̣ʷy•√q̣ʷy(=)xín  
 black=robe go DEM C<sub>1</sub>C<sub>2</sub>.PL•kneel-MID  
 the.priest went here he.got.on.his.knees

‘The priest came and got on his knees.’

- (171) cúntəm t tətʷít “təʔtáʔt kiʔ  
 √cún-nt-m t t(•)√twít tʲ•√táʔ+t kiʔ  
 say-DIR-PASS OBL boy C<sub>1</sub>C<sub>2</sub>.CHAR•straight+STAT COMP.OBL  
 he.was.told by the.boy truly that

kʷ ǰast t q̣ʷʕaylqs.”  
 kʷ √ǰas+t t √q̣ʷʕay=lqs  
 2SG.ABS good+STAT OBL black=robe  
 you are.good priest

‘The boy said “You truly are a good priest.”’

- (172) “kʷúləntxʷ askʷúl aláʔ iʔ l  
 √kʷúl-nt-xʷ an-s-√kʷúl aláʔ iʔ l  
 work-DIR-2SG.ERG 2SG.POSS-NMLZ-work DEM DET LOC  
 you.worked.on.it your.job here this on

təmxʷúlaʔxʷ.”  
 √tmxʷ=úlaʔxʷ  
 land=land  
 earth

‘“You’ve done your job on this earth.”’

- (173) “iʔ ck<sup>w</sup>úlstəmən, k<sup>w</sup>  
ixíʔ c-√k<sup>w</sup>úl(-)st-m-n k<sup>w</sup>  
DEM CUST-send.for.[CAUS]-2SG.OBJ-1SG.ERG 2SG.ABS  
I.am.sent.for.you you  
isk<sup>w</sup>əlstíʔən áʔiʔ taʔlíʔ k<sup>w</sup>  
in-s-√k<sup>w</sup>l(-)st=íʔn áʔiʔ taʔlíʔ k<sup>w</sup>  
1SG.POSS-NMLZ-send.for=information COMP very 2SG.ABS  
I.was.sent.here.for because very you  
ǰast t ǰ<sup>w</sup>ʔaylqs.”  
√ǰas+t t √ǰ<sup>w</sup>ʔay=lqs  
good+STAT OBL black=robe  
are.good priest

‘The boy said “I was sent here for you because you are a really good priest.”’

- (174) ixíʔ uʔ q<sup>w</sup>əlq<sup>w</sup>ílsts.  
ixíʔ uʔ q<sup>w</sup>l•√q<sup>w</sup>íl-st-s  
DEM CONJ C<sub>1</sub>C<sub>2</sub>.PL•speak-CAUS-3ERG  
then and he.spoke.to.him

‘And then the boy spoke to him.’

- (175) cut “way, k<sup>w</sup> iksx<sup>w</sup>ústəm k̄  
cut way k<sup>w</sup> in-ks-√x<sup>w</sup>úy-st-m k̄l  
say yes 2SG.ABS 1SG.POSS-FUT-go-CAUS-MID LOC  
he.said yes you I.will.take to  
nwíst.”  
n+√wíst+t  
LOC+high+STAT  
heaven

‘He said “Yes, I’m going to take you to heaven.”’

- (176) “ǰi yaʔ k<sup>w</sup> ksqíʔtkəm mi  
ǰi yaʔ k<sup>w</sup> kʔ-s+√qíʔ(=)tk-m mi  
EMPH gather 2SG.ABS get-NMLZ+body-MID COMP.FUT  
just all you get.body.and.all will  
x<sup>w</sup>ústəmən, way mat k<sup>w</sup> ǰast  
√x<sup>w</sup>úy-st-m-n way mat k<sup>w</sup> √ǰas+t  
go-CAUS-2SG.OBJ-1SG.ERG yes EPIS 2SG.ABS good+STAT  
I.take.you yes must.be you a.good  
t ǰ<sup>w</sup>ʔaylqs.”  
t √ǰ<sup>w</sup>ʔay=lqs  
OBL black=robe  
priest

‘“I will take your body and all, you must be a very good priest.”’

- (177) “yaŋya...ŋt                      astəmtím  
yaŋ•√yaŋt                      an-s+tm•√tím  
C<sub>1</sub>C<sub>2</sub>.PL•gather+STAT    2SG.POSS-NMLZ+C<sub>1</sub>.C<sub>2</sub>.PL•thing  
all                                      your.things

ǰ<sup>w</sup>ilstx<sup>w</sup>                                      alá?.”  
√ǰ<sup>w</sup>il-st-x<sup>w</sup>                                      alá?  
throw.away-CAUS-2SG.ERG    DEM  
you.throw.them.away                      here

‘“Throw all your things away here.”’

- (178) ǰ<sup>w</sup>ilsts,                                      kɬtəməlx<sup>w</sup>ncút                      i?    ǰ<sup>w</sup>ŋaylqs,  
√ǰ<sup>w</sup>il-st-s                                      kɬ+√tm=lx<sup>w</sup>-ncut                      i?    √ǰ<sup>w</sup>ŋay=lqs  
throw.away-CAUS-3ERG    DRV+thing=person-REFL    DET    black=robe  
he.threw.them.away                      he.took.off.his.clothes                      the    priest

n?amúts                      i?    l    táqna?  
n+√?amút-s                      i?    l    táq(=)na?  
LOC+sit-3POSS    DET    LOC    gunny.sack  
he.was.sat.down    the    in    gunny.sack

‘The priest threw them away, took his clothes off and the boy sat him in a gunny-sack.’

- (179) ǰ<sup>w</sup>íftəm                      kɬl    sənŋkŋáka?tən,                      ki?  
√ǰ<sup>w</sup>íft-m                      kɬl    s+n+kŋ(•)√kŋ(=)áka?+tn                      ki?  
pack-MID                      LOC    NMLZ+LOC+bird+INS                      COMP.OBL  
he.packed.him    to    chicken.house                      where

kɬəx<sup>w</sup>pəntís.  
k+√ɬx<sup>w</sup>(+)p-nt-ís  
RES+hang-DIR-3ERG  
he.hung.him.up

‘The boy carried the priest on his back to the chicken house, and he hung him up.’

- (180) ixí?    uɬ    x<sup>w</sup>uy    ɬǰíłəx.  
ixí?    uɬ    x<sup>w</sup>uy    √ɬǰíłx  
DEM    CONJ    go    lay.down+AUT  
then    and    he.went    he.laid.down

‘And then the boy went home and went to bed.’

- (181) ɬk<sup>w</sup>k<sup>w</sup>ŋast,                      ixí?    i?    likók    q<sup>w</sup>əlq<sup>w</sup>íłt.  
ɬ(+)k<sup>w</sup>•√k<sup>w</sup>ŋas(+t)    ixí?    i?    likók    q<sup>w</sup>l•√q<sup>w</sup>íłt+  
morning                      DEM    DET    rooster    C<sub>1</sub>C<sub>2</sub>.PL•speak+STAT  
in.the.morning                      that                      rooster    crowed

‘In the morning, the rooster crowed.’

- (182) “ax, way [k<sup>w</sup>u] kn kicx!”  
 ax way kn √kic-x  
 INTERJ yes 1 SG.ABS arrive-INTR  
 yes I have.arrived

‘The priest said “I got there!”’<sup>25</sup>

- (183) ilí? uł ʔəʔʔíʔənləx l ʔk<sup>w</sup>k<sup>w</sup>ʔast.  
 ilí? uł ʔʔ•√ʔíʔn-lx l ʔ(+k<sup>w</sup>)(•)√k<sup>w</sup>ʔas(+t)  
 DEM CONJ C<sub>1</sub>C<sub>2</sub>.PL•eat-3PL LOC morning  
 there and they.were.eating in morning

‘They were eating breakfast.’

- (184) cus aʔ lʔíws, “way, x<sup>w</sup>uyx  
 √cun-nt-s aʔ √lʔíw-s way √x<sup>w</sup>uy-x  
 say-DIR-3ERG DET father-3POSS yes go-IMP  
 he.told.him his.father yes go

kl sənkwkʔákaʔtən mi  
 kl s+n+kʔ(•)√kʔ(=)ákaʔ+tn mi  
 LOC NMLZ+LOC+bird+INS COMP.FUT  
 to chicken.house and.then

k<sup>w</sup>ʔəntíx<sup>w</sup> iʔ q<sup>w</sup>ʔaylqs, mat  
 √k<sup>w</sup>ʔ-nt-íx<sup>w</sup> iʔ √q<sup>w</sup>ʔay=lqs mat  
 take.something.out-DIR-2SG.ERG DET black=robe EPIS  
 you.take.him.out the priest must.be

way kiyt!”  
 way √kiy+t  
 yes cold+STAT  
 yes he.is.cold

‘The boy told his father “Yes, go to the chickenhouse and take the priest out of there, he must be cold!”’

- (185) o, tałt uł kiy...  
 oh √tał+t uł √kiy+t  
 oh straight+STAT CONJ cold  
 oh straight and cold

‘Oh, and he was sure cold...’

<sup>25</sup>A.M. says to take out k<sup>w</sup>u.

- (186) x<sup>w</sup>uy, axá? ckɬax<sup>w</sup>p i? q̣<sup>w</sup>ɣaylqs i? l  
 x<sup>w</sup>uy axá? c-k+√ɬax<sup>w</sup>(+)p i? √q̣<sup>w</sup>ɣay=lqs i? l  
 go DEM STAT-RES+hung.up DET black=robe DET LOC  
 he.went this hanging the priest the in

sənkɬkɬáka?tən.  
 s+n+kɬ(•)√kɬ(=)áka?+tn  
 NMLZ+LOC+bird+INS  
 chickenhouse

‘The chief went there, and the priest was there hung up inside the chickenhouse.’

- (187) tḳ<sup>w</sup>əʒntis [eh?], ṭɬx i?  
 t+√ḳ<sup>w</sup>ʒ-nt-is √ṭɬ-x i?  
 RES+take.something.out-DIR-3ERG stand-INTR DET  
 he.took.him.off he.stood.up the

q̣<sup>w</sup>ɣaylqs, “ha k<sup>w</sup>u yaɣp?”  
 √q̣<sup>w</sup>ɣay=lqs ha k<sup>w</sup>u √yaɣ+p  
 black=robe Q 1PL.ABS gather+INCH  
 priest have we arrived

‘The chief took him off from where he was hanging, and the priest stood up and asked “Have we arrived?”’

- (188) “k<sup>w</sup>u yaɣp! kiẉ, isq<sup>w</sup>sí?a?  
 k<sup>w</sup>u √yaɣ+p kiẉ in-s+√q<sup>w</sup>sí?+a?  
 1PL.ABS gather+INCH yes 1SG.POSS-NMLZ+son+DRV  
 we arrived yes my.son

ckʔxilməstəms!”  
 c-k+√ʔxil-m-st-m-s  
 CUST-RES+do.like-APPL-CAUS-2SG.OBJ-3ERG  
 he.did.this.to.you

‘The chief said “We’ve arrived, yes, my son has done this to you!”’

- (189) ixí? x<sup>w</sup>uy, ʔiɬən, ʔəʔʔiɬənɬəx.  
 ixí? x<sup>w</sup>uy ʔiɬn ʔə•√ʔiɬn-lx  
 DEM go eat C<sub>1</sub>C<sub>2</sub>.PL•eat-3PL  
 then he.went he.ate they.were.eating

‘So he went on, and they were eating again.’

- (190) nstils                                    “i?    q̣ʷɣaylqs,    waỵ    úfi?    waỵ  
 n+√st=ils                                i?    √q̣ʷɣay=lqs    waỵ    úfi?    waỵ  
 LOC+think=thoughts    DET    black=robe    yes    and.then    yes  
 he.thought                                the    priest            yes    and.then    yes  
     waỵ,                    kaʔhís.”  
     waỵ                    kaʔhís  
     finish                three  
     he.is.finished    that.is.three

‘The chief thought “The priest, okay, and now he’s done, that’s three times.”’

- (191) cut    i? ...    cus                                    i?    tətwtít    “waỵ,    waỵ    kʷ  
 cut    i?    √cun-nt-s                    i?    t(•)√twít    waỵ    waỵ    kʷ  
 say    DET    say-DIR-3ERG    DET    boy            yes    yes    2SG.ABS  
 said    the    he.told.him    the    boy            yes    yes    you  
     ʔxʷup,    waỵ    kʷu            ʔxʷúpəntxʷ.”  
     √ʔxʷu+p    waỵ    kʷu            √ʔxʷú+p-nt-xʷ  
     win+INCH    yes    1SG.ABS    win+INCH-DIR-2SG.ERG  
     have.won    yes    me            you.have.beaten

‘The chief told the boy “Yes, you’ve won, you have beaten me.”’

- (192) ixí?    ki?                                    waỵ    ismáymáy.  
 ixí?    ki?                                    waỵ    in-s+máymáy•√máymáy  
 DEM    COMP.OBL    yes            1SG.POSS-NMLZ+C1C2.PL•tell  
 that                                        finished    my.story

‘That’s the end of my story.’

- (193) iskʷíst                                    kiʔláwna?  
 in-s+√kʷís(+t)                        kiʔláwna?  
 1SG.POSS-NMLZ+name    grizzly.bear  
 my.name                                    grizzly.bear

‘My name is Grizzly Bear.’

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# A Snohomish telling of “The Seal Hunters”

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**Abstract:** Oral-based indigenous cultures have stories that persist over time, though some variation may exist in various details and in overall context. Related cultures in particular have similar stories, and assessing the similarities and differences across their tellings of these stories provides valuable historical and cultural background. In the case of endangered languages and cultures, every telling of every story provides important insight. This article presents a recently discovered archived account of a Snohomish version of “The Seal Hunters”, a captivating story that has many variant forms across Salish cultures. The story was written down in the nineteenth century by an intrepid French globetrotting explorer and anthropologist, Alphonse Pinart. This article begins with some background on Pinart, on the Snohomish language and culture, and on the manuscript itself. Then I give a transcription of the Pinart’s French account of the story and a translation into English, followed by a comparative analysis.

**Keywords:** Snohomish, story, seal hunters

## 1 Introduction

“The Seal Hunters” is a story that is told by indigenous cultures throughout the Pacific Northwest region of the United States. It is an elaborate and lively story of dwarves (or giants), spirit powers, hunting, captivity, and high adventure. Several versions exist that vary considerably in detail, complexity, and focus.

This article presents another version of the story that is located in an archival repository, as recorded in French by the early Pacific-region explorer and ethnographer Alphonse Pinart (no date). In his hand he summarizes the story as it was told to him by an unnamed Snohomish speaker. Though not as lengthy as some other versions, and though not recorded in the original language nor evidently translated by Pinart, it still provides interesting documentation of the story from an external perspective.

Telling this story here is important for several reasons. Snohomish is a highly endangered language and culture. In such situations, when dealing with language endangerment, documentation—even from archival sources—is critical: every word counts. The same is also true for cultures, especially those based on stories and orality: every story counts. In fact, every telling of every story counts.

Furthermore, apparently no English translation of this telling exists. Since most current speakers of the language do not know French, this article provides them access to Pinart’s account. Finally, since the French version is also not

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available elsewhere, it brings to light a story that until now has only been accessible to those able to access it from its archival repository.

## 2 Background

Alphonse Louis Pinart was a French ethnographer, explorer, and linguist who lived from 1852–1911. He is famous for his daring adventures in Alaska, Siberia, the Caribbean, the American southwest desert, Easter Island, and Central and South America. His exploits were legendary, and he contributed thousands of artifacts to museums and collections. Some of these were controversial and remain so: he allegedly pilfered historical Spanish documents from archives in New Mexico, and sold a purported Aztec crystal skull to the Trocadéro museum in Paris (Associated Press, 2008). There is even some evidence that the movie “Indiana Jones and the Kingdom of the Crystal Skull” was inspired at least in part by Pinart's adventures. Several of Pinart's manuscripts and artifacts can be found today in the Bancroft Library at the University of California, Berkeley as well as at a museum in his home town in France.

Crucially for this discussion, Pinart also visited the Pacific Northwest, probably sometime during 1875 to 1876. At the time it is likely that he met with Father Eugène Casimir Chirouse, a French Oblate missionary who was famous for his ministry among the tribes of the area, particularly the Snohomish. Chirouse became intimately acquainted with the Snohomish language and culture, compiling a grammar, wordlist, and translations of liturgical material.

During Pinart's visit he became acquainted with at least some Snohomish stories. One story that he recorded is a summary of a Snohomish version of “The Seal Hunters”. As reported in this article, Pinart's version has now been transcribed from the manuscript version and translated into English. I thus discuss here the work involved in rendering the story into English and present the English translation and comparative observations with other versions.

### 2.1 Snohomish culture and language

The Snohomish tribe had a population of about 350 in 1850, and double that in 1980. They were known as warriors and hunters. They actively participated in the fur trade and interacted closely with Roman Catholic missionaries. Remaining largely neutral in skirmishes during the Indian war (1855–56) and offering some resistance to reservation resettlement policies over the years, the tribe today occupies a somewhat indeterminate status, recognized by the federal government as a political entity but not a tribal one.

Lushootseed (formerly known as Puget Salish) is a Central Coast Salish language whose traditional area ranges from Puget Sound westward to the Cascades. The language has various dialects including:

- Skagit (and Nooksack), Snohomish, Sauk-Suiattle, and Skykomish comprising the northern dialects, and
- Snoqualmie, Suquamish, Duwamish, Muckleshoot comprising the southern dialects

Though Pinart likely came in contact with groups speaking several of these dialects, the story he retells in French is specifically mentioned as coming from the Snohomish, whose language is now grouped with others under the rubric “Lushootseed”.

Lushootseed is a language with few vowels but a complex consonantal system. Its rich morphology is a property it shares with other Coast Salish languages. The orthography involves a (rough) 1-to-1 sound/symbol correspondence, and was standardized by Thom Hess in the 1960's. It is largely based on the Roman, International Phonetic Alphabet and Americanist alphabets. As regards the lexicon and lexical categories, Lushootseed has few prepositions and adverbs; predicates tend to carry this content. Some function words play several roles: determiners are often used as pronouns, for example.

Many loanwords have entered the language from English, French, Chinook Jargon, and surrounding Native American languages. On the other hand, a rich degree of lexical innovation exists in the language due to the high level of semantic, syntactic, morphological and phonological processes available.

Though the language also has other interesting syntactic, semantic, and pragmatic properties, they will not be addressed in this paper.

## **2.2 Versions of the story**

As mentioned earlier, the story of the seal hunters is commonly told throughout the Pacific Northwest. I next sketch some of the most widely known versions of this ancient story.

An early published account was told in the southern area of Puget Sound (Ballard, 1927). Entitled “The Two Brothers' Journey to the North”, it was documented in English and bears only fragmentary resemblance to the other tellings. It tells about a powerful canoe-maker who fashions a seal out of cedar, places a magic spell on it, and places it in the ocean. Two seal-hunting brothers see it, and one casts a spear into it. The stricken seal swims away with the two men in tow for five days and nights, under the seal's magic charm. Eventually they arrive in a far-away land populated by giants. One of the brothers is attacked and eaten by mosquitoes that were also condors; the other finds an old giant man the size of a tree. The old man goes to a river with a basket and fills it with king salmon, which he calls minnows. He taught the brother how to cook these fish. This was repeated for several days. Then the fifth and last day the giant caught a hundred-foot long whale that he pulled ashore and put under a magic spell. A large slit was opened in the whale, and the brother was put inside of it along with adequate provisions of dried fish. The whale was then healed and sent on its way with instructions to surface often enough to allow the hunter to breathe. After some time they arrived at the hunter's home, at a place that now has become a great gathering place for seals.

Adamson (1934) records two other tellings. The first, by the Upper Chehalis people, is called “The Seal Hunter”. It tells of five brothers, the eldest of whom was a canoe maker and the middle brother a powerful seal hunter. The eldest one makes a seal out of cedar and leaves it floating in the bay where seals were known to congregate. The seal hunter and two of his brothers, on an expedition,

spear the “seal” and with great power it heads westward out to sea with them in tow. Five days and nights later they arrive at a strange land. Two of the brothers went exploring, leaving the youngest of the three behind. They find a giant old man who tells them to return to their brother which they do, only to find him completely devoured by mosquitoes. For five days they watch the giant try to fish rather unsuccessfully due to their interference. The two brothers also become involved in a fishing dispute between this giant and another one. Finally, on the fifth outing the giant succeeds in catching not just a fish but a whale, which they eat. The two brothers are sent to another whale who cut a slit in himself so they could ride inside of him. The whale took them back to their land, and after stopping at several villages they eventually arrived home where the whale died.

The possibly related second version that Adamson (1934) tells is by the Cowlitz and is called “The Wooden Fish”. A widower tries to get salmon for his child but the fisherman refuses. So the widower makes a wooden fish and puts it in the river. The fisherman and his younger brother, while fishing, spear the “fish” and it pulls them down the Cowlitz River day and night until they reached the Columbia where the fish landed. They were attacked by a large flock of bear-sized birds. Hiding his brother under the canoe, the fisherman scouts out the country and comes across a giant old man. Told to return to his brother on the river shore immediately, he finds that mosquitoes (the large birds) have split the canoe and devoured his brother. The old man feeds the fisherman salmon. The two fight a neighbouring, competing giant and kill him, largely due to the bows and arrows that the visitor made. To show his gratitude, the giant decides to send the man back home: he gets a whale, hollows it out and fills it with supplies, puts the fisherman in, and sends it off. After an overnight journey the man arrives upriver at home.

The Jacobs version of the tale (1958) is quite different from the previously documented versions. For example, it is about 26 pages long and recorded in the original language (Clackamas Chinook) with an English translation. About a dozen sealers participate in the adventure, the speared seal is large, and the Indians try unsuccessfully to sever the rope towing them. From this point on the story diverges so much that correspondences are difficult to appreciate and in fact may not exist at all.

Elmendorf (1961) records two Skokomish versions. The first is nine pages long and the second just over two pages. The first tells about two brothers, a canoe maker and a seal hunter. The former makes a seal out of cedar and sets it on a rock. His brother spears it, and it takes off swimming through a fog for four days and nights. The seal changes to a cedar tree, and the hunter and his canoe captain beach the canoe. The next day they see a big canoe with a “little fellow” in it. He dives twice and comes up with a halibut each time. The two stranded hunters decide to steal one of the halibut while the man is diving underwater. Immediately the man gets into his canoe, stretches out his arm, points, and brings his arm around in a circle until he points directly at the shore where the two men are hiding. At this point his arm dips down, he pulls up the anchor, and he canoes directly to the two men. He takes them prisoner and paddles to a large

village full of small people. Several days pass with the two prisoners suffering for want of decent food. A large black cloud arises one day from the south; it turns out to be large swarms of black geese that wage warfare on, and kill, many of the small people. Upon inspection the two prisoners notice pin-feathers sticking in the victims; these were responsible for their deaths. By simply pulling out these deadly pin-feathers the prisoners are able to restore the little people back to perfect health. Everyone cooperated in clubbing the geese, chasing them away and killing and cooking many of them.

The next day an attack of white geese was similarly repelled, as were attacks of swans, mallards, and several kinds of ducks in subsequent days. Since the prisoners were instrumental in saving the people from these birds, they are shown gratitude and released. One summer morning the seal hunter and his captain get into a canoe and head east with their former captors' blessing. Passing several villages of salmon people, they eventually arrive at a steelheads' village. An old man—a whale—takes them aboard and tells them he can take them home to the Skokomish flats. They get inside and travel home inside the whale.

The second, shorter version that Elmendorf records differs slightly from the previous one. There are three brothers: besides the canoe maker and the seal hunter, the youngest is skilled at using the bow and arrow. The eldest brother makes a cedar seal and places it on a rock, his hunter brother spears it and gets towed all day and night until perhaps arriving at Vancouver Island. While hiding all day, they see a small man in a big canoe repeatedly dive for dentalia, some of which they stole. The small man, using the familiar compass-like gesture, found their location and took them to his home village of dwarfs. After a while huge flocks of northbound ducks attacked the village, killing many with their feathers. The two men clubbed several ducks to death. The little people arranged to have them sent home. A big whale swallowed them with their canoe and took them home, ending their eventful year-long adventure.

Martha Lamont's very detailed version of the story as told in the Lushootseed language is transcribed, translated, and extensively analyzed in Bierwert's anthology (1996). Presented line-by-line in the original language with an aligned English translation, it is the longest version, over 40 pages in length. It is, however, embedded in a much larger story. Bierwert prefaces the story with an introduction that situates it in Lushootseed culture and its larger Salishan context; she also presents a schematic analysis of the text including its elaborate discourse and narrative structure.

From this short summary it is obvious that details differ considerably across these various versions of the story. As we will see, though, there is an overall general correspondence with Pinart's telling. Still other versions are told by Chinook, Squamish, Musqueam, and Katzie storytellers, but the ones cited above will suffice for our purposes.

### 2.3 The manuscript

The manuscript itself is written in French and covers two full pages, comprising 55 lines and 430 words. It has no title, and is found among other assorted papers relating to his interactions with the Snohomish. Figure 1 shows the manuscript.

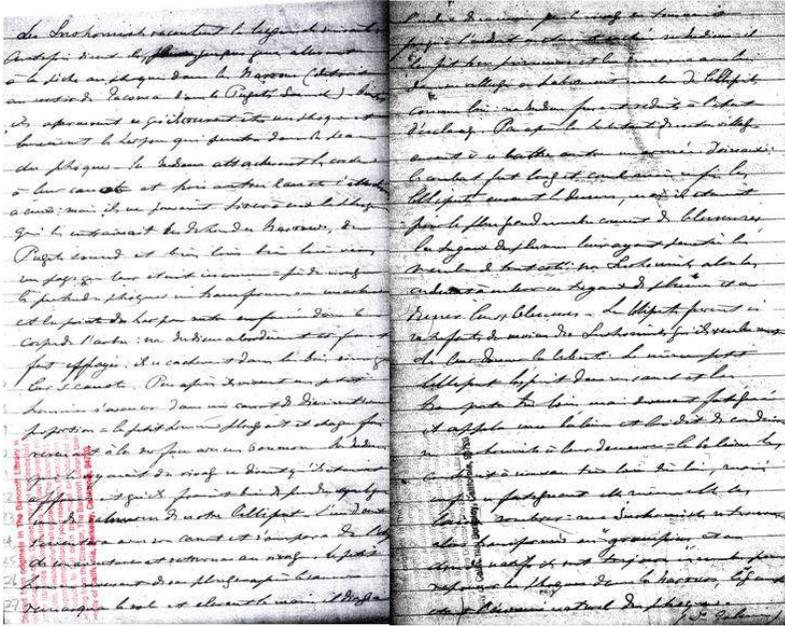


Figure 1 Pinart manuscript.

The contents of the manuscript were first discovered by reading and then transcribing the handwritten document. The orthography was interesting in several respects. For example, the script was fairly challenging, with lowercase letters often collapsed in rather than looped. A curious and noteworthy property of this manuscript is that many of the diacritic accents, which are abundant in French, were not used. My translation into French was done keeping as faithful to the original's grammatical constructions as possible while attempting to preserve and render the narrative style and literary figures.

### 3 Transcription and translation of the story

In this section I present a transcription of the story as it was recorded in French by Pinart. Then I give my English translation version of the story. A few words from the French manuscript required some degree of interpolation given difficulties in deciphering the handwriting; they (and their translations) are represented in the accounts with a suffixed token “??” to indicate their tentative

status. Punctuation and capitalisation have been normalized, and diacritics have been added to the French.

### **3.1 Transcription of Pinart's French version**

Les Snohomish racontent la légende suivante: Autrefois, disent-ils, plusieurs jeunes gens allèrent à la pêche au phoque dans les Narrows (détroit au sortir de Tacoma dans le Puget's Sound). Bientôt ils aperçurent ce qu'ils crurent être un phoque et lancèrent le harpon qui pénétra dans la peau du phoque. Les Indiens attachèrent la corde à leur canot et trois autres canots s'attachèrent à eux. Mais ils ne pouvaient tirer à eux le phoque qui les entraîna au dehors des Narrows du Puget's Sound et bien loin bien loin vers un pays qui leur était inconnu. Près du rivage le prétendu phoque se transforma en un arbre et la pointe du harpon resta enfoncée dans le corps de l'arbre. Nos Indiens abordèrent et furent fort effrayés. Ils se cachèrent dans les bois avec leurs 5 canots. Peu après ils virent un petit homme s'avancer dans un canot de diminutive proportion. Le petit homme plongeait et chaque fois revenait à la surface avec un saumon. Les Indiens qui le voyaient d'un rivage se disaient qu'ils feraient bien de prendre quelques uns des saumons de notre lilliput. L'un d'eux s'aventura avec son canot et s'empara de l'objet de son aventure et retourna au rivage. Le petit homme revenant de sa plongée après le saumon remarqua le vol et élevant la main il dirigea l'index de sa main vers le rivage en tournant jusqu'à l'endroit où étaient cachés nos Indiens. Il les fit tous prisonniers et les emmena avec lui dans un village où habitent nombre de lilliputs comme lui. Nos Indiens furent réduits à l'état d'esclavage. Peu après les habitants de notre village eurent à se battre contre une armée d'oiseaux. Le combat fut long et cruel mais enfin les lilliputs eurent le dessus, mais ils étaient pour le plus grand nombre couverts de blessures, les tuyaux de plumes leur ayant pénétré les membres de tout côté. Nos Snohomish alors les aident à enlever ces tuyaux de plumes et à dresser leurs blessures. Les lilliputs furent si satisfaits des services des Snohomish qu'ils résolurent de leur donner la liberté. Le moins petit lilliput les prit dans son canot et les transporta très loin mais devenant fatigué il appela une baleine et lui dit de conduire nos Snohomish à leur demeure. La baleine les conduisit à unison très loin très loin, mais enfin se fatiguant elle-même elle les laissa sombrer. Nos Snohomish se trouvent alors transformés en "grampius" et aux abords?? natifs ils sont toujours en évidence?? pour repousser les phoques dans les Narrows, le "grampius" étant l'ennemi naturel des phoques.

### **3.2 English translation of Pinart's version**

The Snohomish tell the following legend: Long ago, they say, several young men went seal hunting in the Narrows (a strait at the edge of Tacoma in Puget Sound). Soon they noticed what they thought was a seal and threw a harpoon that sank into the seal's skin. The Indians attached the rope to their canoe and three other canoes were attached to them. But they couldn't pull the seal aboard and it towed them beyond the Narrows of Puget Sound and very far, very far away towards a land that was unknown to them. Near the seashore the supposed

seal changed into a tree and the tip of the harpoon stayed stuck inside the body of the tree. These Indians climbed ashore and were very frightened. They hid themselves in the woods with their 5 canoes. Soon afterwards they saw a small man coming towards them in a tiny canoe. The tiny man dived repeatedly into the water and each time he came to the surface he had a salmon. The Indians who saw him from the shore decided among themselves that it would be good if they could take some of the salmon from our dwarf. One of them set forth in his canoe and stole what he was after and returned to the shore. The tiny man, returning from his diving for salmon, noticed the theft. Lifting up his hand he pointed towards the shore and followed it in a circle until he was pointing at the place where our Indians were hiding. He took them all prisoners and brought them with him to a village where many dwarves like him were living. Our Indians were reduced to slavery. Soon after, the inhabitants of our village had to fight against an army of birds. The combat was long and cruel but finally the dwarves prevailed, but most of them were covered with wounds, the quills having penetrated their limbs from every direction. Our Snohomish helped them to remove these quills and to dress their wounds. The dwarves were so satisfied with the services of the Snohomish that they resolved to set them free. The least small dwarf took them in his canoe and transported them very far away but becoming tired, he called a whale and told it to take our Snohomish to their home. The whale took them very far very far but finally becoming tired herself they left her to flounder and sink. Our Snohomish then turned into orcas and in their native coasts?? they are always seen?? driving away seals from the Narrows, since the orcas are the natural enemy of seals.

#### **4 Brief analysis**

Clearly this Snohomish recounting shares many elements with the versions mentioned earlier. As can be expected, though, there are noteworthy differences between this telling of the story and other tellings. For example, the motivation for the hunt is different, the pertinent family relationships not playing a role here. The number of canoes and the number of fishermen/hunters is also unique to this version.

The description of the supernatural human in the canoe is likewise different and interesting here. Pinart describes him, and the rest of his tribe, as “Lilliputs”, a term not used in the other versions. This is clearly a literary allusion that is salient for Pinart and that presumably he assumes will also be salient for his intended audience.

Various details conflict across these tellings. For example, consider the species of marine life that the dwarf dives for: here he dives for salmon, whereas in other versions he dives for halibut or dentalia.

Granularity of description varies across these stories. In all of the other accounts the forces attacking the dwarves’ village are specifically named, as mosquitoes and/or specific species of birds. In this story, though Pinart only refers generically to “birds”.

The return voyage to Snohomish territory is also different in this version. Unique to this telling is the eventual transformation of the hunter protagonists into killer whales; in the other versions they return to their village to resume their daily livelihood.

In terms of lexical selection, Pinart exhibits interesting choices. The word he uses for “orca” or “killer whale” is “grampus”, a slight misspelling of the word “grampus”, also used in French, which has fallen into disuse but which in the nineteenth century meant “orca” and was the Latin genus name for a kind of dolphin.

From a pragmatic perspective Pinart’s narrative involves considerable engagement. Whereas at the beginning of the story he refers to “the Snohomish” several times, by the end they are referred to several times as “our Snohomish” and “our Indians”. Even reference to the dwarves’ village evolves to “our village”. His stance is therefore far from neutral: he views the Snohomish as protagonists.

On the other hand, the story is meant to be construed as describing events taking place long ago. It is told using the simple past and related tenses, which in French indicates remote time and is largely used for written narrative.

An issue that remains unresolved is how exactly Pinart received this story. He almost certainly did not speak Snohomish, so the story was not recounted directly to him by a Snohomish speaker in that language. As mentioned earlier, though, he must have met with Father Chirouse in his travels, and Chirouse was an expert of the language. Did Chirouse recount the story to Pinart? Or did Chirouse interpret into French for Pinart, either simultaneously or consecutively, the recounting of the story by a Snohomish speaker? Was it told to him in English? The lack of strikeouts and other corrections shows that this manuscript was not a real-time transcription, but beyond that the exact means of transmission remains indeterminate.

## **5 Conclusion**

In this article I have presented a new, second-hand account of a Snohomish telling of “The Seal Hunters”. It reunites many aspects of previous versions: seal hunters undertake a dangerous, enchanted journey initiated by a charmed cedar seal; they come into contact with and are made captive by dwarves; alongside their captives they combat aerial forces of nature; finally they return to their home territory thanks to the assistance of a whale.

There has been recent discussion among linguists engaged in language preservation and revitalization about the value of archival work. On the one hand, with speakers of endangered languages in ever shorter supply, and with a paucity of speakers skilled in collecting and analyzing data for these languages, some stakeholders maintain that the allocation of time, effort, energy, and resources should exclusively focus on fieldwork. While this is undoubtedly an important and timely work to undertake, this article presents the results of a modest (and even serendipitous) research effort that likewise brings to light valuable and interesting cultural information from archival sources.

## 6 Acknowledgements

The author greatly appreciates the efforts of the Bancroft Library at the University of California at Berkeley for access to the Pinart materials and for permission to cite and illustrate them in this article.

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# A Sasquatch story in St'át'imc

Marie Amhatsin' Abraham  
Lil'wat Elder, Lil'wat Nation

**Abstract:** This is a short story I wrote about when I saw a Sásqets (Sasquatch) between Charlie Mack's and Andrew Wallace's houses.

## 1 St'át'imc

Ats'xenlhkán ta sásqets áku7 Nséq'a (Charlie Mack's), lti Lil'wata Tsel'álh c.walh, nzeháw's ta tsítcwsa sCharlie Mack múta7 ta tsítcwsa sAndrew Wallace. Lhkalálas 10 pm kakwássa, lan ti wa7 xw7utsinásq'et gap. Wá7lhkan nas áku7 Pemberton-a, wá7lhkan pzanwálhen ti nsesqwáoz'a, Lucille. Wa7 ti7 cát'lec ta 'greyhound bus' áku7 Pemberton-a, 10:15 pm. Lan ts7as ta núkwa kém'cweyeqs, wá7lhkan uzún ta nts'ák'wa, ... Ptak ta kém'cweyeqsa knáti7, ... kent7ú, ... Ptakkán t'it múta7 kagwélana ta nts'ák'wa lti nkém'cweyeqsa. Ptakkálh lti c.wálha Ptakmin'twál i kém'cweyeqskálha. ptakentsás ti kém'cweyeqsa, ptakenskán, ... Kalhéxwa aylh, ... Ka-7áts'xenlhkana ti xzúma sqáx7a, wa7 ti7 nt'áqaw's ta xzúma sqáx7a. Pe-qmín'st múta7 wéq'weq'em ta máqinsa, ka-táxwa ta máqinsa, zact máqin. Cw7aoz kwas xzumqw, ts'íla ku míxalh. Sq'waxw ti7, stexw t'u7 sq'waxwq'wáxw, ...! Zact i sqwáoxta múta7 i skwákstsa ta sásqetsa. Ka-p'an'túsema ti7, wa7 ícwa7 szact sp'vsqs, ts'íla ku úcwalmicw ta skwt'úsa. Zact ta máqinsa lti n7al'kinúsa múta7 n7alák7a. P'elkúsem ta sásqetsa, nilh ts'axúsentsas ta sásqetsa. Wá7lhkan ptinusemskán ta sásqets papt. Cw7áozkan paqu7mín ta sásqetsa. Lan ti7 wa7 mám'teq ta sásqetsa áku7 tswáw'cwa. Lhkalálas, wá7lhkan q'wázan ta píksasa ti Sásqetsa! Nilh ti7 t'u7.

## 2 Glossary

áku7	there (invisible)
ats'xenlhkan	I seen
cát'lec	get off
cw7aoz kwas	not, none
gap	evening
ícwa7	not none, nothing
k'ém'cweyeqs	car



**Figure 1:** Reproduction of a painting by the author

ka-lhéxwa	Suddenly appeared
ka-nk'etalústwal'a	we stared at each other
ka-p'an'úsema	suddenly turned towards
ka-s7áts'xskana	suddenly I saw
kakwássa	dark
kem'cwyeqskálha	our cars
kent7ú	around there
knáti7	around here
ku	links words for qualities to words for thing or persons
Líl'wata Tsel'álh c.walh	Lillooet Lake road
lan	already
lhkalálas	after awhile, later
lti	on that, in that, at that
mámteqw	going for a walk
máqin, zact	long
míxalh	bear

múta7	and, again, more, plus
megmíga	brighten
núkwa7	another
n7ál'kinus	forehead
n7aláka	shoulder
nas	to go
nilh ti7 t'u7	that is it
nseq'	Cracked Rock (across the river from Charlie Mack's)
nsesqwáoz'a	my younger sister, Lucille
nt'áq'eq'sa	he/she crossed the road
nts'ákwa	my lights
nzeháw's	between
p'elkúsem	turned to look
píktsa	picture
papt	always
paqu7mín'	afraid
pembertona	town of Pemberton
peqmín'st	white-ish
ptak	to pass by, go past
ptakenskan	I past
ptakentwál'	past each other
ptakkan	I past
ptinunemskán	I think I wonder
pzanwálhen	to go and meet somebody
q'wázan	paint
sásqets	sasquatch
skwakst	armshands
skwt'úsa	face
sp'vsqs	nose
sqáxa7	dog
sq'waxw	slim, thin, skinny
sqwaoxt	feet, legs

stexw t'u7	really, very
t'it	also, too
ta...a	singular article
ti7	that
ts'íla	same as, like, similar
tsítcwsa	his house
ts7as	coming toward, arriving
tswáw'cw	river
úcwalmicw	person, native person
uzún	lower lights (beams)
wá7lhkan	I am
wéq'weq'em	shiny
wa7	involved
xw7utsinásq'et	Thursday
xzum	big
xzum'qw	big body, big butt

# A Bella Coola tale

Hank Nater

**Abstract:** Most Bella Coola stories belong in one of two categories: (1) *sma* ‘publicly shared parable (involving animals and/or animated objects)’ and (2) *sʔalac*’i ‘familiarily owned account (with human participants)’. However, in a few tales, we find, beside realistic (*sʔalac*’i) components (location, human participants and activities), purely imaginary (*sma*) elements as well (e.g. supernatural places, people interacting with animals in an unusual manner, transformations). The text presented in this paper provides a good sample of this intermediate category.

**Keywords:** Salish, Bella Coola, oral traditions, story genres, genre overlap

## 1 Introduction

The text displayed in Section 3 below is a transcription-interpretation of “The Frog Children”, a story told by the late Dr. Margaret Siwallace, and recorded, over forty years ago.

In terms of native genre, this tale is neither entirely realistic nor wholly otherworldly. The narrator initially identifies the story as a *sʔalac*’i ‘report’, but subsequently uses the verb *smsmayamk* ‘to tell as a parable’ (← *sma* ‘parable’): see the underlined sequences in the text (lines 1–3). This story is a *sʔalac*’i insofar as it belongs to the narrator, yet it has – like a *sma* – a moral: **DO NOT DISDAIN THOSE THAT MAY APPEAR INFERIOR TO YOU**. Realistic elements are location (Kitlope), the main character (a chief’s daughter, though unnamed), and seasonal activity (Indian rice harvest), but the Frog Clan is certainly of a more fictitious nature, as are frog-human interaction and frog-to-human/human-to-frog transformations.

From a European perspective, this story might be considered a myth or legend, and is similar to “The Frog King or Iron Henry”, the well-known fairy tale (as recorded by Jacob and Wilhelm Grimm) about a frog to whom there is more than meets the eye.

## 2 Symbols and abbreviations, grammatical information

The symbol ◌ (“Combining Inverted Bridge Below”) follows proclitics and precedes enclitics, a hyphen follows prefixes and precedes suffixes, a colon precedes a reduplicated consonant; ACC accidentally, APP applicative, ART article, BEN benefactive, CAUS causative, CL enclitic or enclitic cluster, CONN connective, DEF definite, DEM demonstrative, DIM diminutive, DIR directional, FEM feminine, HYP hypothetical, INCH inchoative, INDEF indefinite, INT intensive-distributive,

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MED medium, NOM nominalizer, OBJ object, PASS passive, PL plural, PREP preposition, PRG progressive-durative, PROX proximate, RECIP reciprocal, REFL reflexive, REM remote, REP repetitive, SEP separated, SG singular, SUB subject.

Prepositions (PREP<sub>CL</sub>) found in the text are: *ʔat<sub>CL</sub>/ʔal<sub>CL</sub>* ‘at’, *x<sub>CL</sub>* ‘via’, *ʔut<sub>CL</sub>/ʔul<sub>CL</sub>* ‘towards’.

Proclitical articles (ART<sub>CL</sub>): *ʔit<sub>CL</sub>/ʔa<sub>CL</sub>* ‘INDEF.FEM.REM’, *ta<sub>CL</sub>* ‘INDEF.NON-FEM.REM’, *ti<sub>CL</sub>* ‘INDEF.NON-FEM.PROX’, *ci<sub>CL</sub>* ‘INDEF.FEM.PROX’, *tu<sub>CL</sub>* ‘INDEF.REM.PL’, *wa<sub>CL</sub>/a<sub>CL</sub>/Ø<sub>CL</sub>* ‘INDEF.PROX.PL’.

Deictics (CL<sub>ART</sub> and CL<sub>DEM</sub>) encountered in the text are: *ʔac* ‘DEM.PL.PROX’, *ʔit* ‘DEF.FEM.REM’, *ʔitaʔit* ‘DEM.FEM.REM’, *tx* ‘DEF.NON-FEM.PROX’, *c* ‘DEF.PROX.PL’, *cx* ‘DEF.FEM.PROX’, *c’ayx* ‘DEM.FEM.PROX’, *tχ* ‘DEF.NON-FEM.REM’, *tχ<sup>w</sup>* ‘DEF.REM.PL’, *t’ax* ‘DEM.NON-FEM.REM’, *t’ax<sup>w</sup>* ‘DEM.REM.PL’, *t’ayx* ‘DEM.NON-FEM.PROX’. These occur both as free forms and as enclitics.

Most enclitical adverbs (CL<sub>ADV</sub>) appear both alone and in clusters. In the text, we find (combinations of): *alu* ‘tentatively’, *ʔi(t)...**k* ‘contrastive’, *ku* ‘somehow’, *k<sup>w</sup>* ‘quotative’, *k<sup>w</sup>(u)* ‘frequently’, *lu* ‘still’, *ma* ‘possibly’, *su* ‘alternately’, *ck* ‘allegedly’, *c’/c’i...* ‘now’, *tu* ‘really’, *tuu* ‘exactly’.

### 3 The text

(1) way *ʔalac’i-c<sub>CL</sub>suc’*            *x<sub>CL</sub>ti<sub>CL</sub>ʔ<sup>w</sup>χ<sup>w</sup>caytχ<sup>w</sup>-ʔ<sub>CL</sub>c’*  
 well tell.story-1SG<sub>CL</sub>        PREP<sub>CL</sub>ART<sub>CL</sub>Kitlope-from<sub>CL</sub>  
*ti<sub>CL</sub>sʔalac’i<sub>CL</sub>t’ayx*  
 ART<sub>CL</sub>story<sub>CL</sub>DEM  
 ‘Well, I’ll tell you another story now, this story from Kitlope.’

(2) *ʔal<sub>CL</sub>a<sub>CL</sub>ʔayk’*            *ʔat<sub>CL</sub>ʔ<sup>w</sup>χ<sup>w</sup>caytχ<sup>w</sup>*  
 PREP<sub>CL</sub>ART<sub>CL</sub>old        PREP<sub>CL</sub>Kitlope  
*s-sm:sma-y-amk-im<sub>CL</sub>k<sup>w</sup>k<sup>w</sup>u*            *ʔac*  
 CONN-tell.parable.REP-APP-PASS.3SG<sub>CL</sub>        DEM  
 ‘Long ago, such legends were often told in Kitlope.’

(3) *tix-s<sub>CL</sub>c’*            *ta<sub>CL</sub>k<sup>w</sup>uk<sup>w</sup>pi-ʔ<sub>CL</sub>c<sub>CL</sub>tχ*  
 be.him-3SG<sub>CL</sub>        ART<sub>CL</sub>grandfather-late-1SG<sub>CL</sub>ART  
*ti<sub>CL</sub>sm:sma-y-amk<sub>CL</sub>t’ayx*            *ʔut<sub>CL</sub>ʔnc*  
 ART<sub>CL</sub>tell.parable.REP-APP<sub>CL</sub>DEM        PREP<sub>CL</sub>me  
*ʔal<sub>CL</sub>a<sub>CL</sub>pacaʔ-iʔ<sub>CL</sub>ck*            *ʔat<sub>CL</sub>ʔ<sup>w</sup>χ<sup>w</sup>caytχ<sup>w</sup>*  
 PREP<sub>CL</sub>ART<sub>CL</sub>first-1PL<sub>CL</sub>        PREP<sub>CL</sub>Kitlope  
 ‘It is my grandfather who told me stories that we inherited from our  
 Kitlope ancestors.’

- (4)  $\text{?al}_a\text{?ayk}'_k^w$   $s\text{-q}^w\text{ly}^w\text{u}^t\text{-cut-aw}$   $\text{wa}_x\text{nas-uks}$   
 PREP\_ART\_old\_CL CONN-engage-REFL-3PL ART\_woman-PL  
 $s\text{-ka}_\lambda\text{'ap-aw}$   $s\text{-ka}_t\text{q}'^w\text{m-aw}$   $x_a\text{'ilk}$   
 CONN-HYP\_go-3PL CONN-HYP\_dig-3PL PREP\_ART\_wild.rice  
 $\text{?ul}_a\text{?umat-aw}$   $s\text{-}t\text{q}'^w\text{m-aw}$   
 PREP\_ART\_destination-3PL CONN-dig-3PL  
 $x_a\text{'ilk}$   
 PREP\_ART\_wild.rice  
 ‘A long time ago, a number of women decided to go digging for wild rice,  
 and they went to a place where they dug for wild rice.’
- (5)  $\text{?a}t\text{?nayx-s}_k^w\text{'}$   $\text{?it}_m\text{namim}_\text{?it}$   $\text{?al}_a\text{tq}'^w\text{m}_\text{?ac}$   
 accepted-3SG\_CL ART\_chief's.daughter\_ART PREP\_ART\_dig\_DEM  
 ‘And the chief’s daughter went along with these diggers.’
- (6)  $tq^w\text{m-s}_k^w$   $\text{?it}_a\text{?it}$   
 dig-3SG\_CL DEM  
 ‘And she started digging.’
- (7)  $\lambda\text{'ap-s}_k^w$   $s\text{-ka}_t\text{q}'^w\text{-aynix-i-s}$   $t_i\text{mack}'^w$   
 go-3SG\_CL CONN-HYP\_dig-ACC-3SG.OBJ-3SG.SUB ART\_frog  
 ‘And she unintentionally proceeded to dig up a frog.’
- (8)  $\text{tayamk-i-s}$   $\text{ta}_m\text{mack}'^w\text{t}_x$   
 discard-3SG.OBJ-3SG.SUB ART\_frog\_ART  
 ‘She threw away the frog.’
- (9)  $\text{sx-uu:x}^w\text{c-m-i-s}_k^w$   $\text{ta}_m\text{mack}'^w\text{t}_x$   
 bad-mouth.REP-APP-3SG.OBJ-3SG.SUB\_CL ART\_frog\_ART  
 $s\text{-tayamk-i-s}$   
 CONN-discard-3SG.OBJ-3SG.SUB  
 ‘She was swearing at the frog as she threw it away.’
- (10)  $\text{?a}t\text{-?ay}_k^w\text{?iluc'ik}$   $c\text{'ayx}$   $x_{ci}\text{?a}t\text{-?aw}^t\text{-im}_c\text{x}$   
 PRG-be.thus\_CL DEM PREP\_ART\_PRG-follow-3SG.PASS\_ART  
 $x_{ta}\text{mack}'^w\text{t}_x$   $s\text{-}t\text{q}'^w\text{-aynix-i-s}_k^w\text{tuc}'$   
 PREP\_ART\_frog\_ART CONN-dig-ACC-3SG.OBJ-3SG.SUB\_CL  
 ‘But she seemed to be followed constantly by the frog, as she kept  
 digging it up.’
- (11)  $\text{?a}t\text{-?ay-uc-m-i-s}_k^w\text{tuc}'$   
 PRG-be.thus-mouth-APP-3SG.OBJ-3SG.SUB\_CL  
 ‘And she kept talking to it like that, over and over.’

- (12) ta:tyamk-i-s  
 discard.REP-3SG.OBJ-3SG.SUB  
 s-ʔix-sx-uu:x<sup>w</sup>c-m-i-s  
 CONN-INT-bad-mouth.REP-APP-3SG.OBJ-3SG.SUB  
 ‘She kept throwing it away and swearing at it.’
- (13) ʔux-uqʔχ-tmax<sup>w</sup>-a<sub>k</sub><sup>w</sup>ʔicʔik                      tu<sub>xnas</sub>-uks<sub>tχ</sub><sup>w</sup>  
 INT-call-RECIP-3PL<sub>CL</sub>    ART<sub>woman</sub>-PL<sub>ART</sub>  
 s-cʔusm-s<sub>c</sub>ʔ    ʔal<sub>a</sub><sub>a</sub>ʔac  
 CONN-dusk-3SG<sub>CL</sub>    PREP<sub>ART</sub><sub>DEM</sub>  
 ‘Then the women called each other as dusk had arrived.’
- (14) ʔap-s<sub>c</sub>ʔ                      s-ka<sub>k</sub><sub>t</sub>-s    ta<sub>sny</sub><sub>tχ</sub>  
 start-3SG<sub>CL</sub> CONN-HYP<sub>fall</sub>-3SG    ART<sub>sun</sub><sub>ART</sub>  
 ‘Now the sun began to set.’
- (15) ʔux-uqʔχ-tmax<sup>w</sup>-aw<sub>c</sub>ʔ                      s-ka<sub>lip</sub>ʔcut-aw    ʔu<sub>ʔ</sub><sub>ta</sub><sub>su</sub><sub>tχ</sub>  
 INT-call-RECIP-3PL<sub>CL</sub>    CONN-HYP<sub>return</sub>-3PL    PREP<sub>ART</sub><sub>village</sub><sub>ART</sub>  
 ‘They called each other and started going back to the village.’
- (16) kʔx-i-s<sub>k</sub><sup>w</sup>cʔ    cʔayx                      ti<sub>ya</sub>:yaasii                      ti<sub>caacti</sub>  
 see-3SG.OBJ-3SG.SUB<sub>CL</sub>    DEM                      ART<sub>handsome</sub>                      ART<sub>young</sub>  
 s-ya:ya-liwa-s<sub>k</sub><sup>w</sup>tuu    ti<sub>caacti</sub><sub>t</sub>ʔayx  
 CONN-good-...like-3SG<sub>CL</sub>    ART<sub>young</sub><sub>DEM</sub>  
 ‘Then the girl saw this handsome young man, a well-built young man.’
- (17) ʔay-uc<sub>k</sub><sup>w</sup>cʔ    tʔayx                      s-ka<sub>ʔa</sub><sub>t</sub>-k<sup>w</sup>n-i-s  
 be.thus-mouth<sub>CL</sub>    DEM                      CONN-HYP-PRG-take-3SG.OBJ-3SG.SUB  
 s-ka<sub>kaw</sub>-a<sub>t</sub>-i-s    ʔu<sub>ʔ</sub><sub>tu</sub><sub>su</sub><sub>tχ</sub><sup>w</sup>  
 CONN-HYP<sub>deliver</sub>-foot-3SG.OBJ-3SG.SUB    PREP<sub>ART</sub><sub>home</sub>-3sg<sub>ART</sub>  
 ‘He said to her that he would take her, that he would walk her home.’
- (18) kʔit-tx<sup>w</sup>umat-tu-m<sub>k</sub><sup>w</sup>mak<sup>w</sup>ucʔ    cʔayx                      x<sub>ta</sub><sub>mack</sub><sup>w</sup>  
 without-direction-CAUS-3SG.PASS<sub>CL</sub>    DEM                      PREP<sub>ART</sub><sub>frog</sub>  
 ta<sub>caacti</sub><sub>tχ</sub>  
 ART<sub>young</sub><sub>ART</sub>  
 ‘Then she was made to lose her way by the young man who was a frog.’

- (19) tix\_k<sup>w</sup>mak<sup>w</sup>uc' ta\_ʔix-ta:tyamk-i-s ta\_mack<sup>w</sup>\_tɣ  
 be.him\_CL ART\_INT-discard.REP-3SG.OBJ-3SG.SUB ART\_frog\_ART  
 ta\_caacti\_tɣ s-λ' mstn-am-timut-s  
 ART\_young\_ART CONN-person-become-CAUS.REFL-3SG  
 ʔuɬ\_ʔiɬ  
 PREP\_DEM

‘It was the frog that she had been casting aside who had become a young man to her.’

- (20) ʔaɬ-k<sup>w</sup>n-i-s\_c' ʔuɬ\_ta\_suɬ-s\_tɣ,  
 PRG-take-3SG.OBJ-3SG.SUB\_CL PREP\_ART\_village-3sg\_ART  
 ʔuɬ\_ta\_ʔamat-s\_tɣ s-ʔapsuɬ-s ti\_mack<sup>w</sup>-mx  
 PREP\_ART\_location-3SG\_ART CONN-dwell-3SG ART\_frog-clan  
 ʔaɬ\_λ'χ<sup>w</sup>caytɣ<sup>w</sup>  
 PREP\_Kitlope

‘He now took her to his home, to the place where the Frog Clan resides at Kitlope’.

- (21) talaws\_c' ʔuɬ\_ʔiɬ  
 marry\_CL PREP\_DEM  
 ‘Now he married her.’

- (22) xɬ-mna-lx-s\_k<sup>w</sup>c' ʔiɬ\_caacti\_ʔiɬ x\_a\_ɬnús  
 have-child-INCH-3SG\_CL ART\_young\_ART PREP\_ART\_two  
 wa\_mn:mnnck<sup>w</sup>-i  
 ART\_frog-DIM

‘Then the young woman had two frog babies.’

- (23) ʔalac<sup>w</sup>-i-tu-ti-s\_k<sup>w</sup>ʔitk<sup>w</sup>uk way tu\_mn:mnc-s\_tɣ<sup>w</sup>  
 tell-BEN-3PL.OBJ-3SG.SUB\_CL well ART\_children-3SG\_ART  
 ‘Well, she told her children:’

- (24) “ɬay t<sup>w</sup>ax<sup>w</sup> wa\_suɬ-s ta\_man-ɬ-c, ɬay t<sup>w</sup>ax<sup>w</sup>”  
 “far DEM ART\_house-3SG ART\_father-SEP-1SG far DEM  
 “Way over yonder is my father’s house, way over yonder.”

- (25) “ɬnús wa\_ʔasqayaɬ\_c ʔal\_a\_ʔasuuc\_c”  
 two ART\_totem.pole\_ART PREP\_ART\_front of house\_ART  
 “There are two totem poles in front.”

- (26) “q’lum-ap\_?ic’ik ?aṭ\_tī\_mn:mnnta\_tx ka\_λ’ap-ap s-ka\_?anayk-ap  
 climb-2PL\_CL PREP\_ART\_steps\_ART HYP\_go-2PL CONN-HYP\_want-2PL  
 s-ka\_k’x-i-p ta\_k^wuk^wpi-ṭ-ap,  
 CONN-HYP\_see-3SG.OBJ-2PL.SUB ART\_grandfather-SEP-2PL  
 ta\_man-ṭ-c ?n la\_stan-ṭ-c”  
 ART\_father-SEP-1SG and ART\_mother-SEP-1SG  
 “Climb the steps if you go and want to see your grandfather, my father  
 and mother.”
- (27) cu:cut-s\_k^wtuu c’ayx ?aṭ\_tχ^w  
 say.REP-3SG\_CL DEM PREP\_DEM  
 ‘She told them this repeatedly.’
- (28) ?ay-na\_k^w?iluc’ik tu\_mn:mnnc^w-i\_tχ^w s-ka\_λ’ap-aw  
 be.thus-3PL\_CL ART\_frog-DIM\_ART CONN-HYP\_go-3PL  
 ‘And the frog children did go on their way now.’
- (29) k’x-i-t\_k^walu ta\_k^wuk^wpi-naw\_tχ  
 see-3SG.OBJ-3PL.SUB\_CL ART\_grandfather-3PL\_ART  
 ‘They tried to see their grandfather.’
- (30) q’lum-a\_k^waluk^wu t’ax^w ?aṭ\_ta\_mn:mnnta\_tχ ?u-λ’uk’  
 climb-3PL\_CL DEM PREP\_ART\_steps\_ART DIR-high  
 ‘They tried to climb up the steps.’
- (31) c’χṭn-tim\_k^wk^wu t’ax^w  
 kick-3PL.PASS\_CL DEM  
 ‘But they were kicked [off the steps] over and over.’
- (32) ?aṭ:ʔaṭ-ʔay-naw\_tu ?ac  
 PRG.REP-be.thus-3PL\_CL DEM  
 ‘This happened to them again and again.’
- (33) “qi:χyu Ø\_mack^w\_ʔac!”  
 useless ART\_frog\_ART  
 “These useless frogs!”
- (34) cu:cut-m-tim\_k^wk^w  
 say.REP-APPL-3PL.PASS\_CL  
 ‘That is what they kept saying about them.’
- (35) q’lum-a\_k^waluk^w  
 climb-3PL\_CL  
 ‘But they kept on climbing.’

- (36) ʔay-tu-tim\_k<sup>w</sup>k<sup>w</sup>’  
 be.thus-CAUS-3PL.PASS\_CL  
 ‘And they were treated the same way again and again.’
- (37) ʒapa-ti-s\_k<sup>w</sup>aluc’                      ta\_q<sup>w</sup>alm\_tʒ  
 carry-3SG.OBJ-3SG.SUB\_CL      ART\_older.sibling\_ART  
 ʔiʔ\_susq<sup>w</sup>ii-s\_ʔiʔ  
 ART\_younger.sibling-3SG\_ART  
 ‘The older brother tried to carry his little sister.’
- (38) ʔaʔ-ʔay-tu-tim\_k<sup>w</sup>tuc’                      s-c<sup>w</sup>ʒʔn-tim  
 PRG-be.thus-CAUS-3PL.PASS\_CL      CONN-kick-3PL.PASS  
 s-ka\_kʔ-tim  
 CONN-HYP\_drop-3PL.PASS  
 ‘But again, they were kicked and made to fall [off the steps].’
- (39) ʔin:ʔixaʔii-na\_k<sup>w</sup>aluluk<sup>w</sup>’                      s-ka\_c<sup>w</sup>kt-aw  
 almost.accomplish.REP-3PL\_CL      CONN-HYP\_arrive-3PL  
 ʔuʔ\_ta\_k<sup>w</sup>uʔiiʒ<sup>w</sup>\_tʒ      s-ʔay-tu-tim  
 PREP\_ART\_top\_ART      CONN-be.thus-CAUS-3PL.PASS  
 ‘And every time they almost reached the top [of the steps], they were treated the same way.’
- (40) lip<sup>w</sup>cut-ix-a\_k<sup>w</sup>                      ʔac                      ʔuʔ\_ʔiʔ\_stan-aw\_ʔiʔ  
 return-INCH-3PL\_CL      DEM                      PREP\_ART\_mother-3PL\_ART  
 ‘They had to go back to their mother.’
- (41) ʔalac’-amk-cut-aw      s-ʔaʔ-ʔay-s                      wa\_c<sup>w</sup>кта-tu-tim  
 tell-APP-REFL-3PL      CONN-PRG-be.thus-3SG                      ART\_event-CAUS-3PL.PASS  
 ‘And they described to her what had happened to them.’
- (42) “ʔay      ka\_ʔaʔ-k<sup>w</sup>n-tuʔap\_ma”  
 alright      HYP-PRG-take-1SG.SUB+2PL.OBJ\_CL  
 ‘Alright, maybe I should take you to them.’
- (43) cut\_k<sup>w</sup>ʔic<sup>w</sup>ik<sup>w</sup> ʔiʔaʔiʔ      (ʔiʔ)\_stan-aw\_ʔiʔ  
 say\_CL                      DEM                      (ART\_)mother-3PL\_ART  
 ‘So she, their mother, spoke.’
- (44) s-ʒ<sup>w</sup>msta-nalus-am-timut-s\_k<sup>w</sup>c’                      ʔiʔaʔiʔ  
 NOM-person-joined-become-CAUS.REFL-3SG\_CL      DEM  
 ‘Then she changed herself into a human being.’

- (45) ʔic'ama-y-anm-s s-ka\_ʔ'ap-s  
 blanket-become-3SG CONN-HYP\_go-3SG  
 s-ka\_ʔaʔ-kʷn-ti-s  
 CONN-HYP-PRG-take-3PL.OBJ-3SG.SUB  
 'She wrapped herself in a blanket and carried them with her.'
- (46) c'kt-s\_kʷu ʔuʔ\_tɪ\_ʔapsuʔ\_t'ayx s-k'x-im\_c'  
 arrive-3SG\_CL PREP\_ART\_village\_DEM CONN-see-3SG.PASS\_CL  
 s-cix-s ʔiʔ  
 CONN-be.her-3SG DEM  
 'When she arrived at the village, the people saw that it was her.'
- (47) wa-s s-ʔaʔ-k' iʔ-txʷumat-s c'ayx  
 who-3SG CONN-PRG-without-direction-3SG DEM  
 ʔaʔ\_ta\_suʔ\_tɪ  
 PREP\_ART\_village\_ART  
 'That she was the one who had strayed from the village.'
- (48) ʔay-uc-s\_kʷ c'ayx  
 be.thus-mouth-3SG\_CL DEM  
 s-ka\_nu-t'xʷ-als-m-aw  
 CONN-HYP\_inside-sweep-house-MED-3PL  
 s-ka\_nu-ʔayaw-als-m-aw  
 CONN-HYP\_change-house-MED-3PL  
 ʔaʔ\_a\_ka\_pacaʔ s-ka\_ʔustxʷ-s ʔuʔ\_tɪʷ  
 PREP\_ART\_HYP\_first CONN-HYP\_enter-3SG PREP\_DEM  
 'She told them to sweep and change [the sand in] the house before she would go in.'
- (49) ʔay-na\_kʷʔiluc'ik s-nu-t'xʷ-als-m-aw  
 be.thus-3PL\_CL CONN-inside-sweep-house-MED-3PL  
 'And they did sweep the house.'
- (50) ʔustxʷ-s  
 enter-3SG  
 'And she went inside.'
- (51) “χl:χl-tu-ti-c wa\_mn:mnc-c\_alu\_ʔac  
 sent.REP-CAUS-3PL.OBJ-1SG.SUB ART\_children-1SG\_CL\_DEM  
 ʔuʔ\_ʔinu s-ka\_k'x-tap x\_c'  
 PREP\_you CONN-HYP\_see-2PL.PASS PREP\_DEM  
 'I sent my children to you for you to be seen by them.'”

(52) “c’χɫn-tim<sub>k</sub><sup>w</sup>ʔitk<sup>w</sup>uk      ʔaɫ<sub>ti</sub>mn:mnnta<sub>t</sub>’ayx      si-ʔay-naw  
 kick-3PL.PASS<sub>CL</sub>      PREP<sub>ART</sub>steps<sub>DEM</sub>      CONN-be.thus-3PL  
 s-lip’cut-aw      ʔuɫ<sub>ʔnc</sub>”  
 CONN-return-3PL PREP<sub>ME</sub>  
 “But they were kicked off these steps over and over, that is why they  
 came back to me.”

(53) “ʔalac’-amk-cut-aw      s-ʔaɫ-k<sup>w</sup>n-ti-c<sub>ʔic</sub>’ik      ʔuɫ<sub>ʔinu</sub>  
 tell-APP-REFL-3PL      CONN-PRG-take-3PL.OBJ-1SG.SUB<sub>CL</sub>      PREP<sub>YOU</sub>  
 s-ka<sub>k</sub>’x-ti-x<sup>w</sup>”  
 CONN-HYP<sub>see</sub>-3PL.OBL-2SG.SUB  
 “They told me what happened to them, so I brought them to you for  
 you to see them.”

(54) cut-s<sub>k</sub><sup>w</sup>c’      ʔiɫ<sub>caacti</sub>ʔiɫ      ʔuɫ<sub>ta</sub>man-s<sub>ty</sub>  
 say-3SG<sub>CL</sub>      ART<sub>young</sub>ART      PREP<sub>ART</sub>father-3SG<sub>ART</sub>  
 ‘That’s what the young woman said to her father.’

(55) sk<sup>w</sup>-uuɫ-m-s<sub>k</sub><sup>w</sup>c’      ʔiɫaʔiɫ      s-ka<sub>k</sub><sup>w</sup>λ’-ti-s  
 untie-garment-MED-3SG<sub>CL</sub>      DEM      CONN-HYP<sub>place</sub>-3PL.OBJ-3SG.SUB  
 tu<sub>mack</sub><sup>w</sup>      tu<sub>mn:mnc</sub>-s<sub>ty</sub><sup>w</sup>      ʔuɫ<sub>ta</sub>k<sup>w</sup>uɫulmx<sub>ty</sub>  
 ART<sub>frog</sub>      ART<sub>children</sub>-3SG<sub>ART</sub>      PREP<sub>ART</sub>ground<sub>ART</sub>  
 ‘Then she opened the blanket she was wearing, and placed her frog  
 children on the ground.’

(56) x<sup>w</sup>plχs      t’ax  
 end      DEM  
 ‘That’s the end [of the story].’

**References**

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# **Part V**

## **Additional contributions**

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paradigms assembled in Deal (2010a,b). Here, I set the record straight regarding the paradigm of verbal agreement and the existence of restrictions like (4). In so doing, I aim to lay the descriptive groundwork for an explanation of why the restrictions come out as they do.

In the background of this investigation are certain methodological matters that deserve attention before we begin. Why have agreement restrictions like (4) not been noted in the modern literature (Aoki 1970, 1994; Crook 1999; Rude 1985; Velten 1943)? Why are they not in evidence in the paradigms presented in Deal (2010a,b)? One notable generalization about the modern descriptive literature on Nez Perce verbal agreement is the prevalence of what we might call ‘morpheme-based’ description, rather than ‘paradigm-based’ description. That is, rather than presenting a paradigm for (say) agreement with plural objects, modern descriptions have generally concentrated on properties of particular affixes, such as *nees-* (O.PL) (seen in the examples above as predictable variant *naac-*). This prefix been characterized as follows:

- plurality of object, i.e., action affecting several people or things (Velten 1943:280).
- indicating the plurality of the object (Aoki 1970:108).
- (plural object prefix); used when the object is plural (Aoki 1994:478).
- A plural direct object is regularly indicated by the prefix *nees-*. This plural marker is also neutral to person (Rude 1985:38).
- Verbs indicate the number of neither a singular subject nor a singular object, but they do indicate the plurality of a direct object with the prefix *nees-*. [...] *Nees* is purely number agreement and not person agreement (Crook 1999:125).

This style of presentation is no doubt motivated by the ease with which agreement affixes may be segmented.<sup>2</sup> Yet it turns out that that the basic description of *nees-* as a plural object marker is not complete. Object plurality is a necessary but not sufficient condition for the use of *nees-*. In assembling full paradigms for the Nez Perce verb in Deal (2010a,b), I assumed not only the correctness, but also the completeness, of previous morpheme-based descriptions, and aimed to present those descriptions in paradigmatic form. But because the morpheme-based descriptions were incomplete, information was unintentionally added by moving from one style of description to another.

Further complicating the picture is the fact that consultants do sometimes accept and produce forms which violate agreement restrictions. Examples (5), for

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<sup>2</sup>For instance, Crook (1999:123) writes that “prefixal inflection involves much less suppletion than is found in suffixal inflection. With one exception, we can treat the different categories of prefixal inflection separately without considering them as part of a morphologically interdependent complex”.

instance, violate restriction (4). Examples of this type were taken into consideration in assembling the earlier paradigms.

- (5) a. 'Imee        'eetx        'e-pe-nees-hex-nu'        *pro.*  
 2PL.NOM 2PL.CLITIC 3OBJ-S.PL-O.PL-see-FUT PRO.3PL  
 'You will see them.' (Deal 2010b:97)
- b. *Pro*        'e-pe-nees-hex-n-e        *pro.*  
 PRO.1PL 3OBJ-S.PL-O.PL-see-P-REM.PAST PRO.3PL  
 'We saw them.' (Rude 1985:39)

These data points contrast with the data point in (3b). What is the nature of this variability? Is it true grammatical optionality? Is it variation between dialects or idiolects, variation conditioned by the verb, or some other type of conditioned variation? Or does it simply reflect noise in fieldwork data, of the sort that may result from miscommunications with consultants or simply performance errors (due, perhaps, to the cognitively taxing nature of certain elicitation sessions)? In the absence of evidence bearing on these questions, there is a clear attraction to treating (3b) as the exceptional case. It is (3b), rather than (5), that violates an otherwise simple generalization about the distribution of *nees-*: *nees-* appears if and only if the object is plural. But it turns out that once repeated, controlled elicitation is carried out, it is (5) whose status becomes clearly exceptional. Consultants who occasionally produce or accept forms like (5) stop producing and accepting those forms in tasks of systematic paradigm elicitation. Only forms like (3b) are produced and accepted. That suggests that the status of (5) may be just be 'noise'. To put it slightly differently, (3b) deserves explanation in terms of a theory of agreement; (5) deserves explanation by means of a theory of performance or, perhaps, simply a close study of the particulars of an elicitation session. This conclusion becomes clear only through systematic elicitation of multiple paradigms – a technique which has not been discussed in the previous literature on Nez Perce.

In sum, the paradigms in Deal (2010a,b) were based on two assumptions that proved faulty: first, that the standard modern morpheme-by-morpheme descriptions have been not only correct, but also complete; and second, that examples like (5) represent the grammar of Nez Perce, whereas examples like (3b) do not. I hope these remarks make it clear why I take the paradigms presented in this paper to replace those I provided in earlier work, rather than to complement them.

In the rest of this paper, I present my case for an updated view of the verbal agreement system. The next section introduces the basics of the system, drawing on Aoki (1970, 1994); Crook (1999); Rude (1985); Velten (1943), as well as the results of systematic paradigm elicitation. Section 3 then presents the full agreement paradigm and discusses the elicitation methodology behind it. At this point it is possible to state a number of agreement restrictions. Section 4 concludes by discussing several analytical options for the agreement system. Finally, two full verbal paradigms are provided as an appendix.

## 2 Basics of the agreement system

Nez Perce verb agreement involves three prefix positions and two suffix positions. These positions are bolded in the schematic structure in (6).

(6) *Schematic structure of the verb*

**person** – **S #** – **O #** – causative – root – applicatives – aspect/mood – **S #** – **space** – tense

We begin with the person marking position. Observe that while there are separate positions for subject and object number marking in (6), there is only one position for person marking. Three morphemes that index 3rd persons are possible in this position: *hi-* for a 3rd person subject, *'e(w)-* for a 3rd person object,<sup>3</sup> and portmanteau *pee-* for a 3rd person subject along with a 3rd person object. (We will see that the distribution of *pee-* and *'e(w)-* is subject to additional restrictions.)

(7) a. Angel-nim **hi**-cewcew-téetu *pro*.  
Angel-ERG 3SUBJ-call-HAB.PRES PRO.1 SG

'Angel calls me.'

b. *Pro* *'e*-cewcew-téetu Angel-ne.  
PRO.1 SG 3OBJ-call-HAB.PRES Angel-ACC

'I call Angel.'

c. Angel-nim **pee**-cewcew-téetu Bessie-na.  
Angel-ERG 3/3-call-HAB.PRES Bessie-ACC

'Angel calls Bessie.'

Modern descriptions have generally held that there is no special (non-reflexive) person inflection for 1st and 2nd person.<sup>4</sup> As Rude (1985:30) writes, "the semantic contrast is between 1st and 2nd person on one hand and 3rd person on the other in a participant versus non-participant deictic system." All acknowledge, however, the existence of two other types of affixes which apparently occupy the same prefix position as *hi-/'e(w)-/pee-*. One is the reflexive, which contains specialized forms for all person-number combinations (with the exception of 2PL and 3PL, which are syncretic).<sup>5</sup> The other, more crucial for our purposes here, is the reciprocal, which is an invariant prefix *pii-*. Contrast reciprocal (8a) with non-reciprocal (8b):

<sup>3</sup>The *'ew-* allomorph appears when a glottal segment follows.

<sup>4</sup>The exception is Velten (1943), who mistakes the initial vowel of certain verb stems for a 1st/2nd person agreement prefix.

<sup>5</sup>See Rude (1985:40) for the paradigm of these affixes, and Deal (2010b) for discussion of their status as detransitivizing derivational morphemes.

- (8) a. Caan kaa Meeli pii-suk-n-e.  
 John.NOM and Mary.NOM RECIP-recognize-P-REM.PAST  
 ‘John and Mary recognized each other.’
- b. *Pro* ’e-sukí-ce ko-nyá.  
 PRO.1SG 3OBJ-recognize-IMPERF DEM-ACC  
 ‘I recognize that person.’

We will see that the *pii-* prefix has acquired a significant, non-reciprocal use as part of the person agreement system.

There are two positions in (6) associated with subject number. Only one of these positions may be used in a given word; the choice depends on aspect/mood. In the perfect/perfective<sup>6</sup> and the future, prefix *pe-* is used to index a plural subject. The examples below demonstrate for perfect/perfective. (These examples include a verb root triggering vowel harmony; ’*ew-* and *pe-* accordingly surface as ’*aw-* and *pa-*.)

- (9) a. *Pro* ’aw’yáaǵna Matt-ne cepéletp’et-pe.  
 (’*ew-*’yáaǵ-n-e)  
 PRO.1SG 3OBJ-find-P-REM.PAST Matt-ACC picture-LOC  
 ‘I found Matt in the picture.’
- b. *Pro* ’apa’yáaǵna Matt-ne cepéletp’et-pe.  
 (’*e-pe-*’yáaǵ-n-e)  
 PRO.1PL 3OBJ-S.PL-find-P-REM.PAST Matt-ACC picture-LOC  
 ‘We found Matt in the picture.’

The imperfective, habitual, and imperative each use a special suffix for subject plural, appearing immediately after the aspect/mood suffix. The examples below demonstrate this for the (present) habitual, (10), and the imperfective, (11).<sup>7</sup>

- (10) a. *Pro* ’e-cewcew-téetu Angel-ne.  
 PRO.1SG 3OBJ-call-HAB.PRES Angel-ACC  
 ‘I call Angel.’
- b. *Pro* ’e-cewcew-tée-’nix Angel-ne.  
 PRO.1PL 3OBJ-call-HAB.PRES-S.PL Angel-ACC  
 ‘We call Angel.’

<sup>6</sup>This is the aspectual category described as ‘P aspect’ in Deal (2010b), and glossed as ‘P’ in examples.

<sup>7</sup>See Deal (2010b) for discussion of the present habitual aspect versus past habitual aspect.

- (11) a. *Pro* 'e-'pewi-se Angel-ne.  
 PRO.1SG 3OBJ-look.for-IMPERF Angel-ACC  
 'I am looking for Angel.'
- b. *Pro* 'e-'pewi-s-**íix** Angel-ne.  
 PRO.1PL 3OBJ-look.for-IMPERF-S.PL Angel-ACC  
 'We are looking for Angel.'

Only plural number is marked here. Evidence that singular number is not marked comes from animacy effects, as reported in Deal (2015b).<sup>8</sup> Only [+ANIMATE] arguments may control plural agreement in Nez Perce. Inanimate plural arguments occur with the same verb forms as are used for singulars; these forms must therefore be neutral with respect to number. The examples below demonstrate this for the copula, though the effect appears to hold across all verbs. Observe that the animate subjects control the plural agreement suffix *-íix* in (12a–b), but that the inanimate subject in (12c) does not. The verb form for an inanimate plural subject in (12c) is the same as for an animate singular subject in (12d).

- (12) a. 'Émti **hi-w-s-íix** pílep-t há-ham.  
 outside 3SUBJ-be-PRES-S.PL four-SUF PL-man.NOM  
 'Four men are outside.'
- b. Lep-ít pícpic **hi-w-s-íix** 'iníit-pe.  
 two-SUF cat.NOM 3SUBJ-be-PRES-S.PL house-LOC  
 'Two cats are in the house.'
- c. Lep-ít cepéepy'uŕtin' **híi-we-s** 'iníit-pe.  
 two-SUF pie.NOM 3SUBJ-be-PRES house-LOC  
 'Two pies are in the house.'
- d. Harold **híi-we-s** Clarkston-pa.  
 Harold.NOM 3SUBJ-be-PRES Clarkson-LOC  
 'Harold is in Clarkston.'

Object number is marked by the prefix *nees-/neec-*; the latter allomorph appears before a glottal segment. (With vowel harmony, these affixes become *naas-/naac-*.)

<sup>8</sup>See Deal (2015b) for a fuller discussion of gender/animacy effects in Nez Perce. These effects are not discussed in the prior literature.

- (13) a. *Pro* 'e-cewcew-téetu Angel-ne.  
 PRO.1SG 3OBJ-call-HAB.PRES Angel-ACC  
 'I call Angel.'
- b. *Pro* 'e-nees-cewcew-téetu Angel kaa Tatlo-na.  
 PRO.1SG 3OBJ-call-HAB.PRES Angel.NOM and Tatlo-ACC  
 'I call Angel and Tatlo.'

Once again, singular number is not marked. There is again an animacy effect on the arguments that may condition plural agreement; only animates may control this agreement. See Deal (2015b) for examples and discussion.

A final aspect of verb morphology which bears on the agreement system is space marking. Space markers *-m* 'cislocative' and *-ki* 'translocative' appear between aspect/mood suffixes (followed by a subject number suffix, if applicable) and tense suffixes. These morphemes typically indicate location near or toward the speaker (cislocative) or away from the speaker (translocative), and are studied in this usage in Deal (2009).

- (14) a. Héenek'u *pro* **hi**-kóo-qa-m-a.  
 again PRO.3SG 3SUBJ-go-HAB-CIS-REM.PAST  
 'Again he would come.' (Aoki 1979:68)
- b. 'Iskit **hi**-ku-séen-ki.  
 trail.NOM 3SUBJ-go-IMPERF-TRANS  
 'The trail goes that way (away from the speaker).' (Aoki 1994:243)

Rude (1985:49) notes that "often the existence of a 1st person direct object is reinforced by the cislocative". In keeping with this observation, we will see that the cislocative (in connection with the reciprocal) has acquired a role as part of the agreement system.

### 3 Agreement restrictions in systematic paradigm elicitation

Elicitation of person-number paradigms for four transitive verbs was carried out in the summers of 2012 and 2013. Data was collected for all non-reflexive cells in a paradigm varying both number and person for both subject and object. Thus, 28 paradigm cells were collected per verb. The verbs were 'iyaaq 'find', *hexte* 'go see, visit'<sup>9</sup>, 'ipewi 'look for', and *cewcewi* 'call on the phone'.<sup>10</sup> All arguments were definite and human-referring (generally, pronouns, proper names, or coordinations thereof). Four aspect/mood categories were used: perfect/perfective, future, imperfective and present habitual. (The first two of these categories take

<sup>9</sup>The verb root here is *heki* 'see' plus suffix *-te* 'go to V'.

<sup>10</sup>This verb originally meant 'whisper'.

prefixal subject number agreement; the second two take suffixal subject number agreement.) Data was elicited from two native speakers, who worked together throughout the elicitation task. As each form was elicited, it was written on a whiteboard, and verbally confirmed with the speakers. Two of the paradigms (for *'iyaaq* 'find', perfect/perfective aspect, and *cewcewi* 'call', present habitual aspect) were then typed up and reviewed an additional time with the two speakers, to catch any remaining errors.

I present the data in Tables 1 and 2 in schematic form; in the appendix, I present the full paradigms for *'iyaaq* 'find' (perfect/perfective aspect) and *cewcewi* 'call' (present habitual aspect). To aid the discussion, I have assigned a number to each paradigm cell in Tables 1 and 2. The (a) form in each cell represents the findings for verb forms where subject number is expressed as a prefix (in this study, perfect/perfective and future). The (b) form represents the findings for verb forms where subject number is expressed as a suffix (in this study, imperfective and present habitual). In the (b) forms, I exemplify with imperfective except in lines 2b and 6b, for reasons to be discussed in the next paragraph. The suffix *-se* is the general form of the imperfective; *-s-iix* represents imperfective aspect plus plural subject number. In lines 2b and 6b, I show the present habitual, where the general form is *-teetu*, and *-tee-'nix* represents aspect plus plural subject number. (See (10).)

The data collected in this elicitation task was highly consistent. Of the 112 forms collected, only 3 (2.7%) departed from the schematic paradigm I present below. A first case concerned form 2b (2PL on 1SG). The consensus form given was expected for 2SG on 1SG; however, one of the two speakers also provided the expected (2PL on 1SG) form. A second case concerned form 6b (2PL on 1PL); the consensus form given was for 2PL on 1SG. This occurred immediately after the error just discussed; there may have been confusion about which cell was in question. The third and last case concerned form 28a, 3pl/3pl (3PL on 3PL); the consensus form given was for 3PL on 3SG, which had just been elicited. In each of these three cases, the form provided for one of the four paradigms contrasted with those found in the three other paradigms. I therefore assume that these were errors. (Notably, none of these errors were in the 'find' or 'call' paradigms submitted to speakers for a second round of review and correction. It is very possible that, had these forms been additionally reviewed in this way, they would have been corrected.) The errors concerning cells 2b and 6b were found in the paradigm using imperfective aspect. That is why, in Table 1, I exemplify these cells using present habitual aspect instead.<sup>11</sup>

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<sup>11</sup>I do not switch entirely to present habitual due to a morphological interaction between this aspect and the cislocative, which partially obscures a relevant pattern. See the discussion around (19).

Table 1: Results of systematic paradigm elicitation, collapsed [morphemes]

	1sg O	1pl O	2sg O	2pl O	3sg O	3pl O
<b>1s S</b>	—	—	9a. 0- 9b. 0-●-se	13a. 0- 13b. 0-●-se	17a. 'e- 17b. 'e-●-se	23a. 'e-nees- 23b. 'e-nees-●-se
<b>1p S</b>	—	—	10a. pe- 10b. -s-iix	14a. pe- 14b. -s-iix	18a. 'e-pe- 18b. 'e-●-s-iix	24a. 'e-pe- 24b. 'e-nees-●-s-iix
<b>2s S</b>	1a. (pī)-●-m 1b. (pī)-●-se-m	5a. nees-●-m 5b. nees-●-se-m	—	—	19a. 'e- 19b. 'e-●-se	25a. 'e-nees- 25b. 'e-nees-●-se
<b>2p S</b>	2a. pe-●-m 2b. -tee-'nix	6a. pe-nees-●-m 6b. nees-●-tee-'nix	—	—	20a. 'e-pe- 20b. 'e-●-s-iix	26a. 'e-pe- 26b. 'e-nees-●-s-iix
<b>3s S</b>	3a. hi- 3b. hi-●-se	7a. hi-nees- 7b. hi-nees-●-se	11a. hi- 11b. hi-●-se	15a. hi- 15b. hi-●-se	21a. pee- 21b. pee-●-se	27a. hi-nees- 27b. hi-nees-●-se
<b>3p S</b>	4a. hi-pe- 4b. hi-●-s-iix	8a. hi-pe-nees- 8b. hi-nees-●-s-iix	12a. hi-pe- 12b. hi-●-s-iix	16a. hi-pe- 16b. hi-●-s-iix	22a. ** 22b. pee-●-s-iix	28a. hi-nees- 28b. hi-nees-●-se

Notes on both tables: The position of the verb stem is indicated with a solid dot (●). Tense inflection is not shown. Cells with clislocative are green; cells with a plural object but no plural subject agreement are red; cells with a plural subject but no plural subject agreement are blue.

**Table 2:** Results of systematic paradigm elicitation, collapsed [glosses]

	<b>1sg O</b>	<b>1pl O</b>	<b>2sg O</b>	<b>2pl O</b>	<b>3sg O</b>	<b>3pl O</b>
<b>1s S</b>	—	—	9a. 0- 9b. 0-●	13a. 0- 13b. 0-●	17a. 30- 17b. 30-●	23a. 30-O.PL- 23b. 30-O.PL-●
<b>1p S</b>	—	—	10a. s.PL- 10b. -s.PL	14a. <b>S.PL-</b> 14b. <b>-S.PL</b>	18a. 30-S.PL- 18b. 30-●-S.PL	24a. <b>30-S.PL-</b> 24b. 30-O.PL-●-S.PL
<b>2s S</b>	1a. <b>(REC)-●-CIS</b> 1b. <b>(REC)-●-CIS</b>	5a. <b>O.PL-●-CIS</b> 5b. <b>O.PL-●-CIS</b>	—	—	19a. 30- 19b. 30-●	25a. 30-O.PL- 25b. 30-O.PL-●
<b>2p S</b>	2a. <b>S.PL-●-CIS</b> 2b. -S.PL	6a. <b>S.PL-O.PL-●-CIS</b> 6b. O.PL-●-S.PL	—	—	20a. 30-S.PL- 20b. 30-●-S.PL	26a. <b>30-S.PL-</b> 26b. 30-O.PL-●-S.PL
<b>3s S</b>	3a. 3S- 3b. 3S-●	7a. 3S-O.PL- 7b. 3S-O.PL-●	11a. 3S- 11b. 3S-●	15a. <b>3S-</b> 15b. <b>3S-●</b>	21a. 3/3- 21b. 3/3-●	27a. 3S-O.PL- 27b. 3S-O.PL-●
<b>3p S</b>	4a. 3S-S.PL- 4b. 3S-●-S.PL	8a. 3S-S.PL-O.PL- 8b. 3S-O.PL-●-S.PL	12a. 3S-S.PL- 12b. 3S-●-S.PL	16a. <b>3S-S.PL-</b> 16b. <b>3S-●-S.PL</b>	22a. ** 22b. 3/3-●-S.PL	28a. <b>3S-O.PL-</b> 28b. <b>3S-O.PL-●</b>

Notes on Table 2: Morphemes are glossed here according to the following conventions:

3/3 3rd person subject and 3rd person object portmanteau prefix

3O 3rd person object prefix

3S 3rd person subject prefix

CIS morpheme typically described as the cislocative

O.PL plural object prefix

REC morpheme typically described as the reciprocal

S.PL plural subject marker

Let us now consider the findings themselves. We see in Tables 1 and 2 that, as a baseline, all plural arguments agree in number and all 3rd persons agree in person. Four agreement restrictions can be picked out as departures from this baseline. (Those involving plural objects that do not agree in plural are marked in red; those involving plural subjects that do not agree in plural are marked in blue.)

First, there is never plural object agreement with a second person object, (15).

(15) *No plural agreement with a 2nd person object:*

If the object has features [ADDR, PL], [PL] from the object cannot be indexed on the verb. (Forms 13–16.)

Second, as discussed above, there is a limitation on plural object agreement for plural 3rd person objects when the subject is a plural participant. Notably, this restriction is specific to aspectual/modal categories with prefixal subject agreement. Observe that *nees-* is absent in the (a) examples in cells 24 and 26, but not the (b) examples. The (b) examples have no agreement restriction: all plural arguments agree plural, whether via prefix *nees-* (for the object) or suffix *-iix* (for the subject). The restriction in (4) is accordingly refined as (16).

(16) *No plural agreement with a 3rd person object when the subject is 1pl or 2pl and the subject plural marker is a prefix:*

If the object has features [-PART, PL], and the subject has features [+PART, PL], and the aspect/mood is one that forces a subject number prefix, then [PL] from the object cannot be indexed on the verb. (Forms 24a, 26a.)

Third, there is no person agreement with a 3rd person plural object when the subject is 3rd person, (17). This is one agreement restriction that *has* been noticed in the previous literature, namely in Rude (1985:39), and is represented correctly in the paradigms of Deal (2010a,b).

(17) *No person agreement with a 3rd person plural object when the subject is 3rd person:*

If the object has features [-PART, PL] and the subject has feature [-PART], [-PART] from the object cannot be indexed on the verb. (Forms 27–28.)

Fourth and finally, there is no plural subject agreement of any kind when both the subject and the object are third person plural, (18). In form 28a, prefix *pe-* is absent, and in form 28b, imperfective aspect appears in the non-plural form.

(18) *No plural subject agreement when both the subject and the object are third person plural:*

If the object has features [-PART, PL] and the subject has feature [-PART, PL], [PL] from the subject cannot be indexed on the verb. (Forms 28.)

To summarize, there are two circumstances when plural objects do not agree in number: when the object is second person (forms 13–16), and when the object is third person, the subject is a plural participant, and subject plural marking is a prefix (forms 24a, 26a). There is one circumstance when plural subjects do not agree in number: when both the object and the subject are 3rd person plural. And there is one circumstance when 3rd person arguments do not agree in person: when both the subject and the object are third person, and the object is plural.

One notable fact about these restrictions, excepting (15), is that they depend on features from both the subject and the object. Object features have a role to play in determining subject agreement; so do subject features in determining object agreement. Two further instances of this type of interaction are seen in cells 1–2 and 5–6 (that is, when the subject is 2nd person and the object is 1st person). First, the cislocative appears across these cells, excepting 2b and 6b. (Cells with cislocative are colored green.) The absence of the cislocative in 2b and 6b is predictable: the plural form of present habitual aspect, unlike imperfective and perfect/perfective, is simply not morphologically compatible with space marking affixes (Rude 1985:67).<sup>12</sup> What we see overall is (19):

- (19) The cislocative appears wherever morphologically possible when the subject is 2nd person and the object is 1st person. (Forms 1–2, 5–6.)

It seems quite unlikely that this distribution follows from the spatial meaning of the cislocative – that is, that speakers interpret the action as being spatially located near the speaker, or directed toward the speaker, in all and only 2nd person on 1st person scenarios. More likely is that the cislocative has developed a use which is not a space marker but a 2-on-1 marker, a usage which may ultimately be understood as a type of inverse. Clearly, this role for the cislocative is not an agreement restriction, understood in general terms as a constraint on when the unambiguous agreement affixes may be used. Rather, it is an *agreement extension*: a morpheme with an additional, non-agreement-based use playing a role in the agreement system.

A second agreement extension concerns the reciprocal prefix *pii-*, which appears in the agreement paradigm optionally when the subject is 2nd person singular and the object is 1st person singular. In paradigm elicitations, this morpheme appeared in exactly 50% of the relevant forms. Of the four paradigms elicited, *pii-* was present in cell 1 in one case and absent in another case; in the remaining two cases, consultants provided both a form with *pii-* and a form without it. Consultants did not provide *pii-* in any other cell of the paradigm. This suggests that *pii-* appears in cell 1 not due to a reciprocal interpretation, but because this prefix has acquired a use as a 2SG on 1SG marker. It remains optional in this usage, however.<sup>13</sup>

<sup>12</sup>The *singular* form of the present habitual does morphologically allow the cislocative, and the cislocative accordingly appears in 2SG/1SG and 2SG/1PL forms. See the paradigm in the appendix.

<sup>13</sup>Rude observes that the reciprocal is optional in 2SG-on-1SG imperatives, and remarks that



In example (22a), imperfective aspect appears in addition to future. This example was drawn from a paradigm otherwise in the simple future. In example (22b), imperfective aspect appears instead of the perfect/perfective aspect otherwise used in the paradigm. In both instances, subject number is expressed as would be expected for the imperfective aspect. The modification of aspect/mood marking allows all features to be expressed on the verb without the morpheme combination *pee-pe-* ‘3/3-S.pl’.

An initially plausible way to think about these modifications is in terms of agreement extensions: the imperfective is recruited to express the 3PL/3SG feature combination, much as the reciprocal is recruited to express 2SG/1SG. The problem for this account is that imperfective aspect is not required in the 3pl/3sg feature combination *per se*; in the habitual paradigm, for instance, there is no modification of the aspect/mood value in the 3PL/3SG paradigm cell.

- (23) ke kaa *pee-cewcew-tée-’nix* Angel-ne  
 C then 3/3-call-HAB.PRES-S.PL Angel-ACC  
 ‘when they call Angel’

Another potential approach for forms like (22b) would be to see the apparent imperfective as a special allomorph of perfect/perfective, in some way conditioned by the 3PL/3SG feature complex. But this approach struggles on (22a), where the future suffix remains but the imperfective suffix is added. What these failed views have in common is that they attempt to treat the forms in (22) as normal members of the paradigms in which they were elicited—as representing, that is, what is semantically the simple future or semantically the perfect/perfective. A remaining alternative is to reject this assumption: 3PL/3SG feature combinations are simply ineffable in the perfect/perfective and simple future. Speakers provide the forms in (22) as “next best” alternatives, expressing similar meanings. In reflection of this conclusion, I provide no form in cell 22a.

#### 4 Conclusions and analytical prospects

This paper has aimed to end where a theoretical project can begin. The theoretical questions should now be clear: *Why* is the Nez Perce verbal agreement paradigm as it is? *Why* are there agreement restrictions/extensions at all, and *why* in particular *these* restrictions/extensions? What does this tell us about the syntax of agreement, on one hand, and its morphology, on the other? While I will not be able to properly answer these questions here, I will conclude by pointing to several of what I see as the most interesting prospects for future analysis.

One initial question to ask about agreement restrictions is whether they are syntactic or morphological in nature. Consider, for instance, the restriction we see in forms 28:

(24) *No plural subject agreement when both the subject and the object are third person plural:*

If the object has features [-PART, PL] and the subject has feature [-PART, PL], [PL] from the subject cannot be indexed on the verb.

A syntactic account of this restriction would propose a straightforward mapping between the features realized by agreement morphemes and the features transferred by the operation Agree. If [PL] from the subject cannot be indexed on the verb, then [PL] from the subject does not participate in Agree. What must be explained is why Agree should be restricted in this way. A morphological account, on the other hand, would locate the restriction not in which features are transferred by Agree, but in what happens to transferred features at the PF interface. If [PL] from the subject cannot be indexed on the verb, that suggests that this feature might be deleted in the morphology (via an impoverishment rule) or might simply remain unexponed for some other morphological reason. The absence of exponence is what requires an explanation.

One type of factor suggestive of a syntactic account is the repeated restriction on plural agreement for argument A in the context of plural agreement for argument B. A syntactic account can make sense of why it is the feature [PL] (rather than some other feature) that interferes with agreement in [PL] by reference to a context of intervention. The central constraint, on this type of view, is that a probe P may not agree with a lower [PL] feature across a higher one:

(25) [ P [ I: [PL] [ G: [PL] [ ... ] ] ] ]  
 { ----- XXX ----- }

(26) Agree in feature bundle [F] is possible between probe P and goal G only if there is no I such that P c-commands I and I c-commands G and I bears any feature in [F].

On an intervention approach to agreement restrictions, sometimes [PL] on the subject intervenes for [PL] on the object (e.g. (16)), but sometimes [PL] on the object intervenes for [PL] on the subject (e.g. (18)). The analytical challenge lies in ensuring that subjects and objects occupy appropriate structural positions for this type of variation in the setup for intervention.

A further, related implication of the restrictions and extensions described in this paper concerns the question of how many syntactic loci of agreement (i.e. agreeing functional heads) are involved in the Nez Perce clause. The basic facts of agreement, as in Section 2, might be taken to suggest the involvement of three distinct syntactic loci, each associated with one morphological prefix position (person agreement, subject number agreement, object number agreement). Such a view would be in line with proposals by Sigurðsson and Holmberg (2008) and Preminger (2011), according to which person and number agreement are associated with distinct probing heads in the syntax. Agreement restrictions and extensions constitute a challenge for this view because they require access to both person and number information, generally from both the subject and the object. By the same

token, these facts also challenge more standard views of agreement, which take object and subject agreement to be associated with distinct syntactic loci (*v* and *T*, respectively; see e.g. Deal 2010a). If more than one syntactic locus is involved in the agreement system, some mechanism must ensure that the features available in any one locus are determined by the full  $\phi$ -specification of both subject and object. Of course, the need for such a mechanism is obviated if a single syntactic head is implicated in verb agreement in Nez Perce. On this type of view, rules of fission are required to ensure that separate morphemes may be inserted.

## A Appendix: sample paradigms

### A.1 'iyaaq 'find', perfect/perfective aspect, remote past tense

For this elicitation speakers were asked to imagine that they or others were looking at a portrait of a large group, searching for one or more individuals.

Linguistic notes: this paradigm features both singular and plural 2nd person clitic pronouns, both by themselves and as clitic-doubles of full pronouns or coordinated expressions (see (10a), (13a)). These are discussed in Deal (2015a) and Deal (To appear c). This paradigm also shows two options for case-marking in coordinations: case-markers may appear on both coordinates ('balanced coordination'), as in (14a), or just on the final one ('unbalanced coordination' – the term coming from Johannessen 1998), as in (13a). This pattern is discussed in Deal (To appear c); variation between the two options is apparently free. Argument omission (*pro*-drop) is very common in Nez Perce and may be seen in numerous examples of this paradigm (e.g. (1a), (3a)). Here, unlike in the text, I do not provide *pro* arguments in the examples. Some arguments are explicitly marked as optional because speakers volunteered this information when the data was elicited. No conclusion about optionality should be drawn regarding those elements not explicitly marked as optional here.

- (1a) 'Ee                    pfi-'yaax-ni-m-a                    cepéletp'et-pe.  
 2SG.CLITIC    RECIP-find-P-CIS-REM.PAST    picture-LOC

**2sg/1sg:** 'You found me in the picture.'

- (2a) 'Eetx                    pa-'yaaax-ni-m-a                    cepéletp'et-pe.  
 2PL.CLITIC    S.PL-find-P-CIS-REM.PAST    picture-LOC

**2pl/1sg:** 'You guys found me in the picture.'

- (3a) Jim-nim    hi-'yaaax-n-a                    cepéletp'et-pe.  
 Jim-ERG    3SUBJ-find-P-REM.PAST    picture-LOC

**3sg/1sg:** 'Jim found me in the picture.'

- (4a) Matt kaa George-nim hi-pa-'yááx̂-n-a  
 Matt.NOM and George-ERG 3SUBJ-S.PL-find-P-REM.PAST  
 ('iin-e) cepéletp'et-pe.  
 (1SG-ACC) picture-LOC

**3pl/1sg:** 'Matt and George found me in the picture.'

- (5a) 'Ee náac-'yaḥ̂-ni-m-a ('iin kaa Matt-ne)  
 2SG.CLITIC O.PL-find-P-CIS-REM.PAST (1SG.NOM and Matt-ACC)  
 cepéletp'et-pe.  
 picture-LOC

**2sg/1pl:** 'You found us (me and Matt) in the picture.'

- (6a) 'Eetx pa-náac-'yaḥ̂-ni-m-a cepéletp'et-pe.  
 2PL.CLITIC S.PL-O.PL-find-P-CIS-REM.PAST picture-LOC

**2pl/1pl:** 'You guys found us in the picture.'

- (7a) Jim-nim hi-náac-'yaḥ̂-n-a ('iin kaa Matt-ne)  
 Jim-ERG 3SUBJ-O.PL-find-P-REM.PAST (1SG.NOM and Matt-ACC)  
 cepéletp'et-pe.  
 picture-LOC

**3sg/1pl:** 'Jim found us (me and Matt) in the picture.'

- (8a) Matt kaa George-nim (nuun-e)  
 Matt.NOM and George-ERG (1PL-ACC)  
 hi-pa-náac-'yaḥ̂-n-a cepéletp'et-pe.  
 3SUBJ-S.PL-O.PL-find-P-REM.PAST picture-LOC

**3pl/1pl:** 'Matt and George found us (me and someone else) in the picture.'

- (9a) 'Ee 'iyááx̂-n-a cepéletp'et-pe.  
 2SG.CLITIC find-P-REM.PAST picture-LOC

**1sg/2sg:** 'I found you in the picture.'

- (10a) 'Ee 'im-ené pa-'yááx̂-n-a cepéletp'et-pe.  
 2SG.CLITIC 2SG-ACC S.PL-find-P-REM.PAST picture-LOC

**1pl/2sg:** 'We found you in the picture.'

- (11a) Jim-nim 'ee hi-'yááx̂-n-a cepéletp'et-pe.  
 Jim-ERG 2SG.CLITIC 3SUBJ-find-P-REM.PAST picture-LOC

**3sg/2sg:** 'Jim found you in the picture.'

- (12a) Matt kaa George-nim 'ee  
 Matt.NOM and George-ERG 2SG.CLITIC  
 hi-pa-'yáaâ-n-a cepéletp'et-pe.  
 3SUBJ-S.PL-find-P-REM.PAST picture-LOC  
**3pl/2sg:** 'Matt and George found you in the picture.'
- (13a) 'Eetx 'iyáaâ-n-a ('iim kaa Matt-ne)  
 2PL.CLITIC find-P-REM.PAST (2SG.NOM and Matt-ACC)  
 cepéletp'et-pe.  
 picture-LOC  
**1sg/2pl:** 'I found you<sub>pl</sub> (you<sub>sg</sub> and Matt) in the picture.'
- (14a) 'Eetx pa-'yáaâ-n-a 'im-ené kaa Matt-ne  
 2PL.CLITIC S.PL-find-P-REM.PAST 2SG-ACC and Matt-ACC  
 cepéletp'et-pe.  
 picture-LOC  
**1pl/2pl:** 'We found you and Matt in the picture.'
- (15a) Jim-nim 'ee hi-'yáaâ-n-a ('iim kaa  
 Jim-ERG 2SG.CLITIC 3SUBJ-find-P-REM.PAST (2SG.NOM and  
 Matt-ne) cepéletp'et-pe.<sup>17</sup>  
 Matt-ACC) picture-LOC  
**3sg/2pl:** 'Jim found you (you<sub>sg</sub> and Matt) in the picture.'
- (16a) Matt kaa George-nim 'eetx  
 Matt.NOM and George-ERG 2PL.CLITIC  
 hi-pa-'yáaâ-n-a cepéletp'et-pe.  
 3SUBJ-S.PL-find-P-REM.PAST picture-LOC  
**3pl/2pl:** 'Matt and George found you guys in the picture.'
- (17a) 'Aw-'yáaâ-n-a Matt-ne cepéletp'et-pe.  
 3OBJ-find-P-REM.PAST Matt-ACC picture-LOC  
**1sg/3sg:** 'I found Matt in the picture.'

<sup>17</sup>I suspect that there is an error in this example: the clitic pronoun should be 'eetx '2PL.CLITIC', as in (13a). However, this form was checked with speakers.

- (18a) 'A-pa-'yáaâ-n-a Matt-ne cepéletp'et-pe.  
 3OBJ-S.PL-find-P-REM.PAST Matt-ACC picture-LOC  
**1pl/3sg:** 'We found Matt in the picture.'
- (19a) 'Ee 'aw-'yáaâ-n-a Matt-ne cepéletp'et-pe.  
 2SG.CLITIC 3OBJ-find-P-REM.PAST Matt-ACC picture-LOC  
**2sg/3sg:** 'You found Matt in the picture.'
- (20a) 'Eetx 'a-pa-'yáaâ-n-a Matt-ne cepéletp'et-pe.  
 2PL.CLITIC 3OBJ-S.PL-find-P-REM.PAST Matt-ACC picture-LOC  
**2pl/3sg:** 'You guys found Matt in the picture.'
- (21a) Jim-nim páa-'yaâ-n-a Matt-ne cepéletp'et-pe.  
 Jim-ERG 3/3-find-P-REM.PAST Matt-ACC picture-LOC  
**3sg/3sg:** 'Jim found Matt in the picture.'
- (22a) Matt kaa George-nim páa-'yaâ-c-i-na  
 Matt.NOM and George-ERG 3/3-find-IMPERF-S.PL-REM.PAST  
 Matt-ne cepéletp'et-pe.  
 Matt-ACC picture-LOC  
**3pl/3sg:** 'Matt and George found Matt in the picture.'
- (23a) 'A-náac-'yaâ-n-a Matt kaa Jim-ne  
 3OBJ-O.PL-find-P-REM.PAST Matt.NOM and Jim-ACC  
 cepéletp'et-pe.  
 picture-LOC  
**1sg/3pl:** 'I found Matt and Jim in the picture.'
- (24a) 'A-pa-'yáaâ-n-a Matt kaa Jim-ne  
 3OBJ-S.PL-find-P-REM.PAST Matt.NOM and Jim-ACC  
 cepéletp'et-pe.  
 picture-LOC  
**1pl/3pl:** 'We found Matt and Jim in the picture.'
- (25a) 'Ee 'a-náac-'yaâ-n-a Matt kaa Jim-ne  
 2SG.CLITIC 3OBJ-O.PL-find-P-REM.PAST Matt.NOM and Jim-ACC  
 cepéletp'et-pe.  
 picture-LOC  
**2sg/3pl:** 'You found Matt and Jim in the picture.'

(26a) 'Eetx 'a-pa-'yáax̄-n-a Matt kaa Jim-ne  
 2PL.CLITIC 3OBJ-S.PL-find-P-REM.PAST Matt.NOM and Jim-ACC  
 cepéeletp'et-pe.  
 picture-LOC

**2pl/3pl:** 'You guys found Matt and Jim in the picture.'

(27a) Jim-nim hi-náac-'yaḥ̄-n-a Bill kaa Jill-ne  
 Jim-ERG 3SUBJ-O.PL-find-P-REM.PAST Bill.NOM and Jill-ACC  
 cepéeletp'et-pe.  
 picture-LOC

**3sg/3pl:** 'Jim found Bill and Jill in the picture.'

(28a) Bill kaa Jill-nim hi-náac-'yaḥ̄-n-a Jim  
 Bill.NOM and Jill-ERG 3SUBJ-O.PL-find-P-REM.PAST Jim.NOM  
 kaa Beth-ne cepéeletp'et-pe.  
 and Beth-ACC picture-LOC

**3pl/3pl:** 'Bill and Jill found Jim and Beth in the picture.'

## A.2 *cewcewi* 'call', present habitual aspect, present tense

Linguistic notes: This paradigm shows *when*-clauses, formed with temporal demonstrative *kaa* and agreeing A' complementizer *ke*. (The status of this element as an A' complementizer is discussed in Deal (To appear a); complementizer agreement is discussed in Deal (To appear b).) Therefore, this set of examples shows a full paradigm both for verb agreement and for complementizer agreement.

Like the previous paradigm, this paradigm features clitic pronouns, both balanced and unbalanced coordinations, and extensive argument omission and optionality. In (28b), the object is a deverbal agentive noun which does not inflect for plural, but which controls plural object agreement. On the absence of plural marking for deverbal agentive nouns, see Deal (2015b).

(1b) ke-m kaa (pii)-cewcew-téetu-m ('iin-e)  
 C-2 then RECIP-call-HAB.PRES-CIS 1SG-ACC

**2sg/1sg:** 'when you call me'

(2b) ke-pe-m kaa ('iin-e) cewcew-tée-'nix  
 C-PL-2 then 1SG-ACC call-HAB.PRES-S.PL

**2pl/1sg:** 'when you guys call me'

- (3b) ke-x kaa Angel-nim hi-cewcew-téetu  
 C-1 then Angel-ERG 3SUBJ-call-HAB.PRES  
**3sg/1sg:** ‘when Angel calls me’
- (4b) ke-x kaa Angel-nim kaa Tatlo-nm hi-cewcew-tée-’nix  
 C-1 then Angel-ERG and Tatlo-ERG 3SUBJ-call-HAB.PRES-S.PL  
**3pl/1sg:** ‘when Angel and Tatlo call me’
- (5b) ke-m kaa ’ee nees-cewcew-téetu-m  
 C-2 then 2SG.CLITIC O.PL-call-HAB.PRES-CIS  
**2sg/1pl:** ‘when you call us’
- (6b) ke-pe-m kaa nees-cewcew-tée-’nix  
 C-PL-2 then O.PL-call-HAB.PRES-S.PL  
**2pl/1pl:** ‘when you guys call us’
- (7b) ke-x kaa Angel-nim hi-nees-cewcew-téetu nuun-e  
 C-1 then Angel-ERG 3SUBJ-O.PL-call-HAB.PRES 1PL-ACC  
**3sg/1pl:** ‘when Angel calls us’
- (8b) ke-x kaa hi-nees-cewcew-tée-’nix  
 C-1 then 3SUBJ-O.PL-call-HAB.PRES-S.PL  
**3pl/1pl:** ‘when they call us’
- (9b) ke-m-ex kaa cewcew-téetu  
 C-2-1 then call-HAB.PRES  
**1sg/2sg:** ‘when I call you’
- (10b) ke-pe-m-ex kaa cewcew-tée-’nix  
 C-PL-2-1 then call-HAB.PRES-S.PL  
**1pl/2sg:** ‘when we call you (singular)’
- (11b) ke-m kaa Angel-nim hi-cewcew-téetu  
 C-2 then Angel-ERG 3SUBJ-call-HAB.PRES  
**3sg/2sg:** ‘when Angel calls you (singular)’

- (12b) ke-pe-m kaa Angel-nim kaa Tatlo-nm  
 C-PL-2 then Angel-ERG and Tatlo-ERG  
 hi-cewcew-tée-’nix  
 3SUBJ-call-HAB.PRES-S.PL  
**3pl/2sg:** ‘when Angel and Tatlo call you (singular)’
- (13b) ke-pe-m-ex kaa cewcew-téetu  
 C-PL-2-1 then call-HAB.PRES  
**1sg/2pl:** ‘when I call you guys’
- (14b) ke-pe-m-ex kaa (’eetx) cewcew-tée-’nix  
 C-PL-2-1 then 2PL.CLITIC call-HAB.PRES-S.PL  
**1pl/2pl:** ‘when we call you guys’
- (15b) ke-pe-m kaa Angel-nim hi-cewcew-téetu  
 C-PL-2 then Angel-ERG 3SUBJ-call-HAB.PRES  
**3sg/2pl:** ‘when Angel calls you guys’
- (16b) ke-pe-m kaa Angel kaa Tatlo-nm  
 C-PL-2 then Angel.NOM and Tatlo-ERG  
 hi-cewcew-tée-’nix  
 3SUBJ-call-HAB.PRES-S.PL  
**3pl/2pl:** ‘when Angel and Tatlo call you guys’
- (17b) ke-x kaa ’e-cewcew-téetu Angel-ne  
 C-1 then 3OBJ-call-HAB.PRES Angel-ACC  
**1sg/3sg:** ‘when I call Angel’
- (18b) ke-x kaa ’e-cewcew-tée-’nix Angel-ne  
 C-1 then 3OBJ-call-HAB.PRES-S.PL Angel-ACC  
**1pl/3sg:** ‘when we call Angel’
- (19b) ke-m kaa ’e-cewcew-téetu Angel-ne  
 C-2 then 3OBJ-call-HAB.PRES Angel-ACC  
**2sg/3sg:** ‘when you call Angel’
- (20b) ke-pe-m kaa ’e-cewcew-tée-’nix Angel-ne  
 C-PL-2 then 3OBJ-call-HAB.PRES-S.PL Angel-ACC  
**2pl/3sg:** ‘when you guys call Angel’

- (21b) ke kaa Angel-nim pee-cewcew-téetu Tatlo-na  
 C then Angel-ERG 3/3-call-HAB.PRES Tatlo-ACC  
**3sg/3sg:** ‘when Angel calls Tatlo’
- (22b) ke kaa pee-cewcew-tée-’nix Angel-ne  
 C then 3/3-call-HAB.PRES-S.PL Angel-ACC  
**3pl/3sg:** ‘when they call Angel’
- (23b) ke-x kaa ’e-nées-cewcew-tetu  
 C-1 then 3OBJ-O.PL-call-HAB.PRES  
**1sg/3pl:** ‘when I call them’<sup>18</sup>
- (24b) ke-x kaa ’e-nees-cewcew-tée-’nix  
 C-1 then 3OBJ-O.PL-call-HAB.PRES-S.PL  
**1pl/3pl:** ‘when we call them’
- (25b) ke-m kaa (’ee) ’e-nees-cewcew-téetu  
 C-2 then 2SG.CLITIC 3OBJ-O.PL-call-HAB.PRES  
**2sg/3pl:** ‘when you call them’
- (26b) ke-pe-m kaa ’eetx ’e-nees-cewcew-tée-’nix  
 C-PL-2 then 2PL.CLITIC 3OBJ-O.PL-call-HAB.PRES-S.PL  
**2pl/3pl:** ‘when you guys call them’
- (27b) ke kaa Angel-nim hi-nees-cewcew-téetu  
 C then Angel-ERG 3SUBJ-O.PL-call-HAB.PRES  
**3sg/3pl:** ‘when Angel calls them’
- (28b) ke kaa Angel kaa Tatlo-nm hi-nees-cewcew-téetu  
 C then Angel.NOM and Tatlo-ERG 3SUBJ-O.PL-call-HAB.PRES  
 cepelixnixewetúu-ne  
 worker-ACC  
**3pl/3pl:** ‘when Angel and Tatlo call the workers’

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# Gladys Reichard's ear

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**Abstract:** The first scientific grammar of a Salishan language was written by Gladys Amanda Reichard (1893–1955). As this year the International Conference on Salish and Neighbouring Languages celebrates its fiftieth anniversary, the author wishes to acknowledge the sixtieth anniversary of Reichard's death in simultaneous tribute.

**Keywords:** Gladys Amanda Reichard, Coeur d'Alene, Interior Salishan

## 1 Introduction

Sixty years ago this summer Professor Gladys Reichard was not in Salish country when death came knocking. She was living in the southeast corner of Diné Biyékah, the Navajo homeland, within sight of the snow-tipped San Francisco peaks on the wooded campus of the Museum of Northern Arizona in Flagstaff. Since 1939, Reichard had made MNA, a privately funded center for the study of the archaeology, biota, and cultures of the Colorado Plateau region, her institutional summer home. She loved MNA and Flagstaff well enough that she had already selected one of four homesites being developed on MNA property on which to build a house. She was three years away from retirement from Barnard College where she had been the only tenured faculty member (and chair) in the department of Anthropology for over thirty years.

The first stroke hit the day after her sixty-second birthday. She was rushed from the tiny Washington Matthews cabin where she customarily stayed to nearby Flagstaff Medical Center. With her sister Lilian at her side, Reichard died there a week later on July 25, 1955. Carl Voegelin, past president of the Linguistic Society of America and first successor to Franz Boas as editor of the *International Journal of American Linguistics*, was one of Reichard's pallbearers. Florence "Flo" Voegelin, founder and editor of *Anthropological Linguistics*, joined other of the American Southwest's anthropological royalty at Reichard's graveside. Today Reichard's modest headstone faces skyward in the broad expanse of grass that is Citizen's Cemetery. It is safe to say that none of the students who casually cut through the cemetery on their way to the eastern flank of Northern Arizona University's Flagstaff campus have any idea of its existence.

Because Reichard herself did not stand on ceremony, it matters not that few linguists who have benefitted directly from her pioneering work on North American Indian languages know or care about the location of her physical remains. On the occasion of the 50<sup>th</sup> anniversary of the International Conference

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on Salish and Neighboring Languages, it *is* appropriate to recognize—and clarify—the intellectual contributions Reichard made to the study of Salishan and other North American Indian languages lest we be tempted to take them for granted.

## 2 Hardly a bed of roses

Melville Jacobs (1940) states plainly and accurately that Reichard's grammar of Coeur d'Alene (1938) was "the first full length portrait of a Salish language," predicting that her "excellent" contribution to the third volume of the *Handbook of American Indian Languages* would serve as "the foundation upon which most future researches and analyses of the Salish languages may be conducted" (p. 98). As guest editor of *IJAL*, Larry Thompson dedicated the first issue of volume 46 (1980) to Reichard in recognition of her extensive writings on Amerindian languages and cultures. In that same issue Herbert Landar (1980) provides an annotated list of Reichard's linguistic publications arranged by date and extending to the six posthumous articles on comparative Salishan which Flo Voegelin saw into print. Gary Witherspoon opens his contribution to the memorial issue with the words "Gladys Reichard was an extraordinary ethnologist and an exceptional linguist" (1980, p. 1). Years later Ivy Doak pronounced Reichard's work on Coeur d'Alene "outstanding" (1997, p. 4). Falk (1999) traces Reichard's career in North American Indian linguistics in detail, arguing that despite her dedication, talent, and immense productivity, Reichard has been largely overlooked in the history of American linguistics due to a bias in favor of the "great man" theory of history, which argument is not less persuasive in 2015. Falk quotes M. Dale Kinkade as saying of early Salishan linguistics, "It's too bad there weren't more Reichards" (p. 140). Ray Brinkman, on staff at the Coeur d'Alene language program for over a decade, credits Reichard as much for her resourcefulness in recording enough Coeur d'Alene data in the first half of the 20<sup>th</sup> century on which to base a language revitalization effort in the second as for introducing Lawrence Nicodemus to the study of linguistics (R. Brinkman, personal communication, October 25, 2013).

Virtually all of Reichard's linguistic publications were met during her lifetime with the roar of male disapproval. She refused to observe the absolute partitioning of form from meaning, of method from circumstance then in vogue and she paid with her reputation for her nonconformity. Hockett (1940) panned Reichard's grammar of Coeur d'Alene. Harry Hoijer discredited Reichard's work on Navajo for the better part of three decades, culminating in his splenetic review in *IJAL* of her four-hundred page *Navaho Grammar* which he declared "wholly inadequate" and without value to modern linguistics (1953, p. 83). George Trager subsequently piled on, writing in his review of the same book for *American Anthropologist* that Reichard had wasted two decades and the precious funds of the American Ethnological Society on its publication (1953, p. 429). Even after her death certain linguists were so galled by Reichard's refusal to adopt their terminological prejudices that they all but completed the task of erasing her from American linguistics. Mary Haas asserted that her student Karl

Teeter had been forced to write his dissertation on Wiyot from “an entirely clean slate” based on information from a single 80-year-old speaker because grammatical descriptions prior to 1930—including Reichard’s dissertation on Wiyot grammar (1925)—were “noncommensurate” with the structuralist “plane” Haas favored. Teeter himself told Falk that Reichard “had a poor ear for phonetics” which made the hundreds of pages of fieldnotes, texts, and analyses of Wiyot she left to posterity at the University of California Berkeley “too inaccurate” and “unreliable” for use (Falk 1999, p. 143).

Falk (1999) does a fine if understated job of tracing the animosity expressed by Reichard’s most vocal critics to Edward Sapir. Sapir with A.L. Kroeber had expected Reichard’s grammar of Wiyot to support Sapir’s California Algonquian hypothesis. When he couldn’t convince Reichard to accept his evidence for a historical relationship between Wiyot, Yurok, and the eastern Algonquian family (a relationship which would not be fully accepted by Amerindianists for another fifty years), he wrote her off, permanently. As Falk suggests, Sapir’s persistent, behind-the-scenes attempts to sabotage Reichard’s career until his death in 1939 were as much an outlet for his frustrations with Boas’ higher standards of evidence and methodological pluralism as they were an expression of his well-documented contempt for professional women. Try as he might to eclipse Boas along with the women he encouraged, the best Sapir could do was inspire his students to mistake intolerance for scientific judiciousness. It might be argued that Sapir’s “my way or the highway” approach to scholarship is his most pervasive legacy in the culture of American linguistics. The battles he and his students waged against responsible colleagues like Reichard continue to divide us counterproductively along lines of gender, age, cultural identity, and disciplinary approach.

Accusations that Reichard had a poor ear or was deaf to phonemic theory are easily laid to rest now that we see in Salishan linguistics alone the rich array of dissertations, masters theses, books, and countless articles that are based on, refer to, or take issue with Reichard’s published and unpublished Salishan materials. Even her largely forgotten work on Wiyot is bearing new fruit. Lynnika Butler, the linguist recently hired by the Wiyot Tribe to provide technical expertise for their language revitalization program (the last speaker of Wiyot died in 1962), told me recently that she relies more heavily on Reichard’s records for their phonetic detail than on transcriptions made by Kroeber and Teeter (L. Butler, personal communication, January 31, 2014). In fact, Reichard had far more training in phonetics and grammatical analysis than most linguists realize. A Classics major at Swarthmore College, Reichard did not enter Columbia in 1919 with a background in philology or anthropology. Yet she was quickly captivated by Amerindian linguistics in Boas’ infamously rapid-fire linguistics seminar. Rather than complain as did so many others that Boas did not offer a course in field methods to prepare students for the challenges of fieldwork, Reichard prepared herself. When in 1922 she opted to do linguistic fieldwork and produce a grammar with texts for her dissertation, she made a choice that no other of Boas’ female students made before or since.

Even after she graduated, Reichard continued to refine her perception of speech sounds. During her Guggenheim fellowship year of 1926-27 in Germany, Reichard spent her weekends testing her phonetic judgments against a Rousselot apparatus as a lab for a course in phonetics she audited that was taught by one of Rousselot's star students, Giulio Panconcelli-Calzia, at the University of Hamburg. In addition to cultivating her hearing Reichard also engaged in sight-training. Before linguistic fieldwork she read all the old sources by missionaries, explorers, and contributors to the Bureau of American Ethnology, taking the volumes into the field with her to check the data they contained with living speakers. No matter how unsophisticated or flawed many of these materials were by contemporary standards, she appreciated even the smallest pinpoint of light they could throw on a linguistic topic that interested her. Still more important were the conversations such materials precipitated with her language consultants, who she preferred to call 'interpreters'. She approached Native speakers as a student who wished to learn to speak the local language and adopted the role of teacher only so as to teach interested interpreters how to write in a phonetic orthography.

Reichard was keen also to use the latest technology available to her. In her first field season studying Coeur d'Alene in 1927, she arranged for a physician in Spokane to make x-rays of Pascal George pronouncing ten Coeur d'Alene sounds. Handy with a Brownie camera since college, Reichard learned to shoot and edit film in the early 1930s when movie cameras were not yet standard field equipment. She also recorded hours of Navajo speech on wax cylinders for later transcription. Her hands-down favorite tool for fieldwork was the automobile. Once she realized the independence and mobility it gave her in Indian country she valued it as highly as a Navajo man does his horse. Reichard did not invent linguistic field methods but without question she perfected them to meet her needs.

Considering how difficult Sapir made Reichard's work on Wiyot and Navajo there is a kind of poetic justice in the fact that he was indirectly responsible for Reichard's entry into Salishan linguistics. When Boas wrote Reichard in Germany to say he had earmarked funding for her summer research through the Linguistics Committee of the Council of Learned Societies she wrote back saying she would like to use it to return to California to extend her study of Wiyot, plus Yurok. Boas demurred, intimating that Kroeber and Sapir were still sensitive over the Wiyot-Yurok flap. "My wish would be that you should take up the Coeur d'Alene with the idea of getting the whole interior Salish," Boas replied, "We ought to get, then [,] somebody else to take up the coast Salish because the whole field is altogether too vast for one person (F. Boas 1927, May 7 [Letter to Gladys Reichard]). He had no qualms about trusting Reichard with a project of Boasian proportions. "The field that you would gradually have to cover would embrace about eight dialects; some of them fairly divergent and certainly not mutually intelligible. The country to be covered reaches from the Columbia River over to Montana, taking in a considerable part of southern interior of British Columbia. Of course the idea would be that the work would extend over a number of years." Boas expressed

interest in “mythological materials,” i.e. texts. Reichard knew without asking that a synchronic descriptive grammar and dictionary would be concomitant products of her investigations.

From that fateful summer on, Interior Salishan linguistics became a peaceful refuge from the crowded, highly competitive, and increasingly combative arena of Navajo studies. Reichard spent just two summers, those of 1927 and 1929, collecting data on the Coeur d’Alene reservation but her fieldwork did not end there. She kept in touch by mail with Julia Antelope, Nicodemus’ mother, and Nicodemus spent two winters (1935 and 1936) at Columbia as Reichard’s student. In 1935 Reichard holed up in a tiny hamlet in northwest New Mexico for eight weeks compiling a dictionary of Coeur d’Alene in advance of writing the grammar. She and Julia Antelope wrote to each other in Coeur d’Alene throughout. Reichard was so immersed in the exchange that she remarked to Boas, “I really think I am beginning to think in the language” and declared Coeur d’Alene both “grand” and a joy to analyze (G. Reichard 1935, July 7. [Letter to F. Boas]).

The following year Reichard finished her grammar for the third volume of the *Handbook of American Indian Languages* making public the fact that Salishan linguistics was a significant component of her burgeoning research portfolio. Her pace of publication on Salishan languages appears slow to us only if we are unaware of how diverse, ambitious, and accomplished her lifetime bibliography is. Ultimately Reichard wrote or edited authoritative monographs that bespoke technical expertise in disciplines that included art history, ethnography, folklore, oral poetics, and religious studies, in addition to linguistics. She was also interested in ethnobotany, language pedagogy, psychoanalysis, race relations, and semiotics. Moreover, Reichard was active as a public intellectual. She championed tribal autonomy from missionary and federal rule in the popular press and applied her vast erudition toward defeating negative stereotypes of American Indians through her writing, radio interviews, public-speaking at museums and universities, and membership in humanitarian organizations that promoted educational opportunities for Native Americans as well as underprivileged women. She reached nearly two generations of college students at Barnard and Columbia through innovative courses in Native art, culture, and psychology, all aimed at countering the racist, assimilationist strains that racked her society. She tried but had to abandon an attempt to establish a department of linguistics at Barnard after Boas’ death; her administrative, teaching, and civic duties combined with her enormous scholarly commitments absorbed the time needed to found a second department. That she tried to do so was one of many overlooked signs that she came to distinguish anthropology from linguistics as the two disciplines diverged in focus.

### **3 Unfinished business**

Two things are abundantly clear from my close reading of Reichard’s published and unpublished writings, correspondence included, over the last several years. First, she had no intention of dying prematurely. Collected in her papers at MNA are a dozen or more drafts of new books and articles related to Navajo

studies that attest to her expectation of much more time to come. The boxes of file slips, notebooks, and drafts on Interior Salish that fell into Flo Voegelin's capable hands represented a labor of love interrupted. Second, a constant element of Reichard's nature was a healthy skepticism of labels, whether they were attached to people or phenomena. As a highly-trained scientist she created and used technical vocabulary with ease but she did not value cultural or linguistic terminology as an end in itself. The reputation for disdainful theory ascribed to her by her critics was in reality a suspicion of "catch words" and trendy dogma that defined an intellectual soapbox that the loudest linguists insisted others stand on in order to have a voice in "their" discipline. But Reichard ranked intellectual freedom high above prestige. She chafed at "presets" and premature conclusions enshrined as absolutes. To her, languages bubbled with accident and variation in company with the reassuring, melodic rule. Cautious and selective as she was about emerging concepts, if they facilitated open-ended insights into languages and their speakers she adopted them. It was a matter of personal integrity to her to think about language and culture on a plane as far removed from her received bias as her humanity allowed. She would tell her rapt audiences, "There is no such thing as 'The Navajo,'" which was no less profound (or heretical) a statement for an anthropologist to make in Reichard's time than was Noam Chomsky's doubt that language exists in ours (1984, p. 26). Witherspoon (1980) interprets Reichard's resistance to one-sidedness as holistic saying,

Although some of her writings—such as *Navajo Grammar* and the encyclopedic *Navajo Religion*—contain a certain amount of unconjoined information, always there is a vision that there is a core, where all things connect, and according to which all things make sense and all details derive their place and meaning. Such a vision is never easily grasped by an outsider, much less articulated in a way that the totally uninitiated can grasp it with any degree of clarity. Most people shrink before such a task, deluding themselves with the convenient view that the visions other peoples hold need not be learned but merely need to be catalogued by or transposed into someone else's vision. (p.1)

Witherspoon's distillation may not increase Reichard's appeal to linguists who aim to extricate language as cleanly as possible from its social context. Even so the wellspring of Reichard's polymath temperament is deeper and more humane than his praise implies. Underlying every act of Reichard's public speech was a woman in constant contact with her social conscience. Her decision-making was accordingly pragmatic rather than ideological, her choice of research topics based on what she deemed useful to the people she wrote about and for. It was consistently courageous in light of the unforgiving demands made by her elite contemporaries. She was one to be more affected by Pascal George's mocking of her Coeur d'Alene grammar as obscurely technical

and therefore patronizing to Indians than she was by a dressing-down emanating from the Ivory Tower.

Sixty years after her death we are no closer to definitive answers about whether Reichard was “really” a victim of sexual discrimination, a linguist, a feminist, or just a stubborn “daughter” of Boasian linguistics. The more we learn about her performance and competence as a scholar, the less reducible to category she becomes. What can be said is that Gladys Reichard’s ear was exquisitely alive to the human condition. May she be remembered by students of Salishan and neighboring languages fifty years hence for defining our enterprise as a rigorous one, where respect for honest effort and diverse approaches to our complex tasks call the tune.

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