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Edited by:
Marianne Huijsmans, Thomas J. Heins, Oksana Tkachman, and Natalie Weber

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-Papers for ICSNL 51-

The Fifty-First International Conference on Salish and Neighbouring Languages

Sliammon, BC
August 13–14, 2016

Hosted by:
Tla'amin First Nation, BC

Edited by:
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Preface

This volume is composed primarily of papers submitted to the 51st International Conference on Salish and Neighbouring Languages, hosted by the Tla'amin First Nation August 13-14th, 2016. In addition, this volume includes two papers, authored by Katie Sardinha and Jan P. Van Eijk (the first of two in this volume), presented at the 50th International Conference on Salish and Neighbouring Languages.

Marianne Huijsmans
on behalf of the UBCWPL Editors

The Flooding of the Upper Bridge River Valley: St'át'imcets Narratives and an Artist's Exhibition*

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Abstract: This paper presents two St'át'imcets narratives from fluent elder Carl Alexander (Qwa7yán'ak), a member of the *Nxwísten* (Bridge River) Indian Band. It outlines a collaboration between Carl Alexander, linguist John Lyon, and artist Keith Langergraber, whose exhibition highlights the area around Carpenter Lake, BC, which now submerges Carl's ancestral homeland *Qém'qem'* (the Upper Bridge River Valley). The art project blends indigenous and settler perspectives on the land with the artist's own personal travels and experiences.

Keywords: St'át'imcets (a.k.a. Lillooet), Northern Interior Salish, narrative, art and language, community collaborations

1 Introduction

This paper presents two St'át'imcets narrative texts with accompanying maps, representing a collaboration between Carl Alexander, a fluent St'át'imc elder from *Nxwísten* (Bridge River Indian Band), Keith Langergraber, an artist at Emily Carr University, and John Lyon, a linguist at Simon Fraser University.

Keith Langergraber is building an art exhibition entitled *The Professionals*, which explores the geography, mythology, and narratives around the Upper Bridge River Valley (now Carpenter Lake), Gold Bridge and Bralorne. The exhibit presents imagery and narrative based on the artist's own personal perspective and travel in the area, while also integrating both settler and indigenous perspectives. To give an indigenous voice to the project, Carl Alexander has graciously volunteered the following two narratives, which will be printed as part of the exhibition booklet, but which are also included here for posterity, and for ease of access by the St'át'imc and linguistic communities.

* John Lyon wishes to thank Dr. Marianne Ignace and SSHRC for supporting his post-doctoral work, the City of Burnaby for funding the St'át'imcets portion of Mr. Langergraber's project, Heather McDermid of assistance with the map illustrations, and Dr. Henry Davis for his mentorship in St'át'imcets linguistics. Any transcription or translation errors are John Lyon's.

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Carl's narratives describe his own heart-breaking experience with the compulsory land purchases made by BC Electric (now BC Hydro) in the period following the building of hydro-electric power plants in the area. With the building of the dam, and the creation of collosal Carpenter Lake, Carl saw his family home burned to the ground, and the land he grew up on submerged underwater. Without a home, Carl wanders for many years. The two stories present a stark contrast with regards to flora and fauna in the area: a land once plentiful with animals and natural resources became desolate and largely empty of the game with which Carl and his family once supported themselves.

The story of land expropriation in North America is an all too familiar one for many, yet the authors feel that there is much value in recording and sharing personal accounts of loss. Carl's narratives are particularly timely, and important to reflect upon, given the current conflict between the interests of resource extraction companies and indigenous land holdings in British Columbia, and specifically in light of proposed projects such as the Site C Dam.

Before presenting the narratives themselves (Section 4), we first give an overview of Mr. Langergraber's approach to art, details on his current exhibit "The Professionals", and his view on how Carl's narratives, and more generally, indigenous language, fit within the scope of his project (Section 2). We then describe the methodologies used in transcribing, translating, and presenting the narratives (Section 3). Short biographies of the team are given in Section 5.

2 Keith Langergraber: The Artist and His Work

2.1 Artist's Statement

My art grows from an interest in hidden and mysterious places with social and historical proportions. I have journeyed into the memories of place, exploring the unstable terrain at the ever-shifting crossroads of culture and geography. I trace my interest in cultural history, in relationship to the physicality of the landscape to my first hand experiences in the environment.

As a youth, I was exposed to picturesque images of the landscape as perpetuated by the media as well as educators. This stance was one I always wanted to counterbalance due to the fact that these images did not surround me. Rather than concerning myself with the purity of artistic media, through my art, I wish to make renderings of the landscape as I experience it. My focus is therefore on social, political and cultural issues surrounding the land, avoiding the romantic.

During the conceptual development of my site-based installations, I have explored the form, content, choice of materials and media in my work. Through my art, natural and human histories surrounding the land are reconfigured in the context of the gallery space. For me, current site-specific art, rather than being bound to the physicality and durational aspects of the site, generates new histories and new identities as the site is being re-imagined. My current site-specific installations are becoming more fluid as migratory models. Most recently my work has focused on psychogeography and cultural theory; focusing on the

accumulation and reconstitution of information through the peeling back of layers of the vernacular landscape.

2.2 A Site-Specific Installation: "The Professionals"

My new body of work, *The Professionals* will include a short film, a series of drawings, an artist's book and a sculptural installation. This collection of work will explore eschatological themes through the sub-genre of the surrealist Western. This installation will be exhibited as a solo show in September 2016 at the Burnaby Art Gallery, occupying two floors of the gallery space.

A major component of the installation will be a new film that plays off the classic 1966 western *The Professionals,* based on Frank O'Rourke's novel *A Mule for Marquesa*. Exploring the meteor hunter subculture, the film will follow my protagonist/alter-ego Mojave Jake and a motley group of prospectors, each with their own expertise, eccentricities, and "professional" code, across a surreal landscape.

The story will integrate one of Michael Heizer's earth art works, *The Double Negative*, which is situated in the Nevada desert, *,and* which Jake believes are scars created from a double meteor strike. Spectacular natural formations and other cultural references will challenge the viewer to consider collective memory and human myth making, particularly in regards to the construction of language. The story begins with Jake travelling through the Valley of Fire in Nevada. He enlists the help of some fellow prospectors and the group finally finds the tektite at the base of the Tower of Babel deep in the Canadian Rockies (located in the Valley of the Ten Peaks near Lake Louise). Unbeknownst to the prospectors, the tektite resembles a distorted Rosetta Stone. Once the prospectors retrieve it, language begins to break down amongst the group, leading to conflict and a scenario ripe with the potential for violence.

In concert with the films, I will create a sculptural installation that will play off Peter Breughel's painting, *The Tower of Babel.* In contrast, however, the "tower elements" emerging from my constructed mountain will resemble buildings found in abandoned ghost towns, such as Bralorne, an abondoned mining town in British Columbia, while making specific reference to ones that my characters pass through. Exposing the apocalyptic sublime, exploding meteors will appear to have destroyed sections of the tower, breaking up railway tracks, collapsing trestles, mine shafts, and scattering ore carts, acting out the demise of several symbolic systems, not least among them, the supremacy of language as a medium of communication. Several smaller sculptural "ghost town" islands will sit at the base of the tower, emphasizing its imposing scale.

A set of six-foot-by-eight-foot drawings will accompany a sculptural installation, setting up a figure-ground relationship. The new drawings will zoom in on my imagined Brueghel-like manifestation, exposing dilapidated buildings merging with mountainous rock. Juxtaposed against references to the ancient Babylonian structure, historical and geological time will be conflated.

In conjunction with the exhibition, the Burnaby Art Gallery will publish and distribute an artist's book. The content and design will mirror a unique artist's book that I will create as both an element of the exhibit, as well as a film prop that my character, Jake, uses as a journal. The journal will include drawings of meteor impacts, meteorites, fossils, dinosaur bones and field notes. As Jake spends more time with the meteorite, the entries and drawings will become increasingly distorted.

This book will document how Jake made his way to Bralorne, BC, where mining was in operation from March 1932 to 1972. In the forty years it operated, over one hundred miles of tunnels were dug under Bralorne, forming an immense subterranean labyrinth. In the 1960s, a drifter by the name of Elwood "Bruno" Richardson came to town, claiming to be a relative of one of the managers at the mine. Bruno spent a lot of time worrying about the end of the world. He was certain that when the end came, the seas would rise up and that Bralorne, despite its 3,500 ft elevation, was doomed, so he built the arks, not as big as Noah's, but twice as many. The old man died waiting for the floods, a starving recluse.

The book will also include the oral stories by Carl Alexander given in this paper, accounting for the flooding of his home by BC Hydro to build Mission Dam. Carl's home is now submerged beneath the waters of Carpenter Lake. The inclusion of these stories involved collaboration with John Lyon who has been working with Carl for several years. Through this neo-biblical narrative, the project will cast light on another problematic mega-project: the Site C Dam in northern BC.

2.3 Integrating Language

Through this elliptical narrative, this body of work will challenge our traditional faith in language as a valid source of knowledge. By problematizing the nature of fictional narrative, and the role and function of language, a sanctioned "Babel" will be presented to the viewer through an underlying metonymic use of myth.

In regards to my practice, I see language as matter, not unlike the materials that I sculpt, draw, and work with as traditional mediums. I treat language as if it is geological sediment in my artist's book, stacking it, butting it up against itself, inverting its form. I distort language in specific instances with the voice-overs in my films and in the text that accompanies and overlays my drawings. I often invert and layer it, thereby setting up an uncomfortable dialectic with the illustrations. I also treat the text as an volumetric form of line exposing the slippage between the written form and gestural mark making.

I see Carl's stories as a necessary foil to colonial "master narratives" imposed on this particular area.

2.4 Maps of the Carpenter Lake area

Maps were created which show the approximate locations of place names around the Carpenter Lake area which were mentioned by Carl in these two narratives. Reproductions of the maps are given below.

Figure 1 Northwestern Area (Carpenter Lake)

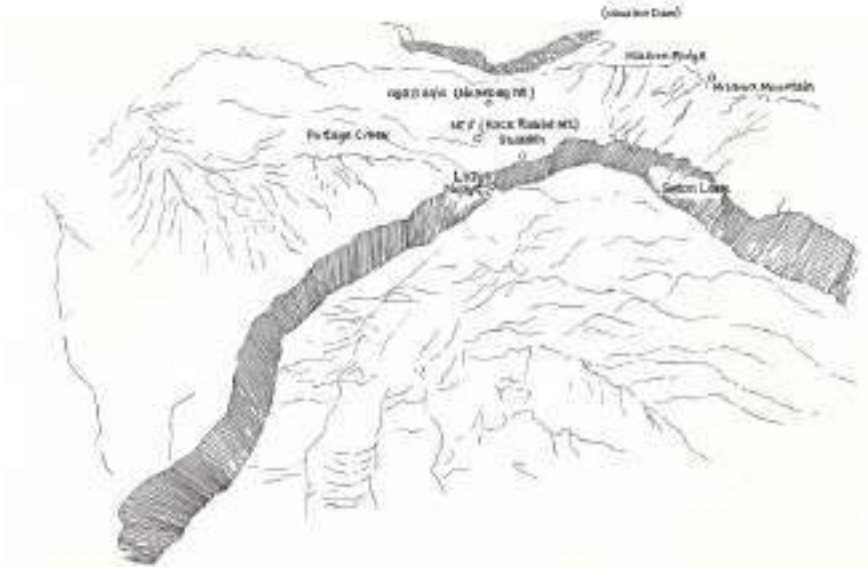

Figure 2 Southwestern Area (Anderson and Seton Lakes)

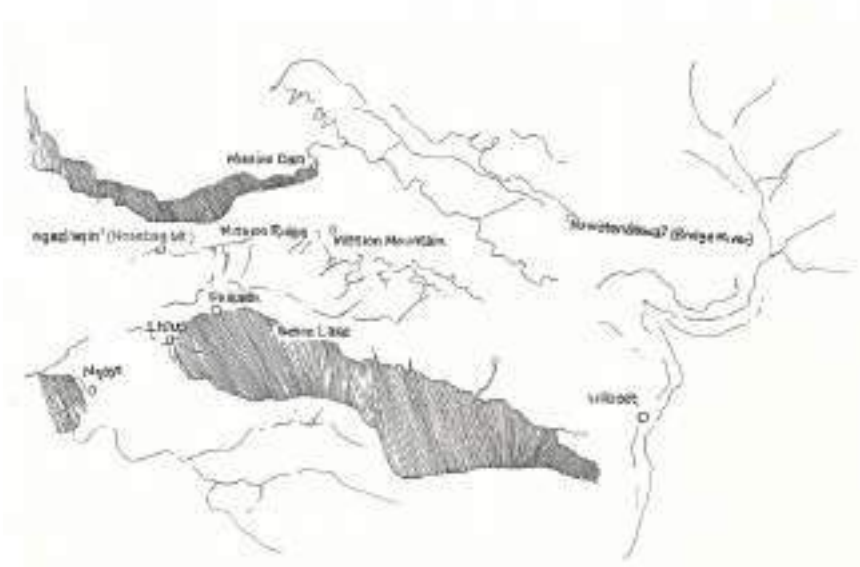

Figure 3 Eastern Area (Seton Lake)

The maps will be mixed in a salon style cluster of hung drawings, juxtaposed with drawings of other geological features from all the film locations and drawings and photos of abandoned mining ruins from the area, setting up an uneasy relationship for the viewer within this constellation of disparate elements. Broken bits of text collaged into some of the drawings will again signify a breakdown in language and the film's protagonist's mental state.

3 Narrative Methodology

The following narratives were volunteered in St'át'imcets by Carl Alexander in response to Keith's request for indigenous perspective on and experience in and around the Carpenter Lake area. John Lyon recorded, transcribed, and translated the narratives, in collaboration with Carl Alexander. Carl was generously reimbursed for his knowledge and time by the City of Burnaby.

The narratives are presented here in a bilingual, two-column format. The original St'át'imcets is shown in the left column, and the corresponding English translation directly next to the St'át'imcets in the right column. The narratives will appear in a similar format in the exhibition booklet. While the two-column format does not offer a morphological analysis of the language, as does an interlinear analysis (e.g. Alexander 2016), the stanzas in these narratives are generally short enough in length that someone at an intermediate stage of learning the language should be able to match word-meanings across the columns fairly easily, especially with the assistance of a dictionary.

The St'át'imcets is given verbatim from Carl's pronunciation, except in several places where material is interpolated using square brackets. These brackets indicate underlying, but unpronounced, material. English words within the St'át'imcets section are italicized, as are St'át'imcets words within the English section. Additional detail volunteered by Carl during review of the transcriptions are given as footnotes. Some of the details in these two narratives are touched upon in Carl Alexander's forthcoming collection, to be published jointly by UBC Occasional Papers in Linguistics (UBCOPL) and the Upper St'át'imc Language Culture and Education Society (USLCES) (Alexander 2016).

4 Narratives

4.1 How *Nqwáxwqten* Got Its Name

JL: I was wondering if you knew anything about how *Nqwáxwqten* got it's name?

CA: The eagles used to lay their… or make their nesting grounds on that rock above Marshall Creek. That's, you know, they use the big sticks, like that? About that long. They make their nests there. That's why they called it *Nqwáxwqten,* becaue the eagles, they made their nests, like, you know... I guess the old timers used to think it was like... flooring for the eagles. After that flooding, there's hardly any eagles up there. They used to get their food from the river when it was shallow. You can see the fish down at the bottom. There used to be all kinds of frogs and animals on the shores of the Bridge River. With the valley flooded, there's no food for them, so they moved away just like the beavers did, they stay way up in the creeks now.

JL: Could you talk a little bit in the language about 'Eagles Nest' and how it got its name?

CA: I'll try...

iy, nilh ti7 wa7 s... etsa maysenítas i n7ú7sa7tensa i haláw'a, wa7 tsúnitas i qelhqelhmémen'a 'Nqwáxqten'.	Yes, this is where the eagles make their nests, the elders call it *Nqwáxwqten* 'Eagle's Nest'.
láku7 zam' ta peqál'tsa k'ét'a estelhélha7sa t'u7 áku7 ta *Marshall Creek*a.	Over where the white rocks are, just a little bit further on the other side from Marshall Creek.
láku7 lhus tu7 maysenítas nqwaxqteníha i haláw'a, i haláw'a láti7...	That's where the eagles used to build their nests, the eagles there...

i kel7ás i was wa7... láku7 tákem i sts'úqwaz'a, i takemá t'u7 wa7 wa7 máwal' lta qú7a, wa7 s7ílheni.	Before when all the fish and everything that lived in the water was still there, that's what they ate.
nilh ti7 lhláku7 lhkwánens... lhkwanenstwítas ta skwátsitssa ta tmícwkalha láku7 *Marshall Creek*.	That's where they got the name for our land at Marshall Creek.
wa7 tsúnitas 'Nqwáxqten'.	What they call Eagle's Nest.
Tákem t'u7 láti7 i haláw'a wa7 t'ák.wi[t], sáq'wwit káti7, kaqépwita lki srápa esk'ém'qstsa ta leqemtenlhkálha.	All the eagles there flew around and landed on the trees at the end of our hay field.
wa7 áts'xen[em] láti7 i xzúm'qwa, lhnúkwas, cw7it i kwíkwsqwa.	We saw a big one there sometimes, and lots of small ones.
plan tu7 zam' aoz kwas áts'x.wit láku7.	But you don't see them there anymore.
nilh(ts)... wa7 séna7 sixin'ítas áku7 i sts'úqwaz'a lta smaysenítasa tsal'álh, t'u7 aoz kwas álas wa7 cw7it i sts'úqwaz'a, nilh cw7aoz kwas wa7 láku7 i haláw'a lhkúnsa.	They transplanted fish up there to the lake that they made (Carpenter Lake), but there weren't really a lot of fish, so there aren't any eagles there today.
Iy, texw t'u7 kaxwal'stum'cása láti7.	Yeah, that has really made me downhearted.
ni[lh] wa7 tsut kwas áma kwas nt'ákmen láti7, ta pýmpa c.walh, t'u7 wa7 qvl̲qvl̲wil'cstwítas láti7 i tákema, qvl̲wíl'c ta qú7lhkálha, qvl̲wíl'c ta tmícwlhkalha.	They said it'd be good progress, the fast road, but they ruined everything, they ruined our water, and ruined our land.
ts'ek tu7 i wa7 s7ílhenlhkalh, i ts'í7a, tákem nelh sk'wsícwa wa7 t'ak áku7, i sts'úqwaz'a wa7 tu7 t'ak áku7.	What we used to eat is all gone, the deer, all the geese that used to go along, the fish that used to go that way.
plan t'u7 tu7 cw7aoz kw s7ílhen áku7.	So there's no food up there anymore.
wa7 tu7 qícwin'em i ts'í7a láku7 lhélta nleqemtenlhkálha, kwas kelh wa7 es7ílhen i ts'qaxa7lhkálha lhus sútik.	We used to chase the deer away from our hay fields so that our horses would have something to eat during winter time.

plan zam' wa7 kaksépa lhut tsicw píxem', lhnúkwas aoz t'u7 kwat áts'xem.	But now we have to go a really long way to go hunting, and sometimes we don't see anything.
plan wa7 aoz ku áma s7ílh[en] ta sts'úqwaz'a káku7.	Now, the fish around there aren't good to eat.
nilh tsa ca7úlsa ta ntqápa, aoz kwas kamaysenítasa... kw aoz kwas kamaystwítasa áku7, áku7 skat'áka áku7 ku sts'úqwaz'.... lhelts7á xáw'ena.	Because the dam was so high, they couldn't make any fish ladder, so the fish can't go over from down below.
nilh ti7 wa7 tsúnitas *progress.* qvl̲qvl̲nítas i tákema. tsúkwan málh ti7 ka7lh. *I better stop for now, before I get angry.*	That's what they call 'progress.' They ruined everything. I better stop for a while. I better stop for now, before I get angry.

4.2 The Flooding of the Upper Bridge River Valley

icín'as i kel7ás t'iq i sám7a, t'iq John Boubyan lhelkw7ú pankúpha.	A long time ago, when the white people first came, John Boubyan came from Vancouver.
nmatq t'u7 láti7 i kel7ás lhláku7 t'u t'iq ets7á tsal'álha.	He walked all the way to where he first came over to Shalalth.
nilh stsut kwas lhláti7 lhcúz'as xlipt áku7 etsá wa7 i wa7 cwíl'em ku sqlaw'.	Then he thought that he'd go over the mountain to where the gold prospectors were.
qayt zam' áta7 *Mission Mountain.*	He got to the top of Mission Mountain.
nilh s7áts'xenas láti7 t.sts'ílasa nká7as sca7s láti7 ta nxwistenátkw7a lhélta tsal'álha.	There he was looking around, kind of somewhere above Bridge River (on Mission Ridge) from Shalalth.[1]
nilh swas ptinusmínas láti7 kw s7ámas káti7 kw s7alkstanítas ku sts'ák'w.	Then he was thinking that it'd be good if they built a power plant around there.[2]

[1] There was no road then they used to go on that pack trail right above Shalalth, and it goes over to Nose Bag and down along the north side of Mission Ridge to Tommy Creek. He was in between Bridge River and Shalalth.

[2] He was the first to notice the elevation difference between Seton Lake and Bridge River, and it's potential as a power source. The tunnel was built through there in 1939.

xetqan'ítas ta sqwéma lhmaysenítas k'a aylh láti7 kw sgélgels kelh láti7 i sts'ák'wa.	They made a tunnel in the mountain, and fixed it so that the power would be strong.
nilh ti7 zam' k'wínas k'a máqa7 kw swa7s láku7... sqém'qem'a.	He was there in sQém'qem' ('Upper Bridge River Valley') for a few years.
elh súxwast aylh múta7.	And then he went down again.
tsicw aylh kwánas i nk'sáytkensa múta7 t.sem7ámsa áku7 etsá wa7 ta *queen*a ... *London*.	He went to get his relatives and his wife from over where the queen lives.... in London.
pála7 k'a máqa7 kw swa7s láku7 elh p'án't aylh múta7 ekw7á pankúpha elh cat'lecwítas, nilh skwámi i ts'qáx7a.	He must've been there one year before he came back again to Vancouver, they got off, then they got some horses.
nilh sas lheqwlheqwwít lhláku7, ts'ítemwit ekw7á... ptétetk t'u7 lhélta *Mission City*ha áku7 *Harrison.*	Then they got on horseback from there, and went towards... just a little past Mission City at Harrison.[3]
lhláku7 aylh múta7 lhus ts7as ta c.wálhtsa i wa7 tsicw cwíl'em ku sqlaw'.	That is where the road was that the gold prospector's took.
t'iq áti7 lil'wat7úla elh xlíptwit áku7 *Birken.*	They got to Mt. Currie and then went over the mountain at Birken.
ts'ítemwit aylh áku7 ta nk'wwátqwha.	Then they went towards D'arcy.
lhláti7 aylh múta7 lhus nlhám'wit ki xzúma t'láz', t'u ets7á nqáyta.	Then they got into big boats, and went to Nqáyt ('Seton Portage').
lhláti7 aylh múta7 lhus slheqwlheqwwít.	Then they got back on their horses.
xlíptwit áku7... lhláti7.... tsúnitas *Portage Creek* lhkúnsa, áku7 lhus t'ak na c.wéw'lha, t'u áku7 ngazl'aqín'a.	They went over the mountain at what they call Portage Creek today, that's where the path goes to 'Piled up rocks on top.
lhláti7 aylh múta7 lhus suxwastwít áku7 *Tommy Creek.*	Then they went down again to Tommy Creek.

[3] The Harrison trail, comes out at Port Douglas.

aoz t'u7 kw szewátenan stám'as ku ucwalmicwásk'a7s ni7 *Tommy Creek.*	I don't know what the indigenous name for Tommy Creek is.
lans t'u7 wa7 *Tommy Creek* i katsélhana.	But it was already Tommy Creek when I first became conscious.
nilh ti7 zam' sqwál'enas k'a kwelh núkwa s7ecw7úcwalmicws káku7 *London*a, t.sts'ílasa láti7 ta qú7a lts7a na nxwistenátkw7a áku7 ta tsal'álha.	Anyways he talked to some other people around London, kind of about the water here at Bridge River over to Shalalth.
nilh swas sqwal'enítas láti7 kwas áma ku mays láti7 kwa... lkwsts7as i ts'ák'wa lhkúnsa.	They were talking about how it'd be good to build..... where the power comes from today.
nilh aylh zam' láti7 st'iqs i wa7 tswasan'táli láti7 i tákema, *surveyor.*	Then the ones that measure everything came, surveyors.
t'íq.wit, nilh swas tsewtswasan'ítas láti7 s... lhelts7á sqém'qem'a lhcúz'as sxetqan'ítas t'u áku7 tsícwalmen áku7 ta sk'íl'a lta tsal'álha.	They came, then they were measuring... they were going to make holes in the ground from *sQém'qem'* until they came almost to Rock Rabbit Mt. at Shalalth.
nilh ti7 cuz' xetqan'ítas lhus ca7 láti7, cuz' ta skwistqw7áma, cuz' cwelpánas láti7 ltsa kamáysa i sts'ák'wa.	They were going to make tunnels where it gets up high, so that the water would fall (in the pipes), then turn the tubines where they make the power.
nilh ti7 zam' láti7 alkstanítas i... 1938.	Anyways, they built it in 1938.
slans múta7 aylh wa7 zuqw ni7 sJohnny Boubyan.	Johnny Boubyan was already dead by then.[4]
nilh aylh múta7 sEugene Boubyan láti7 ta wa7... esxekcál.	So Eugene Boubyan was the one that was in charge.
tqilh k'a án'was máqa7 láti7 kw s7alkstánitas láti7 ta sxétqa.	It must've been about two years that they were working on the tunnel.
lhtsekwtsukwstwítas, nilh slhumunítas láti7 i xzúma *pipe.*	When they finished it, then they put in big pipes.

[4] He never saw the opening of his plans.

aoz t'u7 pináni7 kw s7álas ca7úl ta ntqápa láku7, nilh ti7 pináni7 wa7 tsúnitas *Mission Dam.*	At that time, the dam wasn't so high, what they called Mission Dam.[5]
maysenítas hem' zam' láti7 ltsa kaxát'ema i sts'úqwaz'a éta sk'úl'iha tsal'álh láku7.	They built it so that the fish could get up into the lake that they had created.
wa7 tsícwecw i sts'úqwaz'a áku7 cá7a kentsá tu7 tsícwwit pináni7.	The fish got up to the higher grounds where they used to go at that time.
q'em'p k'a máqa7 lhláti7 lhtsukwstwítas iz' ku ts'ak'w, cuz' aylh múta7... ptinusmínitas i sám7a kw smaysenítas ku xzum aylh múta7.	It must've been ten years after they finished the power plant, then the white people thought they'd build a bigger one.
álas t'u7 xzum láti7 i wa7 cwelp lheltsá ts7as i ts'ák'wa.	Those turbines are really big.
nilh t'u7 sas kwánitas láti7 tákem ta tmícwa lhláti7 lhélta ntqápa t'u tsicw áku7 ltsa wa7 i wa7 cwíl'em ku sqlaw'.	So they were taking up all the land from the dam until you get to where the prospector's were.[6]
aoz kw sptinusmínitas kw skerenítas láti7 i srápa lta n7átsqsa láku7 ta s7úkwa.	They didn't think about clearing away the trees at the bottom of the valley.
nilh t'u7 hem' aylh múta7 sqv̲lwíl'cs láti7 ta qú7a... lhelkí lan wa7 na7q' srap.	But it helped the water spoil, from the rotten trees.[7]
tsicw... aoz t'u7 kw scin's lhláti7 elh tsukwstwítas[a] iz' ta xzúma *power house.*	It wasn't long after that before they finished the big power house.
nilh sxílems áti7.	That's what they were doing.
nilh aylh múta7 zam' száytenlhkalh láti7, q'wegwenítas ta qú7a láku7, elh tsicw aylh múta7 zíkin'em láti7 i lána wa7 szuqw srap.	Our job there was to log the trees which were already dead when they lowered the water level.
tsekwtsúkwkalh láti7, nilh t'u7 múta7 st'ak'an'ítas láku7 ...	We finished there, and then they flooded it, but before they really

[5] Today, Mission Dam is called Terzaghi Dam.
[6] Such as Minto, Gold Bridge, Bralorne, Brixton, and Pioneer.
[7] It was actually already spoiled from the mine chemicals.

skéla7s hem' láti7 kw swenácws t'ak'an'ítas láku7 ta sqém'qem'a, láku7 lhwan wa7 pináni7, nqwáxqtena.	flooded *sQém'qem'*, that's where I lived at the time, *Nqwáxqten* ('Eagles Nest')
cw7it láku7 i wa7 kenszáytena, wá7lhkan q'w7um láti7.	I was able to do a lot there, I used to go trapping there.
wá7lhkan táwemin' i sp'ámsa.	I used to sell firewood.
wá7lhkan tsicw nek'wpíxem'min, píxem'min láti7 i sám7a.	I used to go help others hunt, I'd take white people hunting.
hal'acítwitkan slíl'qsa kwa kwámem ku ts'i7.	I showed them where it was easy to catch deer.
aoz t'u7 kw scw7it7úl kwelh wa7 tsicw píxem' áku7 pináni7, nilh t.s7áozsa ku c.walh, tsukw t'u7 lhláti7 tsal'álha áku7.	There weren't a lot of people who went hunting at that time because there wasn't any road, just the road from Shalalth.
láku7, wá7lhkan q'w7um, wá7lhkan táwem ki sp'ámsa, wá7lhkan lep'cál... tákem t'u7.	I'd go trapping, and sell firewood, and garden, everything.
nilh t'ak zam' et7ú... lan k'a wa7 n7uts'qa7álmen láti7, 1959.	Then, it must've been nearly springtime, 1959.
t'iq tsúntsalem, "wa7 cuz' uts'qa7stúmim lhelts7á. plan wa7 tsúwa7lhkalh ta tmícwa. cw7aozas kw s7úts'qa7su, cuz' nk'a7entsím."	They came and told me, "We're going to throw you out from here. This is our land now. If you don't leave, we'll throw you in jail."
wá7lhkan tsúnwit, "k'ál'emmints láti7 ku kwikws, kan7úts'qa7sa i nstem'tétem'a."	So I told them, "Wait for just a little, so I can get all my things out."
nilh nssúxwast ets7á tsal'álha.	Then I went down to Shalalth.
[kan] cwíl'em láti7 ku swátas ku wa7 esxzúm cuk'wawílh kaoh.	I was looking for somebody who had a big moving truck.
án'was k'a láti7 xetspásq'et kwensá cwíl'em.	I must've looked around for two weeks.
tsícwkalh áku7 ta tsítcwa, ay! plan tu7 cw7aoz ku tsitcw.	We got back to the house, hey, the house was already gone.
gwelenítas k'a láti7 i tákema.	They must've burned it all.

tákem i wa7 xweysán láti7, i smétsa wa7 tu7 t'ak metsenás i tákema na nsqátsez7a iwás wa7 áz'enas láti7 ta tmícwa.	Everything that was dear to me, the deeds that my father had signed when he bought the land.[8]
tákem tu7 nelh gwelp, nelh ámha stem'tétem'lhkalh.	Every thing got burned up, even our good clothes.
[nilh] t'u7 nskaqlíla, nilh [n]smatq.	I was really angry, and then I went travelling.
aoz káti7 kwenswá nwá7ten pináni7, nilh t'u7 nsmatqsút.	I didn't have a place to live at that time, so I just drifted around.
ts'ítemlhkan ekw7ú kéla7 *Mission*a kéla7, elh káku7 lhwan wa7.	First I went to Mission, where I was for a while.
aoz t'u7 kwenswá ka7ámha, nilh t'u7 nsmátqmin tákem ta tmícwa... s7úl'lus káti7 i wa7 múzmit sqaycw.	I never felt good, so I just travelled around (lost), together with some hobos.
nlhám'lhkalh kénki *train*a lheltsá *Kamloops,* t'u kenkw7ú kénki spalmúlm'ecwa.	We got into a train at Kamloops, and went over around the prairies.
pála7 k'a t'ánam'ten kwat wa7 káku7 elh wá7lhkalh múta7 úxwal' ekw7á *Kamloops*a.	It must've been one month we were there before we went back home to Kamloops.
tqilh t'u7 zuqwstum'cálem iwán t'áks ti7 ku nt'ákmen, nilh t'u7 nscúlel.	I was almost murdered when I was following that path, so I ran away.
úxwal'lhkan múta7 ets7á.	I came back home again.
nilh t'u7 nswa alkst láta7 ltsa maysenítas i sts'ák'wa.... tsal'álha t'u7.... ptinusmínlhkan láti7 kwenswá xát'min' ku emhamám s7alkst láti7.	Then I was working at BC Electric, at Shalalth, but then I thought that I was wanting some better work.
nilh t'u7 nst'ak aylh múta7, t'aks ta ntsunám'caltena száyten láti7, án'was k'a máqa7, nilh tsícwkan aylh áku7 ta xzúma hem' aylh ntsunám'calten láti7.	So I went back to school for about two years, then I went to the college.

[8] Carl's father's land tax records proving that he owned the land, dating back to 1908.

nzewátet.s kwa maystentáli i wa7 xan', s7áts'xstali i wa7 xan'.	to learn how to help people that get hurt, how to look after ones that got hurt (i.e. 'first aid').
nilh ti7 aylh nszáyten.	Then that was what I did.
lhá7a7lhkan lkw7a ta *sawmill*a, sát'a.	I got hired on at the sawmill in Lillooet.
láti7 aylh lh7álkstan q'em'p wi tsúlhaka7 máqa7, nsplan wa7 tsilkst sq'em'ps wi tsilkst máqa7... szánucw láti7.	I worked there for 17 years, until I was 55 years old.
tsúntsalem, "lánlhkacw wa7 qelhmemen'7úl, t'ak malh mítsa7q."	They told me, "You're too old, you better retire."
láti7 aylh zam' múta7 lht'anamílcan múta7 álkstan káti7 i wa7 ts'áts'qupza7.	Then I tried working at weeding.
nilh t'u7 aoz t'u7 kwenswá kaxílha.	But I couldn't handle it.
tsuntsálem, "lánlhkacw wa7 qelhmemen'7úl, wa7 málh t'u7 mítsa7q!"	They told me, "You're too old, you better just retire!"
nilh ti7 aylh zam', wá7lhkan kwánens i sxáq'sa kwa alkstántali i wa7 szíkem száyten.	So... then I started getting logger's pension.[9]
k'wík'wena7 séna7 t'u7 wá7lhkalh t'u7 kamáwal'a lhláti7.	It was just a little money, but we were able to live on it.
k'wínas k'a máqa7, kánas k'a kw s... tsúlhaka7s máqa7 láti7 elh kwánenskan aylh múta7 i sxáq's i kvpmena, xáq'enas i qelhqelhmémen'a.	It's been a few years, maybe seven years, since I've been taking government pension, that they pay to old people.
nilh ti7 aylh zam' wa7 nsqlaw' lhkúnsa.	That's my money nowadays.
t'u7 áma t'u7 ti7.	But it's all good.
xát'skan séna7 i kel7án tsukw kwenswá alkst, xát'skan kwa ícwa7 eszáyten, t'u7...	I had a hard time when I first quit working, it was hard to not have anything to do.

[9] An IWA pension.

plan t'u7 aoz tqilh kwenswá kaqwétsa káti7, xwémxwem ts'íla tsa tu7 ts'íla icín'as.	I almost can't get around nowadays .. hurrying around like it was a long time ago.
nilh t'u7 nswa t'u7 wa7 lhkúnsa, záytenmin i tsúw7a nszáyten.	And that's just how I am today, doing my own thing.
áma t'u7 ti7.	But it's good.
nilh ti7, tákem nsnek'wnúk'w7a. *All my relations.*	That's it, all my relations. All my relations.

5 Biographical Sketches

Carl Alexander was born and raised in *Qém'qem'* (the Upper Bridge River Valley), which he often refers to as 'the Land of Plenty', and is now *Nxwístenmec,* a member of the Bridge River Indian Band. Carl was raised as a first language speaker of St'át'imcets, specifically the *Tsal'álh* (Shalalth, "lakes") dialect. Though Carl did not speak the language for many years, he became actively reinterested in the language about 15 years ago, and has since been involved in language documentation and revitalization and in mentoring St'át'imcets learners, and is a member of the St'át'imc Language Authority. He has been the main language informant for Dr. Lyon's post-doctoral documentation work on St'át'imc narratives, and has made enormous contributions towards expanding the English-St'át'imcets dictionary, begun years earlier as a collaboration between USLCES and Dr. Henry Davis. He has also greatly assisted Dr. Davis and Dr. Lisa Matthewson in their theoretical work on the language.

Keith Langergraber grew up in Kelowna, British Columbia and received his BFA from the University of Victoria and his MFA from the University of British Columbia. Keith has exhibited extensively in solo and group shows in galleries in Canada, the United States, and Asia since 1995 and has received many grants and awards for his work on the leading edge of Canadian Art. His art work grows from an interest in social, cultural and political change found through scrutiny of a selected site. His research allows an understanding of the shifts that have taken place at that location over time. His exhibitions consist of the accumulation and reconstitution of information through the peeling back of layers of the vernacular landscape. He currently teaches at Emily Carr University.

John Lyon, originally from Hunstville, Alabama, received his MA in Linguistics at the University of Montana, and PhD in Linguistics from the University of British Columbia in 2014. Since 2004, his work has focused on the documentation, revitalization, and theoretical study of Interior Salish languages, including Snchitsu'umshtsn, Nsyílxcen, and St'át'imcets. He is currently a post-doctoral fellow at Simon Fraser University.

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A phonetic study of the "K sounds" across generations of SENĆOŦEN speakers*

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Abstract: This paper presents a preliminary study of the SENĆOŦEN "K sounds": /k k^w k^w' q q' q^w q^w'/. These sounds are of particular concern among speakers, the perception being that both the uvular~velar and the plain~ejective contrasts are at risk of disappearing. Nine speakers (3 speakers x 3 generations) were recorded pronouncing a set of words containing the K sounds in word-initial and word-final positions. Auditory and targeted acoustic analysis show that 1) all speakers can pronounce all seven K sounds, 2) individual variation emerges in the phonetic details of the sounds, and 3) certain contexts favour particular sounds and sound combinations over others, leading to potential context-specific neutralizations. Findings are discussed in terms of their implications for teaching pronunciation.

Keywords: SENĆOŦEN, pronunciation, ejectives, labialized stops, velars stops, uvular stops

1 Introduction

SENĆOŦEN (a dialect of Northern Straits Salish, Central Salish) is typical of languages spoken in the Pacific Northwest in that many of the current speakers learned the language as adult second language learners. These speakers are now transmitting the language to the next generation, e.g. through the SENĆOŦEN immersion programs in which they teach. Thus, their pronunciation is relatively likely to 'stick' with future generations. The SENĆOŦEN-speaking community agrees that the current speakers are doing a fantastic job with the language; nonetheless, there is concern that some of the trickier sounds and sound contrasts of SENĆOŦEN may be at risk of disappearing (Bird & Kell, 2015). One set of sounds that often comes up in discussions of pronunciation is commonly referred to as the "K sounds" This set includes seven stop consonants, which contrast in place (velar vs. uvular), voicing (plain vs. ejective) and in labialization (labialized vs. non-labialized). Table 1 lists the K sounds in NAPA transcription and in the

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SENĆOŦEN orthography.[1] Orthographically, the uvular stops all involve the symbol <K>; the velar stops use either <C> or <Q>.

Table 1: The "K sounds" in IPA and the SENĆOŦEN orthography

Notation	Velar stops			Uvular stops			
NAPA	/k/	/kʷ/	/kʷ'/	/q/	/qʷ/	/q'/	/qʷ'/
Orthography	C	C̓	Q	Q̱	Q̓	Q	Q̱̓

Forty seven percent – just under half – of the words in the near-final version of Timothy Montler's *Saanich Dictionary* (in preparation) contain at least one K sound (T. Montler, p.c.). Thus, as a group, these sounds are frequent, and their pronunciation plays a central role in the language. According to Montler (1986), the velar stops are **pre-velars**, "articulated with the dorsum of the tongue placed far forward on the soft palate" (Section 1.1.1.6). The uvular stops are **post-velars**, articulated "with the dorsum of the tongue on the back part of the soft palate. In Klallam the fortis articulation often gives these stops an affricate quality, but in Saanich they are so weakly articulated that they are sometimes difficult to distinguish from /ʔ/" (section 1.1.1.7). Montler further points out that "The difficulty in distinguishing /kʷ/ vs. /qʷ/, /kʷ'/ vs. / qʷ'/, and /xʷ/ vs. / x̱ʷ/ are well known to anyone who has studied a Salish language" (Section 1.1.1.6). In terms of the voicing contrast, "The obstruents are usually lenis but never voiced. The glottalized obstruents are ejective but weakly so. It is often difficult, especially in the anterior consonants, to perceive the contrast. Unlike the closely related Klallam language, Saanich obstruents are only rarely and weakly aspirated" (Section 1.1.1).

Despite their frequency in the language then, a number of the K sounds are documented as being relatively difficult to distinguish from one another (e.g. /kʷ/ vs. /qʷ/ and /q/ vs. /q'/). Looking outside the Salish literature, a fairly extensive body of research shows that, regardless of the specific language(s) involved, sounds and sound contrasts that do not exist in speakers' first language are often challenging to learn in a second language (e.g., Best, 1994), even when they have relatively strong acoustic correlates. The concerns expressed by the SENĆOŦEN-speaking community with respect to the K sounds are therefore well founded, based on the phonetic details of the sounds themselves as well as on the broader literature on second language phonological acquisition.

The aim of this study is to understand how the K sounds are currently being realized by speakers of different generations and fluency levels and to see whether (and what kind of) systematic difficulties in pronunciation emerge, which could be addressed in teaching SENĆOŦEN pronunciation. The ultimate goal of the project is to ensure that we have the means to effectively teach the full set of K sounds to language learners, if this is what the SENĆOŦEN-speaking community

[1] The SENĆOŦEN orthography was created by late W̱SÁNEĆ elder Dave Eliott Sr. in the late 1970s and adopted by the W̱SÁNEĆ School Board in 1984 (http://wsanecschoolboard.ca/about-the-school/history-of-the-sencoten-language).

wants. The following sections outline the methodology used to study these sounds (Section 2), the findings obtained (Section 3), and what these findings tell us about the current pronunciation of the "K sounds" across generations of SENĆOŦEN speakers (Section 4).

2 Methodology

This study was part of a larger study conducted in the summer of 2014, which documented pronunciation as well as attitudes towards pronunciation across SENĆOŦEN speakers of different generations and fluency levels (see Bird & Kell, 2015 for details). For this larger study, a word list was created in collaboration with a community-based language expert, designed to elicit specific target sounds in initial and final position. The target sounds were those deemed by the SENĆOŦEN-speaking community to be particularly tricky for language learners; they included the K sounds, ejectives, and some additional sounds not found in English (e.g. /ɬ/ = Ł). The sections below provide information on the speakers who participated in this study, on the subset of the dataset used to study the K sounds, and on the details of how these sounds were analyzed.

2.1 Speakers

In total, recordings from nine speakers were considered, three in each of the following groups:

- **Elders** (E): acquired SENĆOŦEN fluently as children
- **Teachers** (T): learned SENĆOŦEN as young adults and have taught the language at ŁÁU,WELN̲EW̲ School for many years
- **Apprentices** (A): younger adults; learned SENĆOŦEN through Mentor-Apprentice programs and are now part of the teaching staff at ŁÁU,WELN̲EW̲ School

These groups are based on Bird & Kell (2015). They are obviously limited, in that they disregard the importance of individual experiences with the language, forcing a very wide range of experiences into only three general 'bins'. The hope is that these categories nonetheless allow us to observe general trends in the way pronunciation varies across speakers of different generations and fluency levels.

2.2 Recordings used

As mentioned above, the data for this study are part of a larger dataset collected in the summer 2014, in a study on SENĆOŦEN pronunciation itself as well as attitudes towards pronunciation. Although the original goal was to include in the wordlist three words each per target consonant per word position (initial and final), this was not always possible. In addition, some of the words recorded were inconsistent across source materials, in terms of spelling, definition, or both.

Ultimately, two sets of data were considered in the study, in an attempt to balance two considerations: on the one hand, consistent token numbers across conditions and, on the other hand, as comprehensive a set as possible. ***Set 1*** included words that were, to the extent possible, consistently spelled and defined across source materials, familiar to most speakers, and containing a single K sound. In total, Set 1 consisted of 14 words with initial K sounds (7 sounds x 2 words each) and 8 words with final K sounds (2 words each for /kʷ'/, /q/, and /q'/ and 1 word each of /qʷ/ and /qʷ'/; no words with final /kʷ/ met the criteria for Set 1, although this sound should be possible word-finally). One word, with final /q'/, had to be excluded because it was consistently pronounced [χ̱], leading to a total of 21 words analyzed from Set 1. ***Set 2*** consistent of an additional 13 words, 9 with K sounds in initial position and 4 with K sounds in final position; these words had inconsistent spellings and/or were less familiar to speakers. Nonetheless, they provided additional insight into the pronunciation of the K sounds as a whole. Table 2 provides examples of words analyzed, by K sound and position. For a full list of Set 1 and Set 2 words, see Tables 8–11 in Appendix A.

Table 2: Example words by K sound and position

Target C Orth.	Target C NAPA	Position	Word Orthography	Word NAPA	Gloss
C	k	initial	CEPU	kəpu	coat
		final	n.a.*		
Ȼ	kʷ	initial	ȻEĆIL	kʷəčil	morning
		final	n.a.*		
Q	kʷ'	initial	QOLEW̱	kʷ'aləxʷ	robin
		final	ŚELOQ	šəlakʷ'	round
K̲	q	initial	K̲AK̲	qaq	baby
		final	K̲AK̲	qaq	baby
K	q'	initial	KEL,KELEX	q'əl'q'ələχ̱	tangled
		final	BEK	p'əq'	white
Ḱ	qʷ	initial	ḰENES	qʷənəs	grey or blue whale
		final	SĆESEḰ	sčəsəqʷ	hat
Ⱪ	qʷ'	initial	ⱪEL	qʷ'əl	ripe
		final	X̲OEⱪ	χ̱ʷaəqʷ'	sawbill

* /k'/ does not exist in SENĆOŦEN; /k/ does not exist word finally; no words with a word-final /kʷ/ were found that were reliably spelled and familiar to speakers.

2.3 Data analysis

All K sounds were first coded auditorily for the target consonant, aided by visual inspection of the waveform and spectrogram in Praat (Boersma & Weenink, 2014). In analyzing the data (Tables 3–7), the auditory coding was distilled into

two categories: *clearly as expected* vs. *not clearly as expected*, although the initial coding was more fine-grained than this (e.g. a token of /q/ initially coded as "possibly uvular, but hard to tell" was analyzed as *not clearly as expected*). Thus, the results presented below represent a relatively conservative analysis of speakers' realizations of the K sounds.

Targeted acoustic analysis was done on certain tokens, in particular ones containing velar and uvular consonants that were difficult to distinguish auditorily. For these sounds, spectral composition of the release frication was measured, as was duration and amplitude. Unfortunately, the target words were not adequately controlled for vowel environment (two vowels occurred: [ə] and [a]). Therefore, it was not possible to reliably compare formant transitions into the adjacent vowel. Measurements were extracted automatically using a Praat script and processed using R (R Core team, 2013).

It is important to note here that, while the coder (author) is a trained phonetician with extensive experience listening to the sounds in question, in SENĆOŦEN as well as in other languages, she is not a speaker of SENĆOŦEN. Thus, the results presented below should be taken with caution. Nonetheless, they do arguably provide valuable insight into the realization of the K sounds. Indeed, the contrasts among the K sounds must to be audible to second language learners for them to be maintained since, currently, second language learners are primarily responsible for transmitting the language to future generations. Given the important role of perception in sound change (see Blevins (2004) and Ohala (1981) for example), it is not unreasonable to rely on auditory (perceptual) analysis in investigating the realization of contrastive speech sounds. Future work will include a perceptual study in which speakers themselves make auditory judgements about target sounds.

3 Results

3.1 Overall results

The first and most important point to make is that all speakers pronounced each of the K sounds in at least one word. For two apprentices, /k^{w}/ and /q^{w}/ were very difficult to tell apart, and for the third apprentice, ejectives /q' q^{w}'/ were only distinguished word-finally. On the whole though, the seven K sounds were clearly part of all speakers' inventories. This is good news: it means that the foundation for maintaining the contrasts among K sounds is there; to the extent that pronunciation instruction is needed, it can be targeted to specific sounds, contexts, and speakers, relying on an existing awareness of the sounds as a whole.

The second point to make is that not all contrasts are equal in terms difficulty. The common perception is that the K sounds are *uniformly* challenging for learners, in part because there are so many of them. In fact, though, the results showed much more subtlety than this (Table 3): the labial contrast was the most straight-forward (97% coded auditorily as *clearly as expected*), the place contrast was the least (69% *clearly as expected*), with the ejective contrast between the two (80% *clearly as expected*). The place contrast was particularly challenging to

code among younger speakers (apprentices and teachers); it was easier among elders. In Table 3, and in all subsequent tables, the token counts and percentages are based only on data from Set 1.

Table 3: Proportion of tokens **coded auditorily** as *clearly as expected*, by contrast (columns) and group (rows).

Group	Ejective contrast		Labialization contrast		Place contrast		Total (%)
As	46/62	74%	61/62	98%	39/62	63%	78%
Ts	49/60	82%	60/60	100%	37/60	62%	81%
Es	48/56	86%	52/56	93%	46/56	82%	87%
Total	143/178	80%	173/178	97%	122/178	69%	82%

In the following sections, more detailed results are presented for each of the three contrasts found among the K sounds: plain~labialized (3.2), plain~ejective (3.3), and velar~uvular (3.4).

3.2 Plain~labialized contrast

As mentioned above, the plain~labialized contrast was straightforward: K sounds were coded as *clearly as expected* 97% of the time (see Table 3). Only five tokens were coded as having the opposite labialization than expected.[2] Four of these tokens were from a single speaker: E1. Since this was a fluent speaking elder with otherwise relatively clear pronunciations, it seems likely that their unexpected pronunciations were a reflection of idiolectal, familial, or dialectal variation. In support of this, a number of words were excluded from Set 1 (but kept in Set 2) because they were written inconsistently across sources, in terms of labialization (see in particular Table 11 in Appendix A). In fact, the community-member who compiled the elicitation list noted several words in which stops could be pronounced either with or without secondary labialization. This suggests that there is variation in labialization across speakers, possibly related to dialect or family lines.

Interestingly, in K sounds which were clearly labialized, there was variation in the *timing* of the labial gesture with respect to the stop closure, particularly in post-vocalic context (i.e., word-finally): in some cases, labialization preceded the stop closure, affecting the preceding vowel; in other cases, labialization followed the stop closure, such that it was realized solely after the stop release (with the preceding vowel unaffected). Figure 1 illustrates this variation: it shows two instances of the word *ŚELOQ* /šəlakʷ'/ ('round'), pronounced by T3 (on the left) vs. T1 (on the right). The first includes *pre-labialization*, i.e., labialization on the vowel preceding /kʷ'/, marked by F1 and F2 lowering into the stop closure; the

[2] One expected non-labialized token was coded as labialized; four expected labialized tokens were coded as non-labialized.

second includes *post-labialization*, i.e., labialization at the release of the closure only, marked by lack of F1 and F2 movement into the stop closure.

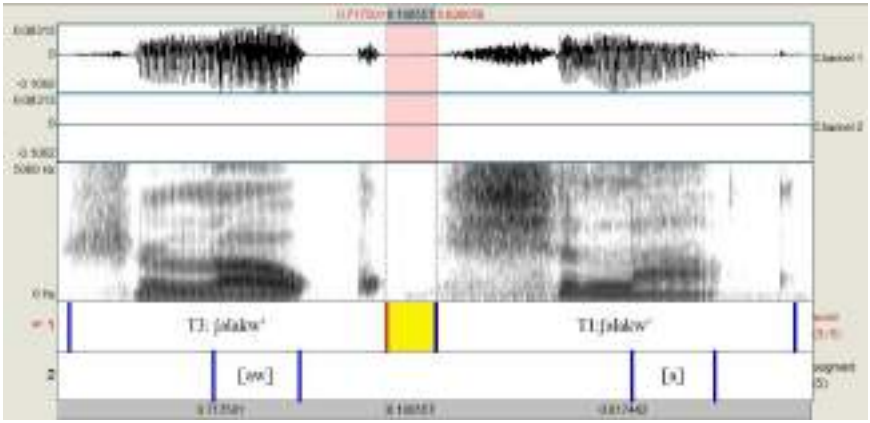

Figure 1 Variation in timing of the labial gesture relative to the stop closure in /kʷ'/: pre-labialization in T3 vs. post-labialization in T1

The present study did not include enough data to determine what factors might influence the timing of the labial gesture (speaker, vowel, syllabic/word position, etc.), and how systematic the observed variation might be. This is certainly worth looking into in more detail, in the future.

3.3 Plain~ejective contrast

The ejective contrast was not quite as straight-forward to perceive as the labial contrast, although it was more straight-forward than the place contrast. Recall that Montler (1986) describes ejectives as "ejective but weakly so", adding "It is often difficult, especially in the anterior consonants, to perceive the contrast" (1.1.1). Findings in this study diverge from Montler's description, and further support Bird's (2015) findings: younger speakers – including teachers and apprentices – generally pronounce ejectives in a very salient way, more so than their elders, and much more so than one would expect based on Montler (1986). Figure 2 contrasts /kʷ'/ in E2's pronunciation of *QENSET* /kʷ'ənsət/ ('take care of') vs. in A2's pronunciation of *QENT* /kʷ'ənt/ ('take care of', alternative form). E2's /kʷ'/ matches Montler's description fairly well: it has a weak burst, followed by a short period of silence before the onset of voicing in the following vowel. In contrast, A2's /kʷ'/ has strong burst, followed by a long silence before the onset of voicing in the following vowel. In Kingston's (1985) terms, E2's /kʷ'/ is relatively *lax* (weak) whereas A2's is *tense* (strong).

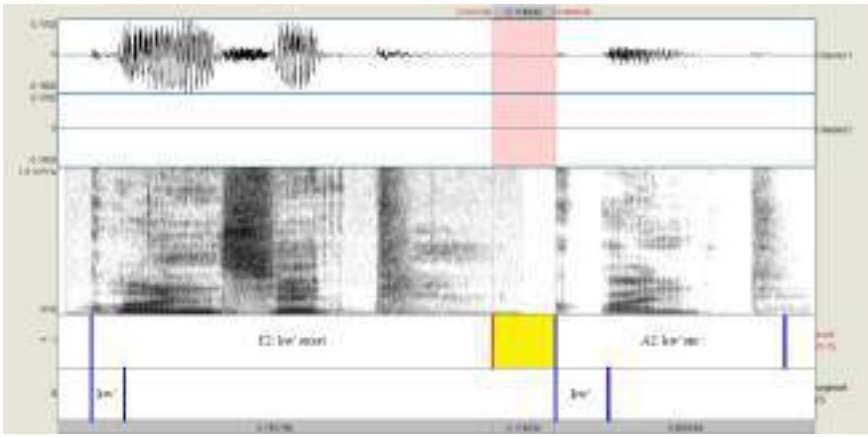

Figure 2 Variation in ejective realization: weak vs. strong /kʷ'/ in E2 vs. A2

The apparent 'hyperarticulation' (Lindblom, 1990; Saito & van Poeteren, 2012; Uther et al., 2006) of ejective stops observed among teachers and apprentices is likely an effect of the particular context in which the language is being spoken and learned at this point in time: to increase the salience of ejective stops, as well as the salience of the contrast between them and their plain counterparts, teachers and learners (who are themselves teachers in the immersion programs) seem to be emphasizing them in a way that speakers of previous generations have not done.[3] Whether this is a temporary effect or one that will lead to more permanent sound change remains to be seen.

Focusing on the ejective tokens that were coded auditorily as *not clearly as expected*, the first effect that emerges is positional (Table 4): for each speaker group, more plain stops were heard as ejective stops in final than in initial position (8 vs. 2), and more ejective stops were heard as plain stops in initial than in final position (18 vs. 7). In short, initial position seems to favour plain stops, and final position seems to favour ejective stops. This pattern is not altogether surprising: even in English, we sometimes get ejective stops (velars in particular) in words like 'cake', as a result of articulatory (mis)timing and related aerodynamic factors (Ladefoged & Maddieson, 1986; Gordeeva & Scobbie, 2013).

[3] Note also that the recordings in Bird (2015) and the current study were of words spoken in isolation, from a word-list elicitation task. In this context, they were likely enunciated more clearly than they would have been in more naturalistic, spontaneous speech.

Table 4: Distribution of ejective tokens **coded auditorily** as *not clearly as expected* for voicing, by direction of substitution (plain heard as (possibly) ejective vs. ejective heard as (possibly) plain) and position (columns) and group (rows)

Group	Plain heard as ejective		Ejective heard as plain		Total heard *not* as
	initial	*final*	*initial*	*Final*	expected
As	1	4	9	2	16
Ts	1	3	4	3	11
Es	0	1	5	2	8
Total	2	8	18	7	35

Table 5 is similar to Table 4, but sorts tokens by place (velar vs. uvular) rather than by position (initial vs. final). It illustrates the second pattern to emerge with respect to voicing: most of the tokens which were difficult to discriminate in terms of voicing were uvulars. Indeed, of the 35 tokens coded as *not clearly as expected*, 32 were uvulars (91%). These were most often consonants which were expected to be ejectives (/q' q^{w}'/) but were heard as (possibly) plain (/q q^{w}/) (23/32).

Table 5: Distribution of ejective tokens **coded auditorily** as *not clearly as expected* for voicing, direction of substitution (plain heard as (possibly) ejective vs. ejective heard as (possibly) plain), and underlying place (columns) and group (rows)

Group	Plain heard as ejective		Ejective heard as plain		Total heard *not* as
	velar	*uvular*	*velar*	*uvular*	expected
As	0	5	2	9	16
Ts	1	3	0	7	11
Es	0	1	0	7	8
Total	1	9	2	23	35

That the voicing contrast is most difficult to perceive in uvular consonants is interesting, and possibly has to do with the fact that, contrary to Montler's (1986) description, plain uvular stops were often quite heavily affricated (see below).[4] Impressionistically, both frication and ejective release lend a somewhat 'harsh' quality to uvular stops compared to velar stops, although the acoustic details of the two types of release differ. Further phonetic investigation should compare plain and ejective uvular stops in more depth to determine what the precise correlates are of frication vs. ejective release.

Taken together, Tables 4 and 5 show that uvular ejective consonants /q' q^{w}'/ tend to be heard as plain rather than ejective, particularly in word-initial position. This pattern is one that could be addressed in teaching pronunciation by noting that particular attention should be paid to /q' q^{w}'/ in word-initial position, in order to maintain the contrast with /q q^{w}/ (phonological level), and by explicitly pointing out the differences in release noise in the plain vs. uvular stops (phonetic level).

Finally, it is worth noting that not all speakers were equal in terms of how perceptually salient their voicing contrast was. For one apprentice (A3), /q' q^{w}'/

[4] Montler (1986) describes Klallam uvular stops as affricated, but not SENĆOŦEN stops.

were only coded as ejectives word-finally, initially they were consistently coded as plain [q q^w]. Similarly, for one elder (E3), /q'/ was only coded in final position, but not in initial position. For other speakers, patterns were more mixed. To the extent that individual speaker patterns are reliable, and are an effect of incomplete learning (presumably not the case with E3), this suggests that teaching the appropriate K sound contrasts might work best if it is tailored to individual speakers, in addition to targeting particular contexts.

3.4 Velar~uvular contrast

The most challenging contrast to code, by far, was the velar~uvular contrast. This is also the contrast that shows the most divergent results across groups of speakers. In particular, 82% of tokens were coded as *clearly as expected* for elders, compared to 63% and 62% for apprentices and teachers, respectively (see Table 3 above). To try to understand what acoustic features contributed to auditory impressions of place, targeted acoustic analysis was performed on one near-minimal pair of words: *ḰENES* /q^wənəs/ ('grey or blue whale') vs. *ȻOSEN* /k^wasən/ ('star'). Plain tokens were chosen (as opposed to ejectives) to avoid any complicating effects of ejective release; labialized tokens were chosen because plain /k/ is marginal in SENĆOŦEN, and the /k/ words recorded in this dataset had either a very different vowel (*CUL* /kul/ 'gold') or a very different stress pattern (*CEPU* /kəpu/ 'coat' with second syllable stress) from their /q/ word counterparts, making comparisons difficult. Because the post-stop vowels were different (/a/ vs. /ə/) in the words compared, vowel formant transitions were not measured acoustically even though they have proven a reliable cue to the velar~uvular place contrast (e.g., Bird & Leonard, 2009). Rather, all measurements were taken on the consonant release itself: duration, amplitude, and center of gravity (COG; a measure of spectral composition).

The spectral slices below were extracted from the center point of the release frication in illustrative tokens of /k^w/ vs. /q^w/, pronounced by two different speakers. Figure 3 compares slices in a speaker with a relatively clear place contrast (E1). Figure 4 provides a similar comparison but for a speaker with a much less clear place contrast (A2).

Figure 3 Spectral slices at midpoint in the stop release of /k^{w}/ vs. /q^{w}/ (E1): contrast *easy* to hear

In comparing Figures 3 and 4, we can see that in both cases, /q^{w}/ involves relatively high-amplitude frication at high frequencies (with components above 10,000 Hz). Where Figures 3 and 4 differ is in the spectral slice of /k^{w}/: E1 (Figure 3; clear contrast) has very little frication in the release of /k^{w}/. In contrast, A2 (Figure 4, unclear contrast) has more frication in the release of /k^{w}/, although substantially less than in their release of /q^{w}/. Perceptually, E1's /k^{w}/ is a very soft sound, whereas /q^{w}/ is harsher – louder and noisier. In contrast, A2's /k^{w}/ and /q^{w}/ sound very similar, both somewhere in the middle ground between E1's /k^{w}/ and /q^{w}/.

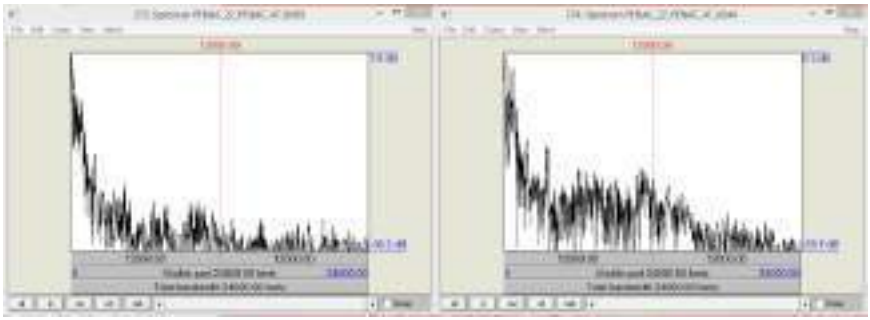

Figure 4 Spectral slices at midpoint in the stop release of /k^{w}/ vs. /q^{w}/ (A2): contrast *difficult* to hear

In cases such as those illustrated in Figures 3 and 4, the spectral quality the frication at the stop release seemed to be a reliable acoustic correlate (and auditory cue) of place of articulation. Averaged COG values (over three repetitions per token) for /k^{w}'/ vs. /q^{w}'/ were 616 Hz vs. 207 Hz for E1 (a difference of 409 Hz), whereas they were 183 Hz vs. 174 Hz (a difference of 9 Hz) for A2. For these two speakers then, COG seems to reliably support the auditory impression that the

velar~uvular contrast was easier to perceive for E1 than for A2.[5] However, the acoustic data were not consistent across speakers and, as a result, quantitative analysis did not yield clear overall group differences, either in COG or duration and amplitude (see Table 12 in Appendix B). Thus, although the place contrast was easier to perceive for elders than for teachers and apprentices (see Table 3 above), the acoustic analysis did not support the auditory analysis in this case. Further acoustic study is required, in particular looking into the reliability of the measures taken to characterize release frication (COG and amplitude); possibly other measures would show an acoustic pattern more consistent with auditory judgments.

In terms of the distribution of tokens coded as *clearly as expected*, an interesting interaction emerges between place (velar~uvular) and voicing (plain~ejective) for the labialized stops in particular: ejective stops tend also to sound uvular (/kʷʼ qʷʼ/ > [qʷʼ]) whereas plain stops tend also to sound velar (/kʷ qʷ/ > [kʷ]). This pattern is particularly striking in word-initial position. Table 6 provides the counts for word-initial tokens coded as *clearly as expected* for voicing and place, by consonant. The sound /kʷʼ/ was coded as ejective 94% of the time, but only coded as velar only 44% of the time (first bolded row in Table 6); the rest of the time it was heard as (possibly) uvular, i.e. [qʷʼ]. Conversely /qʷ/ was coded as plain 93% of the time, but only coded as uvular 27% of the time (second bolded row in Table 6); the rest of the time it was coded as (possibly) velar, i.e. [kʷ]. Additional (though moderate) support for this interaction comes from the *clearly as expected* counts for /qʷʼ/ in initial position (last row of Table 6): word-initial /qʷʼ/ was coded as ejective only 59% of the time, and also as uvular 35% of the time; four of the seven /qʷʼ/ tokens coded as plain were also coded as velar.

Table 6: Distribution of word-initial tokens **coded auditorily** as *clearly as expected* for place, by K sound

	Ejective contrast		Place contrast	
K sound	*Raw count*	*Percentage*	*Raw count*	*Percentage*
k	18/18	100%	15/18	83%
kʷ	17/18	94%	16/18	89%
kʷʼ	**15/16**	**94%**	**7/16**	**44%**
q	16/18	89%	17/18	94%
qʼ	7/17*	41%	13/17	76%
qʷ	**14/15**	**93%**	**4/15**	**27%**
qʷʼ	10/17*	59%	6/17	35%

* Recall from Tables 4 and 5 that uvular ejectives tended to be coded as plain in word-initial position.

[5] In terms of duration and amplitude, /kʷ/ vs. /qʷ/ tokens were relatively similar for both speakers: E1: 70ms and 69dB for /kʷ/ vs. 60ms and 68dB for /qʷ/; A2: 75ms and 66dB for /kʷ/ vs. 71ms and 65dB for /qʷ/.

The interaction between voicing and place observed in word-initial position was not as clear in word-final position, likely in part because the ejective contrast was generally less clear in in final compared to initial position, particular for /q' q^w q^w'/. Table 7 is similar to Table 6, but provides counts for word-final rather than word-initial position.[6] Again, /k^w'/ was coded as ejective at a very high rate (94%), but was coded as a velar at a lower rate (56%); the rest of the time it was coded as uvular, i.e. [q^w'].

Table 7: Distribution of word-final tokens **coded auditorily** as *clearly as expected* for place, by K sound

	Ejective contrast		Place contrast	
K sound	*Raw count*	*Percentage*	*Raw count*	*Percentage*
k^w'	**15/16**	**94%**	**9/16**	**56%**
q	15/18	83%	18/18	100%
q'	6/9	67%	7/9	78%
q^w	6/9	67%	5/9	56%
q^w'	4/7	57%	5/7	71%

The interaction between voicing and place is another feature that can be addressed through explicit instruction: if students are made aware that there is a tendency for ejective stops to also sound uvular and for plain stops to also sound velar, then they will be able to pay particular attention to this, ensuring that they do not conflate the four possible voicing~place combinations (/k^w k^w' q^w q^w'/ into two realizations ([k^w] and [q^w']).

4 Discussion and conclusion

This study provided a preliminary investigation of the K sounds in a single Salish language - SENĆOŦEN, which is currently being spoken by multiple generations of speakers, including first and second language speakers. Although the K sounds are well known to anyone who has studied Salish languages, phonetic descriptions of the sounds are by and large impressionistic, and offer limited insight into what their phonetic details are, what challenges they might pose for language learners, and how they might best be taught and learnt. Findings from the current study highlight a range in variation in ejective realization (strong vs. weak), labialization timing (pre- vs. post-labialization), and place realization (affricated vs. non-affricated release). The study also shows that, despite concerns among the SENĆOŦEN-speaking community (Bird & Kell, 2015), all speakers produce all seven of K sounds, albeit with varying degrees of clarity and consistency across contexts. Two interactions may require particular attention, if the full set of K sound contrasts is to be fully maintained: 1) the interaction between voice and word position for uvular stops and 2) the interaction between voice and place for labialized stops.

[6] Recall that there were no tokens for word-final /k/ and /k^w/.

Another concern expressed by SENĆOŦEN speakers and learners (Bird & Kell, 2015) was that the orthography was influencing pronunciation. It is worth noting here that no obvious orthographic effects were found, although this study did not specifically target these. In SENĆOŦEN, all uvular stops are written with <K>; <Q> is used for the velar stop /k^{w}'/ (see Table 1). It seems possible then that the interaction between voicing and place observed in here may be partly based on the way these sounds are written (/k^{w}'/ as <Q> and /q^{w}'/ as <Ḱ>). Future studies should look into potential orthographic influences in more detail. In the meantime, it is certainly worth pointing out in teaching literacy that <K> is used for uvular stops in SENĆOŦEN rather than for velar stops, and that the letter <K> should not be confused with the sound [K].

The ultimate aim of this study was to understand how the K sounds are currently being pronounced, in order to help with pronunciation learning and teaching. In terms of learning the K sounds, there are two possible sources of difficulty: the first is in differentiating the sounds from one another. Linguistically speaking, this is a fairly 'low level' issue, in that the difficulty is with the sounds themselves rather than with the associations between the sounds, the letters used to represent them, and the words that contain them. The second potential source of difficulty is in keeping track of which sounds are associated with which letters and words. This is a 'higher level' issue, in that the difficulty is not with the sounds themselves, but with associating the sounds with specific lexical items, via the orthography. The most beneficial strategies in teaching and learning the K sounds depend what the source of difficulty is: in the former case, strategies focused on increasing awareness of the phonetic differences between the sounds would be most helpful. In latter case, more appropriate strategies might focus on solidifying the links between the sounds and how they are spelled, and on memorizing which words contain which sounds (and letters). Teasing apart different sources of difficulty is therefore essential in terms of developing the most effective teaching and learning strategies.

The interactions that emerged in the realization of the K sounds (between voicing and position and between voicing and place) point towards an effect of articulatory ease, which is acting independently of any particular lexical items. For example, there are articulatory (and aerodynamic) reasons for why initial vs. final position would favour plain vs. ejective release, respectively. In this sense, low level challenges do seem to occur, at least for some speakers. Nonetheless, higher level challenges related to learning the associations between sounds and letters/words are likely at play as well. It was clear in working with speakers that, while some words were highly familiar to everyone (e.g. *K̲AK̲* /qaq/ 'baby'), others were less so. The familiar words were pronounced more consistently and clearly than the less familiar ones (e.g. 'baby' was coded as *clearly as expected* for 8/9 speakers). Ultimately, and not surprisingly, teaching and learning SENĆOŦEN requires addressing both 'low level' and 'high level' pronunciation challenges, on the one hand by developing appropriate SENĆOŦEN muscle-memory to pronounce unfamiliar sounds, and on the other by encouraging rote memorization of lexical items and their spelling.

This paper presented a first, preliminary investigation of how the K sounds are currently being pronounced among SENĆOŦEN speakers. Two areas of future investigation are needed to further our understanding of these sounds. First, the two coding categories *clearly as expected* and *not clearly as expected* need to be unpacked. These broad categories were used deliberately, as a preliminary and cautious (i.e., conservative) way of exploring pronunciation across speakers. As a result, the findings abstracted away from much more subtle distinctions that were included in the initial auditory coding. In particular, the *not clearly as expected* tokens included ones that were clear, but not as expected (e.g., a clear plain stop instead of an ejective stop) as well as ones that were unclear, sounding like compromises between two possibilities (e.g., a stop that sounded neither clearly velar nor uvular, but somewhere in between). It seems likely that speakers would differ in their proportion of 'clear but not as expected' vs. 'unclear' tokens. This question needs to be investigated further, to better assess the needs of different speakers with respect to fine-tuning their pronunciation of the K sounds.

Finally, it is not yet entirely clear what acoustic features led to *clearly as expected* vs. *not clearly as expected* auditory judgments. Throughout the paper, areas for further acoustic investigation were noted. Future acoustic analysis will also shed light on the extent to which perceived neutralizations (mergers), e.g. /q q^w q' q^w'/ → [q q^w] word-initially, were actual neutralizations vs. cases in which the distinctions between sounds were simply difficult to perceive because of their acoustic (and hence auditory) subtlety. For example, for one elder (E3), ejective uvular stops were only perceived as such in word-final position. E3's speech is otherwise very clear, and it seems likely that in their case, the ejective contrast *is* fully realized word-initially as well, but in a way that is relatively difficult (for a non-speaker) to perceive. Targeted acoustic analysis will tell what acoustic features might be differentiating between plain and ejective uvular stops in E3's speech, features which might need to be explicitly pointed out to language learners.

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Appendix A: Elicited words – full list

Table 8: Set 1, target consonant in initial position*

Target C Orth.	Target C IPA	Word Orthography	Word IPA	Gloss
C	k	CEPU	kəpu	coat
		CUL	kul	gold
Ȼ	k^w	ȻEĆIL	k^wəčil	morning
		ȻOSEN	k^wasən	star
Q	k^w’	QOLEW̱	k^w’ələx^w	dog salmon; salmon after spawning
		QONED	k^w’anət’	porpoise
Ḵ	q	Ḵ̱AḴ̱	qaq	baby
		W̱ENITEMḴ̱ENS	x^{w}ənitəm qəns	white man's language (English)
K	q’	KEL,KELEX	q’əl’q’ələẋ	tangled
		KAKU	q’aq’əw’	skate fish
Ḱ	q^w	ḰENES	q^{w}ənəs	grey or blue whale
		ḰEḰE,IŁĆ	q^{w}əq^{w}əʔiłč	arbutus
Ḵ	q^w’	ḴEL	q^w’əl	ripe
		ḴELET	q^w’ələt	cook, bake, bbq

* Recall that /k’/ does not exist word-initially

Table 9: Set 1, target consonant in final position*

Target C Orth.	Target C IPA	Word Orthography	Word IPA	Gloss
Q	kw’	SẋOQ ~ SƮOQ	sẋak^w’ ~ st$^{\theta}$’ak^w’	worm
		ŚELOQ	šəlak^w’	round
Ḵ	q	QESḴEḴ	k^w’əsqəq	robin
		Ḵ̱AḴ̱	qaq	baby
K	q’	PEK	pəq’	white
Ḱ	q^w	SĆESEḰ	sčəsəq^w	hat
Ḵ	q^w’	X̱OEḴ	ẋ^{w}aəq^w’	sawbill

* Recall that /k k’/ do not exist word-finally; no tokens of /k^w’/ from the list met the criteria for Set 1.

Table 10: Set 2, additional words with target consonant in initial position

Target C Orth.	Target C IPA	Word Orthography	Word IPA	Gloss
Ȼ	kʷ	ȻENSET SW̱	kʷənsət sxʷ	take away from you
Q	kʷ’	QEƛ	kʷ’ətθ’	twisted; crook; bend in a stick
		QELEṈSEN	kʷ’ələŋsən	bald eagle
		QENQONED	kʷ’ənkʷ’anet’	dolphin
		QENSET	kʷ’ənsət	take care of
		QESḴEḴ	kʷ’əsqəq	robin
Ḳ	q’	KELEX	q’ələx̣	fish eggs
		KELKELOꞇEN ~ KELKELAXEṈ	q’əlq’ələθən ~ q’əlq’əlex̣əŋ	dream
Ḵ	qʷ’	Ḵ E Ṉ E T	qʷ’əŋet	bring up a child

Table 11: Set 2, additional words with target consonant in final position

Target C Orth.	Target C IPA	Word Orthography	Word IPA	Gloss
Q	kʷ’	SW̱ÁW̱EQ	sxʷexʷəkʷ’	crazy, silly
Ḵ ~ Ḱ	q ~ qʷ	POŚELOḴ ~ POŚELOḰ	pašəlaq ~ pašəlaqʷ	yellow cedar
		DI,LEḴ ~ DI,LEḰ	t’iʔləq ~ t’iʔləqʷ	strawberry
Ḱ	qʷ	JOMEḰ	č’aməqʷ	great-grandparent; great-grandchild

Appendix B: Additional results

Table 12: Acoustic correlates of place contrast (velar /kʷ/ vs. uvular /qʷ/), by group.

Group	/kʷ/			/qʷ/		
	COG (Hz)	*Duration (ms)*	*Amplitude (dB)*	*COG (Hz)*	*Duration (ms)*	*Amplitude (dB)*
As	161	69	57	252	76	56
Ts	128	90	53	106	92	53
Es	268	89	60	265	64	61

Against all expectations: The meaning of St'át'imcets *séna7*[*]

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Abstract: This paper provides a formal pragmatic analysis of the St'át'imcets discourse adverb *séna7*. We propose that when applied to a proposition, *séna7* invokes a second, contextually available true proposition, and conveys that the speaker does not expect both propositions to be true. We show how this allows us to use *séna7* as a diagnostic for distinguishing between entailments and implicatures in three different semantic domains: telicity, expressions of futurity, and motion verbs employed as prospective aspect markers.

Keywords: St'át'imcets, semantics, pragmatics, contrast, discourse

1 Introduction

The semantics and pragmatics of discourse-sensitive sentential adverbs constitutes one of the least well-understood (and least-studied) areas of Salish grammar. This is not surprising: though they are often common in both narrative and conversational contexts, the meaning of discourse adverbs is usually elusive and by definition context-dependent, so neither traditional text-based methodologies nor conventional sentence-based elicitation procedures are very effective at elucidating their semantic contribution.

However, recent theoretical and methodological advances in the investigation of meaning beyond the level of single sentences, coupled with the urgent need for documentation of lesser-studied areas of Salish grammar, makes it both feasible and timely to begin to investigate the meaning of sentential adverbs in more detail. In this paper, we embark on this project, by analyzing a particularly ubiquitous yet semantically difficult member of the class, the St'át'imcets adverb *séna7*.[1]

Previously, *séna7* has been glossed as 'though' (Van Eijk 1997), 'counter-to-expectation' (Davis 2012), 'often untranslatable; expresses an unfulfilled condition, a change of mind or some other contradiction or contrast' (Van Eijk 2013), and as 'against expectations (either the speaker's, the hearer's, or

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[1] St'át'imcets (šx̌áx̌yəmxəč), also known as Lillooet, is a Northern Interior Salish language spoken in the southwest interior of British Columbia, Canada. It is highly endangered, with fewer than 100 first-language speakers at the time of writing.

In Papers for the International Conference on Salish and Neighbouring Languages 51,
University of British Columbia Working Papers in Linguistics 42,
Marianne Huijsmans, Thomas J. Heins, Oksana Tkachman, and Natalie Weber, 2016.

somebody else's); often difficult to translate into English' (Alexander et al. in prep.). These informal characterizations give something of the flavour of *séna7*, as well as the difficulties it causes for dictionary-type definitions; however, none of them offer full insight into its precise semantic and/or pragmatic contribution: this is the task we undertake in this paper.

Note that in contrast to the semantic difficulties it causes, *séna7* is syntactically unremarkable. It is one of a small closed class of invariant adverbs which generally occur after the first predicative element of a clause, like enclitics. Unlike enclitics, however, *séna7* is prosodically independent and may also occur clause-finally or – less frequently – in other post-predicative positions.

Initial examples are provided below. As is typical, in these cases *séna7* conveys such notions as the unexpected outcome of an event (1), the failure of an event to continue (2), or the failure of an event to take place in an optimal fashion (3).

(1) ka-mág-a=ku7 **séna7**, t'u7 áy=t'u7 kw=s=7áts'x-n-as
CIRC-bright-CIRC=REP **CNTR** but NEG=EXCL DET=NMLZ=see-DIR-3ERG
'It got brighter, but he still couldn't see it.' (Charlie Mack, in Davis 2012)[2]

(2) sáy'sez'=lhkán=tu7 **séna7**, t'u7 cw7aoz aylh kwenswá
play=1SG.SBJ=DIST **CNTR** but NEG now DET+1SG.POSS+NMLZ+IPFV

sáy'sez'
play
'I was playing, but I'm not playing now.'

(3) wa7 aylh ka-7áts'x-m-a **séna7**, t'u7 cw7áoy=t'u7 kw=s=7áma
IPFV then CIRC-see-MID-CIRC **CNTR** but NEG=EXCL DET=NMLZ=good
'Then he could indeed see, but not very well.'
(Beverley Frank, in Davis 2012)

Our first challenge, obviously, is to provide a unified account for these apparently disparate semantic effects.

[2] St'át'imcets examples are given in the Van Eijk orthography employed throughout St'át'imc territory: see e.g., Van Eijk (1997) for a conversion chart to the APA. All unattributed examples come from original fieldwork by the authors. Morpheme glosses follow the Leipzig Glossing Rules, with the following additions: ABS.DET = absent determiner, ACT = active intransitive, AUT = autonomous intransitive, CIRC = circumstantial modal, CNTR = contra expectation, CRE = consonant reduplication, DEIC = deictic, DES = desiderative, DIR = directive transitivizer, EPIS = epistemic modal, EXCL = exclusive focus particle, EXIS = existential enclitic, FRE = final reduplication, INCH = inchoative, NTS = non-topical subject, OOC = out-of-control, PROSP = prospective aspect, REP = reportative, RLT = relational transitivizer, SJV = subjunctive, STAT = stative. Clitic boundaries are indicated by an equals sign (=) and reduplicants are separated by bullets (•). Phonologically merged sets of clitics are indicated by a plus sign (+). Material which is underlyingly present but not pronounced is given inside square brackets [ ].

A second puzzle concerns the cross-clausal distribution of *séna7*. Though in (1)–(3), it consistently appears in the first clause of a bi-clausal structure, this is not always the case: it can also appear in mono-clausal environments, as shown in (4):

(4) ílhen=kélh=ti7 **séna7**.
eat=PROSP=DEM **CNTR**
'He'll eat anyway.'
Consultant's volunteered context: "When there's a big line up, and they are running low on food, but they'll serve him anyway."

We will argue that in fact *séna7* does always relate two propositions, but one of them can be implicit, and contextually provided.

We will further show that *séna7* does not affect truth conditions, but instead merely imposes a felicity condition on the discourse context. More specifically, we will argue that *séna7* (*p*) is felicitous in a context *c* if *c* contains a true proposition *q* and the speaker does not expect *p* and *q* to both be true. We will henceforth gloss *séna7* as CNTR, for 'contra expectation'.

In the remainder of the introduction we provide some background on our data-collection methodologies. In Section 2 we illustrate the behaviour of *séna7* with predicates of all aspectual classes (Aktionsarten). Section 3 presents our analysis, and Section 4 discusses extensions to the empirical realms of markers of future time reference and motion verbs. Section 5 briefly compares *séna7* to the Bella Coola discourse adverbial *su* (Saunders and Davis 1977). Section 6 concludes.

1.1 Methodology

Several data collection methodologies were employed in this study. We began by examining the large number of instances of *séna7* which have arisen in our elicited data over the years, many of them spontaneously offered. We also conducted (both in the past and more recently) targeted elicitation on *séna7,* using standard semantic fieldwork methods involving controlled discourse contexts (see Matthewson 2004b, the papers in Bochnak and Matthewson 2005, Tonhauser and Matthewson 2015). In addition to the usual methods of eliciting acceptability judgments and translations in context, we utilized two less common techniques as a response to the radical context-dependence of *séna7.* First, we sometimes provided the consultants with a sentence containing *séna7* and asked them to provide a suitable discourse context in which the sentence could be uttered. Second, we conducted a variant of the cloze test familiar from language acquisition studies: we provided the speakers with a clause containing *séna7,* and asked them to provide a felicitous completion (i.e., a follow-up clause). Instances of this elicitation method are marked with '…' between the first and second clauses. (Thus, wherever the data includes a '…', the material after the dots was volunteered by the consultant.)

Finally, we checked our generalizations against all instances of *séna7* to be found in four separate text collections (Van Eijk and Williams 1981, Matthewson 2005, Callahan et al. in press, and Davis et al. in prep.), as well as all the example sentences in a forthcoming comprehensive English–Upper St'át'imcets dictionary (Alexander et al. in prep).

2 Data Set 1: *Séna7* and Aktionsarten

In this section, we present a systematic overview of the effect of *séna7* on Aktionsarten (lexical aspectual classes). We show that the interpretation of *séna7* is partially predictable based on Aktionsart; however, there is still some freedom in the range of attested meanings, with the very same predicate sometimes allowing different interpretations. In Section 3 below we will derive the attested range of meanings from a unified, context-dependent analysis.

2.1 States

With states, *séna7* is most frequently used when some expected outcome of the state fails to hold. Examples are provided in (5)–(11).

(5) k'ínk'net=ti7 **séna7**, t'u7 cw7aoz kw=s=wá7=wit xan'
dangerous=DEM **CNTR** but NEG DET=NMLZ=IPFV=3PL get.hurt
'It was dangerous, but they didn't seem to get hurt.'
(Beverley Frank, in Matthewson 2005:92)

(6) zwát-en=lhkan **séna7** kw=s=cuz' kwis … mes=kán=t'u7
know-DIR=1SG.SBJ **CNTR** DET=NMLZ=PROSP rain but=1SG.SBJ=EXCL

tsicw mám'teq
get.there go.for.walk
'I knew it was going to rain … but I went for a walk anyway.'

(7) á7ma=t'u7 **séna7** k=Helen, t'u7 áy=s=t'u7 ku=melyíh-s-tal'i
pretty=EXCL**CNTR** DET=H. but NEG=3POSS=EXCL DET=marry-CAUS-NTS
'Although Helen is very beautiful, nobody has married her yet.'

(8) *Context: A has to write a paper. The sun is shining, the birds are singing.*
A: o, xát'-min'=lhkan **séna7** kw=n=nas ex•éxts áku7
oh want-rlt=1sg.sbj **cntr** det=1sg.poss=go lie•cre deic

[l=ti=]kwél'=a
[in=DET=]sun=EXIS
'I really want to go and lay out in the sun for a while.'

(9) áma=t'u7 **séna7** ti=wá7 zayten-mín-as ti=cúz'a
good=EXCL **CNTR** DET=IPFV business-RLT-3ERG DET=PROSP=EXIS

meeting, t'u7 ícwlh=t'u7 ka-t'ák=s-a
meeting but different=EXCL CIRC-go=3POSS-CIRC
'What she had done for the meeting was good, but it went quite differently.'

(10) A: cúz'=lhkacw=ha saotatíh-am?
PROSP=2SG.SBJ=Q saturday-MID
'Are you going out partying this weekend?'

B: ícwa7=lhkan **séna7** es=qláw'
without=1SG.SBJ **CNTR** have=money
'I don't have any money.'
Consultant's comment: "I guess you're going, even though you're broke."

(11) *Context: Someone is trying to sell you something but you don't want it (you have money but you don't want to spend it).*
wá7=lhkan **séna7** es=qláw'.
IPFV=1G.SBJ **CNTR** have-money
'I have money (but I won't spend it).'

Sometimes, the expected outcome of a state is simply that it continues. This is shown in (12)-(14), where *séna7* flags the fact that a state no longer holds.

(12) wá7=lhkan=tu7 **séna7** ka-táns-a i=wán
IPFV=1G.SBJ=DIST **CNTR** CIRC-dance-CIRC when.PST=IPFV+1SG.SJV

twiw't, lán=t'u7 ao kwas áma
youth already=EXCL NEG DET+NMLZ+IPFV+3POSS good

i=n-sq'wáxt=a lhkúnsa
PL.DET=1SG.POSS-leg=EXIS now
'I used to be able to dance, but my legs don't work well any more.'

(13) tayt=lhkán=tu7 **séna7**, t'u7 cw7aoz aylh
hungry=1SG.SBJ=DIST **CNTR** but NEG now

kwenswá tayt
DET+1SG.POSS+NMLZ+IPFV hungry
'I was hungry but I'm not hungry now.'

(14) qlíl=lhkan=tu7 **séna7**, t'u7 cw7aoz aylh
angry=1SG.SBJ=DIST **CNTR** but NEG now

kwenswá qlil
DET+1SG.POSS+NMLZ+IPFV angry
'I was angry, but now I am not.'

Finally, sometimes *séna7* appears on states not to signal the failure of an outcome, but merely to signal an unexpected co-occurrence of a state with another eventuality:

(15) n-qwnúxw-alhts'a7 **séna7** s-7ít'-em-s=a s=Mary,
LOC-sick-inside **CNTR** NMLZ-sing-MID-3POSS=EXIS NMLZ=Mary

t'u7 áma **séna7** ta=scwákwekw-s=a
but good **SÉNA7** DET=heart-3POSS=EXIS
'Mary's song/singing was sad, but she was happy.'

If *séna7* marks the failure of an expected outcome, we expect it to be infelicitous in cases where the expected outcome is entailed or strongly implicated. This prediction is borne out, as shown in (16)-(17):

(16) # q'7-al'men=lhkán=tu7 **séna7** i=kel7=át t'iq,
eat-DES=1SG.SBJ=DIST **CNTR** when.PST=first=1PL.SJV arrive

nilh n=s=q'a7
COP 1SG.POSS=NMLZ=eat
'I was hungry when we first arrived, so I ate.'

(17) # guy't-ál'men=lhkan **séna7**, nilh n=s=ka-gúy't-a
sleep-DES=1SG.SBJ **CNTR** COP 1SG.POSS=NMLZ=CIRC-sleep-CIRC
'I was tired, so I fell asleep.'

Summarizing the data on the co-occurrence of *séna7* with stative predicates, we see that *séna7* typically appears when there has been a failure of an expected outcome, including a failure of the state to continue. *Séna7* may also appear in cases of an unexpected co-occurrence with another eventuality.

2.2 Activities

The behaviour of activity predicates with *séna7* is very similar to that of statives. As shown in (18)–(20), *séna7* is licensed with activities when some expected outcome of the event fails to happen. These are typically not lexical entailments

of the activity predicate, but rather are pragmatic expectations about what normally happens when one performs an activity.[3]

(18) píxem'=wit **séna7** áku7 sqwém=a, t'u7 áy=t'u7
hunt=3PL **CNTR** DEIC mountain=EXIS but NEG=EXCL

kw=s=7ats'x-en-ítas ku=ts'í7
DET=NMLZ=see-DIR-3PL.ERG DET=deer
'They went hunting in the mountains, but they didn't see any deer.'

(19) lán=lhkan aylh **séna7** k'wzús-em … t'u7 ay=s
already=1SG.SBJ now **CNTR** work-MID but NEG=3POSS

xaq'-en-tsálem
pay-DIR-1SG.PASS
'I'm already working … but I'm not getting paid.'

(20) it'-em=lhkán=t'u7 **séna7** l=ti=s-gáw'-p=a …
sing-MID=1SG.SBJ=EXCL **CNTR** at=DET=NMLZ-meet-INCH=EXIS

t'u7 áoy=t'u7 swat ku=k'alán'-min'-ts-as
but NEG=EXCL who DET=listen-RLT-1SG.OBJ-3ERG
'I sang at the gathering … but nobody listened.'

Just like with states, we see that sometimes, the expected outcome of an activity is simply that it continues:

(21) say'sez'=lhkán=tu7 **séna7**, t'u7 cw7aoz aylh
play=1SG.SBJ=DIST **CNTR** but NEG now

kwenswá sáy'sez'
DET+1SG.POSS+NMLZ+IPFV play
'I was playing, but I'm not playing now.'

Just like with states, the contrastive relation between two clauses with activities cannot always be characterized as the outcome of a causal relation. In (22), for example, it is not that having a bath has as an expected consequence

[3] The effect of *séna7* on activities appears to be more variable than its effect on states, but this is because unlike states, activities can consist of heterogeneous stages. For example, hunting (*píxem'*) involves a trip to the hunting grounds, a search for game, and then a variably successful outcome (depending on one's aim, luck, and the abundance of game). *Séna7* appears to be felicitous with *píxem'* as long as (i) the trip was undertaken and (ii) the hunt was not a total success (e.g., either no game was spotted, as in (18), game was spotted but the hunter failed to catch anything, or the hunter got a few animals but not as many as anticipated). In other words, it appears that *séna7* can felicitously apply to any stage of an activity with heterogeneous stages, as long as one of the stages goes counter to expectations.

that one washes one hair. It is simply that the speaker usually washes her hair when taking a bath, so *not* washing her hair under these circumstances is an unexpected outcome.

(22) sácw-em=lhkan **séna7** i=n'án'atcw=as, t'u7 áy=t'u7
bathe-MID=1SG.SBJ **CNTR** when.PST=morning=3SJV but NEG=EXCL

kw=ka-ts'áw'-s-an-a
DET+NMLZ=CIRC-wash-CAUS-1SG.ERG-CIRC

i=n-máqin=a
PL.DET=1SG.POSS-hair=EXIS
'I had a bath this morning, but I didn't wash my hair.'

A final set of cases with activities involves contexts where the activity denoted by the predicate is not performed successfully. These are illustrated in (23)–(26). (Note that these are cases where *séna7* does not correspond to English *but.*)

(23) *Context: Lisa has been trying to make baskets but she is really bad at it.*
wa7 **séna7** lhk'wál'us k=Lisa, t'u7 áy=tu7
IPFV **CNTR** make.baskets DET=Lisa but NEG=EXCL

kwas ka-xílh-a
DET+NMLZ+IPFV+3POSS CIRC-do-CIRC
'Lisa has been making baskets, but she didn't manage.'

(24) A: wa7 kán-em k=Marion?
IPFV whether-MID DET=Marion
'What is Marion doing?'

B: lhk'wál'us=t'u7 **séna7**
make.baskets=EXCL **CNTR**
'I THINK she's making a basket / She's trying to make a basket.'
Consultant's comments: "She's not really"; "Probably just learning."

(25) ít'-em=t'u7 **séna7** k=Henry
sing-MID=EXCL **CNTR** DET=Henry
'Henry tried to sing.'

(26) ít'-em=lhkan, siq'úta=lhkan t'it **séna7**
sing-MID=1SG.SBJ dance=1SG.SBJ also **CNTR**
'I sang, and I also danced.'
Consultant's comment: "Okay, if you didn't really know how to siq'úta *['dance']."*

(27) t'ák=kan **séna7** k'ák'em-l'ec, nilh n=s=hul'qs,
go.along=1SG.SBJ **CNTR** sneak-AUT COP 1SG.POSS=NMLZ=sneeze

q'áy-lec=tu7 aylh na=ts'í7=a
run.away-AUT=DIST now ABS.DET=deer=EXIS
'I was sneaking along but then I sneezed, so the deer took off.'
(Alexander et al. in prep.)

Summarizing the data for activities, *séna7* appears when there is a failure of an expected outcome (including a failure of the activity to continue), or more generally when something unexpected happens during or after the activity, including cases where the activity is not performed successfully.[4]

2.3 Achievements vs. accomplishments

An interesting property of *séna7* is that it clearly distinguishes between achievements, which entail culmination in the perfective aspect, and accomplishments with control transitivizers, which do not.[5] The phenomenon of non-culminating accomplishments is relatively well documented in the Salish literature; see Matthewson (2004a), Bar-el et al. (2005) on St'át'imcets, J. Davis (1978), Watanabe (2003) on Comox–Sliammon, Bar-el (2005), Bar-el et al. (2005), Jacobs (2011) on Sḵwx̱wú7mesh, Gerdts (2008) on Halkomelem and Kiyota (2008), Turner (2011) on SENĆOŦEN. The basic St'át'imcets facts are illustrated in (28)–(29). The same root, √*mays* 'get fixed', has an entailment of culmination when it surfaces without (in-)transitivizing morphology (28), but only has a (cancellable) implicature of culmination when it appears with the directive ('control') transitivizer (29):

(28) # **mays** ti=q'láxan=a, t'u7 áoy=t'u7
get.fixed DET=fence=EXIS but NEG=EXCL

kw=s=ka-máys=ts-a
DET=NMLZ=CIRC-get.fixed=3POSS-CIRC
'The fence got fixed, but it couldn't get fixed.'
Consultant's comment: "Contradiction."

[4] We predict that a parallel interpretation will arise with states, but at the time of writing we have not yet tested this.
[5] The perfective is phonologically null in St'át'imcets. It is signalled by the absence of the imperfective auxiliary *wa7*.

(29) **máys-en**=lhkan ti=q'láxan=a, t'u7 cw7áy=t'u7
get.fixed-DIR=1SG.SBJ DET=fence=EXIS but NEG=EXCL

kw=s=tsúkw-s-an
DET=NMLZ-finish-CAUS-1SG.ERG
'I fixed a fence, but I didn't finish.'

When *séna7* is added to achievements and accomplishments, the former allow a subset of the interpretations allowed for the latter. With achievements, there are two main contexts where *séna7* appears. The first is when the expected result state of the event doesn't hold, as in (30)–(34).

(30) t'íq=k'a **séna7**, t'u7 cw7aoz kwas wa7 lhkúnsa
arrive=EPIS **CNTR** but NEG DET+NMLZ+IPFV+3POSS be now
'He must have arrived, but he's not there now.'

(31) ts'áqw=t'u7 **séna7** ti=sts'úqwaz'=a … t'u7 cw7ít=t'u7 i=wá7
get.eaten=EXCL **CNTR** DET=fish=EXIS but much=EXCL PL.DET=IPFV

s-k'wilh
STAT-left
'The fish got eaten … but there were lots of leftovers.'

(32) máys=t'u7 **séna7** inatcwas, … t'u7 plan múta7 qvl̲-wíil̲'c
get.fixed=EXCL **CNTR** yesterday but already again bad-become
'It got fixed yesterday … but it's already broken again.'

(33) tsícw=kan=t'u7 **séna7**… t'u7 xwem-7úl kw=s=tsem'p=s,
get.there=1SG.SBJ=EXCL **CNTR** but quick-too DET=NMLZ=finish=3POSS

nílh=t'u7 múta7 n=s=7úxwal'.
COP=EXCL again 1SG.POSS=NMLZ=go.home.
'I got there … but it was over already, so I came home.'

(34) *Context: I was invited to a meeting. I arrived there, and Lisa phoned.*
Lisa: tsícw=kacw=ha?
get.there=2SG.SBJ=Q
'Did you get there?'

Me: tsícw•ecw=kan **séna7**, t'u7 áy=t'u7
get.there•FRE=1SG.SBJ **CNTR** but NEG=EXCL

kwas wa7 k=Laura
DET+NMLZ+IPFV+3POSS be DET=Laura
'I got there, but Laura wasn't there.'

The second interpretation for *séna7* on achievements is that the event didn't turn out well, as in (35)–(36). Both (32) above and (35) are the consultant's volunteered completions of sentences containing the same predicate, but they illustrate different ways in which the outcome of the event counts as unexpected.

(35) máys=t'u7 **séna7** ti=q'láxan=a … t'u7 áoz=t'u7
get.fixed=EXCL **CNTR** DET=fence=EXIS but NEG=EXCL

kwas áma kw=s=xilh-ts-twítas
DET+NMLZ+IPFV+3POSS good DET=NMLZ=do-CAUS-3PL.ERG
'The fence got fixed … but what they didn't wasn't good.'

(36) nq'íxts=t'u7 **séna7** ti=nk'wanústen=a, t'u7 áy=t'u7
closed=EXCL **CNTR** DET=window=EXIS but NEG=EXCL

kwas stexw ka-q'íxts-a
DET+NMLZ+IPFV+3POSS really CIRC-close-CIRC
'The window was closed, but something was not right with it. Something is wrong with the window, it can't be closed properly.'

Accomplishments with the control transitivizer also have these two types of interpretation, plus an extra one. The failure of the result state to hold is shown in (37), and an 'unsuccessful' case is given in (38).

(37) mays-en=lhkán=t'u7 **séna7** inátcwas, t'u7 plan múta7 qvl̲-wíil̲'c
fix-DIR=1SG.SBJ=EXCL **CNTR** yesterday but already again bad-become
'I fixed it yesterday, but it already broke again.'

(38) may-en-ítas=t'u7 **séna7** ti=q'láxan=a … t'u7 áoz=t'u7
fix-DIR-3PL.ERG=EXCL **CNTR** DET=fence=EXIS but NEG=EXCL

kwas áma kw=s=xilh-twítas
DET+NMLZ+IPFV+3POSS good DET=NMLZ=do(CAUS)-3PL.ERG
'They must have fixed the fence … but they didn't fix it good enough.'

The additional interpretation available for accomplishments with *séna7* is that the culmination didn't take place. This is illustrated in (39)–(40).[6]

[6] In (40), we infer non-culmination from the English translation using 'tried'. Since this example is predicted to also be able to mean that I *did* eat the fish, but didn't enjoy it, this requires further testing.

(39) mays-en=lhkán=t'u7 **séna7** ti=q'láxan=a … t'u7 áoy=t'u7
fix-DIR=1SG.SBJ=EXCL **CNTR** DET=fence=EXIS but NEG=EXCL

kw=s=tsúkw-s-an
DET=NMLZ=finish-CAUS-1SG.ERG
'I fixed the fence … but I didn't finish.'

(40) ts'aqw-an'=lhkán=t'u7 **séna7** ti=sts'úqwaz'=a … t'u7 áoy=t'u7
eat-DIR=1SG.SBJ=EXCL **CNTR** DET=fish=EXIS but NEG=EXCL

kwas áma
DET+NMLZ+IPFV+3POSS good
'I tried to eat the fish … but it wasn't very good.'

Crucially, achievements cannot fail to culminate with *séna7.* (41) is rejected and the predicate is corrected to the accomplishment verb *máysen.*

(41) # máys=t'u7 **séna7** ti=q'láxan=a, t'u7 áoy=t'u7
fix=1SG.SBJ=EXCL **CNTR** DET=fence=EXIS but NEG=EXCL

kw=s=tsúkw-s-an
DET=NMLZ=finish-CAUS-1SG.ERG
'The fence got fixed, but I didn't finish it.'

We have seen that achievements with *séna7* give rise either to an interpretation where the result state fails to hold, or where there is something wrong with the way in which the event devolves. Accomplishments similarly allow both these interpretations, but in addition allow a 'failure to culminate' interpretation. Achievements can never fail to culminate in the perfective aspect with *séna7.*[7] This shows that while *séna7* encodes an unexpected outcome or occurrence, it cannot take away entailments. *Séna7* does not alter the truth conditions of the proposition to which it attaches.

2.4 Summary of interpretations

Table 1 summarizes the interpretations we have discovered with *séna7* for each Aktionsart. The result state and culmination tests are not applicable to states or activities, since these do not involve changes into result states and are fully atelic.

[7] Transitive achievements, marked with the causative/non-control transitivizer *-s*, do entail culmination, and are therefore predicted to behave like intransitive achievements when *séna7* is added. This prediction remains to be tested.

Table 1: Interpretations with *séna7*

	unexpected outcome/ co-occurring event	unsuccessful event	failure of result state	failure of culmination
States	√	not tested	N/A	N/A
Activities	√	√	N/A	N/A
Achievements	√	√	√	*
Accomplishments	√	√	√	√

We have already accounted for the absence of the 'failure of culmination' interpretation with achievements: this interpretation is unavailable because *séna7* does not have the power to defeat entailments of the proposition to which it applies. We argue that all the attested semantic effects can be unified as sub-cases of a single interpretation: *séna7* marks the unexpected co-occurrence of two true propositions. To put it slightly more precisely, the unified meaning of *séna7* (*p*) is that the speaker did not expect *p* to be true as well as another contextually salient proposition *q.* We expand further in the next section.

3 Analysis

Our proposed analysis is given informally in (42). The parameter *c* represents the context of utterance.

(42) $[\![$ *séna7* (*p*) $]\!]^c$ is felicitous if *c* contains a salient true proposition *q* and the speaker does not expect *p* and *q* to both be true.
If felicitous, $[\![$ *séna7* (*p*) $]\!]^c = [\![p]\!]^c$.

As noted earlier, *séna7* does not affect truth conditions; instead, it imposes a felicity condition on the relation of a proposition to another salient proposition (explicit or implicit) within a discourse context.

Although our analysis is presented informally at this stage, we can nevertheless more or less see how it captures the data presented so far. For each aspectual class, *p* is *séna7*'s prejacent clause, and *q* is some other true proposition which the speaker does not expect to be true at the same time as *p.* For example, *q* might be a proposition which entails that the result state of the event described in *p* fails to hold. With accomplishments, *q* could be a proposition which entails that the event described in *p* failed to culminate. And with any aspectual class, *q* could be a proposition that entails that the event described in *p* did not take place well, or successfully.

We can also identify various further predictions and consequences of our proposal. The first thing to note is that the denotation in (42) requires the second proposition, *q,* to be present in the context at the time of utterance. This predicts that if the addressee cannot recover *q, séna7* will be infelicitous. On the other hand, the unexpectedness requirement (of *p* and *q* both being true) is placed only

on the speaker. This predicts that the addressee need not share the speaker's assumptions about what counts as unexpected. These two predictions match our impression of the data collected so far, but they have not been explicitly tested and further research is required.

One thing we are fairly certain of is that the second proposition *q* is correctly characterized in (42): it must be contextually available, but it is not a syntactic argument of *séna7.* With respect to the first point, we observe that *séna7* strongly prefers to appear in a bi-clausal environment, overtly contrasting the two propositions *p* and *q*. Out of the blue, it is usually judged as infelicitous in a mono-clausal sentence, and consultants sometimes give revealing comments suggesting that some additional *q* must be invoked:

(43) ama=ká=t'u7 **séna7** lh=nu=hás ku=7úts'qa7
good=IRR=EXCL **CNTR** COMP=you=3SJV DET=go.out
'It would be good if you went out.'
Consultant's comment: "I guess that would work … ***that séna7 just adds a sentence****."*

On the other hand, it is clear that *séna7* does not require two *syntactic* arguments, since mono-clausal sentences containing *séna7 are* possible, and in many of these cases it is implausible that ellipsis has taken place. Moreover, even when there are two clauses, the contrasting proposition *q* is not always represented overtly by either of them. In (44), for example, it is not unexpected that a place to stay would be both good and expensive. Therefore, the contrast is not between the two overt clauses 'it looks good' and 'it is very expensive'. Rather, the fact that the place looks good (*p*) contrasts with the *implicitly* conveyed proposition *q* 'we won't stay here'.

(44) *Context: A asks B 'Shall we stay here?' B replies:*
áma=t'u7 lákw7a **séna7**, t'u7 kéla7=t'u7 cw7it-usa7-[7]úl
good=EXCL DEIC **CNTR** but very=EXCL much-money-too
'It looks good, but it is very expensive.'
p: It looks good. *q:* We won't stay here.

Another case showing that *q* does not have to correspond to an overtly expressed proposition is given in (45). Here, *séna7* encodes the unexpectedness of my not having another drink, even though I have money. Crucially, *q* is not 'I've already had enough to drink', the second overt clause. Instead, *q* is 'I'm not having another drink', an unexpressed implicature of the second overt clause.

(45) A: cúz'=lhkacw=ha úqwa7 ku=pála7 múta7?
PROSP=2SG.SBJ=Q drink DET=one more
'Are you going to have another drink?'

B: cw7ao
NEG
'No.'

A: icwa7=lhkácw=ha es=qláw'?
without=2SG.SBJ=Q have=money
'Don't you have any money?'

B: wá7=lhkan **séna7** es=qláw', t'u7 plan í7ez'
IPFV=1SG.SBJ **CNTR** have=money but already enough

n-s-7úqwa7
1SG.POSS-NMLZ-drink
'I have money, but I've already had enough to drink.'
p: I have money. *q:* I'm not having another drink.

We have found that *q* can be provided in a number of different ways. The first is from generalized implicatures that derive from the lexical semantics of the predicate. These include – as shown above – the implicatures that accomplishments will culminate, that achievements have persistent result states, and that activities will be performed successfully. Second, *q* can be derived from prior discourse. Consider the example in (46).

(46) *Context: I'll tell you guys what happened when my face got burned. I got burned when I was a child. My mother was working out there in the back. She was fixing some fish we must have been going to eat. My brother Dicky was around. He was helping my mother there. So my mother told him, "Go look at the baby, and see if she's okay." So he went inside.*
tsicw, s=7áts'x-en-as láti7 **séna7** s-law
get.there nmlz=see-dir-3erg deic **cntr**stat-hang

l=ti=tsepalín=a
in=DET=baby.basket=EXIS
'He got there and saw that the baby basket was hanging there, sure enough.' (Laura Thevarge, in Matthewson 2005:272–273)
p: The baby basket was hanging there. *q:* The baby wasn't all right.

In this discourse context, the addressee knows that the unexpected *q* must relate to the speaker having been burnt. This is unexpected given that the baby basket was hanging there, apparently unharmed.

The proposition *q* can also be provided by unspoken discourse context, as illustrated in (47). Here, the physical context is such that the seven people cannot fit in; this does not need to be explicitly stated.

(47) *Context: Seven people are trying to get into a car. The driver says:*
xzum **séna7** ti=n-káoh=a
big **CNTR** DET=1SG.POSS-car=EXIS
'My car is big.'
Consultant's comment: "Means they can't all fit in."
p: My car is big. *q:* They can't all fit in.

Finally, as observed earlier, *q* can be provided by conversational implicature. A further example of this is given in (48). Here, *séna7* is not contrasting going out with not having money: it is contrasting going out with not having fun, which is conversationally implicated by not having any money.

(48) saotatih-am=lhkán=tu7 **séna7** inátcwas, t'u7 ícwa7=lhkan
Saturday-MID=1SG.SBJ=DIST **CNTR** yesterday but without=1SG.SBJ

es=qláw'
have=money
'I went out yesterday, but I didn't have any money.'
Consultant's comment: "He went, but he didn't have any money so he didn't have much fun."
p: I went out. *q:* I didn't have much fun.

As we predict, a *séna7* sentence is rejected if no *q* can be recovered by any of these methods. This is supported by the frequent rejection of mono-clausal *séna7*-sentences out of the blue. In (49) and (50) and (repeated from (6) and (20) above), the first clause was originally offered to the consultant and rejected. It becomes fine when an appropriate *q* is added as follow-up.

(49) zwát-en=lhkan **séna7** kw=s=cuz' kwis … mes=kán=t'u7
know-dir=1sg.sbj **cntr**det=nmlz=prosp rain but=1sg.sbj=excl

tsicw mám'teq
get.there go.for.walk
'I knew it was going to rain … but I went for a walk anyway.'

(50) it'-em=lhkán=t'u7 **séna7** l=ti=s-gáw'-p=a …
sing-MID=1SG.SBJ=EXCL **CNTR** at=DET=NMLZ-meet-INCH=EXIS

t'u7 áoy=t'u7 swat ku=k'alán'-min'-ts-as
but NEG=EXCL who DET=listen-RLT-1SG.OBJ-3ERG
'I sang at the gathering … but nobody listened.'

One thing which will require formalization in future work is the notion of 'speaker expectation'. We note so far that this covers both failed intentions (thus relating to teleological, or more generally priority, modality) and predictions (relating to epistemic modality). In (51), for example, *séna7* accompanies a report of a failed plan (to kill deer), but in (52), there is no plan for them (riders in a

'suicide race') to get hurt. It is simply that the speaker did not expect them to escape unscathed from this dangerous situation.

(51) píxem'=wit **séna7** áku7 sqwém=a, t'u7 áy=t'u7
hunt=3PL **CNTR** DEIC mountain=EXIS but NEG=EXCL

kw=s=7ats'x-en-ítas ku=ts'í7
DET=NMLZ=see-DIR-3PL.ERG DET=deer
'They went hunting in the mountains, but they didn't see any deer.'
p: They went hunting. *q:* They didn't see any deer.

(52) k'ínk'net=ti7 **séna7**, t'u7 cw7aoz kw=s=wá7=wit xan'
dangerous=DEM **CNTR** but NEG DET=NMLZ=IPFV=3PL get.hurt
'It was dangerous, but they didn't get hurt.'
p: It was dangerous. *q:* They didn't get hurt.
(Beverley Frank, in Matthewson 2005:92)

4 Extensions

In this section we show how *séna7* interacts with markers of future time reference, and with motion verbs. We show that the results are as predicted, and furthermore that *séna7* provides a useful diagnostic for prospective semantics and for telicity.

4.1 *Séna7* and future time reference

Here we discuss the interaction of *séna7* with the two grammatical means of inducing future time reference in St'át'imcets: the future-oriented modal clitic *=kelh,* and the future-oriented aspectual auxiliary *cuz'.* We will show that *séna7* gives rise to different readings with these two elements, and that the attested interpretations are as predicted by the analyses of these two elements proposed by Glougie (2008).

Examples of *=kelh* and *cuz'* are given in (53). As a rough approximation, *=kelh* corresponds to English *will/would* or future-oriented *might,* while *cuz'* corresponds to English *is/was going to.* See Van Eijk (1997), Matthewson (2006), Rullmann et al. (2008) and Davis (2012) for discussion.

(53) **cúz'**=lhkalh ncwíl-cal ku=kos̲oh-álhts'a7. ncwil-in'-ém=**kelh**
prosp=1sg.sbj roast-act det=pig-meat roast-dir-1pl.erg=**fut**

ku=cín'
DET=long.time
'We're going to roast some pork. We will roast it for a long time.'
(Alexander et al. in prep)

Glougie (2008) argues that *=kelh* places the reference time after the evaluation time (which often equals the utterance time), while *cuz'* is a pure prospective aspect which places the event time after the reference time. In (53),

then, the *cuz'*-clause states that the reference time, which is the same as the utterance time, is earlier than an event of roasting.[8] The *kelh*-clause says that the roasting will take place inside some reference time which follows the utterance time. In simple cases like this, the results are very similar, but Glougie shows that the two elements diverge in cases where an event is already planned at the utterance time. In such cases only *cuz'* is acceptable, not *=kelh,* as shown in (54).[9]

(54) *Context: You are going to D'Arcy for the weekend. You have already purchased your bus ticket, and you leave tomorrow morning at 8:00am. I ask you what your plans are for the weekend. How do you respond?*

a. **cúz'**=lhkan nas áku7 nk'wwátqwa7 natcw
PROSP=1SG.SBJ go.to DEIC D'Arcy tomorrow
'I am going to D'Arcy tomorrow.'

b. #nás=kan=**kelh** áku7 nk'wwátqwa7 natcw
go.to=1SG.SBJ=**FUT** DEIC D'Arcy tomorrow
'I might go to D'Arcy tomorrow.' (Glougie 2008)

Glougie notes that:

> (b) is perfectly grammatical, and would be an appropriate answer to the question "What are you doing this weekend?" if the speaker was only considering going away for the weekend and had not yet purchased a bus ticket. However, once the bus ticket is purchased, only *cuz'* is permissible. (Glougie 2008)

With both *=kelh* and *cuz',* the evaluation time need not be the utterance time, but can be a past time as well. This is parallel to the situation in English, where *will* has a past-shifted form *would,* and *is going to* has a past-shifted form *was going to.* Past-shifted examples of *=kelh* and *cuz'* are given in (55) and 0 respectively.

[8] Glougie argues that *cuz'* does not introduce modality; we do not necessarily subscribe to this proposal. The modality question is independent of what crucially distinguishes *=kelh* and *cuz'* in the context of *séna7,* which is the respective configurations of utterance time, reference time, and event time.

[9] Relatedly, they also diverge when it comes to offering contexts as discussed by Copley (2002, 2009): only *=kelh* can be used to make a felicitous offer, not *cuz'.*

(55) *Context: Mike Leech is currently chief of T'ít'q'et. His (deceased) mother was called Julianne.*
zwát-en-as s=Julianne kwas kúkwpi7=**kelh**
know-DIR-3ERG NMLZ=Julianne DET+NMLZ+IPFV+3POSS chief=**FUT**

ta=skúza7-s=a i=kwís=as
DET=child-3POSS=EXIS when.PST=fall=3SJV
'Julianne knew when he was born that her child would become chief.'
(Matthewson 2006:689)

(56) nás=kalh áku7 ts'úqwaz'-am, nilh ti=s-tlh-áyen=a **cuz'**
go=1PL.SBJ DEIC fish-MID COP DET=NMLZ-stretch-net=EXIS **PROSP**

qwez-en-ém
use-DIR-1PL.ERG
'We went fishing, we were going to use a gillnet.'
(Beverley Frank, in Matthewson 2005:54)

Let us turn now to the interaction of *séna7* with markers of future time reference. It turns out that with *=kelh, séna7* (*p*) imparts that the event described by *p* will happen, in spite of some other proposition *q,* while with *cuz', séna7* (*p*) imparts that the prejacent event was going to happen, but the event described by *q* happened instead.

Data with *=kelh* are given in (57)–(59). In each case, the speaker makes a prediction about a future event. In addition, there is some contextually recoverable true proposition *q,* and the speaker finds it unexpected that *q* is true as well as *p.*

(57) ilhen=**kélh**=ti7 **séna7**
eat=**FUT**=DEM **CNTR**
'He will eat.'
Consultant's volunteered context: When there's a big line up, and running low on food, but they'll serve him anyway.
p: He will eat. *q:* They're running low on food.

(58) úqwa7=**kelh** **séna7** ku=qú7
drink=**FUT** **CNTR** DET=water
'He will drink water.'
Consultant's volunteered context: If he was on a mountain, and he doesn't know whether the water is good, but he'll drink it anyway.
p: He will drink water. *q:* He doesn't know if the water is good.

(59) lh=wá7=as lákw7a ku=wá7 mám'teq láku7 álts'qa7=sw=a,
if=be=3SJV DEIC DET=IPFV walk.around DEIC outside=2SG.POSS=EXIS

ama=**kélh**=t'u7 **séna7** kwásu ts7as e=ts7á
good=**FUT**=EXCL **CNTR** DET+NMLZ+IPFV+2SG.POSS come to=here

n-tsítcw=a.
1sg.poss-house=exis
'If it sounds like someone is walking around there, it would be good if you come to my place.'
p: It will be good if you come to my place. *q:* You don't live with me.

These data are as predicted given Glougie's analysis of *=kelh* and our analysis of *séna7.* The future modal *=kelh* places the reference time after the evaluation time, which in these examples is the utterance time. *Séna7*'s prejacent proposition, which contains *=kelh,* therefore asserts that an eventuality will take place at that future reference time. (Like any modal claim, *=kelh* (*p*) makes an assertion only about possible worlds, but nevertheless, a future modal proposition is truth-conditionally asserted.) Finally, *séna7* contributes that the speaker doesn't expect that *=kelh* (*p*) and some contextually available *q* are both true: in other words, the speaker asserts that an eventuality will happen in the future, and in addition conveys that something unexpected will also happen. This gives rise to an 'in spite of' or 'anyway' reading.

Data with *cuz'* are given in (60)–(62). Here we get a quite different interpretation.

(60) **cúz'**=k'a zam' **séna7** tsut wa7 "qwa<7>ez'-álhmec",
PROSP=EPIS well **CNTR** say IPFV blue<INCH>belly

nilh s=ka-tsút=s-a "qwa<7>y-án'ak"=ku7.
COP NMLZ=CIRC-say=3POSS-CIRC blue<INCH>belly=REP
'So he was apparently going to say he was *qwa7ez'álhmec*, but he accidentally said *qwa7yán'ak* instead.'
(Carl Alexander, in Callahan et al. in press:149)
p: He was going to say *qwa7ez'álhmec*. *q:* He said *qwa7yán'ak*.

(61) nilh **séna7** n=s=**cuz'** p'án't-s, t'u7
COP **CNTR** 1SG.POSS=NMLZ=**PROSP** return-CAUS but

ka-law-a=t'ú7=a múta7
CIRC-hang-CIRC=EXCL=*A* again
'I tried to put it back, but it was just hanging there.'
(Carl Alexander, in Callahan et al. in press:244)
p: I was going to put it back. *q:* It hung there.

(62) nílh=tu7 **séna7** ku=s=Father Paterson ku=**cúz'**
COP=DIST **CNTR** DET=NMLZ=Father.Paterson DET=**PROSP**

melyih-s-tumúlh-as, t'u7 láni7=tu7 i=qwatsáts=as
marry-CAUS-1PL.OBJ-3ERG but DEIC=DIST when.PST=leave=3SJV

kn=ká7=as s=Father Paterson
around=where=3SJV NMLZ=Father.Paterson
'It was supposed to have been Father Paterson who was going to marry us, but Father Paterson had left and gone somewhere.'
(Gertrude Ned, in Matthewson 2005:213)
p: Father Paterson was going to marry us. *q:* He didn't marry us.

Again, the results fall out from the analysis. *Cuz'* places the event time after the reference time, which in these examples is a past time. *Séna7'*s prejacent proposition thus makes a claim about a pre-state of an event (for example, the state of having a plan to do something). The addition of *séna7* conveys that there is some other proposition *q* that is unexpected given *cuz'* (*p*) (the claim that there was a pre-state of an eventuality). The most natural case is that *q* entails that the expected plan was not fulfilled. The *cuz'* data are very similar to cases where *séna7*'s prejacent is a lexical stative, as discussed in Section 2.1. For example, just as *séna7* when applied to a proposition about wanting something frequently conveys that the expected outcome of that desire (getting the thing) remains unfulfilled, *séna7* on a *cuz'*-proposition conveys that the expected outcome of the pre-state of an eventuality happening (the eventuality actually happening) remains unfulfilled.[10]

Summarizing this section, we have shown that *séna7* gives rise to different interpretations with the two markers of futurity, *=kelh* vs. *cuz'*. With *=kelh,* the truth conditions assert that the prejacent event will happen, and *séna7* conveys that something else will happen which is not expected to simultaneously be true. With *cuz',* the truth conditions assert that the prejacent event was planned to happen, and *séna7* conveys that counter to expectations, it didn't happen after all. We have argued that these are exactly the readings predicted by Glougie's (2008) analysis of *=kelh* and *cuz'* as a future-oriented modal and a prospective aspect, respectively.

[10] The reader may have noticed that the *=kelh* + *séna7* data involve present evaluation times ('will', not 'would'-readings), while the *cuz'* + *séna7* data involve past evaluation times ('was going to', not 'is going to' readings). Our analysis predicts in addition that *=kelh* cases could allow past evaluation times, with readings such as 'the event described in *p* was predicted to happen, in spite of *q*.' We hope to confirm this in future elicitation.

Our analysis also technically predicts the existence of *cuz'* + *séna7* cases with present evaluation times, but these would be pragmatically very odd. They would simultaneously assert that some event is going to happen, and that some other unexpected thing will prevent that event from happening.

4.2 *Séna7* and motion verbs

St'át'imcets possesses four motion verbs which can be used as auxiliaries as well as main predicates, and which form a paradigm based on two dimensions, as shown in Table 2 (from Davis 2012, Chapter 16).

Table 2: Motion verbs

	Destination reached	Destination not reached
Motion towards speaker	*t'iq*	*ts7as*
Motion away from speaker	*Tsicw*	*nas*

Simple examples of each verb are given in (63)–(66), from Davis (2012, Chapter 16). As discussed by Davis, the different tenses used to translate *t'iq* and *tsicw* on the one hand (past) vs. *ts7as* and *nas* on the other (present) do not reflect a real tense effect. They are the result of combining telic vs. atelic predicates with the null non-future tense (Matthewson 2006).

(63) **t'íq**=wit e=ts7á Sát'=a lhl-[l]áku7 Lh7ús=a
arrive=3PL to=DEIC Lillooet=EXIS from=DEIC Lh7us=EXIS
'They came here to Sat' from over there at Lh7us.'

(64) **tsícw**=wit áku7 Lh7ús=a lhel-ts7á Sát'=a
get.there=3PL DEIC Lh7us=EXIS from=DEIC Lillooet=EXIS
'They went over there to Lh7us from here at Sat'.'

(65) **ts7ás**=wit e=ts7á Sát'=a lhl-[l]áku7 Lh7ús=a
come=3PL to=here Lillooet=EXIS from=DEIC Lh7us=EXIS
'They are coming here to Sat' from over there at Lh7us.'

(66) **nás**=wit áku7 Lh7ús=a lhel-ts7á Sát'=a
go=3PL DEIC Lh7us=EXIS from=DEIC Lillooet=EXIS
'They are going over there to Lh7us from here at Sat'."

When we add *séna7* to sentences containing motion verbs, nothing unexpected happens with the telic ones. Like the other achievement verbs discussed in Section 2.3, *t'iq* and *tsicw* retain their culmination with *séna7. Séna7* indicates some unexpected outcome of the event, such as the failure of the result state to hold or the failure to meet the person one was intending to visit.

(67) **t'íq**=k'a **séna7**, t'u7 cw7aoz kwas wa7 lhkúnsa
arrive=EPIS **CNTR** but NEG DET+NMLZ+IPFV+3POSS be now
'He must have arrived, but he's not there now.'
p: He must have arrived. q: He's not there now.

(68) **t'íq**=ti7 **séna7**, t'u7 cw7aoz kwa wa7
arrive=DEM**CNTR** but NEG DET+NMLZ+IPFV be
'He arrived but there was nobody home.'
p: He arrived. q: Nobody was home.

(69) **tsícw**=kan=t'u7 **séna7**, t'u7 cw7it
get.there=1SG.SBJ=EXCL **CNTR** but much

i=n-záyten=a
PL.DET=1SG.POSS-business=EXIS
'I went, but I had too many things to do.'
Consultant's comment: "He went, but didn't stay, because there was too much things to do."
p: I got there. q: I didn't stay.

(70) **tsícw**=kan=t'u7 **séna7** … t'u7 xwem-7úl
get.there=1SG.SBJ=EXCL **CNTR** but fast-too

kw=s=tsem'p=s, nilh=t'u7 múta7
DET=NMLZ=finish=3POSS COP=EXCL again

n=s=7úxwal'
1SG.POSS=NMLZ=go.home
'I got there … but it was over already, so I came home.'
p: I got there. q: I came home.

(71) **tsicw**=kan=tu7 **séna7**, t'u7 kan páqu7-min
get.there=1SG.SBJ=DIST **CNTR** but 1SG.SBJ afraid-RLT

kwenswá s-lheqw
DET+1SG.POSS+NMLZ+IPFV STAT-ride
'I went, but I'm scared to ride horses.'
p: I got there. q: I didn't ride.

The non-cancelability of the culmination with *t'iq/tsicw* and *séna7* is illustrated in (72)–(73).

(72) #**t'íq**=t'u7 **séna7**, t'u7 qacw•cw-áw'lh nilh s=p'án't=s
arrive=EXCL **CNTR** but break•FRE-vehicle COP NMLZ=return=3POSS

úxwal'
go.home
'She arrived, but her car broke down so she went home.'
Consultant's comment: "Change t'iq *to* ts7as*: then okay."*

(73) #**tsícw**=ti7 **séna7** áta7 Lil'wat7úl=a, t'u7 cw7áoy=t'u7
get.there=DEM **CNTR** DEIC Lil'wat7úl=EXIS but NEG=EXCL

kw=s=tsícw•ecw=s
DET=NMLZ=get.there•FRE=3POSS
'She got to Lil'wat7úl, but she didn't get there.'
*Consultant's comment: "These two [*tsicw *and* séna7*] are against each other."*

Nas and *ts7as* show a different pattern. As they are atelic, they allow an interpretation whereby the agent fails to reach her destination, as in (74). However, they also allow an interpretation which is not available for ordinary activity predicates: that no motion took place. This is illustrated in (75)–(77). Notice that the acceptable (74) forms a minimal pair with the unacceptable (73), and that (69) and (75) form a minimal pair with different interpretations.

(74) **nás**=ti7 **séna7** áta7 Lil'wat7úl=a, t'u7 cw7áoy=t'u7
go=DEM **CNTR** DEIC Lil'wat7úl=EXIS but NEG=EXCL

kw=s=tsícw•ecw=s
DET=NMLZ=get.there•FRE=3POSS
'She went to Lil'wat7úl, but she didn't get there.'
p: She went. q: She didn't get there.

(75) **nás**=kan=t'u7 **séna7**, t'u7 cw7it
go=1SG.SBJ=EXCL **CNTR** but much

i=n-záyten=a
PL.DET=1SG.POSS-business=EXIS
'I was gonna go, but I had lots of things to do, so I didn't go.'
p: I was going to go. q: I didn't go.

(76) **ts7ás**=kan **séna7**, t'u7 cw7aoz-wíl'c
come=1SG.SBJ **CNTR** but NEG-become
'I was going to come, but I decided not to.'
(Alexander et al. in prep.)
p: I was going to come. q: I'm not coming.

(77) **ts7ás**=ti7 **séna7**, t'u7 cw7aoz kwa wa7
come=DEM **CNTR** but NEG DET+NMLZ+IPFV be
'He was coming, but there was nobody home.'
p: He was going to come. q: He didn't come.

Two final, spontaneously offered examples illustrate *nas* being used as an auxiliary rather than a main predicate, with the same ability to have the prejacent event canceled.

(78) *Context: "Oh," he said, "Richard went hunting."*
nás=t'u7=tu7 **séna7** n-zán-em, t'u7 áoz=t'u7 múta7
go=EXCL=DIST **CNTR** LOC-circle-MID but NEG=EXCL again

kw=s=t'iq=s, i=kel7=át=t'u7 t'iq
DET=NMLZ=arrive=3POSS when.PST=first=1PL.SBJV=EXCL arrive
'He was just going to go around in a circle, but he never came back to where we first came to.' (Carl Alexander, in Callahan et al. in press:265)
p: He was just going to go around in a circle. q: He never came back.

(79) t'akm'íc=kalh aylh láti7 i=**nás**=at **séna7** nlham'
go.by=1SG.SBJ now DEIC when.PST=**go**=1PL.SVJ **CNTR** get.in

l=ki=t'láoz'-s=a ku=kaoh, áw'w'et=kalh aylh múta7!
at=PL.DET=canoe-3POSS=EXIS DET=car late=1PL.SBJ now again
'We went right past when we were trying to get on the ferry, and then we were late!' (Alexander et al. in prep.)

The behaviour of *nas* and *ts7as* matches that of *cuz'* as discussed above: unlike ordinary predicates, they allow an interpretation with *séna7* where the prejacent event was planned to take place, but does not. We therefore conclude that they have a reading as prospective aspects.[11] This in turn shows that *séna7* functions as a language-internal diagnostic for elements which incorporate prospective semantics.[12]

[11] There is a fifth motion verb, *t'ak* 'to go along', which indicates (continuing) motion along a path; see Van Eijk (2007, 2013), Davis (2012), Alexander et al. (in prep.). We have not yet investigated its behaviour with *séna7*, but we predict that it will have one of the two readings we ascribe to *nas* and *ts7as*: namely, an atelic motion reading, but not a prospective aspectual one.

[12] Relatedly, the only other cases we have found where a prejacent event can fail to take place with *séna7* involve the imperfective auxiliary *wa7,* as in (i)–(ii):

(i) **wá7**=lhkalh **séna7** tsicw ts'úqwaz'-am
IPFV=1PL.SBJ **CNTR** get.there fish-MID
'We were going to go fishing.' (Laura Thevarge, in Matthewson 2005:301)

(ii) **wá7**=lhkalh **séna7** ts'úqwaz'-am, mes=kálh múta7 wa7 tsláoy-am!
IPFV=1PL.SBJ **CNTR** fish-MID but=1PL.SBJ again IPFV July-MID
'We were supposed to be fishing and yet we were out having a July holiday!'
(Laura Thevarge, in Matthewson 2005:310)

5 First steps towards a cross-Salishan perspective: *Séna7* versus Bella Coola *su*

In a remarkably prescient and original paper on the Bella Coola particle *su*, Saunders and Davis (1977) produce the first – and hitherto only published – pragmatic analysis of any Salish discourse adverbial.[13] Though the meaning of *su* is clearly distinct from that of *séna7*, we include it here in order to provide a first cross-Salishan comparison of discourse adverbs.

The particle *su* has two sets of apparently contradictory meanings. The first involves an element of ignorance or surprise – either on the behalf of the hearer, as in (80), or the speaker, as in (81):[14]

(80) talaws-nu **su**
marry-2SG.SBJ ***SU***
'You know what? You got married (last night).'[15]

Furthermore, both these examples come from a speaker of the Lower (Lil'wat7úl) dialect, as does a similar textual example from Van Eijk and Williams (1981):

(iii) cw7áoz=qa7 **séna7** kwenswá guy't, meskán=t'u7
NEG=PRSUP **CNTR** DET+1SG.POSS+NMLZ+**IPFV** sleep but=1SG.SBJ=EXCL

ka-gúy't-a=t'u7
CIRC-sleep-CIRC=EXCL
'I didn't mean to sleep, but I just fell asleep all the same.'
(Rosie Joseph, in Van Eijk and Williams 1981:12)

Interestingly, Davis (2012) re-elicited the example in (iii) from an Upper St'át'imcets speaker, who inserted prospective *cuz'*:

(iv) cw7áoz=wi7 **séna7** kwenswá **cuz'** guy't,
NEG=EMPH **CNTR** DET+1SG.POSS+NMLZ+**IPFV** **PROSP** sleep

zamas=kán=t'u7 ka-gúy't-a=t'u7
but=1SG.SBJ=EXCL CIRC-sleep-CIRC=EXCL
'I didn't mean to sleep, but I just fell asleep all the same.'(Davis 2012, Chapter 38)

Thus, rather than being counter-examples to our claim that *séna7* does not affect truth-conditions, these data likely indicate that in Lower St'át'imcets, *wa7* allows prospective interpretations. Further research is required.

[13] Though Saunders and Davis refer to *su* as a 'particle', its morphosyntactic distribution suggests it should probably be treated as part of a second-position clitic string.

[14] Saunders and Davis's transcriptions have been slightly adjusted to fit the transcription conventions used here.

[15] Morpheme glosses for the Bella Coola examples have been inserted by the authors.

(81) qup̓-cinu a **su**
punch-1SG.ERG+2SG.OBJ Q ***SU***
'Did I punch you (last night, when I was drunk)?'
(Saunders and Davis 1977:211)

The second appears to have an almost opposite semantic value, typically translated by speakers as 'again':

(82) kma-ak-c **su**
hurt-hand-1SG.SBJ ***SU***
'My hand is hurting again.'

(83) cp-ix^{w} a **su** ti-q̓x̌umtimut-tx
wipe-2SG.ERG Q ***SU*** DET-car-DET
'Are you wiping the car again?' (Saunders and Davis 1977:211–212)

Saunders and Davis extract a common pragmatic core of *expectability* from these apparently disparate meanings. Their basic idea is that *su* is sensitive to either speaker or hearer knowledge (or both, but not neither). If the speaker has knowledge of the event denoted by a proposition, but the hearer does not, the pragmatic consequence will be (anticipated) hearer surprise, as in (80); conversely, if the hearer has knowledge of the event but the speaker does not (typically, because s/he does not remember it), the consequence is speaker surprise, as in as in (81). On the other hand, if both speaker and hearer have prior knowledge of the event denoted by the proposition, then nothing is surprising, with the implication that the event is either continuing or repeated: hence the translation in (82) and (83) of 'again'. (The fourth logical possibility is ruled out as pragmatically infelicitous: presumably the event denoted by a proposition cannot be unknown to *both* speaker and hearer.)

Though as analyzed by Saunders and Davis, *su* falls squarely into the domain of discourse-sensitive sentential adverbs, its meaning is clearly distinct from that of *séna7*. To start with, *su* appears to be confined to the epistemological dimension – it is specifically sensitive to knowledge – while *séna7* can equally well apply to the teleological/priority modal dimension, involving plans, intentions, and so on. Second, *su* can apply to either the speaker or the hearer (or also, in fact, to a third party), but *séna7* is always speaker-centred. And third, and most crucially, *su* is non-contrastive: though it invokes a discourse context, its domain is a single proposition, not a pair of opposing propositions.

6 Conclusion

In this paper, we have offered the first formal pragmatic analysis of a Salish discourse adverb, St'át'imcets *séna7*. We have argued that *séna7* has no effect on truth conditions, but imposes a felicity condition on the discourse context, repeated in (84):

(84) ⟦ *séna7* (*p*) ⟧^{c} is felicitous if *c* contains a salient true proposition *q* and the speaker does not expect *p* and *q* to both be true.

We have also shown how *séna7* can be used as a diagnostic tool for teasing out subtle distinctions between entailments and implicatures, illustrating with test cases from three different semantic domains. In the first, *séna7* acts as a diagnostic for telicity, helping to distinguish achievements, which have a culmination entailment, from control accomplishments, which only have culmination implicatures. In the second, *séna7* helps to distinguish between two ways of expressing future time reference: with the prospective auxiliary *cuz'*, *séna7* cancels the expectation that a future event took place, but with the modal enclitic *=kelh*, there is a lexical entailment that the reference time follows the utterance time, which *séna7* cannot cancel. Finally, *séna7* distinguishes between two classes of motion verbs: with one class, which acts essentially like achievements, a destination is always reached, with or without *séna7*; but with the other, not only is the destination not necessarily reached, but *séna7* has the ability to completely cancel the motion event, demonstrating that the members of this second class have become reanalyzed as prospective aspect markers.

Obviously, much work remains to be done. To start with, we need a more precise characterization of which clause *séna7* can appear in; there appears to be speaker variation with respect to how freely it can occur in the second of two contrasting clauses (with some speakers even allowing it to optionally appear in both), but we have not yet investigated this issue in detail.

Secondly, we have noticed that for some speakers, *séna7* has a 'modal flavour' even without an accompanying overt modal enclitic: these speakers sometimes either translate *séna7* as 'supposed to' or indicate that its use implies a lack of knowledge on the part of the speaker, suggesting that it has deontic and/or epistemic readings. We have not yet explored this thoroughly.

Thirdly, we have not yet systematically investigated the relation of *séna7* to speech act participants and/or perspective holders; though our impression is that it is always speaker-oriented, this needs to be backed up with more thorough elicitation.

Fourthly, aside from *séna7*, St'át'imcets has at least four other elements with contrastive meanings: the conjunctions *t'u7*, *k'ámalh* and *zámas/mes=t'u7*, and the second position enclitic *=hem'*, all of which can co-occur with *séna7*, and indeed appear in many of the example sentences in this paper.[16] The three conjunctions are all translated as 'but' by van Eijk (2013) and Alexander et al. (in prep.), but as noted by these authors, they have partially different contexts of use. The enclitic *=hem'* is glossed as 'antithetical' by Van Eijk (1997), 'for sure' or 'the real thing' by Van Eijk (2013), and 'actually or really' by Alexander et. al (in prep.); as with *séna7*, these labels reveal more about the difficulty of finding an adequate translation for *=hem'* than about the meaning of the element itself. The

[16] The *t'u7* in *zámas/mes=t'u7* is not the conjunction *t'u7* 'but', but the 'exclusive' enclitic *=t'u7* 'still, just, yet'.

relation of *séna7* to these other markers of contrast is obviously another important topic for future research.

Finally, aside from a brief excursus on Bella Coola *su*, we have not yet attempted any cross-linguistic comparison between *séna7* and semantically similar elements in other languages, including the well-studied contrastive English conjunctions *even though*, *but*, and *in spite of*, as well as elements in less well known languages such as the Tohono O'odham 'frustrative' particle *cem* (Hale 1969, Copley 2005, Copley and Harley 2014). The relation between *séna7* and these elements is another important matter for future research.

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Two explanations in Comox by Tommy Paul

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Abstract: Here are two texts given by Tommy Paul speaking Mainland Comox: (1) The star known as Bullhead was known to appear at a certain time of year. However, it seems to be not a stationary star, but a shooting star — or rather, a bunch of shooting stars — what has come to be known in English as a meteor shower. It may be the Orionid meteor shower. (2) Twins were said to be good (or have good fortune) and Tommy Paul gave an example of how twins complement and support one another.

1 Introduction

Tommy Paul liked to talk with younger people, whether of First Nations ancestry or of European ancestry. He loved to explain concepts and lifeways and was interested in having his knowledge recorded and written down for future generations. Here are two of many explanations he gave so that we can learn from them.

Note: Use of the brackets < >, [ ], / /, and { } in this paper is in accordance with linguistic standards.[1]

2 Xwa'anay

When the elders spoke about the star <Xwa'anay> "Bullhead (fish)" appearing only at a certain time of year, my first assumption was that it is one star, as the word <kusen> /kʷusən/ translates into English as "star". After I asked Tommy Paul to explain the star called "Bullhead" I was under the impression that it is a constellation. But upon more careful reading of the text, it now seems that "Bullhead" is a meteor shower. Tommy Paul said that "Bullhead" appears during October and lasts less than an hour, meaning less than an hour each night. Meteor showers are known to have a maximum lasting only a part of each night during the few nights each year that they are visible. The audio for this text can be heard at http://cla.berkeley.edu/item/15646. The original transcription was made in 1978 with the assistance of Mrs. Mary George. She noted that she could not understand every single word in this recording, remarking that Homalco and Sliammon are a little bit different.

[1] See: http://www.fb10.uni-bremen.de/anglistik/linguistik/pdf/notation-conventions.pdf.

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Here is his explanation, in parallel columns like a bilingual story in a European language would appear, instead of in standard academic format.

00	Hoy?	Ready?
01	’Ey, ’ey chianey, tuwa ch e kw Xomalhku	Well, well (as for) me, I’m from Homalco
02	Hanam kwez ’ay’ajothem e kw tam texwnîwhan	I have a lot to tell about what I know
03	Neyneyejia teyta, te na kusen	It’s far away, the (shooting) star
04	Nana’nems kusen nesh, nesh e ti’i shia’t	About the star here, here up high
05	Pa’a, pa’a te ’axtey kw Xwa’anay	Bullhead is one such
06	’Ey pa’a te ’axtey K’ŵasta	And Cup is another such
07	Hi te Xwa’anay	As for Bullhead
08	Ta’at, ta’at q’az’enwhigas elh jîamas	They come together occasionally
09	ni’ e ’alhtwh e kw tam *October*	there sometime in October
10	’Ey whe chîamas ey qwel’ ŵhat’em	And they don’t come fall (to the ground)
11	Qwel’ ŵhat’em teyyyytol’	A smaaaall one fell
12	Thewhens kweth peqalhchiayesh	About the palm of your hand
13	K’wenît, ’ewk’w gat k’wenît s qwel’s whewht’em	Everyone saw it come falling (to the ground)
14	Ho chwh k’wet, whekwt	You go look, (there’s) nothing
15	Teytolmot nam’ e kw xa’amen	Very small, like a clamshell
16	Hoy ’ot e ni’ kw eyt q’atq’etwh	Only here all burned up
17	Tuwa e kw kusen	(It came) from the star
18	Tuwa e kw Xwa’anay	(It came) from the Bullhead
19	Tuwa e kw K’ŵasta	(It came) from the Cup

20	Hoys ’ot	That’s all
21	Whekwt tam q’waq’wthems	It has no kind of (traditional) story
22	Hoy t’ekws ni’ e kw shia’t	It exploded there high up
23	Qwel’ kw ŵhat’em ey k’wenewh ch ’ot	It fell (to the ground) and I did see it
24	K’wenewh ch ’ot kwewh na’momeshs q’atq’etwh	I did see how it appeared all burned up
25	Hoy ’ot	That’s all
26	Whekwt ’e tam ewh ’ey’s	It’s not good for anything
27	Whe chîamas ey yeq’tem e kw mamalha	No way that the white man (can) use it
28	Whe chîamas ey yeq’tem e kw qaymewh e kw tamas, ŵha’	No way that the Indian (can) use it for anything, no
29	Whe manegît, hoys ’ot	It wasn’t picked up, that’s all
30	K’wank’wen chwh ga	You (can) look (all around)
31	Hoys ’ot, hoys ’ot, hoys	That’s all there is
32	Whekwt ’ot tam (? k’ŵans ?)	Nothing …
33	Whekwt tam (? k’ŵans ?) kw tumesh	Nothing … … a man
34	K’wenîtolh, qwel’ whewht’em tey,	He saw it, it had come falling,
35	tho ma’tas, whekwt kw tam ma’ewholh	he went to get it (but) he got nothing
36	Whekwt ’e kw (? q’awulhs kw seschewh ?), whekwt	Nothing … nothing
37	Hi ga s whes tawtas	That’s why he (could) not say
38	Ganawh, nach’eya kw na’s	It’s true, it belongs to somebody else

39	Nach'eya kw snaha e te shia't kusen, ganawh	Someone else owns the stars up there, it's true
40	Xwa'anay, hiw xatl'ît	Bullhead, it's very difficult
41	Tam 'ey' ni' kwenas tam	Something fortunate or whatever,
42	whekwt gat texwnîwh	nobody knows
43	Ho e kw K'ŵasta, ni'item	As for Cup
44	Nam' whekwt gat texwnîwh kwenas 'ey' ewh ni's. whekwt	Similarly nobody knows if it's good where it is, nobody
45	(? Hi ga te whach ?) xatl'ît	… difficult
46	Whekwt gat tawtas gat (? z'iyiyegetît ?) kusen kw texwexw ga tamas	Nobody (can) say whoever (? seeks ?) learn (whether it's) a star (or) what(ever)
47	T'egem 'e nam' 'ot, ŵha'	It's not like the moon
48	Whekwt tawtas	No(body can) say
49	Nach'eya 'ot ti'i qaymewh	That person is different
50	Nach'eya kw naha e te shia't	The owner up there is different
51	Ti'i te shia't, ta'at ni's kusen, nach'eya	The one up high, where the star(s) usually are, (he's) different
52	K'wenît chwh	You see
53	(Whe) chîamas ey (? mesch ?) e kw, whe chîamas ey (? mesch ?) e naha te kusen	There's no way … there's no way … owning the star
54	Ten minutes, half an hour, 'ey ŵha'	Ten minutes, half an hour, and (it's) not
55	Pa'ya 'ot, pa'ya 'ot thelh	It's always like that
56	Thewhen tintin qwel' (? tachtechewh ?)	About an hour comes …

57	Thewhen tintin tho (? mewh eyt ?)	About an hour goes …
58	Hoys	That's the end of it

3 Notes on the Text

The parallel text presentation is an attempt to make the story easier to read and thereby more accessible to the nonacademic reader, like what is seen in dual language books when the other language is a European language and the purpose is teaching, unlike the standard interlinear presentation used in academic publications.

This format highlights the parallelism in each part of Tommy Paul's explanation, a rhetorical device which is more difficult to see in an academic interlinear text.

The translations of these two texts are not literal, but are slightly paraphrased to make them more easily understood. For example, the word "can" (be able to) is inserted in parentheses to show how we would say the same idea in English and line 08 literally means "usually/regularly they come together sometimes" which can be paraphrased as "from time to time" or as "occasionally" or "at regular intervals".

The biggest problem with transcribing this text was that Mrs. Mary George was not able to understand all the words. However, even without every single word transcribed, this narrative can be understood and deserves to be presented.

Tommy Paul said that the Bullhead (shooting) star comes together with Cup sometime during October. When I was able to locate a star chart without our Greek and Roman constellations marked, showing only the stars (a chart almost impossible to find in a library), Tommy Paul pointed to a location at the bottom of Gemini, which is close to both the ecliptic and to the upraised arm of the constellation Orion. The Orionid Meteor Shower comes in late October and its radiant is close to Orion's upraised arm. The Cup might include the three stars of Orion's belt, but this is just a guess.

The word <xwa'anay> was translated as "bullhead". One type of fish called "bullhead" is the tidepool sculpin. If you search google for "tidepool bullhead", one hit you will get is page 78 of the book *Fishes of the Pacific Coast* (by Gar Goodson, illlustrated by Philip J Weisgerber; Stanford University Press, 1988) "Tidepool sculpin Oligocottus maculosus. to 3½ inches. Most tidepool watchers have seen this bright, active, shallow-water sculpin; it is common along rocky shores where it hops and darts from one sheltered spot to another like an arrow." Their darting about is reminiscent of the shooting stars in a meteor shower.

In line 22 Tommy Paul uses the word <t'ekws> which was said to be the same as the English word "explode" (the word for "rifle" is <t'at'akws>). But could Tommy Paul have said <t'ekws> to mean "to come from one point" as if there had been an explosion? If so, that would describe the radiant (the apparent

point of origin) of a meteor shower and how the (shooting) stars appear to spring from that point.

4 Some notes on the orthography

The orthography used herein is an attempt to make reading and writing the language easier to learn than using an academic orthography. It should be noted that the word for "hummingbird", phonetically [χopχop] but <xopxop> in the present orthography, is written /x̌ʷupx̌ʷup/ in the academic orthography. One result of using the academic orthography is that the "xwupxwup" corner store at Sliammon village has been called "the wup-wup store" [wʌp wʌp], a pronunciation nothing like the word for "hummingbird".

The vowels (with overlapping allophones) are the back vowel, written subphonemically as <o> and <u>, the low vowel <a>, the front vowel <i> (most often [ɛ], seldom [i]; most instances of [i] are phonemically schwa), and the schwa <e>, most often pronounced like the vowel in "but", can have other pronunciations, including [i] and [u]. The spelling of the word <whekwt> [çʷukʷt] "nothing" reflects its relationship to the word <ŵha'> "no". In addition, there are the letter combinations <ia> [ɛ], <chîa> [čɛ́ʌ], <jîa> [ǰíʌ], <ey> [iy], <iy> [ɛy], <ew> [uw], and <iw> [ɛw]. The consonant <z'> represents [t'$^{\theta}$] (think "pizza"). The digraph <lh> indicates the lateral fricative, represented by the barred el, in keeping with spelling <Lhasa> for the capital of Tibet, similar to <hl> in Old English, and the same as its use in Sechelt and Cowichan. The spelling <lh> was also used in early printed books in the Welsh language.[2] The spelling <tl> for the barred lambda (laterally released [t]) comes from Nahuatl, the language of the Aztec empire which was in Mexico before the arrival of any Europeans. The Spanish immigrants spelled this sound as <tl> and even today you can see store signs saying <tlapatería> on the fronts of hardware stores in Mexico. The appendix of my 2012 ICSNL paper described this orthography; its use was illustrated in my 2015 ICSNL paper.

The transcription of this text represents the pronunciation of Mary George. Examples are: for <ti'i> [tɛʔɛ] "that" Tommy Paul said <tey> [tiy] and for <'ey'> [ʔiyʔ] he said <'iy'> [ʔɛyʔ], which you can hear on the recording at http://cla.berkeley.edu/item/15646.

5 T'amshen

In the following story, Tommy Paul tells how it's good to be a twin. However, he does not give the background of the belief that twins are good. In her analysis "Oolachan-Woman's Robe: Fish, Blankets, and Meaning in Boas's Kwak'wala Texts" (pp. 125–162 in Brian Swan, *On the Translation of Native American Literatures*; Smithsonian Institution Press, 1992), Judith Berman writes, "… twins

[2] http://babelstone.blogspot.ca/2006/08/welsh-double-l_19.html

are thought to be salmon-people: when humans arrive in the world in multiples, they are like fish" (p. 153).

Noel George Harry also said that twins are good, expecting me to understand the cultural background. In this explanation, Tommy Paul contrasts the strengths and weaknesses of two men who are twins. Their strengths complement each other. The latter part of this explanation describes a method used to ensure a future harvest of herring.

The audio for this text can be heard at http://cla.berkeley.edu/item/15581.

01	T'amshen	Twins
02	Ganawh 'ot 'ey' t'amshen	It's truly good (to be a) twin
03	'Ot chwh t'amshen, ga t'amshenawh	In case you're a twin, if you (happen to be) a twin,
04	pa'ya 'ot 'ey' kw pipa'a, tl'alhsem	one will be better, stronger (in a given situation)
05	pa'ya 'ot 'ey'	always better (at something)
06	Ho ga e kw pipa'a ey pa'ya 'ot na lhex	As for the other one he is always worse (at that)
07	Pa'ya k'we jianîwh, pipa'a	(Let's say) one always has fish
08	Ho ga ti'i pipa'a qaymewh 'ot whe jianîwhas	As for the other person, fish-less
09	Hi ga pa'ya she tumesh ti'i pipa'a	Because he's always a hunter, the other one (tumesh = hunter)
10	Ti'i jianwh texwnîwhas 'ewk'w tam yayathots	The one who knows fish (can) do everything (for fishing)
11	'Ot ni' e kw tamas chiachiayalhten e kw chia neyejia gejia,	If something is being harvested at some far away place,
12	'Ey xatl's s qwel's chiayalhatît e kw ti'i nam'	And he wants them to be harvested right here
13	Nam' kw chia gejia eth ni'	Like the place where you are
14	'Ot th xatl' kweth na tayaqat tamas	If you want to move something

15	Xwe't chwh tayaqat	(If) you hope to move it
16	Ga xatl'as s qwel's na chiayalhten kw lha'gat' ti'i q'wit	If they want them to come (be) harvested the herring (on) this beach
17	Tho kw t'amshen tho ma'em e kw lha'gat'	The twins go get the herring
18	Hoy ey q'isa'natas kw lha'gat' 'ey poqwsatas	Then they tie the herrings by their necks and put them into the water
19	Hoy ey seqnachemmitas, seqnachemmitas qwel'swhas	Then they tow them (to this place), bring them
20	Qwel' tes e te q'wit	They come right up to the beach
21	Kwelhtas	They untie them
22	Ho k'we tha'yem	(The herring) go sink
23	Pa'yathot kwetesh eyyyy kw lha'gat' t'it'ik'wiw e ti'i	The next year and the herring spawn at this place
24	Qwel' tayaqathot	They come move (to this place)
25	Qwel' toyaptas	They come follow

6 A note on translating this text

The dictionary meaning of the word <'ey'> is "good". But the English word is more absolute than what is meant by the word <'ey'>. Its meaning includes "better" (comparatively good) and even "fortunate". For example, in September 1972 Mrs Mary George gave the examples <'ey'thim k'we negey> "it's good luck (fortunate) for you" and <'ey'thayem k'we chianelh> "it's good luck (fortunate) for me".

In lines 07 and 22 the evidential particle <k'we> appears. In a declarative sentence <k'we> indicates reported speech. However, these sentences are not declarative but suppositional (given as examples), so the phrase "let's say" has been chosen in an attempt to convey that flavor in line 07. A translation with <k'we> in line 22 might be "they can be expected to sink" rather than "let's say they sink".

7 The context of these tellings

In 1965 Thom Hess went to Sliammon and worked with Bill Galligos. When I came to the University of Victoria in 1968, Thom Hess assigned me to work on the language spoken at Sliammon and told me to contact Bill Galligos, who was my first teacher of the language. In the summer of 1969 Bill Galligos introduced me to his father-in-law, Noel George Harry. Noel George Harry told traditional stories and a lot of coastal history, speaking in Homalco only when I repeatedly asked him. He wanted me to understand the stories, so he kept switching back into English. The resulting recordings are a mixture of Homalco and English. Because the recordings have this mixture, they may be of value to younger historians who don't know as much of the language as their elders did.

Partway through the summer of 1969 I started obtaining Canada Film Board movies through the public library in Powell River and showing them evenings at the Sliammon community hall. At one of these evenings Mary George approached my wife and offered to be a teacher. She spoke the pure Sliammon dialect, without any mixing with the Homalco dialect.

I met Tommy Paul when I went to Church House and he liked to talk with me to the extent of my ability in Homalco (Homalco is almost, but not totally, the same as Sliammon). He also explained concepts to me when I asked about them. One time I asked him to explain Xwa'anay and he gave the first text included in this paper. Another time I asked about T'amshen and his explanation is the second text of this paper. Unfortunately, I was not able to understand an entire text without the help of Mrs. Mary George, who was happy to hear these explanations. She said that they presented new information for her.

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Nsyilxcn Elder documentation for language learners: a call for collaboration*

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Abstract: This paper presents six stories told by six Syilx Okanagan Elders from five different communities and transcribed as part of a language learning and documentation strategy in Nsyilxcn (also known as Nsəlxcin, nqilxʷcn, Okanagan, Okanagan-Colville, Salish, and Interior Salish). Our documentation and archiving strategy, an integral component of our multi-community language revitalization plan, is described. Background of the authors and the Syilx Language House Association is provided and a call for collaboration is expressed. For an elucidation of our Nsyilxcn revitalization strategy see www.thelanguagehouse.ca.

Keywords: Nsyilxcn, Okanagan, Syilx, revitalization, Salish, documentation

1 Background

The Syilx Language House Association was formed in 2015 as a collaboration between the authors, Simon Fraser University, Penticton Indian Band, Westbank First Nation, Osoyoos Indian Band, Okanagan Indian Band and the Okanagan Nation Alliance. Our association, based in Penticton BC, represents the desires of community and leadership from several member bands of the Syilx Nation—a multi-year, multi-community collaboration, responding to an urgent call from community to revitalize Nsyilxcn, specifically to *create new speakers*. Syilx is also known as Okanagan, Okanagan-Colville, Salish, Interior Salish and sqilxʷ. Our language is known as Nsyilxcn, Nsəlxcin, nqilxʷcn, Salish, and simply *the language*. The authors, within the Syilx Language House, are responding to an

* Gratitude to our Elders who recorded stories, Calúpaʔ Adam Gregoire, Kiʔláwnaʔ Andrew McGinnis, Knínmtm taʔ nqʷictn Grouse Barnes, Qiyusálxqn Herman Edward, Qʷəlmnalqs Theresa Ann Terbasket, and Qʷayxnmítkʷ Jane Stelkia. Gratitude to the language – *kn kʕam mi əlxʷlal iʔ nqʷiltntət*. Gratitude to our apprentice recorder Xaʔtma Sqilxʷ Flynn Wetton, and the Syilx Language House students for their enthusiasm and hard work. Special gratitude to the Penticton Indian Band and leadership for housing and catalyzing the Syilx Language House Association and providing student support and core funding. Gratitude to Westbank First Nation and Osoyoos Indian Band for student support and core funding. Gratitude to our funders and supporters including Simon Fraser University, SSHRC Partnership grant, Mitacs, First Peoples Culture Council, the Aboriginal Languages Initiative, Okanagan Indian Band and Okanagan Nation Alliance. Always, *niʕíp*, gratitude, *limləmt*, to Sʕamtíc'aʔ Sarah Peterson, Chris Parkin, LaRae Wiley and the Salish School of Spokane for trailblazing leadership and mentorship.

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urgent need to develop language teaching and documentation strategies specific to our colonial context, the specific needs of present and future language learners, and mindful of historical appropriation by outsiders.

According to Indigenous methodology, the authors respectfully introduce ourselves to this forum:

> iskʷíst Sʔímlaʔxʷ, l̓ snpintktn kiʔ kn mut, kn t̓l nkmaplqs. Richter, Simla naʔł suyápix isʕaxʷíps. *Sʔímlaʔxʷ lives in Penticton, is a member of the Okanagan Indian Band, and is related to the Richter and Simla families as well as Euro-Canadian/British background*.
>
> iskʷíst Sta̓ʔqʷálqs, kn t̓l stqatqʷłníẃt, inmístəm K̓ninmtn taʔ nq̓ʷic̓tn naʔł intúm Sandi Alexander iʔ skʷskʷistsəlx. *Sta̓ʔqʷálqs is a member of the Westbank First Nation, her parents are Grouse Barnes and Sandi Alexander*.
>
> púti ʔ kʷu sʔalá. kʷu səcnqlqilxʷcnx. *We are still here. We are speaking nqilxʷcn.*

This summer marks the conclusion of the first year of our four-year pilot project. Our goals after four years are specific and uncomplicated: to graduate a cohort of new adult speakers, to document and publish hundreds of Elder recordings and transcriptions, and to provide a shining light of language revitalization that other communities may follow.

As an Indigenous language we are lucky to have excellent Nsyilxcn curriculum (six Nsyilxcn textbooks produced by the Salish School of Spokane and the Paul Creek Language Association) which follows best practices in language teaching, is comprehensive, and designed to be taught by learners who learn as they teach (Johnson 2014; Peterson et al. 2015). Lessons are delivered from a foundation of traditional stories and cultural knowledge, with extensive Elder recordings, teaching material, lesson plans and acquisition methods. To complement this excellent curriculum, we need literature in our language.

In the Language House we are following a four-year plan to deliver 2,000 hours of intensive language lessons to sixteen adults over the next four years. This will result in mid- to high-intermediate speakers, as defined by Canadian Language Benchmarks (Pawlikowska-Smith 2000). We follow a two-pronged approach to revitalization: teaching and documentation. Our main focus is on speaking, but an important part of our training is recording and transcribing Elders as applied practice in listening, reading, and writing. We create materials useful to learners at an intermediate and advanced level, specifically Nsyilxcn literature with no English translation. We provide copies of our materials to community free of charge as soon as they are recorded. Our Elders share their knowledge embedded in language. As learners and teachers, our language heals us and our communities as we learn.

1.1 Why learning by documentation is needed

Very little has been written about Indigenous language documentation as a language learning strategy. We have spent the past year trying to reconcile the pedagogical needs of Indigenous students: to learn language as quickly as possible, to teach while learning, and our equally critical need for documenting the knowledge of our remaining Elders. Our language is critically endangered, meaning there are fewer than fifty fluent Nsyilxcn-speaking Elders remaining. There are sixteen adult students in the Syilx Language House, many beginner learners in band schools, the Enowkin Centre, and hundreds of adult and children full-time learners at the Salish School of Spokane. Our publications are for them.

Syilx Elders are patient and gifted storytellers and our language has a history of recordings and transcriptions, many with English translations and linguistic analyses in English. As Syilx people, we have seen many documentation projects that, while extremely valuable in the linguistic field, are either not suitable pedagogically for learners, or not available to learn from. Perceptions abound, true or not, that numerous previous recordings still sit in boxes, as deteriorating cassette tapes, or worse, were taken away. The feeling remains in some people's hearts that materials were not shared or "stolen" and has created lingering mistrust. Many Elders and community members are reluctant to commit words to written and recorded formats.

Sʔímlaʔxʷ learned to record and transcribe on her own, during her PhD, with Elders in community, and immediately recognized the differences between linguistic documentation and literature. She created an archiving strategy and trained Sta̓ʔqʷálqs Hailey Causton to record Elders and archive recordings. Next year, Sʔímlaʔxʷ will train Sta̓ʔqʷálqs and sixteen other learners to transcribe, beginning with intermediate techniques developed and tested this year.

2 Documentation and archiving strategy

Many Elders are enthusiastic to record stories and willing to share their knowledge freely. Our work is gradually building trust and our pool of Elders is growing. Elders sign a release form which states their work will be freely shared with all future learners and is under a creative commons copyright. They are acknowledged for their contribution and paid for their time. Elders choose the stories they want to share and we sometimes prompt them with suggestions.

While recording the Elder, we listen carefully, writing down all words we consider new vocabulary words for learners at an intermediate level. These are words which have not been taught by the third textbook in the Salish School of Spokane, or words which are particularly complex. No English translations are made, other than brief notes and an occasional footnote to explain context or if gestures were made during storytelling.

Audio files are saved with a naming convention including the Elders name, title, and date, first as Audacity files and then as .mp3 files. The same naming convention is used for an associated Word document, created by following a template, with the title, location, length of recording, transcription, vocabulary,

and notes. Six such stories are shared below. Each story is entered into an Excel table (see sample page in Appendix below).

Narratives are published and shared in an undiluted oral literary form, with vocabulary lists for learners, rather than providing linguistic analyses or English translation. We share our stories with audio CDs as soon as they are archived, some transcribed, some not, and make no apologies for errors which reflect our intermediate learning levels. My heart sings as we present our Elders' oral literature to the community. The speakers recorded in these volumes are numbered within the last Nsyilxcn speakers who were raised as first language speakers prior to the tragic effects of colonization, language decline, and residential schools. They have lived to see and assist with the incipient wave of language revitalization.

We have produced hundreds of recordings, archived, with glossaries. We print numerous copies and present them freely at an annual event in order to avoid any public perception of hoarding or taking material away from families or community. We presented one volume last year with sixty-three stories, 368 minutes of recordings, narratives and stories (Johnson et al. 2015).[1] We shared the publication at the Okanagan Nation Alliance Annual General Assembly and handed out fifty copies to the Chiefs and Councils of the Okanagan Nation, the Enowkin Centre, and band schools in July 2015. We shared copies with libraries, universities, community members, schools, students and organizations. We will present two new volumes at the Okanagan Nation Annual General Assembly in July 2016.

2.1 Learning by doing

We have found recording Elders to be an excellent learning strategy, giving numerous hours of applied practice in listening, reading, and writing. Thousands of hours of applied practice are required to produce advanced speakers (Jackson and Kaplan 2001; Johnson 2014; Rifkin 2003). Transcription and documentation hours augment our speaking practice and have been invaluable in raising our proficiency in listening and writing. After hundreds of hours, our proficiency and our confidence has grown. This makes us better speakers and more confident in approaching new Elders.

Our students are beginner and intermediate and can assist in documentation and learn by doing. Before learners begin to transcribe, proficiency must be raised to at least high-beginner, in order to recognize the sounds and basic vocabulary. This is done by following 200 hours in beginner-level Salish School of Spokane curriculum, sequenced lessons focusing on speaking, listening, reading, and writing. Learners are then provided with technology to record Elders, and templates for archiving their work. The transcription work begins with an intermediate learning strategy. We are lucky to have intermediate transcription material readily available. One of our Elders, Kilawna Andrew McGinnis, has self-recorded and self-transcribed his stories. Because he recorded himself

[1] *limləmt* to linguist Dr. John Lyon who transcribed some stories.

reading his own stories aloud, the sentence structure and his reading is very clear. We use these as initial practice in listening and writing, listening carefully to his recordings and re-transcribing the stories, cross-checking spellings and finding many errors. After several hours of this intermediate-level transcription practice, students begin the work of transcribing original Elder recordings, returning often to glossaries and Elders for clarification and assistance.

3 Nsyilxcn stories

This paper shares six stories from six Elders from five different Syilx communities. The Elders are, in the order presented, Cal̓úpaʔ Adam Gregoire, Kiʔláwnaʔ Andrew McGinnis, K̓ninmtm taʔ nqʷic̓tn Grouse Barnes, Q'iyusálxqn Herman Edward, Qʷəl̓mnalqs Theresa Ann Terbasket, and Qʷayxnmítkʷ Jane Stelkia. The stories are from the modern historical period. Each story has vocabulary and notes. These stories are a selection of the hundreds of stories we have collected over the past two years. The first five stories are from the first book (Johnson et al. 2015) and the last is from the upcoming book. Most stories have incomplete transcriptions, representing an opportunity for learners and linguists to contribute.

4 C̓alúpaʔ iʔ lʔiẃs kic k̓ansq̓ʷút

Narrated by C̓alúpaʔ Adam Gregoire
June 9, 2014, N̓kmaplqs, Vernon BC
Transcribed by Sʔímlaʔxʷ Michele Johnson
3 min. 36 sec.

na təxʷ iʔ x̌minksəlx kn ksm̓ym̓áyʔax. ki. nixʷ iksm̓ayxítməlx. q̓sápiʔ, axáʔ łə xʷuyəlx k̓ansq̓ʷút inlʔíẃ. uł *John Terbasket* aʔ nmiʔcín. uł *Louise Mandel* iʔ **m̓málx̌aʔ**. uł nixʷ knaqs kn stils kmusməsəlx, iʔ xʷuyəlx k̓ansq̓ʷút. uł lut t̓a cmistín k̓ʷnxʷúlaʔxʷ iʔ kicsəlx. ʔacmistín k̓l *France* yʕapəlx. mat t̓akín kiʔ yaʕpəlx. il̓ snkʷkʷʔac kn stils, scutxəlx. (0:57)

təxʷ səcx̌ilx t̓a c̓kl̓aʔ kn sm̓aymíxaʔx axáʔ isntxʷús uł ist̓əmkʔilt1 kʷu c̓kníya?xəlx.* x̌minks iʔ ks ta nqilxʷcn, miʔ m̓ym̓ayntín axáʔ iʔ cawtsəlx t̓l aʔ ła nyakʷəlx. (1:17)

x̓̓i yaʕpəlx k̓l *France*. way̓ kʷu aʔ cutəlx, oh ksx̓aʔámaʔx tə ks iʔ tə *hotel*, iʔ ksnpulxtntət. way̓, oh, xʷuyəlx. ixíʔ sxʷuysəlx. ixíʔ npəpilxəlx uł xʷuy iʔ k̓l . . . yaʔkín kiʔ aʔ ccútəlx aklá? aʔ ksnpulxtn. təxʷ mat iʔ *lawyer* iʔ xʷuy. uł axáʔ sqilxʷ iʔ **x̌əc̓x̌əcuts**, iʔ c̓ic̓úyəlx. (2:09)

cuntəmləx ixíʔ tə . . . kn stils sqəltmixʷ itlíʔ. cuntməlx, “mat way̓ t̓i lut kʷu t̓a kł . . . axáʔ lut tə” . . . cuntməlx, “lut.”

təxʷ mat stim iʔ sc̓c̓ints? *They didn't want them there*. inlʔíw̓ **liw̓łnca?q̓ilsms**. iʔ *lawyer* cplak. cuntəm, kʷu cus, "lut kn stils alá? kʷu tə x̌mink." inlʔíw̓ axəlmncút kiʔ txʷuyms ixíʔ ałíʔ aʔ cəcqʷl̓qʷilt. kłnmiʔcín kʷaʔ. cunt inpop, "ha snłiptm łə knxitmn iʔ sqʷəsqʷaʔsíyaʔ *today* sqilxʷ c̓kʷuls. knxitms kiʔ *Germany* niʔúmnt, *clean you guys out. you forget that*?"

That sure changed the tune right there. (3:19)

ixíʔ cuntəm oh, cuntəm, "axáʔ iʔ *Germany* kstk̓ʷit̓xl̓xms iʔ təmxʷúlaʔxʷ, xumt kiʔ kʷu cyʕap. kʷaʔ kʷu sqilxʷ." ixíʔ kiʔ k̓ɬʔisəs iʔ scqʷlqʷilts. (3:36)

4.1 Vocabulary

m̓málx̌aʔ	lawyer
ƛ̓i	*ikl̓íʔ*
x̌əc̓x̌əcuts	buddy
liw̓łncaʔq̓ilsms	hurt feelings

4.2 Notes

Adam's father Tommy Gregoire was a well-known politician and travelled to Europe with a translator and a lawyer to represent his people. 2nd pass transcription.
** Adam was referring to his relative Sʔímlaʔxʷ Michele Johnson and his daughter Marnie Gregoire listening.*

5 5 iʔ am̓am̓útqn iʔ xʷəlxʷilts iʔ k̓l sqilxʷ 2

Kiʔláwnaʔ Andrew McGinnis
Penticton BC, Jan. 14, 2015
Transcribed by Sʔímlaʔxʷ Michele Johnson
4 min. 30 sec.

axáʔ iksmay̓ám iʔ ƛ̓əx̌ƛ̓x̌ap iʔ kʷu may̓łtís taʔlíʔ q̓sápiʔ. naqs sx̌əl̓x̌ʕalt kʷu cus, kʷ iksmay̓xítm. ixíʔ tali···ʔ xəc̓xac̓t iʔ ksmaʔmáy̓. iʔ sámaʔ iʔ xʷəlxʷilts iʔ k̓l sqilxʷ. taʔlíʔ xʷʔit. (0:25)

q̓ax̌ntísəlx iʔ xʷił uł k̓ɬalál̓lqʷaʔ. lut t̓ə x̌aq̓səlx. ixíʔ kcx̌áq̓aʔx. yʕat naqs səxʷmúlaʔxʷtn ixíʔ kcx̌áq̓aʔx. uł k̓ɬalál̓lqʷaʔ. iʔ ululím np̓lúlaʔxʷsəlx way̓ k̓ɬalál̓lqʷaʔ iʔ iʔ tkclx̌alq iʔ xʷiłs. ixíʔ lut t̓a cx̌aq̓səlx. ixíʔ iʔ sámaʔ ʕant iʔ xʷəlxʷilstsəlx tałt xʷʔit iʔ kcx̌áq̓aʔx iʔ xʷił iʔ tkclx̌alq uł kł naqs səxʷmúlaʔxʷtn ixíʔ kcx̌áq̓aʔx. uł iʔ kaʕx̌ʷíẇs, nc̓əlúlaʔxʷsəlx iʔ kaʕx̌ʷíẇs uł k̓ɬalál̓lqʷaʔ. lut t̓ə x̌aq̓səlx. ixíʔ kcx̌aq̓aʔx. (1:25)

kn tils ixíʔ sámaʔ x̌aq̓səlx iʔ l̓ sqəlxʷúlaʔxʷ aʔ nc̓əlúlaʔxʷtns kaʔ cx̌aq̓.

lut ixíʔ tə ṯa ckliʔ. ixíʔ ksx̌aq̓aʔx uł ḵ̓ɬalaĺ̓lqʷaʔ. naqs nc̓əlúlaʔxʷtn, ixíʔ sklaẇ. uł iʔ spïx̌m. aʔ cp̓ix̌m, ixíʔ kɬq̓ymín iʔ sáma ʔ miʔ cp̓ix̌m. lut ṯa cx̌aq̓səlx ixíʔ. iklíʔ kʷu kstɬtaɬt iʔ tə sklaẇ iʔ ḵ̓l q̓ymín iʔ l̓ sp̓ix̌m. yʕat iʔ sqilxʷ kstɬtaɬtəlx. (2:08)

uł iʔ sḵəkʕakaʔ, waẏ əxkin iʔ q̓ymín ? iʔ l̓ sp̓ix̌m iklíʔ kʷu kstɬtaɬt tə sklaẇ. iʔ aʔ c̓c̓al ḵtntisəlx. lut ṯə x̌aq̓səlx. waẏ naqs aʔ nx̌ʷqʷcustn ixíʔ cx̌aq̓stsəlx. lut kʷu ṯa cx̌aq̓stm iklíʔ. ixíʔ kcx̌aq̓aʔx. ʕant iʔ xʷəlxʷilts tɬtaɬt ṯi xʷʔit waẏ. uł yʕat iʔ stim̓ kcx̌áqaʔx. (2:55)

yʕat iʔ stim̓ aʔ ckʷists iʔ sáma ʔ atláʔ iʔ ṯl̓ təmxʷúlaʔxʷ kcx̌aq̓aʔx. iʔ yilyilmíxʷm əkɬ yilyilmíxʷm yʕat iʔ ḵ̓l stim̓. caʔkʷ kʷu qʷaʔqʷaʔál iklíʔ uł ixíʔ kiʔ mẏpnúntm axáʔ stim̓ ackʷistsəlx aʔ cx̌aq̓əq̓əlx. lut kʷu tə kscuntm. (3 24)

naxmɬ siẇntm cmaẏ waẏ ṯi kʷu cuntm. axáʔ iʔ ła cq̓aʔq̓ítaʔməlx, axáʔ ckɬqaqxʷəlxəlx. ixíʔ kɬq̓ymin. ixíʔ taʔlíʔ xʷʔit sklaẇ iklíʔ kʷu kstɬtaɬt nixʷ. uł iʔ siwɬkʷ, ixíʔ nixʷ taʔlíʔ xʷʔit sklaẇ ʕant. iʔ knaqs əcx̌aq̓s iʔ siwɬkʷ ła cnpisusəm. km iʔ l̓ tawn, ṯi ła cx̌aq̓ ɬə ks siẇsisəlx. kʷul̓m ła cnc̓iwməlx yʕat iʔ stim, ixíʔ cx̌aq̓stsəlx. iklíʔ kʷu kstɬtaɬt ʕac̓nt. lut kʷu tə kscuntəm iʔ sáma ʔ axáʔ iʔ stɬtaɬtmp. waẏ kscuntm, “axáʔ kʷu ckinx? axáʔ iʔ stɬtaɬtət. pənkin miʔ x̌aq̓ntxʷ?”

xíʔ. (4:30)

5.1 Vocabulary

xʷəlxʷilts	owe
q̓ax̌	cut a line
kɬalaĺ̓lqʷaʔ	from coast to coast
kcx̌áq̓aʔx	what is owed
ululím	steel
np̓lúlaʔxʷ	laid on ground
tkclx̌alq	train
kaʕx̌ʷíẇs	powerline
nc̓əlúlaʔxʷ	stood it on the ground (the power poles)
nx̌ʷqʷcustn	stump (pay per stump)

5.2 Notes

Harry Robinson told Andrew this story when Andrew was very young. The government paid for roads and powerlines on the reserve but not the whole territory. This is still owed. Third pass edit completed with Andrew.

6 ṯsṯast p̓úḵ̓ʷlaʔ ḵ̓l stqatqʷlníẇt

Ḵninmtm taʔ nqʷic̓tn Grouse Barnes
Feb. 3, 2015, Westbank BC
Recorded by Sṯaʔqʷálqs Hailey Causton
7 min. 27 sec.

6.1 Vocabulary

stqatqʷɬníẇt	Westbank
siyʕáylx	hoot and holler
nxiʔm	join in
səṗmin	baseball bat
l̓wakín	wagon
ƛ̓x̌ƛ̓axčnwilx	get louder

6.2 Notes

There used to be a First Nations hardball league. The vocabulary list is complete but the transcription is incomplete at this point. We present this untranscribed story and others as examples of our call for collaboration from transcribers from universities and from Syilx learners. We will keep recording Elders as fast as possible and call for assistance with transcribing.

7 iʔ skʷkʷusnt

Q̓iyusálxqn Herman Edward
Oct. 3, 2014, Ntamɬqn snm̓aʔm̓ayaʔtn, Cawston BC
Transcribed by Sʔímlaʔxʷ Michele Johnson
3 min. 23 sec.

ixíʔ q̓sápiʔ kʷu may̓ɬtís isḵ̓ʷúy. kʷu cus ixíʔ iʔ x̌yáɬnx̌ʷ ixíʔ sqəltmixʷ.
uɬ iʔ skʷists st̓ikʷltk. ixíʔ x̌yáɬnx̌ʷ.

7.1 Vocabulary:

st̓ikʷltk	popping, crackling sound (from the sun, or fire)
spʕaxʷltánk	light coming from her belly (life)
snpaxʷɬxʷíɬ	lit up road to heaven (Milky Way)
kiʔlawnásq̓t	grizzly in the sky (Big Dipper)
scəcʔasnt	*sc̓as* cluster (this is a specific cluster of stars)
sḵuy̓upqn	first evening star (now you see it, now you don't)
k̓ʷaḵ̓ʷisaʔqn	morning star

7.2 Notes

Herman tells some names of the stars in Nsyilxcn. Most have captíkʷɬ *stories that go with them, that he will tell at another time. Herman tells that the word stkmasq̓t* sky *means: creator's home, spirit world, near the top of the sky. Transcription incomplete, as above.*

8 inqáqnaʔ naʔɬ isx̌áx̌paʔ iʔ snqʷanɬqtns k̓l nk̓ʷr̓úlaʔxʷ

Qʷəl̓mnalqs Theresa Ann Terbasket
Feb. 10, 2015, Cawston BC
Transcribed by Sʔímlaʔxʷ Michele Johnson
16 min. 13 sec.

atláʔ q̓sápiʔ uɬ inqaqnaʔ uɬ isx̌ax̌paʔ t̓l nk̓ʷr̓úlaʔxʷ kiʔ kʷliwtəlx.

8.1 Vocabulary:

nk̓ʷr̓úlaʔxʷ	place name: Yellow Earth
snc̓lc̓lip iʔ st̓ikəls	fruit trees*
słəxʷəxʷminkntm	cut a hole into (the watermelon)
cwiltn	dry fruit
sməlúlaʔxʷ	place name: Clay Banks (or *sml̓álaʔxʷ*)
qʷayqʷayt	well to do (2:50)
xʷic̓laʔxʷm	cut hay
sniklaxʷtn	mower (or plow) (4:38)
nqixʷnm iʔ stəmʕalt	round up the cows (7:18)
nməlqʷapəlks	Clydesdale stallion (Jimmy was his name)
kn nkecnulxtn	I've caught up to my dad̓'s age (He was 82) (14:50)
saha	have a cold (14:10)

8.2 Notes

Theresa Ann's childhood on the ranch. At 15 min she describes two poles crossed with a cable, used to drag hay to the top of a haystack with a horse. They used a derrick horse to pull the hay. July was haying season for 3 weeks.
**Theresa Ann wished to add that the fruit trees would include* iʔ ləx̌ʷlax̌ʷ*,* p̓ic̓s*,* apəls*,* tkʷukʷiẇs *pears,* tkʷrkʷris *apricots.* sx̌ʷiltns *is dried fruit. Transcription incomplete, as above.*

9 iskʷíst qʷayxnmítkʷ

Narrated by Qʷayxnmítkʷ Jane Stelkia
March 11, 2016, Oliver BC
Transcribed by Sʔímlaʔxʷ Michele Johnson
2 min. 20 sec.

incáʔ kn łə qʷayxnmítkʷ. k̓a nk̓mip kiʔ kn k̓ʷul̓l. ixíʔ way̓ um, təmɬʔupnkst, way̓ ʕapnáʔ kn təmɬʔupnkst əɬ cilkst, way̓ kik̓əm miʔ, way̓ ksx̌antín iʔ təmɬʔupnkst uɬ cilkst. ʕapnáʔ. (0:30)

intúm iʔ skʷísts sʕapxnálqs. uł k̓l snpintktn kiʔ k̓ʷuḷ̓l. uł iʔ k̓laʔ, naʔɬ inmístəm cmriməlx. uł aklaʔ kiʔ cxʷuyəlx alaʔ kiʔ mut. uł talíʔ … ixíʔ uł iʔ kn k̓ʷuḷ̓l uł kn kł ahh … ilíʔ uł kʷu łəccəcəmálaʔ (?) uł talíʔ kʷu c̓łic̓stm iʔ λ̓x̌əx̌λ̓x̌aptət. talíʔ kʷu c̓łic̓stm kʷu ła cmaʔmáʔt, mat stim xkiʔstm, məł lut t̓ə x̌minks iʔ … kʷu łic̓ntm kʷu ła cx̌ikək. lut nixʷ ilíʔ ksx̌ilm itíʔ, ksx̌ilm itíʔp. məł ahh, k̓ʷu x̌əsmncut, məł ixíʔ uł. ixíʔ q̓sápiʔ iʔ skʷliwtət, lut t̓ə c̓xił t̓ ʕapnáʔ. talíʔ kʷu ck̓ʷuḷ̓m. məł ah, kʷu ła cpulx, məł ah, kʷu cuntm way̓ t̓i plaqlílx (? 1:26). təm x̌lap t̓i łkʷəkʷʕast məł ixíʔ putlilxm (?), uł wərislpm uł kʷu sʕamtíp iʔ snkłc̓aʔsqax̌a, məł ah, ksk̓ʷúlaʔx iʔ snkłc̓aʔsqax̌aʔ. (2:20)

9.1 Notes

This was the first recording with Jane Stelkia. Vocabulary incomplete. First pass transcription.

10 A call for collaboration

We are working as quickly as possible to record and archive our Elders. We are heartened by recent Nsyilxcn linguistic publications with transcriptions free of literary analysis (or at least presented separately or hidden in the back of the book), and short films for learners, free of English translations (Lyon 2013; Lyon & Lindley 2013). There are numerous gaps in Nsyilxcn documentation and learning materials and I call for collaboration from learners and linguists. For example, Nsyilxcn teachers such as ourselves urgently need a pedagogical grammar, rather than a descriptive grammar. This would build on the existing descriptive grammars written by linguists (Mattina 1973, as one of several examples) but designed in a pedagogical format useable to learners and include recognizable examples from the Salish School of Spokane curriculum. Many of our transcriptions and vocabulary lists are incomplete. We encourage language learners, Nsyilxcn teachers, graduate students, supervisors, linguistics students and linguists to contact us (michelekjohnson@gmail.com), to use the recordings as transcription practice, and complete our vocabulary lists and transcriptions to be included in future editions of our community publications. As well, any and all materials in Nsyilxcn are welcomed as collaborative graduate student or linguistic student projects, such as films, board games, songs, advanced language learning material, specialized topics in Nsyilxcn, translations of Syilx policy and self-government documents, radio podcasts, children's stories, youth novels and adult literature.

ixíʔ.

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Appendix. Recordings table for upcoming Elders book

Table 1. List of recordings on CD and transcriptions

CD track	Elder	Title of story/recording	Time min.	min: sec	Rec. by*
		Kiʔláwnaʔ Andrew McGinnis			
1	AM	aʔ nk̓ʕamn k̓a nqilxʷcn 1 Sept 24 2015	0.4	0:25	mkj
2	AM	aʔ nk̓ʕamn k̓a nqilxʷcn 2 Oct 22 2015	0.6	0:39	mkj
3	AM	iʔ sic Kiʔláwnaʔ Sept 24 2015	2.0	2:07	mkj
4	AM	q̓sápiʔ iʔ sqilxʷ skʷliẁs Sept 24 2015	12.8	12:48	mkj
5	AM	iʔ sk̓ʕam aʔ cʔxit Oct 22 2015	0.5	0:32	mkj
5	AM	iʔ sck̓ʕam iʔ l̓ sp̓ix̌m Oct 22 2015	0.5	0:34	mkj
5	AM	iʔ sq̓ʷlwałq iʔ sck̓ʕam Oct 22 2015	1.5	1:25	mkj
5	AM	iʔ sk̓ʕam kʷ ła nλ̓lal Oct 22 2015	2.0	2:03	mkj
5	AM	iʔ scq̓ʷliẁm iʔ sck̓ʕams Oct 22 2015	2.6	2:37	mkj
5	AM	iʔ sck̓ʕam iʔ scxəlwis 1 Oct 22 2015	1.7	1:07	mkj
5	AM	iʔ sck̓ʕam iʔ scxəlwis 2 Oct 22 2015	0.5	0:33	mkj
12	AM	iʔ sck̓ʕam il̓ st̓ʕapám Oct 22 2015	0.4	0:24	mkj
13	AM	kʷu k̓łk̓łliẁs iʔ sck̓ʕam Oct 22 2015	0.7	0:40	mkj
14	AM	ṅyʕapínk iʔ sqəltmixʷ Oct 22 2015	1.0	1:02	mkj
15	AM	iʔ təẗẁit ła cwisəlx k̓l wist Nov 19 2015	3.5	3:30	mkj
16	AM	stəq̓ʷtəq̓ʷniʔúlaʔxʷ aksləkʷilxstm miʔ x̌ast Nov 19 2015	5.5	5:33	mkj
17	AM	iʔ sqəlxʷskʷistsəlx Dec 10 2015	6.5	6:31	mkj
18	AM	iʔ skʷəstúlaʔxʷ 1 Dec 17 2015	3.2	3:12	mkj
19	AM	iʔ skʷəstulaʔxʷ 2 tkasʔasíl iʔ λ̓aʔλ̓aʔkʷílx k̓l k̓łslxʷʔink Dec 17 2015	2.0	2:06	mkj
20	AM	iʔ skʷəstulaʔxʷ 3 kyacx̌ó iʔ smaʔmáẏ Dec 17 2015	1.0	1:09	mkj
21	AM	iʔ skʷəstulaʔxʷ 4 iʔ sqəltmixʷ k̓l cupáq Dec 17 2015	5.2	5:11	mkj
22	AM	iʔ skʷəstulaʔxʷ 5 kʷkʷlíʔwat iʔ sm̓aʔm̓áy Dec 17 2015	2.0	2:09	mkj

CD track	Elder	Title of story/recording	Time min.	min: sec	Rec. by*
23	AM	tkasʔasíl iʔ ƛ̓aʔƛ̓aʔkʷílx ḵl ḳłslxʷʔink Dec 17 2015	2.2	2:16	mkj
24	AM	kyacx̌ó iʔ smaʔmáẏ Dec 17 2015	1.1	1:11	mkj
25	AM	iʔ sqəltmixʷ ḵl cupáq Dec 17 2015	5.6	5:38	mkj
26	AM	kʷkʷlíʔwat iʔ sm̓aʔm̓áy Dec 17 2015	2.1	2:12	mkj
		TOTAL AM minutes	67.1		
		Qʷayxnmítkʷ Jane Stelkia			
27	JS	iskʷíst qʷayxnmítkʷ Mar 11 2016	0.5	0:30	mkj
28	JS	intúm iʔskʷísts sʕapxnálqs Mar 11 2016	2.0	2:04	mkj
		TOTAL JS minutes	2.5		
		Ułxaníc̓a Larry Kenoras			
29	LK	scxʔit iʔ sʔulpns Dec 8 2015	1.0	1:00	hac
30	LK	captikʷɬ nasʔílmilt nał smiʔnap Dec 16 2015	17.8	17:47	hac
31	LK	uxtílat Jan 11 2016	23.5	23:35	hac
32	LK	wuxəna Jan 11 2016	0.1	0:05	hac
33	LK	yamxʷa Jan 11 2016	1.2	1:16	hac
34	LK	ʕanłp uł yamíxa Jan 12 2016	1.3	1:19	hac
		Total LK minutes	44.9		
		Ḱninmtm taʔ nqʷic̓tn Grouse Barnes			
35	GB	cx̌ʷaqʷ tə‿słiqʷ st̓xitkʷ Nov 5 2015	3.0	2:59	hac
36	GB	snkłcaʔsq̓aẋa i‿npuyx̌ns Nov 5 2015	0.6	4:35	hac
		Total GB minutes rec. by St̓aqʷálqs	3.0		
		Andrew M. & Grouse Barnes			
37	A&G	kwilstn Dec 14 2015	6.8	6:50	hac
38	AM	ncuncnmist Dec 14 2015	3.3	3:18	hac
39	AM	i‿sqeys Dec 14 2015	7.0	6:59	hac
		TOTAL AM & GB minutes	17.1		
		Ḱninmtm taʔ nqʷic̓tn Grouse Barnes			
40	GB	March 21 2016	9.0	9:00	fw
41	GB	March 22 2016	26.5	2:34	fw
42	GB	March 23 2016	12.1	12:11	fw
43	GB	March 25 2016	13.8	13:46	fw

CD track	Elder	Title of story/recording	Time min.	min: sec	Rec. by*
44	GB	March 31 2016	10.3	10:18	fw
45	GB	April 1 2016	13.0	13:04	fw
46	GB	April 2 2016	11.9	11:55	fw
47	GB	April 5 2016	17.4	17:24	fw
48	GB	April 12 2016	13.9	13:50	fw
		Total GB Minutes recorded by Xaʔtma	127.9		
		TOTAL Elders Recordings in minutes	134.6		

*Note: Elders were recorded by mkj, Sʔímlaʔxʷ Michele Johnson; hac Staʔqʷálqs Hailey Causton; and fw Xaʔtma Sqilxʷ Flynn Wetton. *limləmt* to our volunteer linguist in training, Bekah Marcellus for updating the table.

The truncated reduplication in Tillamook and Shuswap: weakening by synergy of dissimilation and cluster simplification*

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Abstract: Origins of reduplication in Tillamook and Shuswap are investigated. In Tillamook augmentative reduplication, the reduplicated C_2 appears on the 'wrong side', in the prefixal rather than the suffixal position, while in Shuswap truncated reduplication, the reduplicated C_1 drops after the nominalizer *s*-. It is argued that these reduplications arise by a special type of consonant cluster reduction in which dissimilation and cluster simplification work together to effect an extraordinary allomorphic reduction. Similar consonant cluster reductions in IndoEuropean languages are adduced as independent evidences supporting the analysis.

Keywords: Wrong side reduplication, synergy of dissimilation and cluster simplification, Salish historical comparative analysis, Tillamook, Shuswap, Latin, Greek, Sanskrit.

1 Introduction

Reduplication in Salish presents many challenging problems due to its diversity of types and abundance and ubiquity of tokens, providing a fertile ground for testing theories of reduplication. In this paper we consider two of them that have not been given sufficient study up to now: the augmentative reduplication in Tillamook and the so-called truncated reduplication in Shuswap. In forming the augmentative, Tillamook sometimes reduplicates C_1VC_2 of the root but sometimes only C_2, while in Shuswap nominalized forms with the prefix *s*-, the C_1- in the reduplicant drops after the prefix *s*-, optionally with some words but obligatorily with others.

The two reduplicants in Tillamook that mark the augmentative are clearly in complementary distribution: the C_1VC_2- occurs when the CVC root maintains the vowel between C_1 and C_2 but the reduced form C_2- occurs when it loses its unstressed interconsonantal vowel. This suggests that they are allomorphs of the same CVC reduplication. However, no explanation has been offered of how the truncated reduplicant C_2- emerges from the full form after the vowel loss.

*We would like to thank the editors for helpful comments and corrections. All errors remain our own.
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University of British Columbia Working Papers in Linguistics 42,
Marianne Huijsmans, Thomas J. Heins, Oksana Tkachman, and Natalie Weber, 2016.

Normally allomorphs, even if they are of reduplicative origin, should be explainable straightforwardly, by referring to phonological rules and/or constraints. But explaining the reduction in Tillamook of C_1VC_2- to C_2- phonologically seems so daunting that we are apt to see the reduced form as a product of a separate process, a partial reduplication by which C_2 of CVC root is reduplicated and put on the 'wrong side' (Nelson 2005:13). The inconstant loss of the reduplicated C_1 in Shuswap, on the other hand, gives the impression that it is a minor rule that occurs sporadically and limitedly in the language alone. This paper aims to show that such views are clearly ill-founded: both reductions are coherently explained once the data are sorted out and analyzed under dissimilation and cluster simplification and their synergistic weakening. We first consider the wrong side reduplication in Tillamook (Section 2), analyzing it under synergy of dissimilation and cluster simplification (Section 2.1), and then present an analysis of the truncated reduplication in Shuswap under the same purview (Section 3). This is then followed by remarks on apparent counterexamples (Section 4) and a brief conclusion (Section 5).

2 The wrong side reduplication in Tillamook augmentative

Of the four types of reduplicative affixes in Tillamook that Egesdal and Thompson (1998:4) distinguish,[1] the augmentative is interesting because in addition to the usual C_1VC_2- reduplication, in which a contiguous portion of the base is copied and put in front of the root as in (1), there is also C_2- reduplication in which the reduplicant appears on the wrong side of the base: a copy of C_2 is attached, not in the suffixal position as expected, but in the same prefixal position, as in (2). Consider:[2]

(1)	Root	Gloss	Reduplicated	Gloss
	yAl	'to twist'	du wu-ts-**yil**yAl-A′qAn	'he twists them'
	gElEx	'to speak'	ts-**gEl**gAlUx-A′n	'they talked'

[1] These are: augmentative (C_1VC_2- or C_2-), continuative (C_1V- or C_1i-), diminutive (C_1V(ʔ)- or C_1u-), and out-of-control (C_1V- or C_1i-).

[2] Examples are from Edel (1939: 15), whose phonetic symbols have been kept as they do not affect the facts of reduplication in any way. Throughout the paper, reduplicants are in boldface.

(2)	Root	Gloss	Reduplicated	Gloss
	tq	‘to break’	dAc-**q**tE′q-en	‘they tried to break it’
	tł	‘to tell’	da s-**ł**tU′ł-En	‘they went and told him’
	dak’	‘to lie’	nic-**k**dUk’ ns-adzAgil-agă′s	‘they put her in their canoe’
	tsq-il	‘to climb’	**q**dzU′qil	‘they climb’
	gał	‘eye’	a ns-**ł**gał	‘my eyes’
	nica	‘to be on the side’	**c**nica-wi′sti	‘I lie on my side’
	łaq-il	‘to sit’	nc-**q**łA′q-il	‘he was sitting in it’

How does this quirky partial reduplication of C_2- arise? For an explanation we consider the augmentative reduplication in Tillamook in light of the examples of CVC reduplication in (1) as well as in Salish languages in general (Van Eijk 1998). The first (and foremost) thing we should note with regard to the above examples is that the reduplication that occurs in (2) may be of the same type as in (1), even though Edel (1939:15) considers them to be separate. Note that Egesdal and Thompson (1998) include them both under the augmentative type hinting that they are of the same origin. What this means procedurally is that C_1VC_2 is also copied for the examples in (2), but unlike those in (1), the first consonant and vowel of the base (i.e. C_1V of the reduplicant) disappear by some processes that have not been brought to light up to now.

Continuing with this line of analysis, we note that in Salish CVC reduplication, the unstressed vowel is often lost, either in the reduplicant or in the base, sometimes in both, leaving only the consonant sequences. This suggests that a special type of consonant cluster reduction has occurred for the C_2- reduplication examples in (2), by which two identical consonants intervened by another consonant undergo cluster simplification by dropping the first consonant: $C_1C_2C_1 \rightarrow ØC_2C_1$. Consider:

(3)	Rule	Example	
	*tqt > qt	*dAc-**tqt**E’q-en	> dAc-**qt**E’q-en
	*tłt > łt	* da s-**tłt**U’ł-En	> da s-**łt**U’t-En
	*dkd >kd	* nic-**dkd**Uk’	> nic-**kd**Uk’
	*tsqts > qts	* **tsqts**U’qil	> **qdz**U’qil
	*głg > łg	* a ns-**głg**at	> a ns-**łg**at
	*ncn > cn	* **ncn**ica-wi’sti	> **cn**ica-wi’sti
	*łqł > qł	* nc-**łqł**A’q-il	> nc-**qł**A’q-il

Although it has never been explicitly mentioned before for Salish languages, this type of cluster reduction is quite common in IndoEuropean languages, as the following data in Greek (4) testify (Buck 1933:153; Kim 1991:85):

(4) Greek
laskō < **lak-sk-ō* 'I speak' (cf. aor. *elakon*)
didaskō < **di-dak-sk-ō* 'I teach' (cf. perf. *didakhe*, Lt. *discō* <**di-dc-sc-ō*)
blasphemos < **blaps-phamos* 'blasphemous' (cf. *blabos* 'hurtful')

The same process also occurs in Latin, e.g. Lt. *asportō* < **abs-portō* (cf. Lt. *portō* 'carry')[3], even though the condition of identity between the two consonants is relaxed so that it occurs even when they are not exactly the same, as will be discussed below.

2.1 Synergy of dissimilation and cluster simplification

The above examples of cluster reduction show that an essentially same rule is active in both Tillamook and Greek. The problem however is that three (or more) consonant groups generally remain in these languages, as witnessed by, e.g. Ti. *ts-qep-st-és* 'he habitually bandages it' Gk. *arktos* 'bear' where /pst/ and /rkt/ do not reduce. That is, we need to explain why and by what process(es) such cluster reduction occurs, in light of the fact that consonant groups with more than three members generally remain unreduced in Tillamook and Greek.

Regarding this question, we may take some hints from the remarks made by previous scholarship. For example, Thompson and Thompson (1985) notes that the truncated reduplication in Tillamook (and Shuswap, which will be discussed in Section 3) is due to dissimilation:

> Tillamook also has a pattern of truncating reduplicative prefixes, similar to the minor one observed in Shuswap… Edel (1939:15) considers it a separate type of reduplication, but it seems certain it must have developed as a kind of dissimilation under specific conditions. The circumstances under which it happens are at present obscure. (Thompson and Thompson 1985:141–142)

Similarly, McCarthy and Prince is quoted as having said that the reduplicative pattern in Tillamook augmentative 'is so poorly described and inconsistent that a number of plausible alternatives (like cluster simplification) simply cannot be tested'.[4]

It is however not easy to take these intuitive remarks and develop them into an explanation because neither dissimilation nor cluster simplification alone can produce the desired reduction: as mentioned earlier, clusters of three consonants generally remain in Tillamook and Greek, discouraging any attempt to explain the reduction by cluster simplification alone. Dissimilation occurs in both Tillamook and Greek, in the form of extended Grassmann's Law,[5] but you cannot apply the

[3] The language abbreviations used in the paper are: Lt. for Latin, Gk. for Greek, Skt. for Sanskrit, and Ti. for Tillamook.
[4] The quote is from Nelson (2005: 141), but the citation lacks the source.
[5] See Thompson and Thompson (1985:141) for examples of Grassmann's Law type of dissimilation in Tillamook.

same rule directly to the above cases, as dissimilation in these languages occurs between two complex segments, with secondary articulations of aspiration and glottalization.

There is however an alternative way that can accommodate the insights of the previous scholarship while avoiding these difficulties: it is to view the reduction occurring as a result of cooperation between dissimilation and cluster simplification. A precondition on dissimilation is that if any phonological elements are to participate in the process, they have to be similar to each other. This is because nothing can become dissimilar unless they are similar in some respect. A condition on dissimilation of aspirated consonants such as Grassmann's Law is then that the two elements that undergo the process be sufficiently similar. In the truncation of reduplicant in the above Tillamook examples (2), this condition is met by the copying process of reduplication. A condition on cluster simplification, on the other hand, is that there should be enough number of consonants in succession, usually more than three. In the same Tillamook examples, this condition is satisfied by the loss of the unstressed vowel in the reduplicant.

Two important questions arise at this point. First, if Grassmann's Law type of dissimilation cannot be applied directly to the above cases in Tillamook, what kind of dissimilation does occur in the rule $C_1C_2C_1 \rightarrow ØC_2C_1$? Similarly, if consonant groups with three members or more in succession remain in Tillamook, how does it occur in the rule $C_1C_2C_1 \rightarrow ØC_2C_1$? Secondly, even if we concede that dissimilation and cluster simplification do occur to clusters of $C_1C_2C_1$ in Tillamook, the next question then is: why would they work together to simply elide a consonant in the reduplicant?

The answer to the first question is that as individual processes, dissimilation and cluster simplification occur in the cluster $C_1C_2C_1$ only latently, with no superficial consequences. It is only when they work together that any manifestation results, as in the effacement of the first consonant in the cluster $C_1C_2C_1$. It is this cooperation between latent phonological processes that we are trying to fathom.

The answer to the second question, on the other hand, is that the two processes work together, not because they intend to, but because they happen to share the same phonological function of weakening a phonological element. When an element drops by dissimilation, as in Grassmann's Law in Greek and Sanskrit, we can deduce that that element has weakened first, then dropped. Similarly, if a consonant drops by cluster simplification, we can presume that it dropped by undergoing similar weakening. Thus when these processes work together, their cooperation can achieve elision of a consonant in a consonant cluster of the type $C_1C_2C_1$, something they cannot do individually. We claim that this synergistic weakening by dissimilation and cluster simplification has occurred in the Tillamook truncated reduplication (2) as well as in Greek consonant cluster reductions (4). It has also occurred in Shuswap truncated reduplication (12) and in Sanskrit desideratives (14), as will be discussed in Section 3.

The idea that dissimilation weakens a consonant when another similar consonant follows is from Foley (1981:85), where its mechanism is interpreted as in (5):

(5) $C \S K \rightarrow C^- \S K^+$ where $|C - K| \leq \delta$ and $|C - \S| \geq \Delta$

Simply put, (5) says that dissimilation is a process in which two noncontiguous consonants or consonant clusters (represented here as 'C' and 'K') become dissimilar under two conditions: 1) when the difference between them is sufficiently similar ($|C - K| \leq \delta$) and 2) when what comes in between them (represented here as the symbol '§') is sufficiently different ($|C - \S| \geq \Delta$). It also says that dissimilation typically weakens the first of two similar elements, while the second element strengthens in reaction to this weakening. The weakened consonant then drops, as in the application of Grassmann's Law in the reduplicated present - Gk. *tithemi* < **thi-the-mi* 'I do':

(6) thi-the-mi
th$^-$ith$^+$emi dissimilation: $C \S K \rightarrow C^- \S K^+$
tithemi elision: $h^- \rightarrow \emptyset$ but $h^+ \rightarrow$idem

A cluster of three consonants or even more may not reduce in a language, but if there is a pre-weakened consonant in such a group? It is likely that such a consonant will be elided by cluster simplification. For example, even though three consonants in succession generally remain in Greek, as in Gk. *arktos* 'bear', clusters of $C_1C_2C_1$ still reduce in, e.g. Gk. *lasko* < **lak-sk-o* 'speak' because dissimilation has weakened the first of the two similar consonants:

(7) lak-sk-o
lak$^-$sk$^+$o dissimilation: $C \S K \rightarrow C^- \S K^+$
lasko cluster simplification

We claim that the same synergy between dissimilation and cluster simplification has occurred in the Tillamook truncated redupliction in (2). The environment for dissimilation is facilitated by CVC-reduplication, by which two identical consonants are created. The environment for cluster simplification is provided either by loss of the unstressed vowel in the reduplicant, or, if the root has no such vowel to delete, by the root consonants that have become adjacent to the reduplicant to create a long cluster.[6] Consider the following derivations of Tillamook roots *tq* 'to break' and *łaq-il* 'to sit' as occurring respectively in Ti. *dAc-qtE'q-en* 'they tried to break it' and Ti. *nc-qłA'q-il* 'he was sitting in it':

[6] An epenthetic vowel often appears in such cases.

(8)	tq-en	łaq-il	
	tq-tq-en	łaq-łaq-il	reduplication
	——	łq-łaq-il	loss of unstressed vowel in the reduplicant
	t^{-}qt^{+}q-en	ł$^{-}$qł$^{+}$aq-il	dissimilation of identical consonants
	qt^{+}q-en	qł$^{+}$aq-il	cluster simplification
	qtE′q-en	qłA′q-il	MR[7]

As yet another supporting evidence, note that a variation of the above cluster reduction rule occurs in Latin derivatives with the prefix *abs-* 'away', which normally remains before voiceless stops as in Lt. *abstineō* < **abs-teneō* (cf. *teneō* 'hold') and Lt. *abscedō* < **abs-cedō* (cf. *cedō* 'come'). But if the stem begins with a labial consonant, the initial /b/ of the cluster *bsC* drops by a relaxed version of the above rule, as in (9):

(9) Lt. *asportō* <**abs-portō* (cf. *portō* 'carry')
Lt. *āvertō* <**abs-vertō* (cf. *vertō* 'turn')
Lt. *āmittō* <**abs-mittō* (cf. *mittō* 'send')

The interconsonantal /s/ disappears if the stem initial consonant is a voiced labial (Lt. *āvertō* and Lt. *āmittō*), because /s/ first becomes voiced by assimilation with the following voiced consonant and then drops in the coda position, compensatorily lengthening the preceding vowel (cf. the vowel lengthening in Lt. *nidus* < **ni-sd-os* 'nest'):

(10)	abs-wertō	
	ab^{-}sw^{+}ertō	dissimilation
	ab^{-}zw^{+}ertō	assimilation
	azwertō	cluster simplification
	āwertō	elision of /z/ and compensatory lengthening

We note that the dissimilation rule here is essentially the same, except that the condition of extreme similarity (i.e. identity) required of Tillamook and Greek rule has been relaxed in Latin so that the same consonant cluster reduction may occur even when the two consonants are not completely identical. This variation on the condition of the rule is aptly captured by the first condition on dissimilation, $|C - K| \leq \delta$:[8]

(11) $C_1C_2C_3 \rightarrow \emptyset C_2C_3$ where $| C_1 - C_3| \leq \delta$
$\delta = 0$ for consonant cluster reduction in Tillamook and Greek
$\delta = 1$ for Latin cluster reduction for derivatives with the prefix *abs-*

[7] Miscellaneous rules. These refer to the rules that have no direct bearing on the points made in the derivation, such as, for example, vowel epenthesis and stress placement in this case.

[8] The second condition, the condition of sufficient difference ($|C - §| \geq \Delta$), does not concern us here directly; but it plays an important role in Section 4 below when we explain why some examples of CVC reduplication fail to undergo truncation in Shuswap.

3 The so-called truncated reduplication in Shuswap

Though immediately not obvious, the same synergistic weakening also occurs in Shuswap truncated reduplication, in which the reduplicated C_1 drops after the nominalizing prefix *s*-. Consider (Kuipers 1974b:28):

(12)	Full form	Gloss	Truncated form	Gloss
	kəkéw	'far'	s-(k)əkéw-s	'its being far'
	pəpén	'to find'	s-(p)əpén-s	'his finding it'
	qəqním	'to hear'	s-əqním-s	'his hearing'

The rule is: s-C_1VC_1X → sØVC_1X.[9] This rule also occurs in some nouns, suspected to begin with the same nominalizer *s*-, as in (13):

(13)	Nouns with truncation	Gloss
	s-(c)əc'úye	'porcupine'
	s-(c)əc'wén'mx	'Okanagan people'
	s-əkéwmx (cf. kəkéw 'far')	'Cree Indians (lit. the faraway people)'
	s-əq^{w}lút (cf. q^{w}əq^{w}lút 'speak')	'word'
	s-əχ^{w}ú^{ʔ} (cf. χ^{w}əχ^{w}ú^{ʔ} 'cough')	'a coughing cold'
	s-əc'eχ (cf. cəc'eχ 'look')	'witness'

The parentheses in (12) and (13) indicate that the rule is optional with some words but obligatory with others.

A question that naturally arises is: why does the reduplicated C_1 drop when the nominalizer *s*- is present (*s-əqním-s* < **s-qəqním-s* 'his hearing') but not when it is absent (*qəqnim* 'to hear')? Having already looked into the consonant cluster reduction induced by dissimilation of identical consonants in Tillamook augmentative reduplication, we suspect that the same synergistic weakening by dissimilation and cluster simplification is at work. This suspicion is confirmed when we encounter Sanskrit desiderative forms such as (14) where similar consonant cluster reduction occurs (Whitney 1889:372; Kim 1991:91):

(14)	Root	Desiderative
	sah 'prevail'	siksati < *si-sgh-sa-ti
	sak 'be able'	siksati < *si-sk-sa-ti
	labh 'take'	lipsati < *li-lbh-sa-ti
	dah 'burn'	dhiksati < *dhi-dhgh-sa-ti
	dabh 'burn'	d(h)ipsati < *dhi-dhbh-sa-ti
	rabh 'grasp'	ripsati < *ri-rbh-sa-ti
	pad 'go'	pitsati < *pi-pt-sati

[9] 'X' refers to whatever follows the C_1 of the root.

In Sanskrit, desideratives are formed by reduplicating C_1 of the root with fixed reduplicant vowel /i/ and appended *-sa* as in Skt. *pipasami* 'I wish to drink' (cf. Skt. *pibami* 'I drink').[10] The rule occurring here is similar to the one in Shuswap truncated reduplication, in that one of two identical consonants separated by the reduplicant vowel drops. The difference is that unlike in Shuswap the C_1 that drops in Sanskrit belongs to the root rather than to the reduplicant: C_1i-$C_1C_2C_3$ → C_1i-ØC_2C_3. In other words the dissimilation here occurs in a reversed direction: instead of weakening the first consonant, it has weakened the second of two similar consonants, the one that occurs in a consonant cluster formed by loss of the root vowel (or, in IndoEuropean linguistic terminology, by the zero grade of the root).[11] That the elision in (14) cannot be a result of simple cluster simplification but only of synergy between dissimilation and cluster simplification is confirmed by the fact that, as in Shuswap, the medial clusters of three consonants generally remain in Sanskrit, as in Skt. *kalpsyati* < **kalp-sya-ti* 'He will shape', which contrasts with Skt. *lipsati* < **li-lbh-sa-ti* 'He desires to take':

(15)	kalp-sya-ti	li-lbh-sa-ti	
	——	l^{+}il^{-}bhsati	dissimilation
	——	libhsati	cluster simplification
	——	libsati	deaspiration (__s)
	——	lipsati	assimilation

There is, however, another important difference between the consonant cluster reduction in Sanskrit (14) and the one occurring in Shuswap (12 and 13): the reduction is occurring to a tri-consonantal cluster in the former but to a bi-consonantal cluster in the latter. As we have mentioned earlier, cluster simplification generally occurs to clusters of more than three consonants. It seems therefore strange at first glance that it should only occur to a bi-consonantal cluster in Shuswap, a language, like other Salishan languages, that condones clusters of many more consonants.

The reason for this rather deviant reduction in Shuswap can be sought by considering the function of word boundary, which often serves as a consonant in application of rules such as cluster simplification. For example, triconsonantal clusters in Korean reduce by dropping the first of three consonants in succession, as in Kor. *talk-to* [takt'o] 'chicken too' but biconsonantal clusters remain, as in Kor. *talk-i* [talgi] 'chicken-NOM' except when they occur in word final position, as in Kor. *talk* [tak] 'chicken'. This is because the word boundary serves the

[10] Skt. *pibami* 'I drink' is also reduplicated, even though the appearance of voicing is irregular. The suffix *ti-* (as appearing in Skt. siksati, etc.) marks third person singular present indicative, and *mi-* the first person singular present indicative. A voiced velar aspirate **gh* often appears as /h/ in weak grades as it does in the root *sah-* 'prevail' (cf. Skt. *siksati* < **si-sagh-ti* 'He wishes to prevail').

[11] Though not prevalent, this reversal in direction of application is not unexpected: assimilation and dissimilation are two processes that often exhibit such reversal.

function of a consonant in cluster simplification, effectively making the biconsonantal cluster a triconsonantal.

Note that there is also a word boundary occurring before the nominalizer *s-* in (12) and (13). As in the Korean cluster reduction, this boundary also serves the function of a consonant, forming in effect a triconsonantal cluster. This is then our final rule for Shuswap reduplicated C_1 truncation: #s-C_1V-C_1X → #s-ØV-C_1X. In the following, some examples that appear to violate this rule are discussed. These concern the optionality of rule and some apparent counter examples.

4 Remarks on apparent counterexamples

Edel (1939:15) includes (16) under her examples of CVC reduplication in Tillamook, where unlike in (1), the reduplicant vowel seems to have dropped, forming a tri-consonantal cluster with the initial consonant of the root; but the cluster thus formed does not seem to undergo reduction:

(16)	Root	Gloss	Reduplicated	Gloss
	łAx	'to be blind'	**łx**łA′xis	'they were blind'

This example is, however, strange. The general pattern concerning the unstressed vowel in CVC reduplications of Salish languages seems to be that if the root is strong, the vowel in the reduplicant is either kept, as in (1), or weakened to a schwa or lost. If the root is inherently weak, on the other hand, the unstressed vowel in the reduplicant is lost in most cases, as in (2) above, even though a post-lexical schwa may be inserted.[12] At present, we are unable to confirm the strong/weak status of the root in (16), but the fact that the truncation has not occurred to this example seems to suggest that it is a strong root that has lost its reduplicant vowel only recently.

There is another example in Tillamook that requires some comments. Consider:

(17)	Root	Gloss	Reduplicated	Gloss
	Ac	'to hold, lift'	**c**a′c-un	'he is holding it'

With the reduplicated post-vocalic consonant of the root in the prefixal position, the reduplication in (17) still appears to occur on the 'wrong' side, breaking the contiguity condition. This is why it is often included in the same group of examples as (2) (Nelson 2005:140). However, this cannot be a counterexample to our rule of consonant cluster reduction because there is no consonant cluster to reduce: the form arises by simple loss of the unstressed reduplicant vowel. Like the examples in (2), the onsetless root *Ac* has been fully reduplicated, but the unstressed vowel has dropped in the reduplicant, making the form look as if only the second consonant is reduplicated and put in the prefixal position. The only

[12] This is a gross statement of the complex relationship between stress and reduplicant vowel loss in Salish. For more details on the stress and reduplication pattern in Salish, see Van Eijk (1998) and Carlson (1989).

revision necessary under our analysis is then that the template for augmentative reduplication in Tillamook is (C)VC- rather than CVC-.

For Shuswap truncated reduplication, the rule's inconstant application, being optional with some words but obligatory with others, may be seen as a barrier to positing the consonant cluster reduction rule itself. This apprehension is reinforced by the fact that the domain of the rule seems to be limited to words with the nominalizer *s*-. But as we have seen in Sanskrit desiderative forms, the existence of such cluster reduction seems to be in no doubt. How should we then construe the rule's optionality and scope limitation in relation to the regularity of the rule itself?

We think that the optionality indicates the nascent nature of the rule. As we well know from the study of lexical diffusion (Wang 1969), an incipient rule usually starts with an optional application, but as the rule further diffuses in the lexicon it develops into a fully obligatory rule. An important tenet of Wang's theory of lexical diffusion is that a phonological rule takes time to be fully implemented: some words, being leaders, may undergo a rule early, while others, being laggers, may only catch up with it later. Naturally, a rule is more likely to be obligatory with words that lead, but optional with those that lag behind. We conjecture that this is the reason why the truncation rule is optional in some Shuswap nominalized forms but obligatory in others: the truncation rule started its development but stopped in midcourse, with some words still at the optional stage.

The time factor in rule implementation, as implied by the theory of lexical diffusion, also explains the problem exemplified by the limited scope of the rule. Examples such as (18) are problematic for our analysis because in these forms the reduplicated C_1 also forms a consonant cluster with the preceding consonantal prefix:

(18) a. *s-**cə**c'éχ* 'to look hither' (cf. ***cə**c'éχ* 'to look'; *s-əc'éχ* 'witness'; *s-* 'hither')
b. *χ-**q^{w}ə**q^{w}út'eʔxntn* 'race-horse' (cf. *s-**ə**q^{w}út'eʔxntn* 'id.'; *χ-* 'in, all over')
c. *pəλ-x-**cə**cíntn* 'having its song (sung inside) (cf. *s-**ə**cíntn* 'song'; *pəλ-* 'having, possessing, owner of; *x-* 'in, all over' (cf. *χ-* above))
d. *γ-n-**ci**ctx^w* 'my house' (*γ-* ART; *n-* 'my'; ***ci**ctx^w* 'a little house')

What distinguishes the nominalizing prefix from these ones? It is that the nominalizer *s-* is a pan-Salish grammatical marker (Mithun 1999:495) that developed relatively early in Salish, much earlier than the prefixes in (18), as witnessed by the fact that it is often petrified in nouns such as (13). In a synthetic/agglutinative language like Shuswap, this early grammaticalization means that the prefix forms a stronger bondage with the following root, which can in turn mean early incorporation into the domain of a phonological rule. What lies behind this hypothesis is that the time difference in development of prefixes can translate into different degrees of synthesis, which can affect rule application, as in the case of Shuswap truncation in which incorporation of nominalizer *s-*,

together with the word boundary serving the function of a consonant, facilitates the triconsonantal environment required for application of cluster simplification.

Another example of early inclusion into rule domain is the stress assignment in reduplicated forms. Unlike suffixes, prefixes are usually outside the domain of the stress rule in Salish languages, presumably because suffixes have been synthesized much earlier than the prefixes, which resulted in tighter bonds with the roots. But reduplicative prefixes are an exception as they too are in the domain of the stress rule. This is because, due to their special relationship with the root, they fall under the domain of stress rule despite being in prefixal position. We conjecture that the truncation in Shuswap fails to occur in (18) because, unlike the pan-Salish nominalizer *s*-, the prefixes in (18) have not been incorporated into the domain of the nascent consonant cluster reduction yet.

Perhaps a bona fide objection to the rule may be raised by the following examples of diminutive and augmentative reduplication, from Kuipers (1974a). Consider:

(19)	Noun	Diminutive	Augmentative
	sqéχe 'dog'	sqé**q**χe 'little dog'	s**qəχ**qéχe 'dogs'
	sqélmx^{w} 'man'	sqé**q**lmx^{w} 'a young boy'	s**qél**qlmx^{w} 'men'

These examples all occur with the nominalizer *s*-, petrified as part of the noun like those in (13).[13] Yet the C_1 that occurs after *s*- fails to drop by the truncation rule. They therefore appear to constitute genuine counterexamples to the synergistic weakening by dissimilation and cluster simplification posited in this paper.

However, there are two crucial differences that distinguish the above reduplications from those in (13). As has been acknowledged by Anderson (1996:14) and Yu (2007:165–17), the diminutive reduplication in Northern Interior Salish languages like Shuswap arose only recently, as a reformation of old CV- reduplication, by reinterpreting the old stressed reduplicated prefix as a 'stress-targeting' infixation, while the augmentative reduplication in (19) repeats CVC, not CV.

Often cited in the literature as an evidence for the recent reformation of diminutive reduplication is (20):

(20) *t'q^{w}é**q**^{w}ws* 'companion, comrade' (cf. *t'q^{w}-éws* 'both, together')

This example, which appears to be yet another counterexample to the truncation rule,[14] shows that the reduplication is targeting the stressed vowel in the suffix. Since suffixes are outside the domain of reduplication in Salish, the infixation of

[13] Cf. *qlmux^{w}* 'Indian, human being', which evinces the nominalizer *s*- in, e.g. *sqelmx^{w}* 'man'.

[14] A more serious one, we may add, because the biconsonantal cluster is formed, not with the nominalizer *s*- but with a consonant in the root. As part of the root, such clusters are expected to be more susceptible to truncation than those with the nominalizer *s*-, except that this is a new type of reduplication, formed as a result of reanalysis of old CV reduplication with initial stress.

the root consonant with the stressed suffixal vowel as the pivot shows that the infixal diminutive reduplication has been newly formed by reanalysis of the old prefixal CV reduplication. The fact that the truncation rule also fails in this example suggests that this reformation must have occurred relatively recently, when the truncation rule is no longer productive in Shuswap. This explains why the form fails to undergo truncation despite meeting all the conditions for the rule.

The nonoccurrence of truncation rule in the augmentative forms (19), on the other hand, is explained by the second condition on dissimilation, the condition of sufficient difference ($|C - \S| \geq \Delta$) stipulated in (5). This condition, for example, applies to liquid dissimilation in derivatives with the Latin suffix *-alis* (cf. Lt. regalis), which appears as *-aris* if the stem contains another /l/, as in Lt. *regularis* < ***regul-alis***, but not if another consonant, /r/, intervenes between the two similar consonants, as in Lt. *floralis* < ***flor-alis***, Lt. *pluralis* < ***plur-alis***, and Lt. *liberalis* < ***liber-alis***. The curious fact is that the rule still applies when /n/ intervenes, as in Lt. *lunaris* < ***lun-alis***, which shows that the liquid /r/ that occurs between the two /l/'s is keeping the process from applying. The analysis predicts that if a dissimilation rule occurs between two consonants in a language, it will occur typically and preferentially when a vowel intervenes between the two similar consonants, and then generalize to include cases in which a consonant intervenes, the preferentiality of application in the latter case being determined by the dissimilarity between the two consonants and the intervening consonant.[15] The failure of truncation in the augmentatives of (19) falls under the same purview: it is due to the fact that unlike the examples in (13) the reduplicated C_2 intervenes between the two C_1's, disallowing the first C_1 after the nominalizer *s-* to be weakened by the dissimilation mechanism, thus preventing it from undergoing further weakening by synergy with cluster simplification.

5 Conclusion

Both Tillamook and Shuswap exhibit synergy of dissimilation and cluster simplification. In Tillamook augmentative formation, where CVC reduplication with subsequent loss of an unstressed vowel in the reduplicant forms a consonant cluster of the type $C_1C_2C_1$, the first consonant of the cluster weakens by the mechanism of dissimilation, then drops by cluster simplification. In Shuswap truncated reduplication, the reduplicated C_1 that occurs after the nominalizer *s-* is similarly weakened by dissimilation, and then drops by cluster simplification, because, even though it is only in a biconsonantal cluster, the preceding word boundary serves as a consonant, virtually putting it in a triconsonantal cluster.

This new analysis not only subsumes the so-called wrong side reduplication of C_2 under the same purview of CVC reduplication in Tillamook but also relates it to Shuswap truncated reduplication, in which reduplicated C_1 in a consonant

[15] The (dis)similarity between the consonants in the Latin example can be calculated on scales such as the so-called sonority hierarchy (Clements 1990:286), or the ρ phonological parameter (Foley 1977:35–39). For the same condition applying in explanation of Grassmann's Law in Greek, see Kim (1991:80–85).

cluster is lost by the same synergistic weakening by dissimilation and cluster simplification. It shows, in addition, that partial reduplications, especially the ones with truncated reduplicants, may arise due to an intricate interaction between reduplication and phonological processes such as dissimilation and cluster simplification, rather than by simple copying of a prosodic constituent. It thus partly confirms the claim often made regarding the origin of partial reduplication, that partial reduplication arises as a reduction of full reduplication (Bybee et al. 1994:166).[16]

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[16] With the caveat that 'conventionalization' may also play a role: partial reduplication may have begun as a reduction of full reduplication but once the process becomes conventionalized, the language no longer requires full reduplication as a prerequisite of partial reduplication. See Bresnan and Aissen (2002:3); Kim (2009:143–144).

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A short note on Lillooet and Tahltan shared lexicon

Hank Nater

Abstract: There are a few conspicuous lexical similarities between unrelated and noncontiguous native languages of British Columbia and Alaska. In this brief report, I focus on one resemblance that connects Lillooet (Salish) uniquely with Tahltan (Athabascan). Prehistory and systematic sound correspondences indicate that the similar words ultimately derive from a source that is neither Salish nor Athabascan, and that the underlying form has diffused throughout a vast area, a section of which may constitute a linguistic substrate zone.

Keywords: Lillooet, Tahltan, Salish–Athabascan contact, diffusion, substratum

1 Introduction

We have known for some time that a small portion of northern Salish (Shuswap, Lillooet, Bella Coola) vocabulary has been adopted from languages spoken by neighboring and transient Athabascan groups (Nater 1994:181–5). But a few Salish words appear to have more remote connections: Bella Coola and Tahltan ‘arrow’, Bella Coola and Eyak ‘pinniped’, Salish and Eyak ‘vomit’ (again, Nater 1994:181–5). Here, I consider in particular Lillooet *kʷúṣaʔ* [kɔ́s̲ɑʔ] ‘urinate (men or animals)’ (Van Eijk 2013:215), which bears a strong phonetic and semantic resemblance to Tahltan *kóŝa* [kʰɔ́ʂɑ, kʰɔ́θɑ] ‘urine odor’ (my field notes). To subject this “unsavory” pair to further examination is justified by the lack of a reconstructable proto-Salish or proto-Athabascan form and the dubiousness of a Lillooet-Tahltan borrowing relation. With these delimitations – as well as regular sound correspondences and known contact and migration patterns (sections 2, 3 and 3.1) – in mind, I argue that the Lillooet word derives from an Athabascan dialect once spoken in or near the Lillooet language area, and that the underlying Athabascan term is itself rooted in Tlingit. I also speculate that the Tlingit word may in turn have been borrowed from a substrate language (sections 3.2 and 4).

2 Morphosyntax, sound correspondences, areal distribution

Lillooet *kʷúṣaʔ* ‘urinate’ is a verb stem (from which can be derived e.g. *kʷúṣaʔ-tən* ‘urinal’), while the similar Tahltan *kóŝa* ‘urine odor’ has nominal properties (e.g. *mec’éde kóŝa dalíˑnį* ‘his blanket (*mec’éde*) exudes a smell of urine’).

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Because of this difference, and the geographic separation of this pair, the Lillooet-Tahltan resemblance might be deemed both flawed and accidental. But on the other hand, sentence constituent order is SOP in Athabascan (vs. Salish PSO), and an Athabascan sentence-opening argument (which is or contains a noun) could, at the time of initial contact between Lillooet and southbound Athabascan groups (elaborated in section 3 below), have been perceived by Lillooet individuals as a predicate, and then borrowed as a verb (for similar Athabascan-to-Salish morphosyntactic conversions, see Nater 1994, entries 1, 2, 6, 12, 15, 20). As well, Tahltan *xo* (*X* = velar/uvular) has consistently replaced proto-Athabascan **Xʷə* (Nater 1989:37-8) and Tlingit *xʷa* (e.g. *k'oƛ* 'pot' ← Tlingit *q'ʷáƛ* (Edwards 2009:179)), while /ŝ/ continues */s/ (Nater 1989:25–6). In view of such systematic shifts and conversions, we should investigate whether **kʷəsa(ʔ)* or **kʷasa(ʔ)* 'urine, urinate' exists anywhere other than in Tahltan and Lillooet. To that end, we will – taking into account ancient Tlingit–Tahltan (Nater 1989:41) and North Wakash–Central Salish+Lillooet (Van Eijk 2014) contact – take a closer look at northern Na-Dene and Wakash–Salish regions. The map shown below is a portion of www.bced.gov.bc.ca/abed/images /map3.jpg (with circling added by myself).

Figure 1a Tahltan and Lillooet (Stl'atl'imc) regions

Again, a proto-Salish or proto-Athabascan form underlying the similar Lillooet and Tahltan words cannot be reconstructed. But west of Tahltan, across Tlingit territory, Eyak was once spoken, and here we encounter *kus* 'urine, act of/need for urinating' and O-*kus*~-*kʷəs* 'S washes O' (originally in urine) (Krauss 1970: 1176). Krauss considers this a loan from Tlingit *kʷas* 'urine (polite, as used for washing)' (not found in Edwards 2009), and a "widely diffused term along Pacific Northwest Coast". Widely diffused indeed: while obviously related forms do not appear to exist in Haida (Lachler 2010) and Tsimshianic (web.unbc.ca/~smalgyax/) (unless the underlined portion of Sm'algyax *siksuu* 'urinate' is inverted **kuus*), North Wakash has √*kʷs* 'to splash, (wash with) urine' (Lincoln & Rath 1980:280). The latter was adopted in Central Salish-Lillooet as **kʷəs* 'to spray' (Kuipers 2002:225): Sechelt *kʷəst* 'to squirt, spit', Lillooet *kʷis* 'to drop, rain'. The map shown below is derived from www.uafanlc.arsc.edu/ data/Online/G961K2010/IPLA_simple_gray.pdf.

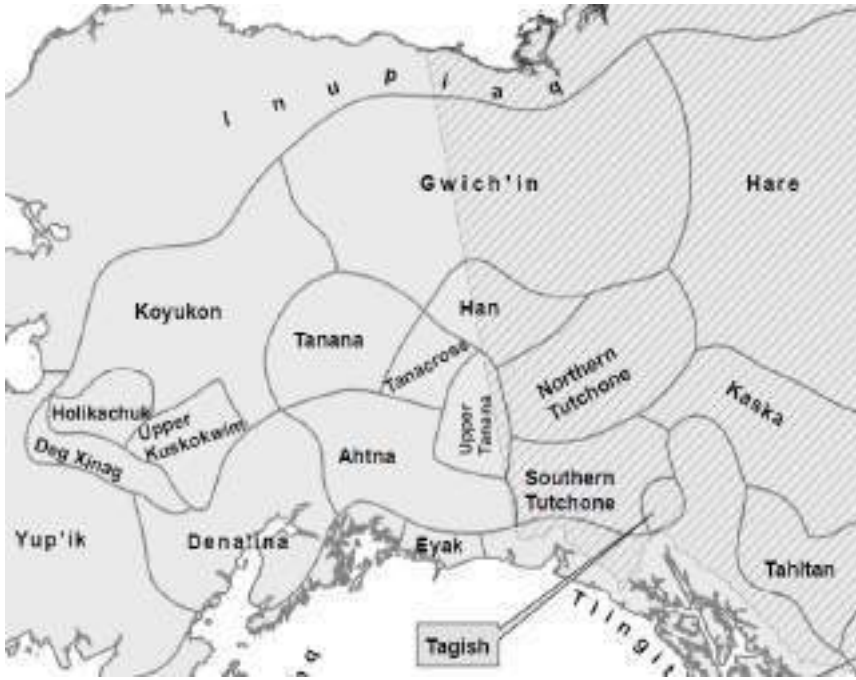

Figure 1b Tahltan, Tlingit, Eyak and northwestern Athabascan regions

Figure 1c (a portion of Pinnow's 1964 map 'Die Sprachen Nordamerikas vor dem Eindringen der Europäer') below subsumes all Amerindian territories shown in figures 1a–b (but with some outdated divisions, boundaries and nomenclature),

as well as more easterly northern Athabascan languages two of which (Sarcee and Chipewyan) are considered in section 3.1 (figure 3).

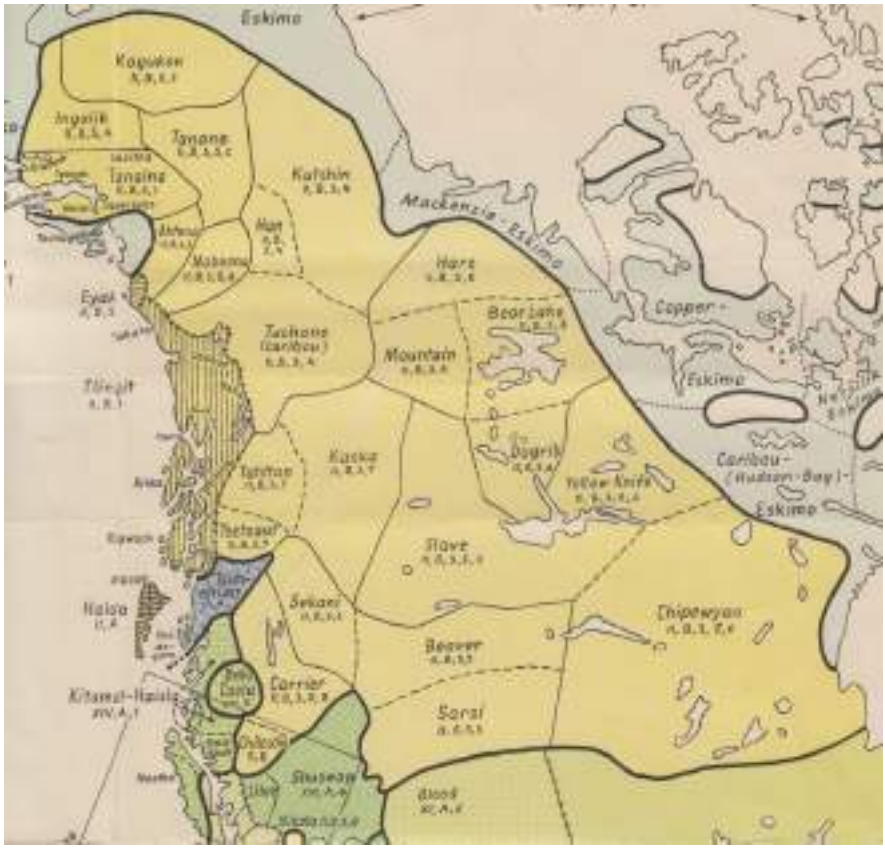

Figure 1c Geographic distribution of northern Athabascan

3 Diffusion routes and phonemic shifts

The data presented in section 2 tell us that diffusion of *kʷas*, **kʷəs* into Tahltan, Lillooet and Central Salish–Lillooet commenced in two discrete regions separated by Haida and Tsimshianic:

Tlingit *kʷas* → Central Cordillera Athabascan **kóŝa(ʔ)* → Tahltan *kóŝa*

↘

Lillooet *kʷúṣaʔ*

North Wakash √*kʷs* → Central Salish-Lillooet **kʷəs*

Figure 2 Diffusion of **kʷəs*…

This scheme implies that Tlingit *kʷas* was – like other Tlingit vocabulary (see Nater 1989:41) – borrowed into Central Cordillera dialects (of which Tahltan, Kaska and Tagish survive) where /kʷa/ shifted to /ko/ (like */qʷə/→/ko/, see terms for 'fire' and 'cloud' on www.firstvoices.com/en/home), */s/ to /ŝ/, and /…a(ʔ)/ (for which see 3.2 below) was added. It is here also assumed that speakers of such dialects participated in southbound migrations, eventually bringing **kóŝa(ʔ)* to the Lillooet language area. The following statement lends support to this conjecture:

> "Rather, it seems that mountain groups followed their own route south, and, as is typical of later Athabascan groups, people dispersed by the White River ash fall may have coalesced at a predetermined location. This volcanic eruption occurred around A.D. 800 in northwestern Canada and is thought by many to be the impetus for Athabascan groups migrating out of the area and beginning their trip south." (Seymour 2012:156–7)

3.1 Northern origins: evidence for a Central Cordillera → Lillooet link

As an example of the abovementioned northern origins, let us consider the place of Southern Carrier (Anahim Lake) within northern Athabascan with regard to a handful of numerals. These numerals deviate from corresponding forms in Central Carrier, and are more closely aligned with equivalents in the geographically remote (see figure 1c) Ahtna and Koyukon languages than with those in more nearby Athabascan tongues (while Central Carrier here rather resembles Chipewyan). Below, Koyukon data have been taken from www.zompist.com/amer.htm#nadene (but I have here replaced *k* with *q*, *ee* with *i*, *oa* with *a*, *e* with *ə*); Ahtna data from Kari 1990 (whose *ts* [ts] I spell as *c*, *c* [c] as *k*, *k* [q] as *q*); Chipewyan data from Li 1944; Central Carrier data from Carrier Dictionary Committee 1974 (here, *lh* is replaced with *ɬ*, *u* with *ə*, *gh* with *ɣ*); Southern Carrier data from my field notes; Sarcee data from Cook 1971 (whose "mid tone" I do not mark, and whose *tɬ* and *tš* I render as resp. *ƛ* and *č*). The southward dispersal of certain numerals ('six', 'ten') within and beyond northern Athabascan is here contemplated as well.

	'one'	'three'	'four'	'six'	'eight'
Koyukon	*k'iɬəq'i*	*taq'i*	*dənk'i*	*niɬq'ə-taq'i*	*niɬq'ə-dənk'i*
Southern Carrier	*ɬə́k'i*	*ták'i*	*díŋk'i*	*ɬk'ə-ták'i*	*ɬk'ə-díŋk'i*
Ahtna	*c'iɬq'ey*	*taaq'i*	*denk'ii*	*gistaani*	*ɬq'e-denk'ii*
Sarcee	*ƛìk'a-zá*	*tá·k'e*	*dííč'e*	*gùstáne*	*ƛàš-dííč'e*
Chipewyan	*ʔiⁿɬáɣɛ*	*taɣɛ*	*diⁿɣiⁿ*	*ʔaⁿɬk'ɛ́-taɣɛ*	*ʔaⁿɬk'ɛ́-diⁿɣiⁿ*
Central Carrier	*ʔiɬo*	*ta*	*dənɣi*	*ɬk'ə-ta*	*ɬk'ə-dənɣi*

Figure 3 Cognate numerals in some northern Athabascan

The Ahtna and Sarcee terms for ‘six’ are matched in other northern Athabascan (Dena’ina and Babine), Pacific Coast (Oregon, California) Athabascan and Apachean (www.zompist.com/amer.htm#nadene and www.firstvoices.com/en/ Wetsuweten/word-categories), and *...*łq’ə*- combined with ‘three’ and ‘four’ is found exclusively in Koyukon, all Carrier and Chipewyan terms for ‘six’ and ‘eight’ (and Ahtna ‘eight’) (Li glosses *ʔaⁿłk’ɛ́*- as ‘each side’).

As concerns numerals excluded above, however, note that, within the given language selection, only Central and Southern Carrier share cognate terms for ‘five’, ‘seven’ and ‘nine’; *√na(n)* ‘two’ is found in Ahtna, all Carrier and Chipewyan; ‘ten’ in all Carrier, Ahtna, Sarcee and Chipewyan continues proto-Athabascan **qʷənė́·z-ya·ŋ* (Krauss & Leer 1981:200). But Tahltan *ĉ’osná·n̨* ‘ten’ (← **č’osná·n̨*, cf. Nater 1989:27-8) and Chilcotin *ʔełč’aźnan* ‘ten’ (www.firstvoices.com/en/Tsilhqotin-Xeni-Gwetin/word-categories) appear to derive from **…k’vsna·n* (cf. Deg Xinag *niłk’osnal* ‘ten’ (www.zompist.com/amer.htm #nadene)) (while Tahltan ‘six’ through ‘nine’ are calques from Tlingit). The Tahltan–Chilcotin ‘ten’ connection geographically overlaps, and boosts the credibility of, the Central Cordillera → Lillooet transfer route proposed above.

There is archaeological evidence as well for a northern origin of Chilcotin:

> “Small projectile points with contracting stems are basically similar to those from Klo-kut in the northern Yukon, and to Stott points from the southwest Yukon; they may represent a characteristic Athabaskan form. … The presence of trade goods in most of the structures indicates the Chilcotin components at Anahim probably do not date much earlier than 1750; trade goods were absent in one unit which dates A.D. 1670 (GSC-1371), which might represent late prehistoric Chilcotin. There was an earlier occupation by a complex lacking trade goods, utilizing microblades, projectile point styles resembling those of Sanger’s Middle Period, and occupying a house type which differs from the Chilcotin winter lodge. Two Radiocarbon dates are available, A.D. 335 (S-500) and A.D. 80 (S-501), thus preceding the Chilcotin occupation by many centuries.” (Wilmeth 1970:42–3)

3.2 Salish–Athabascan parallels, allomorphy, semantic shifts, substrate

Among the Athabascan languages spoken in British Columbia, fronting of the proto-Athabascan */s/ series has occurred in Tahltan (my field notes), Slavey, Beaver, most Carrier dialects (Krauss 1976:325) and Chilcotin (Nater 1989: 34–7) (but not in the language chain consisting of Kaska (Krauss 1976:326), Sekani (Hargus 1983:1), Babine (= Nedut’en-Wets’uwet’en) (Story 1984:25) and Southern Carrier (my field notes)), and the */qʷə/→/ko/ shift has transpired not only in Tahltan, but also in Kaska, Tagish (see under figure 2) and Sekani (Hargus, 1983:12) (as it has in a few more remote Athabascan languages, such as Dogrib

and Chiricahua Apache (Nater 1989:37). It remains to be determined if Athabascan fronting and Interior Salish retraction (which amounts to fronting at least where the Lillooet /s̱/ series is concerned) are correlated, whether as an areal (NW substratal) development or via post-800 AD (cf. Seymour 2012) Athabascan → Salish contact (or both). The same can perhaps be said about Interior Salish velar and pharyngeal sonorants vis-à-vis proto-Athabascan velar and uvular voiced fricatives. But if Interior Salish retraction and presence of velar and pharyngeal sonorants are the result of substratum → Salish contact alone, we may associate these traits with the old Lochnore merger mentioned in section 4.

As concerns the etymology of Central Cordillera Athabascan **kosˆa(ʔ)*, note that, although *kosˆ…* derives regularly from Tlingit *kʷas*, *…a(ʔ)* is elusive. Is this a fossilized suffix (cf. proto-Athabascan **-əʔ* 'inalienable possession' (as in e.g. Krauss & Leer 1981 'bark' and 'gristle', pp. 191 and 195)), or is it the vestige of a uniquely reduplicated vowel (Tlingit *kʷas* → **kʷasa* → Athabascan **kósˆa(ʔ)*)?

We should now attempt to determine if, and how, North Wakash √*kʷs* and Tlingit *kʷas* may be linked: in what follows, I briefly explore semantic and allomorphic variation in order to accomplish that. In re such variation, note that, while **kʷəs* reflects an old practice of using urine for ritual, medicinal, or preparative purposes in Tlingit, Eyak and North Wakash, there exist in the North Wakash-Salish area phonemically and semantically related forms none of which refer to the use or presence of urine as such. Bella Coola has *qʷs-m* 'to sweat' and √*qʼʷs* 'to leak, ooze, flood' (both without Salish etymologies) (Nater 1990), while we find in North Wakash √*kʷys* 'to spit' and √*qʼʷs* 'to drizzle' (Lincoln & Rath 1980:282, 329). Likewise, Central Salish–Lillooet **kʷəs* 'to spray', although clearly derived from North Wakash √*kʷs* 'to splash, (wash with) urine', does not appear to be associated with urine, and is semantically closer to North Wakash √*kʷys* 'to spit'. (North Wakash √*kʼʷys* 'to snow' (Lincoln & Rath 1980: 289) may also belong here.) Thus, we may – as languages spoken south of the Haida + Tsimshianic divide display more formal and semantic diversity in regards to **kʷəs* than is the case further north – conceive of today's North Wakash + Salish region as a substrate zone where **kʷəs* originated. This large area may once have been occupied by speakers of a language whence **kʷəs*, **kʷəys*, **qʷəs*, **qʷəʔs* (~ **qʼʷəs*) were eventually adopted. Long before the eastward diffusion of **kʷəs…* (figure 2), then, these variants may have dispersed as follows:

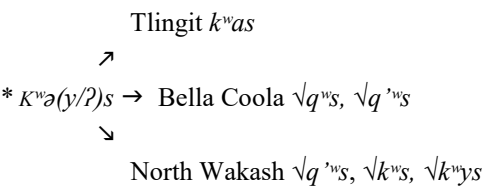

Figure 4 Initial dispersion of substrate * *Kʷə(y/ʔ)s*

My hypothesis about a substrate language and its geographic location rests on the three premises listed below. These are archaeologically (for Salish, Wakash, Athabascan) and glotto-chronologically (for Salish) validated, and – along with evidence given and discussed further below – imply that the "substrate zone" was, prior to being populated by the above-mentioned peoples, inhabited by other groups:

(a) the proto-Salish homeland was confined to a small region situated between the Fraser and Skagit rivers, ranging from the Cascade mountains to the sea coast (as proposed by Kinkade 1990:204, and cf. Huculak 2004 quoted under figure 5);

(b) proto-Wakash has originated on the west coast of Vancouver Island (see Fortescue 2007 quoted below);

(c) Athabascans arrived much later than the above groups (again, see Seymour 2012 and Wilmeth 1970).

Occupancy of the Fraser-Skagit area by Salish groups appears to date back to ca. 5,000 BP (cf. Stein 2000).

As regards Wakash migrations, note that:

> Archaeology indicates that the northern Wakashans may have moved from the northwest of Vancouver Island into their present extended area – previously occupied by Salishan speakers – around 500 BC, and thence at a later date pushed further northwards, breaking up an earlier Salishan continuum …. (Fortescue 2007:1)

4 Conclusions: substrate and beyond

In light of evidence given in sections 2 and 3 (regular sound correspondences, semantic and allomorphic fluctuation, migration and diffusion patterns) and Salish velar ~ uvular alternation (Kuipers 2002:6, F-G), I submit that the following diagram – which combines the settings and developments outlined in figures 2 and 4 – proffers a credible scenario in re diffusion of **kʷə(y)s/qʷə(ʔ)s* and prehistory of Lillooet *kʷúṣaʔ* and Tahltan *kóŝa*:

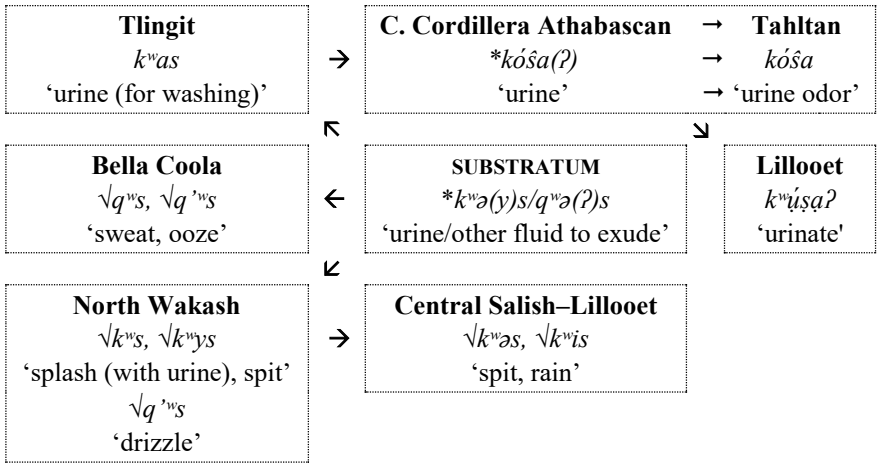

Figure 5 Evolution and diffusion of substrate **Kʷə(y/ʔ)s*

The substrate language posited here is, of course, entirely conjectural, as nothing can be said about it other than that it is the likely source of **Kʷə(y/ʔ)s*, and that it may once have been spoken in western regions of the Interior Plateau and adjacent coastal areas. However, the likelihood that at least a portion of what is now Interior Salish territory was inhabited by speakers of precisely such a language (or language continuum) is suggested by archaeological data going back to a time when certain areas may not yet have been populated by Salish groups, and Coastal Salish groups interacted with culturally-linguistically unidentified ethna located further inland:

> An important point presented by Stryd and Rousseau (1996) is the assertion that the Lehman peoples were direct ethnic and biological descendants of the Early Nesikep peoples whereas Lochnore culture represents the commingling of resident groups with Coast Salishan people – and their convergence in to [*sic*] a unique cultural pattern. They indicate that direct contact between Plateau and Coastal groups occurred by approximately 4,500 and that mutual acculturation and the melding of the two cultures is evidenced by the occurrence of pithouses, the use of more "sophisticated" or complex subsistence technologies, and some scheduled resource collection ... (Huculak 2004:75–6)

Incidentally, the Lochnore amalgamation of Coastal (Salish) and Plateau cultures may, in terms of time depth (around 4,500 BP) and location (Thompson River drainage area), signal the genesis of Interior Salish. If this is indeed the case, we may have to revise the position of Interior Salish as follows:

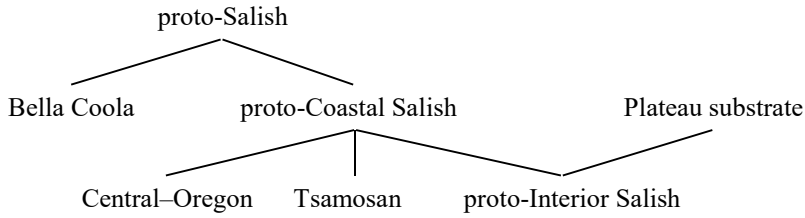

Figure 6 Interior Salish as a Coastal Salish + Plateau substrate fusion

A late (post-proto-Coastal Salish) emergence of Interior Salish is also indicated by the fact that Coastal Salish is linguistically more diverse than Interior Salish. In line with this scenario (and contrary to Kuipers' theory), Interior Salish velar and pharyngeal resonants, as well as "retraction", may have evolved only after Coastal Salish–Plateau interaction had begun (with /ʕ(ʷ)/ plausibly continuing */ħ(ʷ)/ ← **/χ(ʷ)/, cf. pharyngeals in Columbian Salish and South Wakash).

In an attempt to determine if there are instances of **kʷə(y/ʔ)s* 'for fluid to exude' south, southeast and east of the proposed substrate zone, I have, due to a lack of resources, not been able to ascertain whether similar forms exist in Chinook and Kootenay, while I cannot identify it in Quileute (Powell and Woodruff 1976) and Sahaptin (Beavert and Hargus 2009).

But west of Eyak, we find Alutiiq and Central Alaskan Yupik *kuciʁ* 'drip', other Yupik *kusiʁ* 'drip', and Naukanski Yupik *kusiɬəq* 'drop' (Fortescue et al 1994:182): of these, *kusi*… certainly resembles **kʷəs*, both phonemically and semantically. But similarity alone does not prove relatedness (whether via cognation or borrowing), while diachronically considered, **kʷəs* would be too old (> 5,000 BP) to be linked with *kusi*… The latter is post-proto-Eskimo (i.e. < 2,000 BP), and contemporary Eskimo /s/ continues */c/ (Fortescue et al 1994: xi). In addition, proto-Eskimo had **kutə* 'drop of liquid' (Fortescue et al 1994: 182), and **kutə* and **kuci*… were most likely allomorphs: the data indicate a tendency for */ti/ to be replaced by */ci/ (Fortescue et al 1994:51, 182). Thus, a link between *kusi*… and **kʷəs* – although at first glance plausible – becomes moot upon closer inspection. And from a Nostraticist point of view, for instance, **kutə* ~ **kuti*… resembles e.g. Latin *gutta* 'drop' more than it does **kʷəs*.

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An etymology for *skookum*, and endangered Salish metaphors

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Abstract: The important Pacific Northwest English word *skookum* 'strong; excellent' here receives its first thorough etymological study. Its language of origin is specified as łəw̓ál̓məš (Lower Chehalis Salish). Its original morphology and semantics are shown to have originally signified 'those inland'. The cultural associations around this term in łəw̓ál̓məš lead us to call for greater documentation endangered Salish metaphors.

Keywords: Chinook Jargon, endangered metaphors, etymology, language contact, łəw̓ál̓məš, Pacific Northwest English

1 Introduction

A lexeme characteristic of Pacific Northwest English since the 19th century is conventionally spelled <*skookum*> and pronounced [ˈskukəm], which receives a primary definition by William Craigie and James Hulbert (1944:2135) as "evil spirit"; Mitford Mathews (1951:1557) corroborates this with the glosses "[a]n evil spirit, ghost, demon, disease". To this "powerful being" noun usage the latter adds an adjectival one as generally (including physically) "strong, powerful" (ibid.), which judging by the cited examples, developed later in the same century. In the present day this newer sense, having bleached into a generic intensifier, seems the only one for most speakers, but the word appears to be becoming obsolescent. A Google News search for recent occurrences of "skookum" returned at least 10 top pages of hits without its adjectival use, while a refined search, framed as "a skookum" in order to more narrowly select for adjectivals, provided a scant two pages of results, from which the following are the three newest at this writing (emphasis added):

> She wields a *skookum* oosik, if she can remove signatures. Wonder what the prize was. (http://www.adn.com/article/20160108/north-slope-borough-mayor-recall-petition-approved)

> "*Skookum*" runs of salmon never involve a hatchery in any biologically diverse ecosystem. (http://www.bellinghamherald.com/opinion/letters-to-the-editor/article51005590.html)

> Use a *skookum* camera from Sony. (http://mobilesyrup.com/2015/11/11/samsung-galaxy-s7-announcement-rumoured-for-february-2016/)

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University of British Columbia Working Papers in Linguistics 42,
Marianne Huijsmans, Thomas J. Heins, Oksana Tkachman, and Natalie Weber, 2016.

At present this word is most often encountered as a distinctly regional brand name. Google shows that there are for example a *Skookum* Brewery, *Skookum* Sales & Recycling, and a *Skookum* Cycle and Ski.

All authorities agree that the word is a loan from Chinook Jargon, the American Indian intercultural pidgin. There is no serious difference of opinion, either, as to the ultimate donor of this item to the *Chinúk Wáwa* trading language; all agree that this was originally a word from the Salish language family. That fact was first noted by government philologist Horatio Hale (1890:51, but deriving from his insightful 1841 documentation during the US Exploring Expedition). More specifically, from the time of treaty translator George Gibbs onward it has been realized that the "Chehalis" tongue should be credited (Gibbs 1863:23, based on 1850s field work). And one source has specified a fundamental Lower Chehalis etymon: "...from Lower Chehalis (Salishan) /skʷəkʷúm/ 'devil, anything evil' (...D. [sic] Kinkade, p.c.)" (Bright 2004:452).

With such unanimity about the story of *skookum*, it might seem as if unanswered questions could not possibly remain. But in the event, neither the precise source language, nor the original meaning and morphological structure, of this Northwest shibboleth have been documented beyond an appeal to the considerable authority of our esteemed, indispensable late colleague M. Dale Kinkade.

This essay aims to contribute those fundamental lexicographical facts, in the belief that the more recent additions to English deserve equally deep investigation as does the eldest Anglo-Saxon stock in the *Oxford English Dictionary*. In §2 we examine the semantic and morphological origins of *skookum*, in §3 we discuss why the source language appears to be Lower Chehalis, and in §4 we summarize our findings.

2 Etymology

Examining the earliest documentation of *skookum*, we gain a notion of the word's original meaning, which we hypothesize will in turn deliver insights into its likely morphological etyma.

2.1 What did skookum originally mean?

Fortunately the dissertation of latter-day linguist Samuel V. Johnson (1978) assiduously collects and organizes nearly all then-known documentation of Chinook Jargon, which lets us track the first known occurrences of skookum. Table 1, after Johnson (1978:427–428), chronologically tabulates these:

Table 1: The earliest documentation of *skookum*

Date	Source	Spelling	Gloss
1838	Parker	*skokoom*	'evil spirit; hell'
1847	Palmer	*sko-kum*	'stout'
1849	Ross	*is-co-com*	'good spirit'
1853	*Columbian*	*skokum*	'strong'
1857	Armstrong	*scu-cum*	'strong'
1857	Swan	*skoo-kum* etc.	'strong; evil spirits'
1858	Anderson	*skookum*	'strong'
1863	Gibbs	*skoo-kum* etc.	'ghost; spirit, evil; demon; strong'
1863	Winthrop	*skookum*	'stout; ghost'

After Winthrop, original lexicographical sources, i.e. those that are not simply pirating earlier ones (see Johnson 1978:11–13), mention only the adjectival sense.

A parallel trend is found when we take another view, that of the first known citations where *skookum* is used in English. The earliest of these tilt strongly to the 'spirit being' sense. I quote as given by Mathews (1951:1557), but add emphasis:

> The way now being prepared, he [medicine man] approaches his patient, and, after a painful and persevering effort, with his mouth applied as a cupping-glass, he transfers the '**sko-kum**,' or 'tam-an-a-was,' or disease, wholly or in part from the patient to himself! (Lee and Frost 1844:180)

> Holding their clenched hands above the head, several loud shouts are uttered in as frightful a manner as they are able. They then open their fingers gradually, to allow the terrified **Scocum**, (evil spirit,) to make his escape. (Johnson and Winter 1846:54)

From the sum of the preceding, we infer that the likely original meaning of *skookum* was a nominal having reference to supernatural entities.

2.2 What is the morphological analysis of *skookum*?

The key that appears to further unlock the mysteries of *skookum* is the recent establishment of the łəẇálməš (Lower Chehalis) Language Project under the auspices of the Shoalwater Bay Indian tribe of Tokeland, WA, for whom that is a heritage language. The last native speakers of łəẇálməš passed on toward the turn

of the 21st century, and no systematic grammatical or lexical documentation was ever produced prior to their loss. We have been working to produce such tools in an effort toward revitalization. We have developed a working understanding of the language; see Robertson (2014) for a preliminary exposition. This has led us to realize, somewhat to our surprise, that a much greater portion of Chinook Jargon (CJ) lexicon derives from this Salish source than has previously been known. Previous CJ documentation has traditionally ascribed a number of words to a vaguely "Chehalis" origin (Robertson 2015), but that unfortunately falls short of resolving confusion, because there are two distinct Washington languages previously known by this single name: Lower Chehalis, spoken on Shoalwater Bay and nearby areas of the Columbia River, and Upper Chehalis, spoken inland (Hajda 1990:504**)**. We propose to demonstrate that for *skookum*, the former is the ultimate source.

We proceed by parsing from the left edge of the word.

Recognizable throughout Salish is the prefix *s-*, which is conventionally labeled by scholars of this family as a nominalizer (Czaykowska-Higgins and Kinkade 1998:29, 41–42). It is of frequent occurrence both on items uncontroversially understood as time-stable concepts, i.e. nouns, and on nominalized predicates (be they verbs, adjectives, or nouns), where *s-* is in effect a marker of subordination (op. cit.).

If *skookum* indeed begins with the *s-* prefix, the question is what the rest of the word signifies. Certain additional facts common to all Salish languages including Lower Chehalis are useful to know in this regard. The prefix *s-,* which is one of very few in this predominantly suffixing family, tends to immediately precede a stem (cf. Kroeber 1999:11). Stems are built on a root most often of CVC shape (which is another reason for supposing *skookum*'s initial *s-* is a prefix; cf. Czaykowska-Higgins and Kinkade 1998:24). Roots are targeted by a variety of reduplicative patterns carrying a range of meanings (op. cit.:18ff). Two structural analyses then are logical solutions to unpacking the remainder of this word:

Analysis 1: root (approximately √<*kook*>) +
suffix (approximately -<*um*>)
Analysis 2: partial reduplication (approximately <*koo*•>) +
root (approximately √<*kum*>)

Here it is useful to point out that in Chinuk Wawa, this word has two distinct stress patterns, dependent on its sense; (1) illustrates with data from Chinuk Wawa Dictionary Project (2012) entries:

(1) (a) *skúkum* 'strong'
(b) *skukúm* 'A Dangerous Thing...dangerous being'

We would associate pattern (a) with analysis 1, since the pan-Salish affix *-Vm* is typically unstressed. Pattern (b) however is compatible with partial reduplication, as in analysis 2, as well as demonstrating the relevant semantics. For the sake of thorough argumentation, we will consider each potential analysis in turn. We purposely confine the discussion for the moment to the best-documented Tsamosan Salish languages: Upper Chehalis (UCh) (Kinkade 1991) and (Upper) Cowlitz (Cz) (Kinkade 2004), making some reference also to reconstructed earlier forms of Salish (Kuipers 2002). (There exists a Quinault dictionary, Modrow 1971, the inconsistent phonemics of which make it difficult to use; as far as we understand its contents there are no candidate forms there for an etymology of *skookum*.)

2.2.1 A root √<*kook*>

Analysis number 1 is easy to discount. Further background facts of Tsamosan are necessary at this juncture:

- A velar or uvular consonant in these languages can be followed by a rounded vowel, such as <*oo*> implies, only if it is itself labialized (cf. Czaykowska-Higgins and Kinkade 1998:8).
- A historical sound shift has made non-labialized velars uncommon in Tsamosan languages, where they have shifted to alveopalatal affricate /č/, especially in Upper Chehalis (op.cit.:8–9).
- Phonemic schwa is realized as [ʊ] in adjacency to a labialized consonant (op. cit.:10).

(It can be pointed out that there also exist both (A) uvular counterparts to velar consonants (op. cit.:9) and (B) ejective ('glottalized') counterparts to 'plain' stops in these languages (op. cit.:8). But because *skookum* is consistently documented in the most phonologically detailed Chinuk Wawa data as having velar, non-ejective stops, e.g. as <*skukum*> (Chinuk Wawa Dictionary Project 2012: 206–207), it is unlikely that uvulars or ejectives are possible segments in the source form of *skookum.*)

By corollary, the graphemic sequence <*kook*> represents either of the phonetic sequences in (2):

(2) (a) [kʷʊkʷ]
(b) [kʷukʷ]

These respectively imply the phonemic sequences in (3):

(3) (a) /kʷəkʷ/
(b) /kʷukʷ/

Searching for a hypothesized root of either shape in Kinkade's dictionaries, we find three candidates, shown in (4) from Kinkade (1991, 2004):

(4) (a)	UCh	<kwokwe′nep->	'brother-in-law, sister-in-law, wife's sister, etc.'
	Cz	<kwokwê′nɛp>	'sister-in-law, brother-in-law'
(b)	UCh	<kwo′kwols->	'top of the head'
	Cz	<skwo′kwols>	'top of head'
(c)	Cz	/kʷúkʷ-/	'cook'

Kinkade alphabetizes forms (a, b), from older sources, as if they began with /kʷ/, although he leaves them unphonologized and morphologically unanalyzed. In this connection, we note the following:

Form (a) appears to be a reduplicated, unpalatalized fossil of earlier **kaw* 'sister-in-law'; compare */čáw-/* (UCh), */káw/* (Cz), both 'sister-in-law', */čəwáli-/* (UCh) 'wife', and Proto-Salish **kaw* 'relative through marriage (mostly of, to, or through female)' (Kuipers 2002:38). With or without that root, it may contain a kin prefix identical with Proto-Coast Salish **kʷ-*; compare **kʷ-tam-c* 'husband' (Kuipers 2002:141) and Lower Chehalis *kʷəʔím* 'grandchild' (Emma Luscier per John Peabody Harrington, 1942, reel 17, frame 414; cf. Proto-Salish **ʔim-ac* 'grandchild' Kuipers 2002:17). Either parsing rules out a root shaped like <kwokw>.

Form (b) contains, in Kinkade's view, a lexical suffix */=ls/* representing */=al=usi/* 'face' (Cz), */=alisi/* 'eyes, head, face' (UCh); possibly it also reflects the Proto-Coast Salish lexical suffix **=iqʷ* 'head' (Kuipers 2002:212). There also appears to exist a Tsamosan root of the approximate shape */qaw/*, cf. <ʁ′áwɑnɪʃɬ> 'top of' (Emma Luscier per John Peabody Harrington, 1942, reel 17, frame 319), which perhaps accounts for the sequence <kwo>. If, as seems likely, at least one of these is relevant, it also precludes an analysis based on a root <kwokw>.

Form (c) is a loan ultimately from English, likely via Chinuk Wawa, where we can compare *kʰúk* 'cooked' (Chinuk Wawa Dictionary Project 2012:116). We assume that if there were any connection between cooking and *skookum*, the predominantly Anglophone documentors would have noticed and pointed it out.

To summarize, the case for a root shaped like *<kook>* seems quite weak, so we turn to analysis number 2.

2.2.2 A root √*<kum>*

Having established the likelihood that *skookum* had original reference to supernatural beings and that it was based on a native Salish root shaped like *<kum>*, we can now examine the candidate source form(s). By identical reasoning as with (2) above, the probable phonetic sequences involved in such a root are as in (5):

(5) (a) [kʷʊm]
(b) [kʷum]

The phonemic strings that these imply are as in (6):

(6) (a) /kʷəm/, partially reduplicated to yield /kʷə•kʷə́m/ [kʷʊ•kʷʊ́m]
(b) /kʷum/, " " " /kʷə•kʷúm/ [kʷʊ•kʷúm]

If the unstressed partial root copy is CV• in shape as we hypothesize (perhaps having plural meaning, cf. Robertson 2014:134, or 'reiterative' per Snow 1969:53), it is expected in Salish to undergo vowel reduction to schwa (Czaykowska-Higgins and Kinkade 1998:10). As a result the original form of *skookum* would be expected to be approximately *s-kʷə•√kʷúm*.

Now, in Kinkade's documentation of nearby Tsamosan relatives, we find just two candidates that match these forms, both from Upper Chehalis and shown in (7) from Kinkade (1991):

(7) (a) <k o matnt> 'where Scatter Creek empties' (place name)[1]
(b) /kʷumá·ʔ/ 'father; son (address form)'

Form (a) has no etymology that is apparent to us or to Kinkade.

Kinkade follows a rigidly synchronic approach in analyzing Upper Chehalis morphology, leaving the isolated form (b) from his data an unanalyzed headword. However, this form transparently reflects the proto-Salish affective suffix **-aʔ* (not listed separately by Kuipers (2002) but evident in his PS entries *s-kʷuy-aʔ* 'child, offspring', *kʷup-i/aʔ* 'elder', etc.) on a CVC root */kʷum/* ~ 'close male relative' that is otherwise unknown, at least in the Tsamosan branch. The semantics of both candidates are not obviously connected with those of *skookum*.

Nonetheless, it is known that the local Salish languages have undergone great change since contact. For examples, see 'cook' above and Lower Chehalis' replacements both of any native adverb 'now' with Chinuk Wawa *ʔálta* and of its negative operator *míłt* with Chinuk Wawa *hílu* (ultimately from Haida, cf. Chinuk Wawa Dictionary Project 2012:85). So it may be reasonable to check whether some native Salish root candidate could have *previously* existed, and in fact, Proto-Salish had exactly the right-shaped root, shown in (8):

(8) PS **kʷum* 'to go up/ashore, inland' (Kuipers 2002:46)

Kuipers does not list any Tsamosan reflexes of this reconstructed root, nor have we recognized any in Kinkade's dictionaries or in Modrow's of Quinault (1971). Yet we propose that PS **kʷum* is exactly the ultimate source of *skookum*,

[1] Spaces sic; cited exactly as Kinkade shows the word.

via a daughter language which in the following we argue is Lower Chehalis.

To account for a suggested etymology along the lines of 'the inland ones', we invoke the highly salient Pacific Northwest cultural concept of 'Stick Indians'. This is the regional Indian English term for rumored tribes of wild people living in the forested hinterlands, the *stik* in Chinuk Wawa (P. Flett, p.c. to D. Robertson, 1997). Stick Indians are most frequently conflated with the spirit beings or cryptids that are variously known as Bigfoot and sasquatch – and *skookums* (Suttles 1972; cf. Chinuk Wawa Dictionary Project 2012:300, s.v. *t̓siyátkʰu*). The earliest English-language reference to Stick Indians known to us is from northwest Washington by Fitzhugh, apparently contrasting the inland Nooksacks with the 'Salt-chuck' (Chinuk Wawa for 'maritime') Lummis (1857:329):

> In our immediate vicinty, directly interior, we have part of two tribes called the Neuk-wers and Sia-man-nas; these we call **Stick Indians**. They live on the lakes back—Whatcom and Sia-man-na lakes—and their tributaries. They have very little intercourse with the **Salt-chuck Indians**, and never had seen a white man in 1852, when the first settlers came to this bay, and did not even then come down for a year after. [Emphasis added. 'Neuk-wers' = Nuwhaha = *dxʷʔáha* = Stick Samish, Suttles and Lane (1990: 487–488).]

From the vantage point of Lower Chehalis speakers resident on Shoalwater Bay and the Columbia River (Hajda 1990), any forest people would in fact live 'inland' and 'uphill'. We note that the same holds for their coastal Tsamosan neighbours, speakers of Quinault, although that language has never been reported as playing a formative role in Chinuk Wawa. Speakers of Cowlitz and especially Upper Chehalis were themselves historically inland tribes (Hajda 1990). This semantic-geographic strand of argumentation leads into a further discussion of reasons why we believe it obvious that Lower Chehalis is to be credited with providing *skookum* to American English.

3 Specifying the source language

We have relied above only on non-Lower Chehalis data, showing that the root shape *kʷum* is not documented in other Tsamosan languages but that it is historically plausible. There exist, in fact, plentiful data of a more direct nature to support our claim that łəẇ̓ál̓məš is the source of *skookum*.

Robertson (2015) makes a strong case that many Chinuk Wawa words, in fact far more than the literature has previously noted, derive specifically from Lower Chehalis, the co-language of the Chinookan-speaking tribes involved in the genesis of the pidgin. That study builds on our work creating the first substantial analysis of Lower Chehalis. Beyond the 39 Lower Chehalis-to-Chinuk Wawa loans identified by Kinkade et al. (2010), 33 more CW words are found to have their best cognates in łəẇ̓ál̓məš, and another 8 most likely so. An additional 21

that are attested primarily in the CW of the lower Columbia River region – from both Bay Center, WA, in łəw̓ál̓məš country, and Grand Ronde, OR – while being indeterminate as to source language, are felt most likely to be from Lower Chehalis also.

Even more specific evidence are the reflections of *skookum* volunteered by community elders as genuine Lower Chehalis words. We find not only the predicted form *s-kʷə•√kʷúm* in the 'spirit being' sense, but also derived forms thereof, as (9) illustrates:

(9) (a)	*/s-kʷə•√kʷúm/*	'ghost' (Irene Shale per Nile Thompson 1980)
(b)	*/s-kʷə•√kʷúm̓-ətəm/*	'get "ghosted"' (Bennie Charley per Charles Snow 1967)
(c)	*/s-kʷə•√kʷ[áʔ]m-uʔ/*	'insect; naughty, ornery children' (Nina Bumgarner per Charles Snow 1967)

(I.e. (c) contains the Diminutive infix+suffix formation, cf. Robertson 2014:121.) This rich use of *skookum* in just one Salish language suggests to us a long history as a native lexeme in łəw̓ál̓məš.

It is significant also to point out (for the first time in the literature) that the only other recorded word for 'strong' in Chinuk Wawa, <*su-puk'*> (Gill 1909:71), is a usual Tsamosan and specifically Lower Chehalis word for the concept, viz. (10):

(10)	LCh	*c̓əpəq*	'strong' (Nina Bumgarner per Charles Snow, June 26, 1967, item 976)
	Qn	<ts'əppak>	'idem' (Modrow 1971)
	UCh	*c̓əp*	'idem' (Kinkade 1991)
	Cz	*c̓əp*	'idem' (Kinkade 2004)

These facts reinforce our claims both that łəw̓ál̓məš supplied a hitherto unacknowledged plethora of Chinuk Wawa words, and that *skookum* 'strong' is a later development from a Lower Chehalis word that originally did not carry that meaning.

4 Conclusion, with meditations on endangered Salish metaphors

We have shown that a new, more precise attribution of *skookum* is possible; the word appears to trace back to the previously underdescribed łəw̓ál̓məš (Lower Chehalis) language of extreme southwestern Washington, a member of the Tsamosan branch in the Salish family. In that language, this word seems to have been a noun literally denoting 'those inland' but with the understood connotation of 'spirit beings'. Its later sense as an adjective 'strong' seems to have arisen after

the word was loaned into the pidgin Chinuk Wawa, and has since shifted within Pacific Northwest English to a usage only as an intensifier.

In retracing the trajectory of these developments, we have come to see that revitalizing łəw̓á̓ləš is a more serious task than we initially thought in conceiving of it in terms of vocabulary and grammar. To contemplate that *skookum* was an ancestral word for inland people, one laden with teachings of respect for spirit powers, like the avoidance of whistling described by Suttles (1972), suggests strongly to our minds the importance of etymology. That is, we feel that while we are learning elders' explanation that e.g. *qə́x̣ənɬxəš* means 'people; a group of people', we may also regain insights into a Salish worldview through morphological analysis. Thus we discover a structure √*qə́x̣=ənɬ=xəš*, literally '√many=mouths=in.a.(long)house', which evokes a metaphorical image of more obvious cultural relevance than the English translation 'group'.

We want to take the present opportunity to point out a great need for documentation of metaphor in the Salish family. As with nearly all the world's languages, this semantic domain goes largely uncommented on in the Salish literature (cf. Sherris et al. 2015). (And to a real extent this is understandable, in our haste to document these languages while we can.) But we can take inspiration from some pioneering work: M. Dale Kinkade fairly early (1975) commented on metaphorical uses of Interior Salish lexical suffixes (cited by Palmer 1998:368-369). Brent Galloway was especially interested in grappling with semantics in Halq'eméylem, a subject to which he devoted a published chapter focusing on colour terms (2007). And recently Sherris et al. (2015) have presented several examples of Montana Salish metaphor, arguing that this is a level of understanding of the language that is crucial for replicating traditional understandings as well for avoiding calqued neologisms.

We suggest that these founding studies are useful templates for further Salish metaphor research. These can stimulate future lexicographical projects to make overt the 'literal meanings' – really the metaphorical content – of Salish roots, affixes, words and phrases. In the instances where there remain native speakers of a language, their intuitions as well as those of scholars should reveal precious understandings that should be preserved. We think such work will prove the value of linguists for community purposes in a new and rewarding way.

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Telling stories in a Halq'emelem conversation: Doing beginnings and a bit about endings

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Abstract: A conversation analysis of forty-five minutes of a recorded conversation with the last two known fluent native speakers of an endangered language looks at the structures of doing a story telling in everyday talk in Halq'emelem. Specifically, we look at the kinds of language used to situate story-tellings in previous talk, to negotiate the turn-taking space to do a telling through pre-sequences and other strategies, to initiate and connect topics and to manage starts and closings.

Keywords: conversation analysis, Halq'emeylem, story-telling in conversation, pre-sequences.

1 Introduction

This conversation in Halq'emelem happened as part of a project to record everyday conversation between fluent speakers of an endangered language.[1] Two speakers were invited over various interactions, mostly managed by E.P., to have a conversation in Halq'emeylemqel. The resulting conversation was full of stories, or tellables: about births, deaths, miscarriages, sicknesses, healings and failed healings. Stories led into other stories. This paper looks at some characteristics of these stories, or tellables, as they arose in this conversation, by asking these questions:

1. How does the story come to be told?
   a. how is the topic generated?
   b. who generates it?
2. How does the story finish?
3. What language structures are used to start or finish a story?

[1] We are grateful to the speakers of Halq'emelem who provided this conversation. It was originally recorded May 27, 2005 by S. Russell. The translation was done by a team of the three authors of the current paper. Laura Wee Lay Laq was also in the team for the first transcription work. Funding was provided by a SSHRCC grant awarded to Marianne Ignace, SFU. Susan Russell provided the CA transcription and all errors are hers. The entire corpus will follow with additional interlinear morpheme glosses provided by Strang Burton.

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We also add the stories, or newsworthy tellings, with CD track numbers from the recording. Lines are identified by track and utterance number. For example, (5:2) is track 5, utterance 2. The transcription is in the Halkomelem practical orthography, developed by Brent Galloway. Names are removed. S in the transcriptions is Siyamiyateliyot, Xw is Xwoyalemotelh. Siyamiyateliyot speaks the Tait dialect, Xwoyalemotelh spoke the Chawathil dialect of Halq'emeylem.

I (S.R.) have used a very basic version of the Conversation Analysis (CA) transcript notation, which was developed by Gail Jefferson (as described in Atkinson & Heritage 1984:ix–xvi). In brief, pauses are marked in tenths of a second inside parentheses, a pause of less than .2 seconds is annotated as (.), overlapping speech is represented with single left hand brackets aligned, and latched utterances are joined with equal signs. Transcriptions which are in doubt are marked inside single parentheses, or, if completely indiscernable, the probable syllables are marked with an x inside parentheses. A CA-inspired approach gives a first (tentative) analysis of how the stories were begun and how speakers moved to do their endings, with some notes about the tellings.

When Sacks, Schegloff and Jefferson (1974) first posed their "simplest systematics for the organization of turn-taking for conversation" (Sacks et al. 1974:696) they used a model of an economy, in which turns at talk were the valuables and a turn-taking system allocates them and thus determines their distribution. Turns in talk, or "the turn-constructional component" are constituted of projectable chunks of primarily language, in English, "sentential, clausal, phrasal, and lexical constructions" (Sacks et al. 1974:702). That is, they have a projectable end, termed a transition relevance place (TRP). This both motivates speakers to listen to each other (anticipating the current turn's potential end) and enables the efficient transference of turns at talk. A further turn-allocation component with attendant rules completes the turn-taking system for conversation.

In general, from a CA perspective, talk is the locus of social actions, so the real product of this economy is the work produced; the social acts of human interaction. Some examples are summons-answer sequences, or "assertion-agree/disagree, invitation-acceptance/rejection, question-answer/no answer, and request-granting/refusal" (Turnbull 2003:148). These are co-constructed and understood as such by participants through the resource mechanism of adjacency pairs. That is, turns are treated as meaningful in the context of preceding turns at talk and oriented to in following turns.

Within this model, story-telling sequences within a conversation are usually described as involving a negotiated cessation of the turn-taking system for a "right to an extended turn" (Nofsinger 1991:157). Initially the speakers may collaborate with a story preface-sequence (Nofsinger 1991, Liddicoat 2007) to undertake a telling (and to ensure complementary listening). Subsequently the story recipient continues to defer taking a turn by "withholding talk at each successive TRP, by producing overlapping appreciation tokens (such as laughter), or by producing

continuers ('uh huh') or other responses that treat the teller's turn as extendible" (Nofsinger 1991:160).

Our data show these patterns but also others. In a discussion of the limitations of CA in accounting for the role of contextual factors in understanding talk-in-interaction, Turnbull (2003) points out that a "critically important type of knowledge that participants bring to talk is knowledge of the natural language they use." Although he suggests that "only on occasion do people talk about language" (Turnbull 2003:172), in fact, in the context of communities working to revitalize an endangered language, participants constantly talk about language. This conversation is situated in that awareness.

2 Opening: How does the story come to be told?

A salient characteristic of story-telling in conversation is that somehow the teller and the recipient of the telling must arrange cooperatively an extended turn for the teller to override the turn-taking mechanism of talk (Sacks et al. 1974). Some suspension of this system must happen to enable a story to be told. Following the work of Liddicoat (2007), we also find the following strategies used in this conversation:

1. teller-initiated
2. listener-initiated
3. step-wise progression out of the talk
4. after pre-sequence(s)

One option is for the teller to introduce a story, often with some marker that a noteworthy event has occurred to her or him (e.g. *guess what*? in English). Liddicoat (2007:281) describes disjunct markers "such as *oh, by the way*" in English serving to indicate that something has come to mind, (a possible telling) but is not related to the previous talk.

Alternatively, the recipient may elicit the telling. Button and Casey (1984) have identified a three-part sequence; with a topic initial elicitor (e.g. *any news*? in English), a second part which nominates a possible topic and a third part which "topicalizes the prior possible topic initial" (Button and Casey 1984:167).

Perhaps more generally, the story may be triggered by some previous telling or aspect of the talk. It may arise out of the natural flow of topics as one thing reminds either participant of other things. It may be a "tellable", that is, it may be new to the other, or it may be a shared reminiscence, savoured in the joint telling. Stories lead into other stories.

Another option is for the teller to nominate an extended turn through a preface sequence or pre-sequence (Nofsinger 1991; Schegloff 1984). Schegloff defines a pre-sequence as "a global term for utterances (typically questions) whose

relevance is treated by participants… by what they are foreshadowing" (Schegloff 1984:48).

In this recorded session of a conversation, the first story, and in a sense all the stories that followed, arose out of an extended series of preface sequences in English and Halq'emelem. Basically, they functioned to ask for and grant permission to do a taping of a conversation in Halq'emelem.

Arrangements to talk were arranged ahead of time by E.P. When we met there was a preliminary discussion in English about the difficulty (for someone else) to keep in the language (*Xwelmexwqel,*) because she had been punished in school for speaking her language. Xw shares that the same thing happens to her: "when I go to the schools I talk Indian, to the kids, and before I'm finished I'm talking English to them" (not included in transcription).

Both speakers contextualized this as part of their own struggle in the larger history of language loss through residential schools. After a short insertion offer to make a tape or burn a CD, which Xw declines, (she doesn't have a tape recorder anymore and a CD player is 'too modern'), a pre-pre-sequence adjacency pair in English functions to request the speakers to begin. The following two lines at (4:1–2) are not included in the complete data set of the conversation as transcribed.

2.1 A pre-pre sequence: invitation to begin the conversation

Track 4

(20) S.R.: well do you (.6) do you two want to (.5)
can you start now? (.6)

(21) S: mhm

4:1–2 not included in the transcription

The first pair part invites or requests a start to the conversation, the second pair part agrees to the request. The taping began after this.

A final pre-sequence requests and confirms permission to record the conversation in Halq'emelemqel. The extended series of pre-sequences authorizes the seventy-eight minute long conversation in the language that followed. Of that, about thirty-five minutes were almost entirely in the target language.

2.2 A pre-sequence to a telling: asking permission

Track 5

(1) S: lu iyolem etl' kw'es (.)
it is ok eh that

(2) Xw: a'a
yes

(3) S: qwul (.3) qwélqweltel[2] tset tl'oqays
(?) we (start) talking now

(4) Xw: oh ey
oh good

(5) S: a'a=
yes

(6) Xw: =a-a- la tl'al su::ah (1.2) l- helems te li ti etl'?
yes- so it is going on, go- is going over there, eh?

(7) S: a'a, la tl'al la te tha te sqwal (.4) te sqwelqweltel tset (4)
yes, the words are going on over there- our conversation

(8) Xw: a:=
yes

(9) S: =a'a
yes

(3.4)

The request at (5:1–3) includes a statement *lu iyolem* 'it is ok' with a confirmation particle *etl'* 'eh?' and *kw'es* 'that', which projects a subordinate structure in English but introduces a nominalized clause in Halq'emeylem. This request is doubly granted; first, right after *kw'es* 'that' with *a'a* 'yes' and next, at the grammatical projection of the next possible turn relevance place (TRP) *qwélqweltel*[3] *tset tl'oqays* 'we talk now', with *oh ey* 'oh, good'. (The coordination of syntax and prosody in determining which TRP is not investigated here).

The double consent at (5:2) and (5:4) may reflect that the consent had previously been given, and the question was only a formal recognition of the agreement to proceed and to tape the talk for future language teaching purposes. Conversely the first *a'a* may just be an acknowledgement of the previous turn rather than agreement (cf. Pomerantz 1984:92).

So the first tellable follows considerable interactional work and a series of pre-sequences. A negotiated sequence of adjacency pairs makes arrangements,

[2] E.P. has given these terms for conversation: *sqwelqweltel* 'conversation', *qwulqwel* 'telling news' and *tset alxem tloqays* 'we are discussing things now', such as the work on this paper, or *elelxem* for a discussion in a larger gathering.

[3] E.P. recalls that she started to say *qwulqwel* for 'telling news' but switched to *qwelqweltel* 'conversation'. In that case the nominalizer *s-* is separated back at (5:1).

contextualizes the work being done within a history of language loss and desire to teach the next generations, clarifies the taping process, witnesses (and records) the request to speak and be recorded and the agreement to do so. All of these project the possibility of ordinary talk in Halq'emeylem.

Finally, after a pause of 3.4 seconds Xw begins to give an account of an incident in her family the night before. The silence and 'turn-beginning element' *uh* is treated by the participants as a story-telling precursor. That is, they both move into a story-telling interactional format in which one person does a telling and the other acknowledges the progression of the telling. The story has begun.

2.3 Following a request-consent pre-sequence: *su itet ikwelo*

Track 5

(10) Xw: uh ilh i kwel mele, su itet ikwelo
uh my son was here, then he slept over here

(11) S: a'[a
yes

(12) Xw: [si-] sisimetes alhtel (.) te shxwexwos (.5)
they were afraid of the weather

(13) S: ō::[::

(14) Xw: [osu li te chachu te (.9) eh (.8) te swas lalem (.2)
so at his house by the riverbank

(15) S: ō:: a'a=
oh: yes

(16) Xw: =xwe'i te shxwexwos tl'osu (.) tawel ste'a te'i (.5)
a storm came, so brightness just like this

su sisi (es)(ye) mameles (.4) (es) ew sisi tutl'o (.3)
so his kids were afraid, also him

(17) S: a'a
yes

(18) Xw: e: su (me) tl'iw alhtel me xwe ikwelo (.3)
then they ran away, they came here

e li kw'e chichelh te tha (.7)
it was up there

(19) S: kw'es
that

Track 6

(1) S: la itet alh[tel
they slept

(2) Xw: [a- kwthe mamele-s
yeah- his kids

(3) S: ō:[:

(4) Xw: [yeysele mameles itet li te tha
his two kids sleeping, over there ((gesturing))

e osu i te i tutl'o (.)
and him right here

(5) S: a'a (.) ew ste'a te tha (.) la
yes, that is like…

(6) Xw: [tsel me xwi (.)
I woke up

(7) S: [ah

(8) Xw: tsel me xwiy tl'oqays (.) ↑ qulh la (.) eweta! (.9)
I woke up and now they were already all gone

eh ilh <u>x</u>eta sla::m-s kwe (.6) hundred mile
he was saying they would go to 100 Mile

tl'o cha su la (1) ah lepetsel
they will go ah, catch a ride

kwthe- the mele-s (.9) ah qas kwthe (.7)
the kids and the

slhali qas te pipi-s alhtel[4] (.4)
woman and their own baby

(9) S: ō::[:

[4] E.P. would say *te sqaqele-s alhtel* 'their baby'

(10) Xw: [cha me]
he will

[mestexwes
bring them here

(11) S: [a'a
yes

(12) Xw: a'a me t'okw' xwela (.4) la (ch)xwelam te (1.4)
yes, (they) are coming home toward

e::h (1.9) (toyi) (.9)
eh (?)

li te seabird island (.3)
to Seabird Island

(13) S: ew sq'ewqel (.3)
oh (you mean) Sq'ewqel

(14) Xw: a'a (.)
yes

(15) S: a'a
yes

(16) Xw: ((throat clear)) sq'ewqel ehh [((laughter))
Sq'ewqel haha

(17) S: [((laughter))

The story begins at line (5:10) with 'uh', a "pre-beginning element (which can) project the onset of talk" (Schegloff 1996:92) or (in English) serve to initiate a turn (Schegloff 1996). In this instance it continues directly into a telling, introducing the relevant person, Xw's son, in the incident. S indicates her cooperation as receiver of the telling by giving acknowledgement particles, *a'a*, *ō:* at almost each potential 'turn relevance place' (TRP). (The mechanics of turn-taking are not further discussed in this paper).

The telling proceeds through the expected suspension of turn-taking except for a collaboratively produced background sequence to the story in lines (5:18–6:2). This sequence, which reiterates the already-known background, that the son and family were having a sleep-over, jointly summarizes where the telling has got to and projects the climax (that when she woke up they were gone).

Track 5

(18) Xw: e li kw'e chichelh te tha (.7)
it was up there

(19) S: kw'es

Track 6

(1) S: la itet alh[tel
that they slept

(2) Xw: [a- kwthe mamele-s
yeah- his kids

Alignment work: Collaborative completion of background to story

Nofsinger (1991:122) calls this collaborative telling a kind of 'alignment device'. The notion of alignment does not mean agreement with what has said but rather displays an understanding of what the other is saying. Aligning actions help actors become 'interactants'. They not only repair difficulties in conversation, but construct 'intersubjective understandings' (Nofsinger 1991:112), or at least display that such a mutual understanding is being co-constructed.

S has exhibited her understanding of the preceding talk and displayed her understanding by jointly summarizing with Xw where the story is "at". This involves production of a collaborative completion with "syntax of certain utterances (that) is in two parts (in which) the occurrence of the first component allows the other participants to project what the second component might be" (Nofsinger 1991:122–123).

The first pair part starts at (5:18) with a past particle *e* and the location: *li kw'e chichelh te tha* (.7) 'it was up there'. S completes the projected second part: *kw'es la itet alh[tel* 'where they slept'. This is overlapped with part of an agreement particle *a-* 'yeah' and a further detail of the state of affairs told so far *kwthe mamele-s* '(with) his children'. This collaborative work indicates that the story is well underway, the background to the telling is mutually established and the coast is clear for the climax.

However, when Xw is describing where they were sleeping at (6:4), S starts to nominate another similar experience at (6:5) as a possible tellable with *a'a (.) ew ste'a te tha (.) la* 'yes, it was like that…'. Speakers often use a comparable example to the previous telling to nominate a related topic for the next tellable option. So *ew ste'a te tha* functions as a topic entry strategy for a linked telling. However, this proposed tellable is not recognized, or allowed entry here into the story sequence. Xw continues into the climax of her own event.

S continues to proffer only affirmation tokens, which keep the story going until the teller has a lexical difficulty and switches to English to identify where the family are returning (i.e. to Seabird Island). This immediately becomes a *repairable* (Turnbull 2003:162) at (6:12). A goal of this conversation and the speakers was to archive a conversation for the use of the community and language teachers. The speakers constantly discuss the danger of losing the language, the perceived threat of language loss, the important work of the few people in the community who are learning and teaching the language. So the situation supports an other-directed other-repair structure when the cause is a lexical (memory?) problem. The teller has already indicated trouble with a series of pauses, that might be seen to invite repair. The problem which is being repaired is not an impediment to understanding or a lack of hearing. It is just not in the target language. The listener (S) orients to it a repairable item by quickly supplying the target language term at line (6:13) prefaced with the particle *ew*.

In this context *ew* may carry its contrastive sense. E.P. translated it as 'oh-you mean'. Xw accepts the appropriate term with *a'a* 'yes', a repetition of the repair *Sq'ewqel* and the repair ends in joint laughter.

So the story is ended for now with an other-directed other-repair structure, its acceptance through a three-part affirmation, and joint laughter. After the repair sequence, the affirmations and joint laughter serve to re-establish alignment of the interactants in their overall shared goal to record the language.

2.4 Teller-initiated: *Li chexw la xwililomet te sq'eylemals?* 'Did you get to his funeral'?

Another tellable starts after a five second pause and a throat clearing. It follows a telling about S's brothers, their families and where they live. It is initiated by the teller with a question.

Track 11

(1) Xw: =my
(5) ((clears throat))

(2) S: chexw la te sqeylema:ls kw'es q'oy te (.5)
you went to his funeral when he died

tl'o la s'ukw's tel ah (.4) sa- se- tel setl'atel te (name) (.5)
(when) he was gone, bro- bro- my older brother (Name)

(3) Xw: ō a'a
oh yes

(4) S: li chexw la xwililomet te sq'eylemals=
did you manage to get to his funeral

(5) Xw: =ewe=
no

(6) S: =ewe? (.3)
no?

(7) Xw: li e q'eylemtem (.)
was he put away ?

(8) S: li te ah shxwchiyo:m=
at Cheam

(9) Xw: ah

(10) S: [a'a
yes

(11) Xw: [(xx)

(12) S: li te tha kw'es q'eylem[tem tutl'o
he was put away there

(13) Xw: [ewe tsil me áts'lexw (.5)
I didn't hear about that

(14) S: ō! ewe! ah?=
oh! no, eh?

(15) Xw: =ewe! (.)
no!

(16) S: ō:::: my:=

(17) Xw: =ewe lis hith etl'
it hasn't been long, eh?

(18) S: ewe lis hith kw'es ewete tl'oqays [a'a
it hasn't been long now since he passed

(19) Xw: [o::: (1.2)

li su xete kw'els petamethome is we ey o (.6)
I was saying that I was going to ask you how he was

(20) S: ō:[:: la ewéte
oh:: (he has gone)

(21) Xw: [ō: (.6) ō (.)

Track 12

(1) S: a'a, kwelexwes te pneumonia tutl'o (.4)
yes, he got pneumonia

(2) Xw: oh:=

(3) S: =tl'o su (1) li te q'oq'eyawtxw (.4)
it was then, he was at the hospital

(4) Xw: li su heyqsel [o=
so he passed on

(5) S: [a'a
yes

(6) Xw: =ō:[::::

(7) S: [a'a su heyqsel o (1.2)
yes, he passed on

(8) Xw: my (.4)

(9) S: a'a (1.7)
yes

su loye te slhellhali el (.3) satl'atel tl'oqays (.)
so I only have sisters now

(10) Xw: ō=

This tellable begins with an adjacency pair that looks like a question- answer sequence at (11:2), or may be ambiguous to the speakers, but is demonstrated at (11:3) by the speakers to be a statement-confirmation sequence. So *a'a* 'yes' is not treated here as an answer to a question about whether Xw went to S's brother's funeral. When S repeats the question using a clarifying interrogative *li* and the non-control transitive suffix on the intransitive *xwili:ls* 'to reach, get to', *li chexw la xwililomet te sq'eylemals* 'did you manage to get to his funeral?', the answer is

a 'bald-on-record'[5] *ewe* 'no', given with no pause at all but latched onto the question. This negative reply is further questioned (by S) and after a short pause Xw shifts the topic by asking for details of the funeral.

When S. gives a report of where her brother was buried Xw gives a post-hoc authorization of the telling at line 13 with *ewe tsil me áts'lexw* 'I didn't hear about that'.

The story, which is by now half told, moves through three sets of backgrounding sequences at (11:14–21) before the story climax. First there is a three-part confirmation that the tellable is new to Xw: 1. *oh ewe ah*? 'oh no ah?' 2. *ewe!* 'no!', 3. 'oh::my'.

Then there is a clarifying adjacency pair: The first part, Xw: *ewe lis hith etl'* 'it hasn't been long, eh?' is followed by S: *ewe lis hith kw'es ewete tl'oqays a'a* 'it hasn't been long since he died, yes' (overlapped – and linked – with a confirmation adjacency pair of *a'a* and *o*::.

In another three-part pre-sequence to the climax at (11:19–21) Xw says *li su xete kw'els petamethome is we ey o* (.6) 'I was saying that I was going to ask you how he was' and S responds with the obvious *o:*[*:: la ewéte*, 'he has gone', overlapping with Xw's *o::* (.6) *o* (.).

So 'oh' in line 3 is not functioning as the 'oh' of the English reception of new information, but is rather another acknowledgement token. Both participants already know the brother is deceased.

S provides a further tellable that Xw has not previously heard at (12:1).

Track 12

(1) S: a'a, kwelexwes te pneumonia tutl'o (.4)
yes, he got pneumonia

Climax: *kwelexwes te pneumonia tutl'o* 'he got pneumonia' (12:1)

She provides one more detail about where he died (in the hospital). Then a collaborative closing sequence begins with the listener co-telling the outcome *su heyqsel o* 'so he passed away'. S confirms *a'a* and echoes *su heyqsel o* 'so he passed on' and both speakers conclude the telling with a rhythmic reiteration of agreement tokens, first by the receiver of the news and then by the teller.

(3) S: = tl'o su (1) li te q'oq'eyawtxw (.4)
it was then, he was at the hospital

[5] This term is used to describe a way of talking without any extraneous politeness strategies. Turnbull (2003:110) describes it as: "an action which is easily recognized and unambiguous" and used in situations that involve low face-threatening actions (FTAs). It does not seem to fit such a situation here.

(4) Xw: li su heyqsel [o=
so he passed on

(5) S: [a'a
yes

(6) Xw: =ō:[::::

(7) S: [a'a su heyqsel o (1.2)
yes, he passed on

(8) Xw: my (.4)

(9) S: a'a (1.7)

A collaborative pre-ending sequence (12:3–9)

After a pause of 1.7 seconds, a length which the interactants treat as a closing of the topic, S gives an assessment conclusion starting with *su loye te*… 'so I only have'. This sums up the state of affairs.

(9) S: su loye te slhellhali el (.3) satl'atel tl'oqays (.)
so I only have only sisters now

The summary assessment: *su loye te* 'so I only have…' (end of 12:9)

The assessment leads to a new topic: the names of the sisters, who they married, where they live, and later, further reminiscences about the deceased brother and his sickness. It finally ends with a lexical struggle to remember a word, which S provides. The speakers then discuss and affirm the importance of thinking about your words and how you express things, which leads into a new topic, another reminiscence about their teacher training sessions (with Brent Galloway). So the story is not quite finished, but is perhaps provisionally finished, until the participants recollect it again or want to consider deeper questions about its significance.

2.5 Teller-initiated: *ewe lili xwelilomet* 'I didn't make it'

Another tellable account begins out of a fond reminiscence about a mutual friend and colleague. S mentions that she did not make it to that person's mother's funeral. The two speakers do a collaborative excuse: S's husband's health was failing. This precedes a troubles telling, he has passed, told by S who had introduced the topic.

Track 18

(15) S: stsewot xexeyels [thutl'otl'em
she is so smart at writing, her (endearingly)

(16) Xw: [ō:: a'a
oh yes

(17) S: a'a
yes

(2)

ewe lili xwelilomet te sqilemals the tals (.2)
I didn't make it to her mother's funeral

(18) Xw: ō::=
oh

(19) S: =li chexw we lam?=
you went?

(20) Xw: =a'a (.3)
yes

(21) S: te (Name) [kw'es ewete (.4)
when (Name) passed away

(22) Xw: [a'a a'a (.8)
yes, yes

(23) S: ewe li li xwelilomet te'althe (.3) te sqilemals the tals[6]
I didn't manage to go to her mother's funeral

(24) Xw: ō:::::

(25) S: a'a
yes

[6] An earlier version mis-transcribed *te sqilemals the tals* '**her** mother's funeral' as *te sqilemals the' tal* '**your** mother's funeral', resulting in a major analytic repairable! S.R. interpreted it as a "disjuntive topic" and headed off fighting her own windmills of confusion, until it was repaired by E.P. All for a misheard glottal stop and *-s*.

(26) Xw: kw'es ilh q'oq'ey ta' sq'oxel (1)
because your husband (walking partner) was sick

(qwelem) (.4)
(?)

kw'es is (.7) li xwel (.3) eylexw
did he get better

(name)? (the) (.5)
(Name)

(27) S: ewete tel sq'oxel
my husband (walking partner) has passed away

(28) Xw: ō:::
oh

(29) S: a'a, tsel yet'ilem li te (.7)
yes, I am widowed

two thousand and three kw'es ewete (.4)
because he died in 2003

(30) Xw: ō:: =
oh

(31) S: a'a (.8)
yes

(32) Xw: my

(33) S: a'a (.9)
yes

A two second pause after the reminiscence about the mutual friend at (18:17) closes the previous topic from a potential troubles telling. The o:: receipt of news token by Xw at (18:18) is latched onto a question by S about whether Xw went (to the funeral). S reiterates that she was not able to go and the speakers jointly do an excuse, initially by Xw, who knew that S's husband was too sick for her to leave. After asking if he is got better S does a brief telling of how she is now widowed.

S's use of the term *sq'oxel* lit.: 'walking partner' for 'husband' shows a common alignment strategy whereby speakers adapt some of their co-participants expressions, lexical items or phonetic features. The term is not one S would have

used normally, but she adopts it in this context after Xw uses it (personal communication).

This soon follows with a story that both arises out of the preceding talk and is elicited by the listener.

2.6 Listener-elicited: *Xwe'it thutl'o?* 'What happened to her?'

Track 19

(20) Xw: ō helem qe (.8) te s- (.8) se lilh li ti (.5)
(she passed?)

xetestem ah (Name)? (.2)
so they say (Name)

(21) S: ↑ ah xwel q'ami o qa [ewete
ah she was still just a young girl and passed on

(22) Xw: [a'a
yes

Track 20

(1) Xw: ulh la hiqsel t'ot (.9)
she already died poor thing

(2) S: xwe'it thutl'o (.7)
what happened to her?

(3) Xw: kw'es xet'e kw'es me xelh te sxoyes i ti (1.2)
she said that her head was hurting here

(4) S: ō::=

(5) Xw: su lam te (.5) te (.7) te (.3) doctor li te tha kw'eses (1) e: (.4)
so she went to the the doctor there who

kw'atsetes te doctor (.5) su thetstem (.5)
checked her over, then he said

ey kw'as la t'okw (.6)
(you can just) go home

ewe skw'ay olu sayem te i ti xete
I can't do anything about the pain here he said

(6) S: ō::[::

(7) Xw: [sayem te i te eqw'elets, sayem te ikw'elo (1.2)
there was pain here, in her back, pain here

(8) S: ō::

(9) Xw: skw'ay kw'els thiyt xete ey (.3) i xwelám o t'okw' (2.8)
I can't do anything he said head off now for home

su la:: me xwe'i (1.4)
then she left and arrived here (at Chewothel)

me wayel qew e::y t'ot' (.9) te imex (.4)
the day came when (there was the poor thing walking)

(10) S: [a'a
yes

(11) Xw: [kw'ses (1)
when she

sta'a kw'u (.2) yayes o (te) kw'etslexwes tel sq'oxel (.8)
was like working, my husband saw her

imex li te s'atl'q' (3.2) la kwetxwilem qulh
walking outdoors, then she comes inside or

Track 21

(1) me atl'qel qulh a::y (.5)
comes right outside again,

sqwalewel kw'es ya:yes (.4)
she thinks she is working

(2) S: a'a (.)
yes

(3) Xw: qe: (ye:?) t'wa imex (.7) li skw'es (1.2) a:=
and walking I guess, she can't ah

(4) S: =le hoy tes (.3) [xelhéleqel=
her headache was finished

(5) Xw: [(x-)=a'a (.)
(?) yes

(6) S: ō::[:

A pre-sequence invokes a shared telling about something that is already known: a quite young woman has died. The topic arises out of the previous talk in a "step-wise manner". Sacks says topics arise in conversation usually not by beginnings and closings, followed by a new beginning, "but by a step-wise move, which involves linking up whatever is being introduced to what has just been talked about" (Harvey Sacks, quoted in G. Jefferson 1984:198). In this conversation the story of the young woman is introduced in a step-wise move out of the story of S's husband's death.

At (19:20) Xw uses *xetestem* 'they say, it is said' to indicate she has heard this from others. The story takes the form of a joint telling to start. The speakers are jointly recalling, talking over together what they heard.

However, at (20:2), S specifically elicits more details and a new telling with *xwe'it thutl'o* 'what happened to her?' The request/inquiry *xwe'it thutl'o* functions as a topic elicitor by the recipient of the telling. Xw's response *kw'es xet'e kw'es me xelh te sxoyes i ti* 'she said that her head was hurting here' may function as a "newsworthy event report" in the terms of Button and Casey (1984:168) but since the report of the event is already underway it adds new material to the event here.

What has changed at that point is the stance of the interaction. A report from others was marked linguistically at (19:20) with the passive structure *xetestem* 'it is said'. This was oriented to by S at (19:21) as being shared news, and affirmed by Xw in her *a'a* 'yes' which overlaps what would be critical information, *ewete* 'she died', if it were not already shared information. At (20:3) Xw uses the active verb *xete* 'she said', with a direct quote from the person in question: *kw'es xet'e kw'es me xelh te sxoyes i ti* 'she said that her head was hurting here' to do a tellable, or give a noteworthy news report to someone who did not already know the whole story.

From then on the story continues with only acknowledgement tokens from S. Xw recounts a botch-up of inadequate health care delivery, resulting in the young woman's death.

The story's ending leads into a lengthy recounting of Xw's own successful experiences with medicines and healing. The following telling begins as a specific example of that.

2.7 Giving an example: *ilh ew sta'a te tha,* 'it was like that'

Track 29

(1) Xw: tl'o il (.3) tl'at[7] (.7) qelsu tl'at (.8) esu eylexw (.8)
I tried and I tried and then she got better

(2) S: ō:::[:: my:::::

(3) Xw: [a' (1.5) so (.8) ilh ew sta'a te tha (.8)
yes- (so) it was like that

kw'elh (name) me xwe'i (.4)
when (Name) came here

(4) S: a'[a
yes

(5) Xw: [su ste'a ti poythet (.4)
so then it was like her mouth was crooked

(6) S: a'a (.) a'a
yes, yes

(7) Xw: ste'a te tha (.6) [(to[8]-)
it's like (?)

(8) S: [stroke! (.3)

(9) Xw: a'[a
yes

(10) S: [a'a (.6)
yes

(11) Xw: e su me xwe'i íkwelò qes te meles (.)
and then she and her daughter arrived here

oh me qelh tutl'o (.5)
she had an accident

[7] Target word is *t'at* 'tried' (EP).
[8] EP says Xw was trying to recall *lheq'oyiws* 'half.of.body'.

xwe sayem te (1.3) íkw'elò (1.6) *hip*
(she) got sore here

(12) S: ō::: lheq'la[ts
oh, hip

(13) Xw: [a'a (.4)
yes

(14) S: a'a (.3)
yes

(15) Xw: skw'ay kw'es wel imexs (.6)
she can't really walk

(16) S: a'a (1)
yes

(17) Xw: lheq o te'i kw'es imexs (.9) su yethest thel mele (1.5)
walking half like this, so I told my daughter:

tl'os (1.5) yoysmet (.6)
work on her

(18) S: a'a (.5)
yes

(19) Xw: tl'osetu xakwet elhtel xwelam te (1.7) te q'emolhp (.5)
then we bathed them in the the maple (medicine)

(20) S: ō::[::::::::]:::

This telling is a specific (and further) example of how Xw was able to do a healing. It is discussed later as part of a closing strategy of 'doing a justification' but it also constitutes a new story, introduced as an example by the teller. After a previous telling Xw introduces the example at (29:3) with *ilh ew sta'a te tha kw'elh (name) me xwe'i* 'it was like that when (Name) arrived here'. This is the same construction S tried in the first telling: *ew ste'a te tha* 'that is like…', which was not given the go-ahead, but here S gives an acknowledgement particle *a'a* 'yes' at (19:4) which Xw overlaps with the first detail of her telling: *su ste'a ti poythet* 'the person was like, partially paralyzed'. She reiterates the construction *ste'a te tha* before a word-search at (29:7). So *ste'a te tha* introduces an example but also may indicate a lexical repairable.

Another gesture by Xw and locative *ikw'elo* 'here' at (29:11), is oriented to as a repairable by S at (29:12). She provides the target term *lheq'lats* 'hip'. This

is followed be a repair sequence of an overlapping *a'a* 'yes' by Xw and a paired *a'a* by S.

After a lengthy discussion of available medicines ('Vicks', some *xwelitemelh st'emlexw* 'white people's medicine' purchased at a Hope health food store, as well as traditional medicines), S introduces a new tellable with a direct question.

2.8 Teller initiated beginning of insertion sequence: *Li chxw lheq'elexw (Name)?* 'Did you know (Name)?'

This is another example of the teller initiating a story. It is also an example of an extended insertion sequence in the discussion underway of various remedies and how expensive everything is now.

Track 24

(2.3)

(11) S: the um (.3) li chxw lheq'elexw the uh (.)
(fem. article) ah, did you know

(xwelmexw Name) (.9)
(Xwelmexw name)

(12) Xw: ō (.5) wat? (.4)
oh who?

(13) S: (English first name) (.) (last name)? (.)

(14) Xw: a'a (.6)
yes

(15) S: lalh lheq' thaytes te st'elmexw (.2)
she usually made medicine

(16) Xw: ō::=

(17) S: =a'a (.6)
yes

(18) Xw: ō:[::

(19) S: [te li te chewō:lhp (.8)
from the cottonwood tree

te (e)mekweqel (.4) tl'o e thiytes (.4)
it is made from the buds

(20) Xw: ō:::[::

(21) S: [a'a ey xwela li s-la (.) ts'ekwts'ekwthet te' kwelow=
yes it is good for when your skin gets sores all over

(22) Xw: =ō a'[a
oh yes

(23) S: [a'a (.)
yes

(24) Xw: yeah (.)

(25) S: yalh kw'as tl'o s-lis li xwela um la te swiwel (.4)
now its for um (when you) go in the sun

kw'e hith (.3)
for a long time

Track 25

(1) S: tl'o ew shxwe'eys (.3) sta we yatl'q't o ta' selxwiws=
it's good to just smear it on your body

(2) Xw: ō:[:

(3) S: [kwthe) (k)chewō:- (.) chewō:lhp (.2)
the cotton- cottonwood tree

(4) Xw: chewō:lhp=
cottonwood tree

(5) S: a'[a
yes

(6) Xw: [ō::::: (.)

(7) S: te li te chewō:llp (.)
it comes from the cottonwood tree

(8) Xw: uhuh=

(9) S: =a'a (.3)
yes

(10) Xw: ō:: (2.2)

(11) S: kw'etsthome te (.6) te shxwta'es kw'es thaytes thutl'ò
I'll show you the recipe that she made
(8.5)

(ewe)tel lheq'elexw li su iyolem kw'as (.5) kw'atset[9] (.5)
I don't know if you can see it ok

(12) Xw: a'a (1.3)
yes

(13) S: lu ste'a kw'u (.8) hikw kw'es xexiyl (5.1)
it's like- it's written big

(14) Xw: beeswax=

(15) S: =a'a (1.4)
yes

The insertion sequence is a related telling and has a clear beginning. There is a 2.3 second pause after the previous talk. S begins at (24:11) with *the um,* which both introduces the feminine article for the person's name, who is the pending topic (*the,* 3rd person, feminine, present, visible, article) and 'um' which also seems to serve as a turn beginning element, or turn holding particle. A .9 second pause follows before Xw indicates with *ō* (.5) *wat?* 'who?' (.4) at (24:12) that she doesn't recognize the reference. S then gives the full English name of the person, which Xw recognizes with *a'a* 'yes'. The telling has switched speakers with this telling. S continues to give a report about the medicine that the person mentioned makes, a person who is well known for making a particular medicine.

At (24:21), (24:25), and (25:1) S describes what it is used for and how to use it.

Track 24

(19) S: [te li te chewō:lhp (.8)
from the cottonwood tree

[9] She could have used *kwixet* 'read it' also (EP).

te (e)mekweqel (.4) tl'o e thiytes (.4)
it is made from the buds

(20) Xw: ō::[::

(21) S: [a'a ey xwela li s-la (.) ts'ekwts'ekwthet te' kwelow=
yes it is good for when your skin gets sores all over

Teller-initiated: *te li te chewō:lhp, te (e)mekweqel, tl'o e thiytes*, 'it's made out of cottonwood buds' (24:21)

Meanwhile, Xw only adds acknowledgement markers, which serve as turn-continuers (*a'a*, oh:: yeah). S offers to show Xw the recipe that (Name) made *kw'etsthome te (.6) te shxwta'es kw'es thaytes thutl'o*, and after an 8.6 second gap, they look at it. This insertion sequence ends in a round of acknowledgement tokens of *a'a* and thanks from me. Further examples of healings continue (not included here).

3 A bit about closings: doing a justification

A certain kind of social action seems prevalent in many situations. I have previously called it "doing a justification" (Russell 2009) and transcribed examples in a record of classroom talk in some Upriver Halkomelem classes. There learners and teachers did justifications for specific classroom procedures, sometimes prior to such activities, as well as meta-justifications for the whole process of learning and teaching the language. Those examples showed more non-target language than the activities themselves whereas here the native speakers talked at length in Halq'emeylem about their histories and experiences. In fact, the examples of doing a justification took up almost the whole of the second half of the recording in target language.

This conversation session exhibited the speakers in a sense documenting their experience and authority to speak *in* and *for* the language. This is a critical question in a community with (at the time) only two known absolutely fluent native speakers left. Many other people have to start to take on the responsibility of learning and teaching in rebuilding a thriving speaking community. But the question always remains of how that is done and with what kind of authority. The knowledge of the elder fluent speakers, speakers with a deep intuitive awareness of cultural knowledge and appropriate use of language constructions are obviously highly valued by communities. Arguably, the speakers in this recorded conversation, produced to help document a particular kind of extended everyday language – a normal conversation between friends – were particularly aware of the importance of their own knowledge in passing on the language to the following generations who have to "learn" it consciously. At least the speakers oriented to this situation by producing a lengthy series of tellings that in fact function to do a series of justifications, or authorizations of knowledge and

expertise. Within that overall trajectory of "doing a justification" were a series of stories or tellables, some quite long. Each of them arose out of previous talk, or were offered as examples, contained insertion sequences, offered assessments and (mostly) confirmed them. They were all wonderfully rich examples of the language and (sometimes tragic) accounts of lives led.

One telling (not included here) gives an account of how S acquired very early in life an authoritative and careful knowledge of her language (Halq'emeylemqel) as well as an early ability (and necessity) to translate. Before and around this telling Xw provides an accounting of how she acquired her traditional knowledge of medicines. The tellings are opened by a question answer sequence, the first part posed by S.

3.1 Doing a justification: opening sequence

Track 28

(18) S: ats'ela! (1.2)
oh my goodness!

telelitse kwa se telexw te tha st'elmexw (1)
where did you learn about this medicine?

[(x)-

(19) Xw: [tse- (.4) chu[10] tolt o ta'altha (.6)
I- I just taught myself

(20) S: ō:::[::

(21) Xw: [tl'o ta'altha il tolt (.5) ilh t'wa
I must have learned it myself

The second pair part to the opening first-pair part (question) from S is rapidly produced. It overlaps with S at (28:19) and simply attributes her knowledge to her own effort. She then produces the story of healing (Name) who came to see her after a stroke. This was previously noted as Giving an example: *ilh ew sta'a te tha* 'it was like that with (Name)'. However, it is also part of a series of 'doing a justification'. Her example telling gives an account of a reportedly successful healing. That justification ends with a joke, an assessment (not shown here) and an aphorism at (32:3) which we cannot currently translate but which seems to serve as a topic closer. The assessment receives its own assessment and upgrade assessment at (32:4) and (32:5) as follows:

[10] Xwoyelemot's *chu* would be *tsel lu* for Siyamiyateliyot.

Track 32

(3) Xw: wa xwixw helem o wiyoth (.4)
if you are always going

ō su ewéte o shwelis te' esqwo:yxthet[11](1)
it doesn't matter, your (?)

(4) S: the'it (.3)
true

(5) Xw: wel the'ít (.)
very true

(6) S: a'a (.2)
yes

So the closing of the telling is achieved through alignment work. The speakers confirm (whatever the aphorism claimed) with an assessment *the'it* 'true' at (32:4) and an upgraded assessment *wel the'it* 'very true' at (32:5). The assessments and the confirmation particle *a'a* 'yes' again provide a closing strategy to this telling by which the interactants display an agreement on the issue. A second longer justification follows.

3.2 Doing a justification: *Chichelh Siyam* 'The Creator'

Track 32

(13) Xw: skw'a::y (1.3)
it's not possible

tl'o te chichelh siyams lheq'elexwes is te elets'e (.)
it's the Creator, who only knows (where from)

kw'es me kwelexw (1.3)
we got this.

(14) S: a tl'o: tl'osu te shxw'ás (.)
yes, that's how it is

(15) Xw: (x:[x)

[11] sqwo:yxw, meaning unknown (Galloway, B.D. 2009:531).

(16) S: [a'a (1) °tl'o su te [shxw'as
yes, that is how it is

The observation is confirmed again by a reiterated assessment of the state of affairs: the idiomatic expression *tl'osu te shxw'ás* 'that's how it is'. This assessment is followed by more than an upgraded assessment. Xw then makes a general complaint about the attitude of some people who have forgotten this source of traditional knowledge.

3.3 Doing a complaint: *ewéte lheq'elexwes tl'oqays te mekw'at* 'nobody knows anymore'

Track 32

(17) Xw: [ewéte lheq'elexwes tl'oqays te mekw'at (.7)
nobody knows any more,

loye (.7) ta'althe (.3)
only me

(18) S: a'a
yes

(19) Xw: loye ta'althe (.)
only me

(20) S: a'a (.) a'a (.4)
yes, yes

S follows this complaint with more confirmation tokens, recognizing her distress. This further series of agreement moves opens a further series of alignment actions.

3.4 Doing another justification: *tl'o wel teli tetha* 'it comes from there'

Track 33

(1) Xw: tl'o (.) tl'o wel teli tetha
it is- it's from there (Chichelh Siyam)

kw'eses me oxwesthom ta' shxwe'iyems (.5)
that you get your strength

(2) S: a'a (.3)
yes

(3) Xw: yeah (.)

(4) S: we melqelexwexw kw'as we ewe lis ey
if you forget (that) it isn't good

(5) Xw: a'a=
yes

(6) S: ste'a ta' sqwoqwel (.5)
I agree (it's the same as your thinking)?

(7) Xw: [a-
ye-

(8) S: [loythet te alhtel (1) a'a loy kw'esu loye (.65) ey (.)
they are (making themselves?) the only ones who are good

(9) Xw: [a-
yes

(10) S: kw'es xetes alhtel (2) malqelexwes kw'e siyam (.)
they are saying they forget the Creator

(11) Xw: a'a=
yes

(12) S: =a'a (2) ewe lis iyólem (1)
yes, it is not right

(13) Xw: kw'elsu (.9) wiyoth 'e (.65) (tl'e qo te) (.6)
so then always (?)

kwelat o pipe ste'a te'i tels e ts'íyelh (.45) tl'olsu
holding the paper like this I'll be praying-so then I

This accounting of and justification for her traditional knowledge is attributed by Xw to *kw'e Chichel Siyam* 'the Creator'. Again the speakers both reaffirm their alignment (33:2–9). S affirms in another assessment upgrade that *ste'a ta' sqwoqwel* 'it's the same (as) your thinking'. The last two speakers give a meta-justification here for the need for spiritual guidance in their work. After a shared complaint about others who forget this and fall prey to self-aggrandizing, Xw begins by (33:15) to invoke the rosary and continues as well to mention a guardian angel (not included here). But her most extensive justification, which includes a tragic story of eight miscarriages, references how she learned what she learned from the elders.

3.5 Doing a justification: *Teli te tha kwels me tol kw'e qex* 'It's from her that I learned so much'

Track 36

(4) Xw: qeloqtel alhtel ye (1.9) (name) (.4) and (name) (.6)
they were siblings (Name and Name)

ō íwesthàlèm (.) elhtel (1)
oh I was taught by them

we iwesthóxelh (.) (name) (.5)
when they taught me, (Name)

(5) S: a'a (.)
yes

(6) Xw: ō iwesthóxes kw'elh (name) (1)
oh (Name) taught me

(7) S: a'a=
yes

(8) Xw: =a:: (1)
yes

telí tl'- (.4) teli (t)te tha kw'els me tol kw'e qex (.9)
from (her) it's from her that I learned so much

(9) S: ō::: a'a=
oh yes

(10) Xw: a:: (.8)
yeah

teli te Vancouver kw'else ekw'elulh tel (.5) mele, (1.7)
she came from Vancouver when I lost my child in birth

me kwol me se ewe is aylexw kwe hith
when she was born she was not alive long

(welh) la hiqsel t'ot'.
(and) already she died the poor thing

me se ewe is aylexwe hith kw'elh la hiqsel t'ot' (.6)
was.not alive long (until) the poor little one passed away

(11) S: a'a (.2)
yes

(12) Xw: a- su lam tel sqoyxel i lám te vancouver su tl'o te
so my husband (walking partner) went to Vancouver and

kw'oxwe(mex) kwelates (.56)
(got) the coffin there

(13) S: a'a=
yes

(14) Xw: =te su ewe is (1) um:: qex̲ tale kw'es (we) ey (.4)
so it wasn't much money

(15) S: a'a=
yes

(16) Xw: kwelates o te kw'oxwe (.3)
and he just got the coffin

Track 37

(1) S: a'a=
yes

(2) Xw: ewete lheq'élexwes i (1.5)
no one knew

i 'elox li te kyo kw'es pipi te sliw i te tha
that aboard there was a baby in the car

(3) S: ō::: a'a
oh, yes

(4) Xw: me xwe íkw'elò su tl'o the (name) kw'e thiyt (.7)
when they arrived there it was (Name) that did everything,

wel thiytes te (.8)
really did it all

(xx) kwelexwes kw'e x̲ews kw'oxwes (e[se) te li te (1)
took his new box and in it

(5) S: [a'a
yes

(6) Xw: esu t'wa te (1.3)
and so I guess the

(7) S: lexwtel=
blanket

(8) Xw: a'a (.5) thiytes i te tha su p'áth'etes
yes, she made it there and then sewed it

(9) S: a'a (1.2)
yes

This final story is a new telling of personal loss and grief during eight miscarriages and deaths. It gives an account of her close relationship with some elders and specifically with a very knowledgeable elder who helped her in this difficult time, who came and did what had to be done when she lost a child after childbirth.

The story starts by naming the elders, using a passive structure *iwesthalem* 'I was taught by them' at (36:4). Xw reiterates with an active but possibly (?) not quite target form *iwesthoxelh*. S offers no repair here, just an affirmation token. Xw does a self-initiated self-repair to *oh iwesthoxes* 'she taught me' in (36:6) to cite the second person specifically. Then at (36:8) she attributes her language and knowledge to (Name): *teli te tha kw'els me tol kw'e qex* 'it's from her that I learned so much'. Then she tells the story of how her husband *tel sq'oxel* 'my husband/walking partner' went to Vancouver to get a coffin, how that elder looked after everything for her, how the baby died and how she lost seven others.

During this telling, the listener S returns to the attending stance of the first story. As soon as Xw begins the telling of the elders she learned from, S only gives continuer (or acknowledgement) markers. She continues to withhold any turn-taking as the final troubles telling story pours out. She bears witness to the telling and supports it through her witness.

The story is not finished here. The tragedy continues, as do other losses. The story is just beginning. But this telling also serves here to do a justification of what was experienced and the knowledge that grew from it. It both begins a telling but also begins a meta-closing. Here we hear how the speakers came to know what they know. The stories of these lives are passed on. The knowledge of the telling in Halq'emeylem is recognized and authorized. Perhaps from Chichelh Siyam, perhaps from religious observances, but finally- ultimately- from those elders who went before.

4 Conclusion

Track 34

(22) S: ey te shxwtalíms (.)
that's the way it is

(23) Xw: a:a(.)
yes

(24) S: a'a (9.2)
yes

(25) Xw: te es- (.6)
the ?

tes (txw) te lis ta' swa (.5) s'íwes yuxw télexw tl'oqays.
that must be where all your own knowledge comes from now.

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Kwak'wala Weather Predicates*

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Abstract: This paper explores some basic grammatical properties of weather predicates in Kwak'wala. The topics explored below include the realization of subjects in weather expressions, the expression of optional arguments and their interactions with voice morphology, the lexical aspect of weather roots, and weather roots' syntactic distribution and apparent acategoriality.

Keywords: Wakashan, weather predicates, expletives, voice, aktionsart

1 Introduction

Across languages, weather predicates tend to form a lexical class with a degree of shared grammatical behaviour. This paper investigates grammatical properties common to the nine Kwak'wala weather roots listed in Table 1.

Table 1 Kwak'wala weather predicates

U'mista	APA	Gloss
tl̓is-	ƛ̓is-	'sunshine'
'yugw-	y̓ugʷ-	'rain'
yu-	y̓u-	'wind'
k̓wis-	k̓ʷis-	'snow'
p̓a̱lx̱-	p̓əlχ-	'fog'
kwa̱nkw-	k̓ʷənkʷ-	'thunder'
tł̓a̱nik̲w-	ƛ̓əniqʷ-	'lightning'
ts̓a̱lk̲w-	c̓əlqʷ-	'hot'
'wa̱d-	w̓əd-	'cold'

While extensive textual and descriptive material exists for Kwak'wala beginning with work by Boas (1911, 1947) and Boas and Hunt (1902), no previous

* I'd like to warmly thank my Kwak'wala consultants Ruby Dawson Cranmer, Mildred Child, Julia Nelson, Violet Bracic, Lily Johnny, and anonymous for sharing their language with me. *Tłuma̱n mu'ma̱nk̓ala k̲us k̓a̱k̓utł̓amasx̱us Kwak̓wala'enux̱w ga̱x̱a̱n. G̲ilakas'la*! I'd also like to acknowledge Sara Child, Henry Davis, Ryan Bochnak, Adam Werle, and Peter Jacobs for mentorship and questions which have enabled and improved this work. My fieldwork was funded by a Jacobs Research Grant and an Oswalt Endangered Language Grant. I take full responsibility for any mistakes in this work.
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literature has specifically addressed the properties of weather predicates in Kwak'wala or any other Wakashan language. The aim of this paper is twofold: to characterize the basic grammatical properties of this lexical class, and along the way to highlight what weather expressions reveal about Kwak'wala grammar more generally.

The paper draws upon data from elicitation in 2009–2015 with six consultants, all of whom are native speakers of one of two (out of five total) dialects of Kwak'wala, namely Kwak'wala and 'Nak'wala. No differences have been found between these dialects with respect to the phenomenon investigated here. My data were also checked against examples involving weather predicates in two previously published resources (Boas 1947; Powell, Jensen, Cranmer, & Cook 1981) and no significant divergences were found.

Section 2 of the paper focuses on the realization of subjects in expressions with weather predicates, and explores the hypothesis that a null element, either a null expletive or *pro*, can serve as the subject in weather expressions in Kwak'wala. Section 3 then looks at the realization of arguments which are interpreted as *locations* and *goals/affected themes* of weather events, and explores the association between these arguments and the voice suffixes *-ʔas* and *-suʔ*. Section 4 addresses the aktionsart properties of weather predicates and discusses evidence for them lexicalizing (non-agentive) *processes*. Section 5 demonstrates that weather roots can occur underived in a wide range of syntactic environments, obscuring their grammatical category. Section 6 summarizes and concludes. Following the main text are two appendices containing supplementary reference materials for Kwak'wala learners.

2 Subjects in weather predications

One of the most salient features of weather predicates cross-linguistically is the variety of ways subjects[1] in weather expressions are realized. Looking across languages, we find at least four different strategies for realizing subjects with weather predicates: (i) no apparent subject, (ii) overt subject, (iii) overt expletive, and (iv) null expletive/*pro*. I introduce these four strategies in turn.

(i) *No subject*: A language may lack evidence for its realizing a subject at all in weather expressions. Gitksan (Tsimshianic) is such a language. In Gitksan, third-person subjects of independent (1a) and dependent (1b) clauses may only be omitted – that is, expressed as *pro* – when agreement morphology is present on the predicate (Hunt 1993:65–67); weather expressions, on the other

[1] The status of grammatical 'subjects' in linguistic theory has been hazy for quite some time (see for instance Keenan 1976, Comrie 1989). I assume a naïve view of what subjects are below, where Kwak'wala subjects have (at least) the following properties: (a) they are indexed by subject agreement clitics; (b) they appear directly after the predicate in basic clauses, which are VSO; and (c) they optionally front before the predicate when an auxiliary is present. This third property is discussed briefly in Section 2.4.1.

hand, always lack agreement that would indicate the presence of a null subject argument in both independent (2a) and dependent (2b) clauses.[2]

(1) a. *gubithl hun*.
kʷup-ə-tᵢ [pro]ᵢ =ɬ hun
eat-ERG-3 =CN fish
'S/he ate the fish.' (Hunt 1993:66)

b. *wil baxt*.
wil paX-tᵢ [pro]ᵢ
that run-3
'...that he ran.' (Hunt 1993:66)

(2) a. *'misaax*.
m'isaax.
daylight
'It is daylight.' (Hunt 1993:80)

b. *yukwhl 'wisist*.
yukʷ=ɬ w'is=əst
prog=CN rain=INTERACT
'It's raining.' (Hunt 1993:82)

(ii) *Overt subject*: A second strategy for realizing subjects in weather expressions is to realize an overt subject. In Russian, for example, one expresses that it is raining using a construction where the word *дождь* meaning 'rain' is realized as a subject in the nominative case, and the predicate is a verb of motion with third-person singular agreement, as shown in (3).

(3) *Идёт дождь*.
idyot dozhd'
go.3SG rain.NOM
'It rains/It's raining.'
lit. 'Rain goes/is going.'

(iii) *Overt expletive*: A third strategy for realizing subjects with weather predicates involves having an overt expletive in subject position. A standard view of expletives is that they are non-referring ('dummy') pronouns inserted to

[2] Hunt mentions that there do exist particular discourse conditions where it is possible, in independent clauses only, to get *pro* in the absence of agreement morphology with a default third-person singular interpretation (pp. 66, 81). That agreement is nevertheless always omitted with weather predicates (as well as with existential, raising, and unaccusative predicates) in dependent clauses which always require overt agreement is interpreted in this source as evidence that Gitksan lacks null expletives altogether.

satisfy syntactic requirements – for example the Extended Projection Principle (EPP), which requires all clauses to have a subject (variations on this account are discussed in Section 2.4 below). In English, *it* and *there* can serve as overt expletive subjects in weather expressions (4)–(5). Sentences without an expletive, and therefore lacking an overt subject, are ungrammatical (6).

(4) It is raining.
(5) There is rain in the valley.
(6) * Is raining/*Is rain in the valley.

(iv) *Null expletive/*pro: A fourth strategy for realizing subjects in weather expressions is for the grammatical subject to be realized as a null—that is, unpronounced—linguistic element (hereafter glossed N.E. for 'null element'). Very often this null element is indexed by overt subject agreement on the verb. This is the case for Arabic as we see in (7), where the null subject is indexed by third-person, singular, feminine agreement on the verb.[3]

(7)	ʔamtar-a-t	∅	al-baarihata.	
	'rain-past-3.SG.FEM	N.E.	DET-yesterday'	
	'It rained yesterday'			(Jalabneh 2011:579)

Individual analyses differ with respect to whether they assume the null subject in these weather expressions to be a non-referring expletive, a covert referring pronoun (*pro*), or something in-between (i.e. a 'quasi-argument' in Chomsky 1981); we will return to discuss these distinctions and how they relate to the Kwak'wala facts in Section 2.4 below.

Of the four strategies just introduced, Kwak'wala follows the fourth pattern (as well as the second, optionally; this is discussed in Section 2.4 below). The basic weather expressions in (8) contain third-person subject agreement clitics which index a null third-person subject.[4]

(8) **[Predicate [=AGR ∅N.E.] (PP/Adjunct)**[5] **]**

a. kwa̲nkwux̲ (lax̲ g̲wa'yi).

kʷənkʷ	**=uχ**	**∅**	(la	=χ	ǧʷaẏi)
thunder	**=3MED**	**N.E**	(PREP	=ACC	Kingcome)

'It's thundering (in Kingcome).' (VF)

[3] Jalabneh (2011) analyzes the null element in Arabic weather expressions as *pro*.
[4] Kwak'wala third-person agreement clitics indicate the location of the referent relative to the speaker (Nicholson & Werle 2009); the medial (=*oχ*) and distal (=*i*) clitics are typically encountered in weather expressions, while proximal (=*ga*) is not. The agreement clitics do not encode number (singular vs. plural). They co-occur with overt nominals (e.g. 13, 14) as well as null ones.
[5] Round brackets indicate optional phrases—that is, phrases which can be freely omitted.

b. tɬisaluχ(χa łanswaɬ).
ƛ̓is-əl =**uχ** ∅ (=χa łənswəɬ)
sunshine-CONT =**3MED** **N.E** (=ACC yesterday)
'It's sunny ([...was... yesterday).' (VF)

c. o'man hayu:lis tɬiwe' kan gaxe'ṣan gabu le'e 'wadala.
ʔo=m̓ =ən həyulis ƛ̓iweʔ q =ən gaχ=eʔ =s=ən
AUX=VER =1SG always forget C =1SG come=NMZ =OBL=1POSS
gəbu le =**i** ∅ ẇəd-al-a
jacket AUX =**3DIST** **N.E** cold-CONT-FV
'I always forget my jacket when it's cold out.' (VF)

Third-person agreement can in fact be omitted in Kwak'wala, but only under special discourse conditions, such as in informal exclamatives like (9)–(12), which can include weather expressions.

(9) olak̓ala ik!
ʔoləkala ʔik
really good
'(It's/That's) really good!' (VF)

(10) olak̓ala ts̓alkwa!
ʔoləkala c̓əlqʷa
really hot
'(It's) really hot out!' (VF)

(11) yola łanswaɬ!
yu-əla łənswəɬ
wind-CONT yesterday
'Windy yesterday!' (VF)

(12) la'am tɬis'ida!
la-ʔəm ƛ̓is-xʔid-a
AUX-VER sunshine-BEC-FV
'(So, it) got sunny!' (VF)

English also allows subjects to be omitted in exclamatives such as *Hot in here*! *So windy*! *Oh, sun's out*! I therefore assume that third-person agreement as in (8) is the default mechanism for indexing subjects in weather expressions, and that (9)–(12) involve special discourse conditions that license the omission of agreement.

I'll now discuss three additional arguments for positing null subjects in Kwak'wala weather expressions: the presence of third-person possessor agreement indexed to a null element in nominalized *-ʔeχsd* 'want' complements (2.1); the potential for realizing null direct objects in *-mas* causatives of weather

predicates (2.2); and the need for null elements elsewhere in the grammar to account for impersonal/control constructions (2.3). I'll then address the question of whether the null elements in weather expressions should be analyzed as expletives or as covert arguments (*pro*) (2.4). At this time I'll discuss how Kwak'wala alternatively allows a semantically-restricted set of DPs to appear as overt subjects of weather expressions.

2.1 Possessor agreement in nominalized complements of *-ʔeχsd* 'want'

Complements of the predicate *-ʔeχsd* 'want' in Kwak'wala are realized as nominalized clauses introduced by the subordinator *q(a)*, in which the subject of the complement clause is indexed by a possessor clitic. If a third-person subject of the complement clause is coreferent with the matrix clause subject, *=is* encliticizes to *q(a)*, as shown in (13); on the other hand, if a third-person complement-clause's subject is not coreferent with the matrix subject, the oblique clitic *=s* encliticizes to the left periphery of the nominalizer *=iʔ* (14) (Anderson 1984; Boas 1911, 1947). Crucially, this third-person non-coreferent possessor can be either overtly realized as in (14a) or covert as in (14b).

(13) a̲x̲'e̲x̲sdu̲x̲da ṫs̲a̲da̲k̲e̲x̲ k̲a̲s la̲x̲owe'.
ʔəχ-ʔeχsd =uχ=da ċ̣ədaq=χ q(a) =is ləχo=iʔ
AUX-want =3MED=OST lady=2VIS C =3C.POSS cough=NMZ
'The lady wants to cough.' (VF)
lit. 'The lady wants her (own) coughing.'

(14) a. a̲x̲'e̲x̲sdu̲x̲da ṫs̲a̲da̲k̲e̲x̲ k̲a la̲x̲owe'sa ba̲gwana̲m.
ʔəχ-ʔeχsd =uχ=da ċ̣ədaq=χ qa ləχo=eʔ =s=a
AUX-want =3MED=OST lady=2VIS C cough=NMZ =OBL=DET
bəgʷanəm
man
'The lady wants the man to cough.' (VF)
lit. 'The lady wants coughing of the man/the man's coughing.'

b. a̲x̲'e̲x̲sdu̲x̲da ṫs̲a̲da̲k̲e̲x̲ k̲a la̲x̲owe'su̲x̲
ʔəχ-ʔeχsd =uχ=da ċ̣ədaq=χ qa ləχo=eʔ =s=uχ ∅
AUX-want =3MED=OST lady=2VIS C cough=NMZ =OBL=3MED pro
'The lady wants him to cough [pointing at him].' (VF)
lit. 'The lady wants his/her/its/their coughing.'

When weather predicates appear embedded in *-ʔeχsd* 'want' complement clauses, the oblique clitic appears, indicating the presence of a third-person possessor that is non-coreferent with the matrix subject (15)–(16).

(15) a̲x̲'e̲x̲sdi Lucy k̲a t̓l̓isa̲le's.
ʔəχ-ʔeχsd =i Lucy qa ƛ̓is-əl=eʔ **=s** **∅**
AUX-want =3DIST Lucy C sun-CONT=NMZ **=OBL** **N.E**
'Lucy wants it to be sunny.'
lit. 'Lucy wants its sunshining.' (VF)

(16) a̲x̲'e̲x̲sda̲n k̲a kwa̲nkwe'su̲x̲ la̲x̲ Bankuba̲x̲wa ğ̲anutła̲x̲.
ʔəχ-ʔeχsd=ən qa kʷənkʷ=eʔ**=s=uχ** **∅** la =χ
AUX-want=1SG C thunder=NMZ **=OBL=3MED** **N.E** PREP =ACC
Bankuba =χʷ=a ğ̆anuƛ=əχ
Vancouver =ACC=DET night=2VIS
'I want it to thunder in Vancouver tonight.'
lit. 'I want its thundering in Vancouver tonight.' (VF)

By hypothesis, the null possessor in (15)–(16) is the realization of the same element that appears as the null subject that's agreed with in matrix weather expressions. As in matrix clauses, this null element is obligatory: removing the possessor clitic that indexes it results in ungrammaticality, as shown in (17).

(17)*a̲x̲'e̲x̲sda̲n k̲a t̓l̓isa̲le'.
ʔəχ-ʔeχsd =ən qa ƛ̓is-əl=eʔ
AUX-want =1SG C sunshine-CONT=NMZ
lit. 'I desire for sunshining.' (JF)

In summary, the null subject of a weather predicate is overtly indexed by agreeing clitics in both matrix and embedded environments, providing evidence for a null element in both configurations.

2.2 Null direct objects in causative *-mas* constructions

When the causative suffix *-mas* is added to a predicate, a cause event and a cause(r) argument are added onto the clause; the semantic undergoer then becomes a direct object introduced by the accusative =*χ* case (Sardinha in press). Basic *-mas* causative constructions are illustrated below with a nominal predicate (18), an intransitive verb (19), and a transitive verb (20):

(18) NOMINAL PREDICATE: *p̓əƛ̓-* 'airplane'

p̓at̓ƛax'idamasu̲x̲ Merlina̲x̲a kwikw.
p̓əƛa-xʔid-a-mas =uχ Merlin=əχ =χ=a kʷikʷ
airplane-BEC-FV-CAUS =3MED Merlin=VIS =ACC=DET eagle
'Merlin [the magician] made the eagle turn into a plane.' (VF)

(19) INTRANSITIVE VERB: *tiqaχ-* 'fall down'

tiq̲aχ̲amasi Simonχ̲a t̓sa̲q̓wana.
tiq-aχ-a-mas =i Simon =χ=a c'əq̓ʷana
fall-down-FV-CAUS =3DIST Simon =ACC=DET bird
'Simon made the bird fall / Simon dropped the bird.' (VF)

(20) TRANSITIVE VERB: *dał-* 'hold s.t.'

dałamasuχ̲ a̲basa̲χ̲is xwa̲nukw k̲e'is a̲mla̲m.
dał-a-mas =oχ ʔəbas=əχ =χ=is xʷənukʷ
hold-FV-CAUS =3MED mom=VIS =ACC=3.CO.POSS child
q=is ʔəmləm
C=3.CO.POSS toy
'The mom made her child hold his toy.' (VF)

Causatives of weather predicates can appear in this same configuration. An example is given in (21), where the location of the weather event is encoded as an accusative case-marked argument. Alternatively, weather predicates can occur in a structure with the same basic meaning but with a null direct object and the location expressed in a prepositional phrase; this is shown in (22).

(21) t̓ɬisa̲lamasuχ̲ Merlina̲χ̲a na̲ge'.
λ̓is-əl-a-mas=uχ Merlin=əχ =χ=a nəgeʔ
sunshine-CONT-FV-CAUS=3MED Merlin=2VIS =ACC=DET mountain
lit. 'Merlin made the mountains sun-shiney.' (VF)

(22) t̓ɬisa̲lamasuχ̲ Merlin laχ̲a na̲ge'.
λ̓is-əl-a-mas =uχ Merlin ∅ la =χ=a nəgeʔ
sunshine-CONT-FV-CAUS =3MED Merlin N.E PREP =ACC=DET mountain
lit. 'Merlin made it sun-shiney in the mountains.' (VF)

Interestingly, there is no accusative case =χ marker introducing the null direct object in (22). Since Kwak'wala expresses accusative case overtly with *pro* arguments, as in the example in (23),[6] this lack of accusative is non-canonical.

(23) k̓'isa̲n hinuma t̓sa̲χ̲'idamasa̲χ̲.
k̓is =ən hinuma c̓ək-xʔid-a-mas =χ ∅
NEG =1SG on.purpose awake-BEC-FV-CAUS =ACC *pro*
'I didn't mean to wake her up.' (VF)

[6] More research is needed to verify whether overt case-marking is in fact obligatory, and not just typically expressed, with all *pro* arguments.

We'll return to consider the significance of this observation in Section 2.4.

What is important to note for our purposes here is that Kwak'wala optionally allows a null direct object with causativized weather predicates right where we would expect one to occur—namely, in the position occupied by arguments that are otherwise realized as subjects in non-causativized matrix clauses.

2.3 Null elements in impersonal/control constructions

A third, more indirect argument for the plausibility of null elements occuring as subjects in weather expressions comes from the observation that null elements are required elsewhere in the grammar. For instance, example (24) shows the predicate *łaxʷəmala* 'be hard, difficult for' occurring with an overt subject; example (25) then shows that when the subject is null, it can be interpreted either as referring to a known discourse referent, or it can be interpreted as non-referential or having arbitrary reference.

(24) *Overt subject: Specific reference*

łaxwa̲mali	T'sa̲dak̲	k̲asa	laxa̲	t'ɬa̲ma'is.		
łaxʷəmal	**=i**	**C'ədaq**	qas-a	la	=χ=a	ƛ̓əmaʔis
difficult.for	**=3DIST**	**Lady**	walk-FV	PREP	=ACC=DET	beach

lit. 'Lady [the dog] finds it hard to walk on the beach.' (VF)

(25) *Null subject: Specific OR arbitrary reference*

łaxwa̲mali	qasa	laxa̲	t'ɬa̲ma'is.[7]		
łaxʷəmal	**=i**	**∅**	**[∅**	qas-a	la
difficult.for	**=3DIST**	***pro*$_i$/N.E.**	**[PRO$_i$/PRO$_{arb}$**	walk-FV	PREP

=χ=a	ƛ̓əmaʔis	]
=ACC=DET	beach	]

Interpretation 1:
'He/she/they find it hard to walk on the beach.' [*pro*$_i$ ... PRO$_i$]
Interpretation 2:
'It's hard to walk on the beach.' [N.E. ... PRO$_{arb}$] (VF)

In the referential reading of (25), the null element in the matrix clause is referential *pro* which controls big PRO in the subordinate clause. By hypothesis, the non-referential or arbitrary reading in (25) arises when the matrix clause contains a different type of null element, presumably one of the same type as that which is realized as the subject of basic weather expressions; PRO$_{arb}$ then occurs in the subordinate clause. The ambiguity in (25) therefore shows that weather expressions are not the only constructions in this language which make

[7] The word *qasa* 'walk' is not the subject in (24) – e.g. it can't be fronted if an auxiliary is inserted.

use of a null element with referential properties that are (potentially) distinct from referential *pro*.

I conclude, based on the data in the previous three subsections and the appearance of overt 3rd singular subject agreement clitics in matrix clauses, that Kwak'wala grammar contains a null element which can be realized as the subject in basic weather expressions.

2.4 Is the null element in weather expressions an expletive, or *pro*?

Analyses concerning the realization of subjects in weather expressions differ on whether they analyze elements like *it* and *there* in English, and their null counterparts in other languages, as referring to anything. As mentioned previously, weather *it* in English is often described as an expletive, a dummy element inserted solely to satisfy syntactic constraints and therefore lacking in semantics. This view of weather *it* has, however, been challenged. In a particularly influential paper, Bolinger (1973) argues that English weather *it* refers to the ambient environment or general conditions salient in a given context. For instance, he notes that in a sentence like *God it's – I wonder if it's as hot as this in Kansas City* (p. 263), the location *Kansas City* contrasts with an unexpressed *here* which, by hypothesis, is what *it* is referring to in the initial phrase *God it's hot*. On Bolinger's view then, weather *it* (and by extension, its null counterparts in languages like Kwak'wala) more generally do refer, and are therefore analyzable as *pro* arguments.[8]

What about the null element in Kwak'wala weather expressions – is it best analyzed as an expletive, or an argument (*pro*)? Though I will not be able to give a definitive answer here, I will attempt to show that there are empirical arguments that can be made favouring of both positions. To be clear, the positions are basically the ones outlined in I. and II.:

I. Null subjects of Kwak'wala weather predicates are arguments (*pro*).
II. Null subjects of Kwak'wala weather predicates are expletives.

2.4.1 Arguments in favour of an argument (*pro*) analysis

On a *pro* analysis, the null subject in Kwak'wala weather expressions is referential like any other argument. More specifically, we can think of it as referring to whatever ambient (temporal and spatial) conditions are salient in the context of utterance (Bolinger 1973).

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[8] An intermediate position on the nature of weather *it* is reflected in Chomsky's (1981) term 'quasi-argument', a term meant to embrace weather *it*'s dual nature as expletive-like and as argument-like (e.g. in its ability to control into an adjunct clause). For expository purposes, I focus on discussing the two more polarized positions here. Later I'll return to this point to argue for the plausibility of an analysis in which the null element in weather expressions is actually ambiguous between being an expletive and *pro*.

One potential source of evidence for this type of analysis comes from the data in (26)–(28), where we see that Kwak'wala actually allows overt subjects in weather expressions. Crucially however, only a semantically restricted class of DPs may be realized as overt subjects – namely, DPs which refer to locations or times and could be classified as having an 'ambient' thematic role. The set of possible overt subjects includes locations (26), time periods (27), and days (28).

(26) *Locations*[9]

a. t̓ɬ̲anik̲wa̲lux̲ Bankuba.
λ̓əniqʷ-əl **=uχ** **Bankuba**
lightening-CONT **=3MED** **Vancouver**
lit. '**Vancouver** is lightening-y.' (VF)

b. k̓wisux̲da na̲ge'x̲wa nalax̲.
k̓ʷis **=uχ=da** **nəgeʔ** =χʷ=a nala=χ
snow **=3MED=OST** **mountain** =ACC=DET day=2VIS
lit. '**The mountains** are snowy today.' (JF, VF)

c. t̓sa̲lk̲wux̲da t̓ɬasano'i.
c̓əlqʷ **=uχ=da** **λ̓asano'i**
hot **=3MED=OST** **outside**
lit. '**Outside** is hot.' (VF)

(27) *Time periods*[10]

a. yuxw'id'lo'ux̲da nalax̲.
yu-xʔid-ʔl **=uχ=da** **nala=χ**
wind-BEC-EVID **=3MED=OST** **day=2VIS**
lit. '(During) **the day** got windy (I hear).' (VF)

b. k̓wisax̲dux̲ g̲a'alax̲de' lax̲ Bankuba.
k̓ʷis-a=xd **=uχ** **ǧəʔala=χd=eʔ** la =χ
snow-FV=R.PST **=3MED** **morning=PST=3INVIS** PREP =ACC
Bankuba
Vancouver
lit. '**The morning** snowed in Vancouver.' (VF)

[9] One consultant's comment while translating a sentence from English into Kwak'wala: "...did you say 'the *beach* got hot', or just 'it got hot'?" (2015-06-29).
[10] The word *'nala* has no direct English equivalent; it's variously translated in different contexts as 'day', 'daytime', 'now', and 'world'.

c. gaχatɬaluχ Simon le' t̓salkwida g̱anutɬ.
gaχaƛ-əl =uχ Simon le? c̓əlqʷ **=i=da** **ǧanuƛ**
arrive-CONT =3MED Simon AUX hot **=3DIST=OST** **night**
lit. 'Simon arrived when **the night** was hot.' (VF)

(28) *'Yesterday', 'tomorrow', 'today'*

a. t̓ɬaniχw'iduχ ɬanswaɬ
ƛ̓əniqʷ-xʔid **=uχ** **łənswəł**
lightening-BEC **=3MED** **tomorrow**
lit. '**Yesterday** was lightening-y.' (VF)
b. t̓ɬisalatɬuχ ɬanstɬe'.
ƛ̓is-əla=ƛ **=uχ** **łənsʔe?**
sunshine-CONT=FUT **=3MED** **tomorrow**
lit. '**Tomorrow**'s going to be sunny.' (VF)

c. p̓alχaluχda nalaχ.
p̓əlχ-əl **=uχ=da** **nala=χ**
fog-CONT **=3MED=OST** **day=2VIS**
lit. '**Today** is foggy.' (VF)

On the basis of this data, the rationale for a *pro* analysis goes as follows: weather predicates realize an argument in subject position that has an 'ambient' thematic role. The subjects in (26)–(28) are overt expressions of this argument, while null subjects are simply unpronounced versions of this argument, namely *pro*. In other words: the fact that the set of possible overt subjects seems to reflect certain thematic constraints constitutes evidence that weather predicates semantically-select external arguments with these thematic constraints; this external argument may be overt or null (*pro*), as is the case with other nominal arguments.

Before this argument can be evaluated, we need to deal with the fact that the assumed subjects in examples (27)–(28) are in fact ambiguous between being subjects and bare temporal adjuncts. This ambiguity arises because Kwak'wala allows certain temporal adjuncts to be bare – that is, not introduced by accusative =χ. This is shown in (29)–(30). For this reason, examples like (27), (28), and (31) below are actually structurally ambiguous; this is illustrated explicitly in (31a) versus (31b):[11]

(29) kwankwuχ Bankuba ɬanswaɬ. cf. [=χa ɬanswaɬ]
kʷənkʷ =uχ Bankuba **łənswəł** [=χ=a łənswəł]
thunder =3MED Vancouver **yesterday** [=ACC=EX yesterday]
'Vancouver was thundery yesterday.' (VF)

[11] The felicity conditions associated with bare temporal adjuncts vs. temporal adjuncts introduced by =χ are not understood at this time.

(30) o'mą̱n kʷa̱'eɬ ɬą̱nsʷą̱ɬ le'e tɬu:ma 'yugwa.
ʔo=m̓ =ən kʷə-iɬ **ɬənswəɬ** la =i ƛ̓uma y̓ugʷa
AUX=VER =1SG sit-in.house **yesterday** AUX =3DIST INTENS rain
'I just sat home yesterday when there was too much rain.' (VF)

(31) yolux̱ ɬą̱nswą̱ɬ.

a. *Analysis A*: **[PRED [=AGR ∅][ADJ]]**
yu-əl **=uχ** ∅ ɬənswəɬ
wind-CONT **=3MED** **N.E.** yesterday
lit. '**It** was windy yesterday'. (VF)
b. *Analysis B*: **[PRED [=AGR NP]]**
yu-əl **=uχ** **ɬənswəɬ**
wind-CONT **=3MED** **yesterday**
lit. '**Yesterday** was windy.' (VF)

While it isn't always possible to know the correct structural analysis in any given usage, there is evidence that temporal phrases can, in general, be subjects in these examples. This evidence comes from the ability of these temporal phrases to move to a position preceding the (weather) predicate in the presence of an initial auxiliary (32) – a property which holds generally of subjects in Kwak'wala.

(32) *Example with fronted subject*:
la̱'muxda g̱anutɬa̱x̱ 'yugwaɬ.
lə=m̓ **=uχ=da** **ǧanuƛ̓=əχ** y̓ugʷ-a=ƛ̓
AUX=VER **=3MED=OST** **night=2VIS** rain-FV=FUT
'**Tonight**'s gonna be rainy.' (JF, VF)

The fact that temporal phrases like those shown in (27), (28) and (31) can be overt subjects in weather expressions means that these examples remain relevant for the argument favouring *pro* subjects outlined above.

Before concluding this section, note that the same semantic restrictions (related to the 'ambient' thematic role) appear to govern the expression of overt third-person possessors in *-ʔeχsd* 'want' complement clauses (33)–(34). On the assumption that was motivated in Section 2.1, that these possessors are the embedded realization of the same argument as the one realized as the null subject of matrix clauses, this is exactly what we would expect.

(33) a̱x̱'ex̱sdi Lucy k̲a tɬisa̱le'sa 'naxwa a̱'wi̓'nagwis.
ʔəχ-ʔeχsd =i Lucy qa ƛ̓is-əl=eʔ **=s=a**
AUX-want =3DIST Lucy C sunshine-CONT=NMZ **=OBL=DET**
n̓axʷa ʔəẇin̓agʷis
all territory
lit. 'Lucy wants **everywhere's** being-sunny.' (VF)

(34) a̲x̲'exsda̲n k̲a t̓lisa̲le'su̲x̲da̲ nala̲x̲.
ʔəχ-ʔeχsd =ən qa ƛ̓is-əl=eʔ **=s=uχ=da**
AUX-want =1SG C sunshine-CONT=NMZ **=OBL=3MED=OST**
...nala=χ
...day=2VIS
lit. 'I want **today's** being-sunny.' (VF)

In summary, thematic restrictions on overt subjects in weather expressions can be used to argue in favour of an argument (*pro*) analysis of null subjects.

2.4.2 Arguments in favour of an expletive analysis

On an expletive analysis, the null subject in Kwak'wala weather expressions is nonreferential. There are at least three types of evidence favouring this position.

The first type of evidence that null subjects are true expletives comes from data like (35) below. In this example, with two overt prepositional phrases and a temporal adjunct restricting the spatial and temporal location of the weather event, it's (arguably) not clear what the null subject could be referring to that would not be redundant with the content of these overt phrases.

(35) yolu̲x̲ la̲x̲a t̓ła̲ma'is la̲x̲ 'ya̲lis x̲a ła̲nswa̲ł.
yu-əl=uχ ∅ la =χ=a ƛ̓əmaʔis la =χ
wind-CONT=3MED N.E. PREP =ACC=EX beach PREP =ACC
ẏ̓əlis =χ=a łənswəł
Alert.Bay =ACC=DET yesterday
'It was windy on the beach in Alert Bay yesterday.' (VF)

If we assume the null element to be an expletive, this problem of potential redundancy goes away since this element would lack semantic content.

The second type of evidence favouring an expletive analysis relates to the observation, noted in relation to example (22) in Section 2.2 above, that the direct object of a causativized weather predicate can occur bare – that is, without being introduced by accusative =*χ*. On a *pro* analysis this anomaly is difficult to explain since other *pro* arguments do generally show up introduced by =*χ*; there would be no explanation as to why weather-*pro* should be different. On an expletive analysis, however, we are at least able to posit a grammatical difference between *pro* and the null expletive in weather expressions. Potentially, then, we could invoke this grammatical difference as a determining factor in whether or not overt (accusative) case is realized.[12]

The third type of evidence in favour of an expletive analysis comes from revisiting the implications of the referential properties of the impersonal/control

[12] A related puzzle that remains to be solved is the following: Why is the null element obligatorily indexed by overt agreement as a subject/oblique possessor, but not so when realized as a direct argument?

construction we saw above in Section 2.3. Recall that example (25) with a null subject allows either specific or arbitrary reference. One way to account for these two possibilities is to posit that when a specific referent is being referred to *pro* is present in the representation, and when arbitrary reference is required, a null expletive is present instead. On this analysis, Kwak'wala would be a language with two distinct null elements, *pro* and a null expletive. A natural question that then arises is whether having two null categories would be a tenable situation for a learner; after all, even weather expressions in theory could have either *pro* or a null expletive in subject position, making it potentially difficult to maintain a categorical distinction between *pro* and the null expletive. On the other hand, this categorical slipperiness could actually help explain a general observation that holds cross-linguistically with weather predicates, and in Kwak'wala more specifically: why the subjects of weather predicates appear to be referential sometimes, and non-referential other times. This is to say that the varying referential properties of subjects with weather predicates, their 'quasi-argumental' nature, could be a generalization that arises from a genuine ambiguity in which null element, *pro* or a null expletive, is realized as subject in any given usage. In a language with both null *pro* and a null expletive, there may not be a way of stopping a learner from acquiring a grammar in which either null element may appear as the subject in weather expressions.

In summary, arguments can be made in support of either a *pro* analysis or an expletive analysis of null weather predicate subjects. It's also possible to imagine a system where subjects can be either *pro* or a null expletive and indeed, such a mixed system could actually help explain the difficulty researchers have had in trying to pin down the referential properties of weather predicate subjects. While I haven't taken a definitive stance on the nature of the null element in Kwak'wala grammar, I hope to at least have shown that a null element exists as a psychological reality in the grammar of this language.

2.5 Summary

In this section I looked at evidence for the existence of null elements in the grammar of Kwak'wala, and observed that the subjects of Kwak'wala weather expressions are realized as either (i) null elements or (ii) DPs denoting ambient conditions. One implication of these findings is simply to note that Kwak'wala patterns alongside the vast majority of languages in requiring that every clause have a grammatical subject, be it null or overt. While hardly a surprising property given the (near?) universality of this property across languages, it is nevertheless important to note in light of the behaviour of neighbouring languages like Gitksan which lack evidence for certain types of clauses having subjects, among them weather expressions (Hunt 1993).

3 Arguments and voice

In this section I discuss the realization of optional arguments with weather predicates, and the interaction between these arguments and voice morphology.

As we saw in (8) above, basic weather expressions can occur without any non-subject arguments; weather predicates therefore can be said to lack (grammatically) obligatory arguments. When prepositional phrases introduced by *la* occur with weather predicates, they are interpreted thematically as either *locations* (36) or *affected themes/goals* (37) of weather events; this thematic difference is not marked in any way on the preposition itself.

(36) *Context: The sun is shining everywhere, all over Vancouver and beyond.*
t̓lisa̲lux̲ lax̲ux̲ Bankubax̲wa nalax̲.
ƛ̓is-əl =uχ la =χ=uχ Bankuba =χʷ=a
sunshine-CONT =3MED PREP =ACC=3MED Vancouver =ACC=DET
nala=χ
day=2VIS
'It's sunny in Vancouver today.' (VF)

(37) *Context: The clouds come in, and the sun is only shining on a single mountain—the rest of Vancouver is shaded.*
t̓lisa̲lux̲ lax̲a na̲ge'.
ƛ̓is-əl =uχ la =χ=a nəgeʔ
sunshine-CONT =3MED PREP =ACC=DET mountain
'It's sun-shining on the mountain.' (VF)

This thematic difference is, however, overtly signalled when voice morphology appears on the predicate. Kwak'wala has a set of voice suffixes[13] which occur on verbs whenever an argument other than the regular subject (in unmarked clauses) appears as the subject (Sherer 2014). There are at least seven voice suffixes, each of which selects for a subject with a particular thematic profile. Of these seven voice suffixes, two can appear on weather predicates: *-ʔas*, which is used to promote a *location* to subject, and *-suʔ*, which is used to promote *affected themes* or *goals* of a weather event to subject.[14]

Example (38) illustrates the use of *-ʔas* with a thematic *location* argument as subject. In this context (the same as in (36) above), which focuses attention on

[13] I follow Sherer (2014) here in referring to *-suʔ* and *-ʔas* as 'voice' suffixes. The suffixes are also discussed in Boas (1911, 1947), Anderson (1984), and Rosenblum (2013) where they are referred to as 'passives', and in Levine (1980, 1981) where they are referred to as 'focus' suffixes.

[14] An alternative characterization of the thematic profile of arguments appearing as subjects alongside *-suʔ* is *undergoer*.

the general *location* of a weather event, *-ʔas* is felicitous (38a) and *-suʔ* is infelicitous (38b).

(38) <u>*-ʔas* and 'location' subjects (*-ʔas*, # *-suʔ*)</u>

Context: The sun is shining everywhere, all over Vancouver and beyond.

a. tɬisaʼasuxda Bankuba.
λis-əla-**ʔas** =uχ=da Bankuba
sunshine-CONT-**LOC** =3MED=OST Vancouver
'Vancouver is being sun-shined on.' (JF, VF)

b. # tɬisalasuʼuxda Bankuba.
λis-əla-**suʔ** =uχ=da Bankuba
sunshine-CONT-**THM/GOAL**=3MED=OST Vancouver
intended: 'Vancouver is being sun-shined.' (JF)

Example (39) now shows a context (repeated from (37) above) where the opposite pattern of felicity judgments is found. In this context, where a mountain is being construed as being a specific, affected location of a weather event, it is *-suʔ* which is felicitous (39a). Relative to *-suʔ*, *-ʔas* is judged as infelicitous (39b).

(39) <u>*-suʔ* and 'affected theme/goal' subjects (*-suʔ*, # *-ʔas*)</u>

Context: The clouds come in, and the sun is only shining on a single mountain – the rest of Vancouver is shaded.

a. (higaʼam) tɬisalasuʼida nage'.
(higa=ʔəm) λis-əla-**suʔ** =i=da nəgeʔ
(only=VER) sunshine-CONT-**THM/GOAL** =3DIST=OST mountain
'(Only) the mountain's being sun-shined.' (VF)

b. # tɬisalaʼasux nage'x.
λis-əla-**ʔas** =uχ nəgeʔ=χ
sunshine-CONT-**LOC** =3MED mountain=2VIS
intended: 'The mountain's being sun-shined on.' (JF)

Another context in which *-suʔ* is appropriate is shown in (40); here, the argument is again being construed as affected by the weather event.

(40) *Context: It rained on my new jacket, and now it's ruined!*

’yugwa’su’a̲n alumas dzegit.
ẏugʷ-a-**su?** =ən ʔalumas dzegit
rain-FV-**ɪHM/GOAL** =1SG.POSS new jacket
‘My new jacket was rained on.’ (VF)

The way that an event is conceptualized plays a role in whether *-ʔas* or *-suʔ* is found on the predicate. Small or neatly delimited locations which are the targets of weather events tend to get *-suʔ* preferred to *-ʔas* while other contexts involving a moderately-sized spatial area, allow either *-ʔas* or *-suʔ* to appear; this is illustrated by the (graded) judgments of semantic felicity shown in (41).

(41) *Context 1: It's raining on the grass patch outside your house.*
Context 2: It's raining on a whole field of grass.

a. ’yugwasu’ux̲da kɨ̀kɨ̀t̲am.
ẏugʷ-a-**su?** =uχ̲=da kɨ̇~ɨ̇kitəm
rain-FV-**ɪHM/GOAL** =3MED=OST RED~grass
‘The grass is being rained on.’ (VF, JF)
[🗑 *in Context 1,* 🗑 in *Context 2*]

b. ’yugwa’as’ux̲da kɨ̀kɨ̀t̲am.
ẏugʷ-a-**ʔas** =uχ̲=da kɨ̇~ɨ̇kitəm
rain-FV-**LOC** =3MED=OST RED~grass
‘The grass is being rained on.’ (JF)
[**?** in *Context 1,* 🗑 *in Context 2*]

A general feature of clauses with voice suffixes is that they allow an optional oblique phrase. With non-weather predicates, this phrase is ambiguous between a reading of possession of a DP referent and a reading of clause-level possession which mimics the function of a *by*-phrase in English-style passives (Sherer 2014). This ambiguity is illustrated in (42) with the verb *ẇənsʔid* ‘to sink’.

(42) ’wa̲ns’idsuwida xwakẇa̲na(s Henry).
ẇəns-xʔid-suʔ =i=da xʷakẇəna=a’ (=s Henry)
sink-BEC-THM/GOAL =3DIST=OST canoe=3INVIS (=OBL Henry)
Can mean: ‘Henry’s canoe was sunk.’ (JF)
Can mean: ‘The canoe was sunk (by Henry).’ (VF)

Weather predicates are unique, to my knowledge, in that they only allow oblique phrases to be interpreted as possessors of a DP referent, as shown in (43). Since the alternative reading with clause-level possession would force a bizarre agentive interpretation, I assume that pragmatic blocking is sufficient to make the clause-level reading unavailable.

(43) ʾyugwaʾsuʾuχ̲da gukweʾs.
ẏugʷ-a-**suʔ** =uχ=da gukʷ=eʔ **=s**
rain-FV-**THM/GOAL** =3MED=OST house=3INVIS **=OBL**
Can mean: ‘Its house (*lit.* ‘the house of it’) is being rained on.’
Can’t mean: ‘The house is being rained on by it.’ (JF, TF)

One more defining feature of clauses with voice suffixes is that when they appear with the suffix *-nukʷ*, which on nominal predicates means ‘have’, an indefinite object construction results (Sardinha 2013, Sherer 2014). The implicit object in an indefinite object construction is thematically constrained by the particular voice suffix used, while the construction’s subject bears the same thematic role as it does in clauses without voice morphology; compare the indefinite object construction in (44) with a clause lacking voice morphology in (45).

(44) ʾwa̲nsʾidsuʾnukwi Henry.
ẇənsχʔid-suʔ**-nukʷ** =i Henry
sink-BEC-THM/GOAL-**NUKW** =3DIST Henry
‘Henry sank something.’ (VF)

(45) ʾwa̲nsʾidi Henryχ̲a xwakẇa̲na.
ẇənsχʔid =i Henry =χ=a xʷakẇəna
sink-BEC =3DIST Henry =ACC=DET canoe
‘Henry sank the canoe.’ (VF)

With weather predicates, the subject in the indefinite object construction is a null element, as we would expect. When the voice suffix is *-ʔas* the indefinite object is a *location* (46), and when the voice suffix is *-suʔ*, the indefinite object is an *affected/theme* or *goal* (47), again as predicted.[15]

(46) *Context: The weather all over Canada has been really wet, but I heard one of the provinces is completely covered in sun-shine.*

a. tɬisa̲laʾasnukwuχ̲.
λ̓is-əla-**ʔas-nukʷ** =uχ ∅
sunshine-CONT-**LOC-NUKW** =3MED N.E.
‘It’s sun-shining somewhere.’ (VF)

[15] Interestingly, while *-suʔ* was judged as markedly infelicitous in the context favouring *-ʔas* (see the consultant’s comments below (46b)), *-ʔas* was judged as marginally felicitous in the context favouring *-suʔ* (47b). I’m unsure how to explain this judgment.

b. # tɬisa̲lasu’nukwux̲.
λ̓is-əla-**su?-nuk^{w}** =uχ ∅
sunshine-CONT-**ITHM/GOAL-NUKW**=3MED N.E
‘It’s sun-shining on something.’ (JF)
Consultant: “No. Not unless you’re specific where it is.”

(47) *Context: A bunch of objects are scattered on the floor, and the sunshine is coming through the window, hitting something (but I don’t know what it is).*

a. tɬisa̲lasu’nukwux̲.
λ̓is-əla-**su?-nuk^{w}** =uχ ∅
sunshine-CONT-**ITHM/GOAL-NUKW**=3MED N.E.
‘It’s sun-shining on something.’ (VF)

b. ? tɬisa̲la’asnukwux̲.
λ̓is-əla-**ʔas-nuk^{w}** =uχ ∅
sunshine-CONT-**LOC-NUKW**=3MED N.E.
‘It’s sun-shining somewhere.’ (JF)

Weather predicates pattern as expected with respect to this construction.

The data above have a number of interesting implications for understanding Kwak’wala grammar more broadly. One observation involves *-suʔ* specifically, as this voice suffix has been observed to be fairly freely interchangeable with six other voice suffixes (Sherer 2014). Due to this behaviour, *-suʔ* could be thought of as a kind of default voice suffix, in which case it wouldn’t necessarily have any semantic selectional requirements on its promoted argument. Sherer also found, however, that *-suʔ* cannot always replace *-ʔas*, an observation which the data presented above illustrate clearly. What this finding suggests is that *-suʔ* does indeed have thematic restrictions, even if they are quite general. More specifically, the fact that *-ʔas* cannot always be substituted by *-suʔ* indicates that *-suʔ* is to some extent selected ‘online’ relative to *-ʔas* and the other voice suffixes, despite its apparent default status. In other words, it seems that *-suʔ* does have its own semantics after all.

A second interesting implication of the data above is that it shows us that arguments which are omittable – and in that sense at least, optional – are nevertheless ‘promotable’ with voice suffixes. In other words, voice morphology is capable of promoting arguments to subject which are conceptually part of an event, even if these arguments are not grammatically obligatory. This finding is again most significant for our understanding of *-suʔ*, for it suggests that *-suʔ* is unlikely to be a fool-proof diagnostic for arguments versus adjuncts (thereby providing an answer to a question raised in an earlier ICSNL presentation by Davis & Sardinha, 2011).

4 Lexical aspect

In this section I investigate the inherent lexical aspect, or aktionsart, of weather roots using tests identified in past literature. Greene (2013) distinguishes three aspectual verb classes in Kwak'wala: *states*, *processes* and *transitions*. The semantic templates of these three classes are summarized in (48).

(48) *Kwak'wala verb templates (Greene 2013:30)*
a. [[STATE]] = λe.P(e) [-telic, -stages]
b. [[PROCESS]] = λe.(DO(P))(e)[16] [-telic, +stages]
c. [[TRANSITION]] = λe.(BECOME(P))(e)

Here I discuss empirical evidence that bare weather roots in Kwak'wala lexicalize non-agentive *processes*. We will see, however, that we ultimately still need a precise semantic test to distinguish *states* and non-agentive *processes*. In the absence of such a test, the claims I make in this section should be understood as tentative.

Greene's (2013) *states* and *processes* have several shared properties. One of these properties is that bare roots – that is, roots without any overt aspectual or tense morphology – can have past or present reference. The examples in (49) with the root *k̓ʷis-* 'to snow' show that this is true of weather predicates: (49a) has past reference and (49b) has present reference.

(49) *Bare weather roots with past (a) or present (b) reference*:

a. k̓wisida g̱anuɬ le'e laga'i Jon la̱x Port Hardy.
k̓ʷis =i=da ǧanuƛ le =i lagaʔa =i Jon
snow =3DIST=OST night AUX =3DIST arrive =3DIST Jon
la =χ Port Hardy
PREP =ACC Port Hardy
'The night was snowy when Jon arrived in Port Hardy.' (VF)

b. k̓ìsu̱x k̓wisu̱x Vaǹcouver.
k̓is =uχ k̓ʷis =uχ Vancouver
NEG =3MED snow =3MED Vancouver
'It's not snowing in Vancouver [right now]. (VF)

[16] Greene (2013) models processes exactly as Rothstein (2004) models activities, assuming Dowty's (1979) definition of DO in which the event is "under the unmediated control of the agent". Nevertheless, Greene also suggests that instead of agentivity, the DO operator may alternatively be defined by the [+stages] or [+dynamic] property which reflect a predicate's ability to progress or develop through time. For weather roots to be classified as processes, this non-agentive characterization of DO is preferable, and I will assume it here.

A second property common to *states* and *processes* is that the initiation phase of the event can be modified. This possibility is illustrated in (50) using the weather predicate *kʷənkʷ-* 'thunder' along with *galabənd* 'to start' in (50a) and using the weather predicate *c̓əlqʷ-* 'hot' with *hixʔid* 'right away' in (50b).

(50) *Weather predicates with* galabənd *(a) and* hixʔid *(b)*:

a. la̲'muxw̲ galaba̲nduxw̲ kwa̲nkwa.
lə=m̓ =uχ **galabənd** =3MED kʷənkʷa
AUX=VER =3MED **start** =3MED thunder
'The thunder is starting.' (VF)

b. hix'ida'a̲m c̓sa̲lk̲wa la'i niɬ'idida c̓lisa̲la.
hixʔid-a=ʔəm c̓əlqʷa la =i
right.away-FV=VER hot AUX =3DIST
niɬ-xʔid =i=da λ̓is-əla
appear-BEC =3DIST=OST sunshine-CONT
'Right away it was hot when the sun appeared.' (VF)

A third property common to *states* and *processes* is that roots can take 'momentaneous' *-xʔid*, a suffix which signals that a transition into the event has occurred prior to or simultaneous with the utterance time[17]. Example (51) shows the weather predicate *p̓əlχ-* 'fog' taking *-xʔid*; (51a) shows an inchoative interpretation while (51b) shows a simple past interpretation.

(51) *Weather predicates with -xʔid*:

a. *Context (inchoative): I'm driving to Port Hardy, and right when I hit the road on the edge of town, it gets foggy.*
kə̲lx'mə̲n laga'a la̲xw̲a kə̲l'nas la'e p̓a̲lx̲'ida.
kəlx=m̓ =ən lagaʔa la =χ=a kəlx-ʔas la =i
fog=VER =1SG arrive PREP =ACC=EX drive-LOC PREP =3DIST
p̓əlχ-xʔid-a
fog-BEC-FV
'I drove up to the road and it got foggy.' (VF)

[17] Greene's (2013) denotation for *-xʔid* is given in (i); the forms that weather roots take when suffixed with *-xʔid* are summarized in (ii):

i. $[\![-xʔid]\!] = \lambda P_{<l,<s,t>>}.\lambda t_i.\lambda w_s.\exists e.(\text{BECOME}(P))(e)(w)\&time(e) \subseteq t]$

ii. *t̓lis'id, 'yugwax'id, yuxw'id/yolax'id, k'wis'id, p̓a̲lx̲'id, kwa̲nxw'id, t̓la̲nix̲w'id, t̓sa̲lx̲w'id, 'wa̲da̲x'id*

b. *Context*: *The sun came out from behind a cloud a few minutes ago, but then it went behind the cloud again.*

lą'muχ t̓lis'ida.
lə=m̓ =uχ ƛ̓is-**xʔid**-a
AUX=VER =3MED sunshine-**BEC**-FV
'It was (got) sunny [for a moment].' (VF)

Since Greene (2013) found *transitions* to pattern exactly opposite to *states* and *processes* on the criteria just discussed *transitions* cannot felicitously co-occur with *galabənd* 'to start' or *-xʔid* MOMENTANEOUS, and they only get past tense readings when bare – we can immediately rule out the possibility that weather predicates are lexically specified as *transitions*.

So far the data is consistent with weather predicates being either *states* or *processes*, so our next question is which of these classes weather predicates fall into. Intuitively, *processes* are events which are dynamic and have stages of development over time, whereas *states* are not dynamic and lack stages. Unfortunately, no one has yet identified a semantic test that works in Kwak'wala to target the [+/-stages] property (Greene 2013:35).[18]

Greene (2013) does however identify a potential morphological diagnostic for *states* versus *processes* – namely, whether or not the root can take *-əl(a)/-al(a)*, the 'continuative/pluractional' (hereafter written simply as *-əla*, its most common realization). Greene notes that while some *processes* can occur with *-əla*, *states* never can. If this morphological diagnostic is sound, it means that the ability to co-occur with *-əla* would be grounds for identifying a weather predicate as a *process* and not a *state*. On the other hand, if a weather root were found unable to take *-əla*, it would leave open the question of whether that root is a *state* or a *process* since not all *processes* can co-occur with *-əla*.

With this hypothesized diagnostic in mind, we can see that eight out of nine of the weather predicates surveyed can occur with *-əla* (52) and are therefore diagnosable, according to this criteria, as *processes*. Only *y̓ugʷ-* 'rain' cannot co-occur with *-əla* and remains indeterminate with respect to aspectual class.

[18] For instance, Kwak'wala lacks a suffix sufficiently similar to the English progressive (Landman 1992). The closest suffix in meaning, *-n̓akʷəla*, doesn't appear to work as a simple diagnostic for the [+/-stages] property (Greene, p.c.).

(52)	**Root**	**Root-*əla***	**Gloss**
a.	tl̓is-	tl̓isa̲la	‘sunshine’
b.	’yugw-	*	‘rain’
c.	yu-	yola	‘wind’
d.	kw̓is-	kw̓isa̲la	‘snow’
e.	p̓a̲lx̲-	p̓a̲lx̲ala	‘fog’
f.	kwa̲nkw-	kwa̲nkwa̲la	‘thunder’
g.	tl̓a̲nik̲w-	tl̓a̲nik̲wa̲la	‘lightening’
h.	ts̓a̲lk̲w-	ts̓a̲lk̲wa̲la	‘hot’
i.	’wa̲d-	’wa̲dala	‘cold’

What is the semantics of *-əla*? Greene (2013) describes this suffix as having a pluractional or iterative meaning, associated with small and repeated subevents. She comments, however, that the suffix is only partially-productive in modern Kwak’wala. When asked to explain the difference between weather expressions with and without *-əla*, consultants consistently state that there is no obvious difference in meaning (53)–(54); note the consultant’s comment in (54).

(53) o’mux̲ ha̲yu:lis kwa̲nxwa lax̲w.
ʔo=m̓ =uχ həyulis kʷənkwa la =χʷ
AUX=VER =3MED always thunder PREP =ACC
‘It’s always thundering there.’ (VF)

(54) o’mux̲ ha̲yu:lis kwa̲nxwa̲la lax̲w.
ʔo=m̓ =uχ həyulis kʷənkw-**əla** la =χʷ
AUX=VER =3MED always thunder-**CONT** PREP =ACC
‘It’s always thundering there.’ (JF)
Consultant’s comment: “Yeah, it’s the same [as (36)]. It’s just like if you’re in *Liq̓ʷal* they don’t do the *-la*, they just say *Liq̓ʷal*. We say *Kwak̓wala*, they say *Liq̓ʷal*.”

To summarize this section, we have seen that there is morphological evidence in the language suggesting that weather predicates lexicalize non-agentive *processes*. To the extent that this diagnostic is not fully satisfying, we are still in need of a semantic test to differentiate *processes* and *states*, namely a test that distinguishes the [+/-stages] property of a lexicalized event.

5 Distribution and category

In this section I present data illustrating the distribution of weather roots in non-predicative positions, as arguments and modifiers. Like in other Wakashan languages (Jacobsen 1979, Rath 1984), the grammatical category of roots in Kwak’wala is often not obvious from morphology; we’ll see that weather roots are no exception to this generalization.

In addition to their use as predicates investigated above, weather roots can appear without category-changing morphology in a wide variety of syntactic environments. To begin with, weather words can appear in argument positions as subjects (55), as case-marked objects, (56), and as the objects of prepositions (57). In (55a), *ƛ̓isəla* 'sunshine' is the subject of a matrix clause, and in (55b) it is the subject of a causative *-mas* construction.

(55) *Weather predicates as subjects*

a. niɬ'iduχda t̓lisala.
niɬ-xʔid =uχ=da ƛ̓is-əla
appear-BEC =3MED=OST sunshine-CONT
'The sun(shine) appeared.' (VF)

b. la'mida t̓lisala malkwalamas gaχan ke'e Ruby.
lə=m̓ =i=da **ƛ̓is=əla** məlkʷ-əla-mas
AUX=VER =3DIST=OST **sunshine-CONT** remember-CONT-CAUS
gaχən qe =i Ruby
me C =3DIST Ruby
'Now the sunshine makes me think of Ruby.' (VF)

Example (56) shows weather predicates occurring as arguments that are case-marked by either of Kwak'wala's two morphological case enclitics, =χ 'accusative' or =s 'oblique'. In (56a), (56b), and (56c), weather roots occur as accusative-marked arguments with a variety of thematic roles, while in (56d) a weather root occurs as an oblique-marked argument.

(56) *Weather predicates as =χ and =s objects*

a. g̱alsida t̓sadakaxa t̓lisala laxa gukw.
g̱əls =i=da c̓ədaq=əχ =χ=a **ƛ̓is-əla**
paint =3DIST=OST woman=2VIS =ACC=DET **sunshine-CONT**
la =χ=a gukʷ
PREP =ACC=DET house
'The woman is painting [an image of] sunshine/a sun onto a house.' (VF)

b. watɬala'manxa kwankwa.
wəƛ-əl-a=m̓ =ən =χ=a **kʷənkʷa**
hear-CONT-FV=VER =1SG =ACC=DET **thunder**
'I hear thunder.' (VF)

c. *Context: A cloud outside moved and the sun streamed in.*
niɬ'idamasux̲ a̲nwa'yix̲a t̓lis a̲la.
niɬ-xʔid-a-mas =uχ ʔənwaɣ̓i =χ=a **ƛ̓is-əla**
appear-BEC-FV=CAUS =3MED cloud =ACC=DET **sunshine-CONT**
'The cloud made/let the sunshine appear.' (VF)

d. tɬuma̲n ka̲ɬa̲lasa t̓ɬa̲nik̲wa.
ƛum =ən kəɬəla =s=a **ƛ̓əniqʷa**
INTENS =1SG afraid =OBL=DET **lightening**
'I'm really afraid of lightning.' (VF)

Example (57) shows weather roots being realized as the object of the prepositions *la* (57a) and *q(a)* (57b).

(57) *Weather roots as objects of prepositions*

a. k̓ìsu̲x hinumux̲ Katie le'ex̲ kwis'ix̲is gwa̲lixw lax̲a yola.
k̓is=uχ hinum=uχ Katie le =i =χ
NEG=3MED on.purpose=3MED Katie AUX =3DIST =ACC
kʷis-xʔid =χ=is gʷəlikʷ la =χ=a **yu-əla**
spit-BEC =ACC=3POSS gum PREP =ACC=DET **wind-CONT**
'Katie accidentally spit her gum into **the wind**.' (VF)

b. 'yax'idux̲da k̓wax̲ k̲o'ux̲da t̓sa̲lk̲wa.
ɣ̓ak-xʔid =uχ=da q̓ʷaχ qo **=uχ=da** **c̓əlkʷa**
bad/die-BEC =3MED=OST tree PREP **=3MED=OST** **heat**
'The tree died because of **the heat**.' (VF)

In addition to occurring in argument positions, weather roots can also occur as argument modifiers, as shown in (58):

(58) *Weather roots as modifiers*

a. ix'aku̲x Simon k̲a̲s k̲ase' lax̲ada yola t̓ɬa̲ma'is.
ʔixʔak =uχ Simon q =əs qas=eʔ la
like =3MED Simon C =3C.POSS walk=NMZ PREP
=χ=a=da **yu-əla** ƛ̓əmaʔis
=ACC=DET=OST **wind-CONT** beach
'Simon likes to walk on windy beaches.' (VF)

b. dukʷaluχ Simonaχuxda ʾyugwatłaχ anwa.
duqʷ-əl =uχ Simon=əχ =χ=**uχ=da**
see-CONT=3MED Simon=2VIS =ACC=**3MED=OST**
ʾyugʷ-a=ƛ[19]=əχ ʔənwa
rain-FV=FUT=2VIS cloud
lit. 'Simon sees raining-in-the-future clouds.' (VF)

c. gaχi Simon laχ Bankubaχa tsaɬkwa ganutł.
gaχ=i Simon la =χ Bankuba =χ=a **ʾcəlqʷa**
come=3DIST Simon PREP =ACC Vancouver =ACC=DET **hot**
ğanuƛ
night
'Simon came to Vancouver on a hot night.' (VF)

In all of the above examples, the weather root appears only with 'stem-completive' *-a* (glossed here as FV 'final vowel' following Greene 2013) or 'continuative/pluractional' *-əla*, neither of which are defined as category-changing in Boas (1911, 1947).

Given this apparent flexibility in distribution, we might ask whether there is any evidence for weather roots being verbal or nominal at any level of the grammar. One clear verbal property which weather roots have is the ability to take voice suffixes, discussed in Section 3. Nominal roots, in comparison, are generally unable to take voice suffixes (59); this follows directly from Sherer's (2014) analysis of voice suffixes as nominalizers, given the assumption that it isn't possible to re-nominalize an already nominal root.

(59) *Nominal predicates cannot take voice suffixes*
a. *ẇaċisuʔ [ẇaċi '*dog*']
b. *ẇaċisuʔnukʷ
c. *dagʷadasuʔ [dagʷada '*doctor*']
d. *dagʷadasuʔnukʷ

While more work is needed on diagnosing grammatical categories in Northern Wakashan languages (cf. Jacobsen 1979 on categories in Southern Wakashan), the evidence in (59) is suggestive that category distinctions do exist at some level of the grammar, and that weather predicates are verbal. It is still true, nevertheless, that grammatical category distinction are less surface-apparent in Kwak'wala than in many other languages of the world (Boas 1911, 1947).

[19] In Kwak'wala, tense clitics can appear in the nominal as well as the verbal domain (Boas 1911, 1947; Greene 2013).

6 Conclusion

In this paper we've explored the thesis that weather predicates in Kwak'wala form a distinct lexical class on the basis of shared grammatical behaviour.

In Section 2 we saw that Kwak'wala weather predicates can occur with null subjects, and therefore that such elements are generally available in the grammar. We also saw that subjects of weather predicates can be realized overtly by a semantically restricted set of DPs – namely, DPs which are construable as referring deictically to general environmental, temporal, or ambient conditions. In general, the behaviour of weather predicates also shows us that Kwak'wala is a language that requires subjects be realized, whether overtly or by means of a null element indexed by subject agreement clitics.

In Section 3 we investigated optional arguments of weather predicates that are interpreted in context as either *locations* or *affected themes/goal*s of weather events. When expressed in prepositional *la* phrases, the thematic role of these optional arguments is covert. The thematic role of the optional argument becomes clear, however, when it is promoted to subject position in tandem with voice morphology appearing on the predicate; with *-ʔas*, the argument is interpreted as a *location*, and with *-suʔ*, it is interpreted as an *affected theme/goal*. More generally, the data in this section demonstrates that voice suffixes are able to promote non-obligatory (i.e. omittable) arguments to subject position, a finding which suggests that 'promotability' does not necessarily differentiate arguments from adjuncts in this language. The data in this section also clearly illustrated that these two voice suffixes have identifiable and distinct semantic selectional requirements.

Morphological evidence related to the use of 'continuative/pluractional' *-əla* was presented in Section 4 to argue that weather predicates lexicalize (non-agentive) *processes*. Ultimately though, more work is needed on understanding the realization of [+/-stages] property in Kwak'wala and on finding a semantic diagnostic for differentiating non-agentive *processes* and *states* in this language.

Finally, in Section 5 we saw that weather predicates can occur underived in a wide variety of grammatical environments – namely, as arguments and modifiers in addition to as predicates. While their distribution may suggest that weather predicates don't belong to any particular grammatical category, their ability to take voice suffixes is evidence that they are verbal at some level.

In focusing on the shared grammatical properties of the roots in Table 1, I have left aside interesting questions about the differences between these roots. For example, *ẇəd-* 'cold' and *ʔ̓əlqʷ-* 'hot' are widely-used in non-weather contexts (e.g. *ċəlqʷa di* 'hot tea') and have gradable semantics. The fine-grained semantic features of these weather roots, as well as their potential for combination with Kwak'wala's rich inventory of lexical suffixes (Boas 1911, 1947) remain topics ripe for future investigation in this domain.

Glossing abbreviations

- affix boundary, = clitic boundary, 1POSS first person singular possessor, 1SG first singular, 3DIST third-person distal, 3MED third-person medial, 3PROX third-person proximal, 3C.POSS third-person possessor coreferential with subject, ACC accusative, AUX auxiliary, BEC become operator/momentaneous-perfective aspect, CAUS causative, C complementizer, CONT continuative/pluractional, CN 'connective', DET determiner, FEM feminine, FUT future tense, ERG ergative, FV final vowel, (IN)VIS visibility clitic, INTERACT interactive clitic, LOC locative-promoting voice suffix, N.E. null element, NMZ nominalizer, NOM nominative case, NUKW 'have (nominal predicates)/indefinite-object (verbal predicates)', THM/GOAL theme/goal-promoting voice suffix, OBL oblique case, OST ostensive marker, PREP preposition, PROG progressive aspect, R.PST recent past tense, RED reduplication, VER verum focus, JF judged form, TF translated form, VF volunteered form.

Appendix I: Additional weather words

The following list contains some additional weather words listed on First Voices (http://www.firstvoices.ca/en/Kwakwala/words) which have not yet been thoroughly investigated in relation to the properties above:

adalxa	'overcast'
angwadzulis	'cloudy', 'sign of bad weather'
anwa'yi / anwe'	'cloud'
gawis'id	'to become frosty'
gawis'mis	'frost'
lus'idi	'clouds opening up'
ludza'nakwala	'sky clearing up (of clouds)'
magwala	'misty'
na'yi / ne'	'snow (on ground)'
p̓adakala	'dark outside (night)'
tsalxa	'hailing'
t̓six̌'id	'to stop raining'
yak̓alxala	'cloudy day'
k̓ìksta'yala / k̓ìxsti'yala	'to rain hard, pour'
k̓ukwala	'calm weather'

Appendix II:
Summary of 8 basic and embedded weather constructions

The following four basic weather constructions (I–IV) occur under different discourse conditions (unexplored here) but semantically are nearly equivalent:

(I) **[PRED[=AGR ∅N.E.][PP]]**

e.g. yolux̌ laxa at̓ɬi.

yu-əl	=uχ	∅	la	=χ=a	ʔaƛ̓i
wind-CONT	=3MED	N.E.	PREP	=ACC=DET	forest

lit. 'It's windy in the forest.' (VF)

(II) **[PRED[=AGR NP]]**

e.g. yoluxda atɬi.
yu-əl =uχ ʔaƛ̓i
wind-CONT =3MED forest
lit. 'The forest is windy.' (VF)

(III) **[PRED-ʔas[=AGR NP]]**

e.g. yola'asuxda atɬi.
yu-əla-ʔas =uχ=da ʔaƛ̓i
wind-CONT-LOC =3MED=OST forest
lit. 'The forest is being wind-blown on.' (VF)

(IV) **[PRED-suʔ[=AGR NP]]**

e.g. yolasu'uxda atɬi.
yu-əla-suʔ =uχ=da ʔaƛ̓i
wind-CONT-THM/GOAL =3MED=OST forest
lit. 'The forest is being wind-blown.' (VF)

These same four expressions are shown embedded in the complement of *ʔeχsd* 'want' in (V-VIII):

(V) **[ʔəχʔeχsd[SUBJ][qa [PRED=eʔ=s(oχ/a) ∅N.E.][PREP]]]]**

e.g. ax̲'ex̲sdn̲ k̲a yole's lax̲a atɬi.
ʔəχ-ʔeχsd =ən qa yu-əl=eʔ =s ∅ la =χ=a
AUX-want =1SG C wind-CONT=NMZ =OBL N.E. PREP =ACC=DET
ʔaƛ̓i
forest
lit. 'I want it's being-windy in the forest.' (VF)

(VI) **[ʔəχʔeχsd[SUBJ] [qa [PRED=eʔ[=s(oχ/a) NP]]]]**

e.g. ax̲'ex̲sdn̲ k̲a yole'sux̲da atɬi.
ʔəχ-ʔeχsd =ən qa yu-əl=eʔ =s=uχ=da ʔaƛ̓i
AUX-want =1SG C wind-CONT=NMZ =OBL=3MED=OST forest
lit. 'I want the forest's being-windy.' (VF)

(VII) **[ʔəχʔeχsd[SUBJ][qa [PRED-ʔas=eʔ[=s(oχ/a) NP]]]]**

e.g. aẋ'exsdaan ḵa yola'ase'sa at̓li.
ʔəχ-ʔeχsd =ən qa yu-əla-ʔas=eʔ =s=a ʔaƛ̓i
AUX-want =1SG C wind-CONT-LOC=NMZ =OBL=DET forest
lit. 'I want the forest's being wind-blown onto.' (VF)

(VIII) **[ʔəχʔeχsd[SUBJ] [qa [PREP-suʔ=eʔ[=s(oχ/a) NP]]]]**

e.g. aẋ'exsdaan ḵa yolasu'e'sa at̓li.
ʔəχ-ʔeχsd =ən qa yu-əla-suʔ=eʔ =s=a
AUX-want =1SG C wind-CONT-THM/GOAL=NMZ =OBL=DET
ʔaƛ̓i
forest
lit. 'I want the forest's being wind-blown.' (VF)

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The barrier breached: Ongoing cooperations between native speakers and linguists*

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Abstract: In order to do fruitful research on any language, especially a little-known or sparsely described one, it is essential that the researcher is open to the insights and opinions of his/her consultants into the consultants' language (in addition, of course, to the data themselves that are provided by the consultants). Aside from the valuable insights and opinions offered by fluent speakers who have, however, not received formal academic training, the contributions of native speakers who are trained in the methods of linguistic analysis are especially welcome. The most welcome results of such forms of cooperation are the ways in which they can, and should, contribute to language revitalization.

Keywords: Speakers' knowledge, fieldwork, linguistic cooperation, language revitalization

1 Introduction

When doing fieldwork, linguistic researchers must often free themselves from the grammatical concepts in their own language in order to understand and absorb the grammatical categories of the language that is the object of their study. This is the first barrier to be crossed. For example, a fieldworker who speaks a language that makes no distinction between the inclusive and exclusive first person plural ('we, you included' vs. 'we, but not you') must be prepared for the fact that a language under study may make this distinction. Thorough training in fieldwork methodology, supported by textbooks such as Bowern 2008 or Newman and Ratliff 2001, plus exposure to a wide range of languages through courses and self-study, should go a long way towards addressing this problem.

A more important barrier is the (often self-erected one) that separates the fieldworker from the native speakers, i.e., his or her consultants for the linguistic project: To what extent can we rely on the native speakers' knowledge of their own language in order to use their reflections in our description of the language?

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*This is a slightly expanded version of a talk delivered at the 50th International Conference on Salish and Neighbouring Languages, Vancouver, August 5–7, 2015. That itself was an updated version of Van Eijk 1997b. I wish to express my gratitude to my Lillooet consultants and to my (Lillooet and non-Lillooet) fellow-linguists, who so generously provided their insights into the issues raised in this paper. The responsibility for the contents of this paper remains mine alone.

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(By "native speakers' knowledge" I mean the native speakers' analytical insight into their own language, not their ability to speak it.)

2 Evidence con

There is some intriguing evidence that speakers of any language (regardless of their culture) have only a limited insight into the structure of their language, and that they have a certain deal of trouble liberating themselves from the pre-established categories in their language. The eminent American linguist Benjamin Lee Whorf (1897–1941), who was originally trained as a fire prevention inspector for an insurance company, collected many cases of accidents caused by ambiguities in English which led speakers of English to engage in extremely hazardous conduct (one example being the case of a man lighting a cigarette close to an *empty* oil drum, with the oil drum [which was still full of gas] exploding as a result, all of which was caused by the fact that English does not have a word for 'empty of liquids or solids but still full of gas') (Whorf 1941/1956). Another example is the use of *pro-life* and *pro-choice* in the abortion debate, two terms that suggest extremes but hide the fact that moderate "pro-lifers" and "pro-choicers" may have more in common with each other than they have with the extremists in their own self-designated group.

When doing fieldwork, linguists often are faced with instances where speakers do not recognize the fact that language can be studied as such (just like botany, use of fishing utensils, etc.), and that as such it is not used as a communicative tool. For example, a question like *How do you say 'my house' in your language?* often gives the correct form for 'your house,' since the interviewed speaker thinks that the linguist is referring to his or her own house. (In the same way, 'your house' is often translated in the target language as 'my house.') Example sentences that would be entirely plausible grammatically are often rejected because they refer to a situation that would be ridiculous in the real world. A famous anecdote has a linguist asking a Native American *How do you say 'my skunk' in your language?*, and getting the reply *Indians never own skunks*.

The more abstract an area of linguistic research, the greater the chance that a fieldworker is baffled by a consultant's information. A famous case involves Sapir's puzzlement at his Southern Paiute consultant's apparent inability to hear the difference between the sounds [p] and [β], a riddle solved if one realizes, as Sapir did, that both sounds are allophones of the phoneme /p/. (This case study, with far more details on Southern Paiute allophony, is discussed in Sapir 1949: 48–52.)

Thus, in order to make a simile, native speakers (again, regardless of their culture) tend to be far better drivers than mechanics: They are wizards at getting the car through a sharp corner at 100 miles per hour, but they may have less understanding of the machinery under the hood.

Speakers often do consciously reflect upon their language, but then their conclusions may be "wrong" in that their analysis is based on their (from a purely analytical linguistic point of view) incorrect understanding of the underlying forms of their language. For example, Sapir 1949:52–54 relates an incident where

his Sarcee (Tsúut'ína) consultant insisted that the words *dìní* 'this one' and *dìní* 'it makes a sound' were actually quite different in pronunciation, a difference that kept escaping Sapir's almost supernaturally fine ear. The puzzle was not solved until Sapir realized that the first form goes back to underlying *dìní*, while the second form goes back to underlying *dìnít'*, something realized by Sapir's consultant, who was then led to believe that the surface forms were also different (in the same way that a speaker of North American English may conclude that [ˈrajɾər] 'rider' and [ˈrajɾər] 'writer' are pronounced differently).

Conscious reflections upon the structure of one's own language often lead to absurd results, in that a speaker may actually recast a particular language form in order to fit his or her understanding of the etymology of a particular word. A shopworn example is "herstory," amusing where it is offered tongue-in-cheek, annoying where it is based on a serious (and biased) misanalysis of the *his* part in *history*, which in fact goes back to Greek *historia* 'inquiry, historical account, history.' (Machismo-inclined individuals might be enticed to retaliate by recasting *Hercules* into "Hiscules".) One of my colleagues, who comes from a strict Methodist background, was taught by his teetotalling mother to avoid the term *rootbeer* (even though this appalling beverage does not have a single drop of alcohol in it) and say "rooty-tooty" instead. (Whorf would have loved this one, and would also have appreciated the fact that "tooty" is a diminutive of "toot," which refers to a popular method of consuming cocaine. Mother would not have been amused.) About twenty years ago, the Kleberg County commissioners of Kingsville, Texas, obviously one of the stronger buckles in the southern Bible Belt, voted to promote the use of "Heaven-o" instead of *Hello*, the latter to be avoided because of its connotation with *Hell* (a word with which it has no etymological connection). Apparently, the promotors of this move were not aware of the fact that *Hello* (by their reasoning) could also mean 'Hell (is) low,' and that Heaven-o could be interpreted as 'Heaven? No!' Obviously, popular etymology is a game that two can play.

Thus, native speakers tend to have a rather limited analytical insight into their language, and where they do, their observations can often be shown to be wrong or even ludicrous. (The most notorious examples of this are provided by the Greek and Roman "analogists" whose forays into etymology, as quoted in Bloomfield 1933:4–5, led them to derive, for example, Greek *lithos* 'stone' from *lian theein* 'to run too much,' because this is what a stone does *not* do, or Latin *lucus* 'grove' from *lucere* 'to be bright, shine,' a derivation summarized as *lucus a non lucendo*.)

3 Evidence pro

In spite of the above, there are many cases where speakers are capable of freeing themselves from the constraints of their language, and make valid observations on the grammatical structure of the language they speak. The science of linguistics would be impossible without this capacity to free oneself from one's linguistic chains and fetters.

One does not have to be a formally trained grammarian or linguist, however, in order to make intelligent observations on one's own language. Linguistic

fieldwork would not be possible without the ability of native speakers to recognize and use (and give examples of) words and phrases entirely outside the context in which they are used. Some speakers are better at this than others, but every seasoned fieldworker has a treasure trove of fond memories in which an intelligent native speaker came up with a splendid set of contrastive examples or, in a coolly scientific manner, analysed a hitherto baffling problem. One of my favorite memories concerns the way in which Joe Joseph, a superb speaker of Lillooet and a man of deep intellect, explained the system of demonstrative pronouns in Lillooet to me, complete with dead-on examples of use. (Section 25 of my dissertation Van Eijk 1997a for the largest part consists of the examples provided by Mr. Joseph, so that for all intents he is the first co-author of that section.) Also, I was referred to Mr. Joseph by Lorna Williams, a younger speaker of Lillooet, who already had suggested to me that the demonstrative pronouns had to be analyzed in terms of visibility and relative distance, and who over the years has been a great colleague in my research on Lillooet, both as a speaker and as a fellow-linguist. (As an example of our cooperation I should mention Van Eijk and Williams 1981, or Lorna's comments on *sqwéqwel'* in Van Eijk 2016.)

Another example of native speakers' acuity when it comes to insights into their own language comes from my Mount Currie consultant Marie Leo (a woman of truly fearsome intelligence) who, about twenty minutes after the conclusion of a fieldwork session with her, phoned me to tell me that she had mispronounced two words during that session, in that she should have said *líl'watemc* 'person from líl'wat (roughly the area around Mount Currie)' and *líl'watemcets* 'to speak líl'wat,' instead of *líl'watmec* and *líl'watmects*, the forms she had given me earlier. (In fact she had pronounced the underlying forms of *líl'watemc* and *líl'watemcets*, without the deletion and insertion of schwa <*e*> that lead to the surface forms.)

In addition to academically untrained but highly intelligent and involved speakers, the field of Native American linguistics is also rife with examples of speakers of Native American languages who, as trained linguists, have made outstanding contributions to the study of their own languages. Parks 1991 provides a long list of names, of whom the O'odham speaker Juan Dolores (1880–1948), commemorated in Mathiot 1991 and the Navajo speaker William Morgan (1917–2001), commemorated in Dinwoodie 2003, are only two, and very impressive, examples. A recent, and ongoing, series of bilingual text collections published by the University of Regina Press (Cote 2011, Heavy Shields Russell and Genee 2014, Ratt 2014, Van Eijk 2015b, and Wolvengrey 2007) would not have been possible without rigorous input from the speakers of the languages represented in these texts, to which I should add that Cote (Saulteaux), Heavy Shields Russell (Blackfoot) and Ratt (Woods Cree) are also native speakers of the languages represented in their respective volumes, with Heavy Shields Russell and Ratt providing the texts, and Cote transcribing, editing and translating the texts provided to her by Saulteaux Elders. Also very much worth mentioning is Okimâsis' excellent 2004 description of her Plains Cree first language. (An earlier 1999 edition, at that time co-written with Solomon Ratt, received a deservedly glowing review in Rice 2000.)

As for Salish, the involvement of native speakers as linguistically trained investigators is relatively recent in comparison to the study of Salish languages by non-speakers, but a number of names stand out, such as Vi Hilbert (also mentioned in Parks 1991, and the author of a large number of studies on Lushootseed, including Hilbert 1974, 1983, and Bates, Hess, and Hilbert 1994), Lawrence Nicodemus (whose insights into his mother tongue Coeur d'Alene [Snchitsu'umshtsn] are recorded in his two-volume dictionary [Nicodemus 1975a,b] and other works, including his root dictionary as edited by Lyon and Greene-Wood 2007), Arnold Guerin (whose contributions to the study and preservation of Musqueam include Guerin n.d. and Guerin and Powell 1975), and Peter Jacobs, speaker of Squamish and currently Assistant Professor of Linguistics at the University of Victoria, and the author of (selecting from a long list) Jacobs 1994 and 2012. One should also note Marie Abraham's Lillooet language account of her encounter with a Sasquatch (Abraham 2015). The contributions made by Lorna Williams (now Professor Emerita at the University of Victoria), as referred to above, are gladly mentioned again here.

Finally, cooperation by linguists with speakers of languages under research is not a one-way street. In addition to native speakers providing insights into their languages, either on the basis of their natural gifts for linguistic introspection, or on the basis of formal linguistic training, linguistic fieldwork benefits greatly if fieldworkers acquire at least a basic fluency in the languages they study. Aside from showing respect to the speakers of these languages, and thereby already facilitating improved personal communication, such fluency, even if it is limited, can only help to gain a deeper insight into the language that is the object of the linguist's interest.

Fortunately, the issues that are raised in this paper have been largely addressed or are in the process of being addressed, in that more and more native speakers are getting involved in the study, analysis and teaching of their languages, while many linguists are trying to gain at least functional fluency in the languages they study. In that sense, any barriers that may have existed between linguists and speakers are increasingly breached and torn down, a development that can only be applauded.

4 Conclusions

Linguists are very well advised to involve native speakers not only as consultants, but also as their scholarly colleagues, in their research on these speakers' languages and to give serious consideration to the native speakers' observations. Linguists do not always have to agree with the observations made by native speakers, but in that case the native speakers will still be esteemed fellow-linguists, whose opinions should be reflected on as an alternate analysis in any scientific study. At any rate, the advice or opinions of native speakers should be sought in cases where the linguist is at a loss as to how to interpret certain categories in the target language. For example, Van Eijk 2015a calls for the advice of native speakers of Lillooet on how to interpret those forms in their

language that may be (but perhaps should not be) grouped under the general rubric IRREALIS.

Research on endangered languages should always lead to attempts at maintaining and reviving these languages. Especially in this field the cooperation with native speakers is vital, as many fine examples of curriculum materials in Native American languages (such as those for Lillooet that are listed on the web site of the Upper St'at'imc Language Culture and Education Society [uslces.org]) will attest to.

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Máhyeqs and the mouse: A Lillooet story*

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Abstract: In this paper we present a Lillooet (St'át'imc) story recorded in 1979 from Rosie Joseph, about a humorous incident involving Máhyeqs (Mathilda Jim), like Rosie Joseph a Mount Currie Elder (be it of a far more advanced age than Rosie). The story is presented in a three-line format, with the original Lillooet (including morpheme markers), a morpheme-by-morpheme translation, and a running translation. Two introductory sections, one on the Lillooet language, its main grammatical features and its dialects, and one on the text itself, precede the text.

Keywords: Lillooet, oral literature, *sqwéqwel'*, *sptakwlh*

1 Introduction

Like all First Nations languages, the Lillooet language is the receptacle of an abundantly rich oral literature which first of all includes so-called *sptakwlh*, often labeled "legends" or "myths," but better translated as "ancient stories forever." These stories deal with ancient times when the world was young and great beings walked the earth, often giving plants, animals and landscape features their present shape. (A recent bilingual collection of Lillooet *sptakwlh* is Van Eijk 2015, to which I refer the interested reader for more details on the contents and cultural background of *sptakwlh*.)

In addition to *sptakwlh*, and to jokes, songs, speeches, etc., Lillooet literary traditions also include more contemporary stories (*sqwéqwel'*), of which Lorna Williams (p.c.) gives the following description:

> "[*sqwéqwel'* include] reports of hunting or fishing trips so that the community can also have a relationship with the animal that has given its life for them. From the hunter's story people learn the state of the land, animals and plants. Or they tell of significant events witnessed by the story teller. Interspersed in all story telling were humorous stories by people skillful at poking fun at people and events, stories

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that made people laugh and not take themselves too seriously. Stories were told to help keep the mood balanced."

An example of a *sqwéqwel'* is "Máhyeqs and the Mouse," as told by the late Rosie Joseph of Mount Currie, in which Máhyeqs (Mathilda Jim, often affectionately called Mama), who passed away in the 1980s at the approximate age of 120, has an encounter with a mouse (and a rotten potato!) in her roothouse.

The story is first of all highly valuable for the grammatical information it provides, such as the ample use of affixation (including infixation), reduplication, and a variety of discourse particles. However, there is also the customary element of humour that is inherent to so many Lillooet stories (as noted in Lorna Williams' comments), in that even Máhyeqs, a highly respected Elder, is not immune to making an amusing mistake.

This story will be presented in the original Lillooet, with an interlinear morpheme-by-morpheme translation, and a running translation. Two introductory sections, one on the Lillooet language, its dialects and its main grammatical features, and another one on the text itself, precede the Lillooet original and its translation.

2 The Lillooet language

Lillooet is an Interior Salish language spoken in an area about 160–300 kilometers north by northeast from Vancouver. The language falls into two closely related and largely mutually intelligible dialects, a northern one, spoken in an area containing the communities of Pavilion, Fountain, Bridge River, Lillooet and Cayoose Creek, and a southern one, spoken in Mount Currie, Samahquam, Skookumchuck and Port Douglas. The central communities of Seton lake and Anderson Lake (D'Arcy) probably present a mix of both dialects, but that is an issue I have not been able to explore in any detail. Long-established patterns of mutual contacts and intermarriage have led to a further blending of the two main dialects. A map of the Lillooet-speaking area is provided in Davis and Van Eijk 2014, Van Eijk 1997 and Van Eijk 2013.

Lillooet consonants are the following: (1) plain (non-glottalized) plosives and affricates: *p t c c̓ k kʷ q qʷ*; (2) glottalized (ejective) plosives and affricates: *p̓ c̓ t̓ k̓ kʷ̓ q̓ qʷ̓*; (3) fricatives: *s s̓ ɬ x xʷ x̌ x̌ʷ*; (4) plain and glottalized (laryngealized) resonants: *m m̓ n n̓ l l̓ l̓̓ γ γ̓ ʕ ʕ̓ ʕʷ ʕ̓ʷ w w̓ y y̓ z z̓*; (5) laryngeals (classed with the resonants in Van Eijk 1997): *h ʔ*. Vowels are: *a a̓ i i̓ u u̓ ə ə̓*. Phonemes marked with subscript dot are retracted (i.e., retracted tongue-root with simultaneous tensing of the tongue muscles). Phonetic details are provided in Van Eijk 1997 and Van Eijk 2013.

Lillooet employs dynamic stress (marked with the acute), which is phonemic, as in *máqa?* 'snow' vs. *maqá?* 'Death Camas' ("poison onion"). Stress is also mobile, as in *cúnas* 'he tells him' > *cuntumúłas* 'he tells us.'

Lillooet words fall into full words and clitics. Full words are either invariable (i.e., not allowing bound morphology) or variable, allowing any of the following morphological operations: prefixation, suffixation (far more common than prefixation), various types of reduplication, one infix, compounding, and apophony (unproductive). The text presented here contains examples of prefixation, suffixation, reduplication, and infixation, which are coded as follows, with numbers in parentheses referring to the sentences in the Lillooet text:

Prefixation is indicated with a period following the prefix when presented as part of a word, but with a following hyphen when quoted in isolation, as in *s.qawc* (4) 'potato' (*s-* nominalizer, *qawc* 'potato' [bound root]).

Suffixation is indicated with a hyphen preceding the suffix, both in a suffixed form and when quoted in isolation, as in *cípun-s* (2) 'his/her (*-s*) root cellar (*cípun*).'

The text provides examples of the three major types of reduplication in Lillooet. Augmentative ("total") reduplication repeats the first consonant-vowel-consonant of the root and places the copy before the root. It is marked with the colon, as in *qʷám:qʷm-ət* (10) 'funny,' from the bound root *qʷam* 'funny,' which yields its stress to the augment, and loses its vowel, plus the aspectual suffix *-t*, here with morphophonemically inserted *ə*.

Diminutive ("interior") reduplication repeats the consonant before the stressed vowel and places the copy after the stressed vowel, the copy written between angular brackets, as in *qʷəl̓:qʷal̓ə<l̓>t-mín-an* (1) '(the one) I talk about,' from *qʷal̓út* 'to speak,' here also with augmentative reduplication, but the augment unstressed (following rules that are discussed in detail in Van Eijk 1997:64–65), the stressed vowel reduced to *ə* (often a by-product of diminutive reduplication) and then yielding the stress to the "relational" transitivizer *-min* (following a pattern discussed in Van Eijk 1997:14–17), which in itself is followed by the first person singular subject suffix *-an*. (In Van Eijk and Williams 1981, *qʷəl̓:qʷal̓ə<l̓>t-mín-an* appears as the allegro-form *qweqwl'el'tmínan* [practical orthography for *qʷəqʷl̓əl̓tmínan*]).

Telic ("final") reduplication repeats the consonant following the stressed vowel, usually with *ə* separating the targeted consonant and its copy. Aside from having a general telic function (that is not always easily recovered from English translations) it also indicates a certain loss of control over the action described. It is marked with the equal sign, as in *kʷán=ən-s* (8) 'to catch s.t.,' from *kʷan* 'to take something,' yielding *kʷán=ən* 'to get caught,' here followed by the causativizer *-s*, plus *-an* first singular subject, the resulting construction imbedded in *ti‿..‿a* as explained below.

There is only one type of infixation, viz., the insertion of a glottal stop after the root vowel ("interior glottalization"). It broadly indicates an inchoative (ingressive) function (not always evident from English translations) and is marked with swing brackets, as in *na{ʔ}q̓* (8) 'rotten,' with the bound root *naq̓* 'to rot.'

Enclitics are indicated with a loop (‿) that follows proclitics and precedes enclitics, as in *ti‿púʔy̓axʷ‿a* (5) 'the (*ti‿*) mouse (*púʔy̓axʷ*)' (with the 'reinforcing'

element ˌ*a* that is required by *tiˌ* 'present/known/singular' and a number of other articles, such as *niˌ* 'absent/known/singular' [9] and *ʔiˌ* 'present/known/plural' [4], and by the resultative prefix *ka-* [7]).

3 General comments on the text

A full analysis of even a short text like this falls outside the limits of this paper, but a few aspects of the text warrant a brief discussion. In the first place, the kataphoric pronoun *nił* often functions as a conjunction 'and then, and so' (in which case it usually combines with the discourse enclitic ˌɬ̓*uʔ*). It then also requires a factualized construction (signalled with the nominalizer *s-*) in which the subject of an intransitive verb is marked with possessive affixes (as in *níɬˌkʷuʔˌɬ̓uʔ s.cut-s* (7) 'and then she said,' with *-s*, third person singular possessive, and *cut* 'to say s.t.'), and the subject of a transitive verb is marked with transitive subject suffixes (as in *níɬˌɬ̓uʔ s.ɬ̓ák-s-as* (3) 'and then she took along [her bucket],' *-as* third singular transitive subject).

Aside from *níɬˌɬ̓uʔ*, the adverb *ʔayɬ* 'next' is also used as an episode-marking device in a story. The difference between *níɬˌɬ̓uʔ* and *ʔayɬ* seems to be that the former divides the story into smaller scenes, while the latter divides it into larger acts.

In addition to the factual paradigm (limited to dependent clauses), Lillooet also employs an indicative paradigm (used in main clauses), as in *násˌkʷuʔ* (2) 'she went' (with zero for third singular intransitive subject) or *kʷán-as* (4) 'she took (potatoes)' with *-as* for third singular transitive subject), and a subjunctive paradigm, as in *n.kaʔ-asˌḵáˌhəm̓ˌtuʔ* (9) 'it must have gone off somewhere' (with *-as* for third singular intransitive subject, homophonous to *-as*, third singular transitive indicative subject). All three paradigms (which largely overlap in their transitive sub-paradigms) allow auxiliary constructions, which are fully stressed and usually based on *waʔ* 'to be (busy)' in the indicative paradigm, as in *wáʔˌkʷuʔˌɬ̓uʔ ʔá.tiʔ x̌íl-əm* (5) "she was doing that,' but a proclitic construction in the other paradigms, as in *níɬˌɬ̓uʔ səsˌwáʔ* (4) 'so she stayed around,' with *səsˌ* a proclitic construction resulting from the contraction of *s.waʔ-sˌ*.

A typical feature of Lillooet speech events is the generous use of various discourse particles, such as ˌ*kʷuʔ* (2), ˌɬ̓*uʔ* (3), ˌ*mał* (7), ˌ*xʷiɬ* (8), ˌḵ*a* (8), ˌ*həm̓* (9), with their letter codes (REP, etc.) given in the text, and broad translations (following the letter codes) provided in section 3.

Demonstrative adverbs ('here,' there,' 'thither,' etc., also used more liberally in Lillooet than in English) consist of a demonstrative root (glossed DEM, as explained in section 3) plus a localizing prefix, e.g. *l.cʔa* (1) 'here,' *ʔá.kʷuʔ* (2) 'that way.'

The story as presented here was tape-recorded in 1979 by Dr. Gordon Turner (at that time employed at the Mount Currie Curriculum Centre) from the late Rosie Joseph of Mount Currie. It was originally published in Van Eijk and Williams 1981, with the Lillooet in a practical orthography of which *sptakwlh* (*s.ptakʷɬ*),

sqwéqwel' (*s.q^{w}á<q^{w}ə>l̓*) and *Máhyeqs* (*máhyəqs*) are some examples. It is also included in Van Eijk 1997, with a full grammatical analysis, but without the typographical morphological coding that is detailed in section 1 above (so that all morphemes are signalled with the hyphen, and no typographical distinction is made between the various types of affixation and reduplication).

This paper was also presented at the third Prairies Workshop on Language and Linguistics, held at First Nations University of Canada, March 5, 2016. In addition to implementing a number of corrections and additions, it has been re-edited here to fit the ICSNL style sheet.

4 The Lillooet text

Abbreviations used in the morpheme-by-morpheme analysis are the following: ADH: adhortative enclitic (*ˌmaɬ*, used mostly in commands); ART: article (comprising a number of determiners indicating presence or absence, known or unknown to the speaker, and singular or plural); AUG: augmentative reduplication; ASP: aspectual marker (comprising a group of various such markers); COMP: completive (*ˌtuʔ* 'over and done with'); CONCL: conclusive (*ˌx^{w}iɬ* 'after all, as it turned out to be'); CONF: confirming (*ˌhəm̓* 'sure, really'); DEM: demonstrative root (of demonstrative pronouns or adverbs, indicating proximal or distal, visibility or non-visibility, and whether or not the point of reference is the focus of attention); DIM: diminutive reduplication (where a non-*ə* [e.g., *u*] is reduced to *ə*, we indicate the original vowel after a slash, as in DIM/*u*); DISC: general discourse marker (*ˌƛ̓uʔ* 'well, but, so'); FACT: factualizer (*s*-, homophonous with, and related to, the nominalizer *s*-); HYP: hypothetical (*ˌk̓a* 'as I guess, presume'); INCH: inchoative infixation (interior glottalization); INTR: intransitivizer; KAT: kataphoric pronoun (*niɬ* 'it is the one'); LOC: locative; NOM: nominalizer (*s*-); POSS: possessive; REIN: reinforcing enclitic (*ˌa*, required by most articles, and by the resultative [RES] prefix *ka*-); REL: relational transitivizer (*-min/-miṅ*, broadly indicating 'about,' or 'with relation to'); REP: reportative (*ˌk^{w}uʔ* 'as I was told'); RES: resultative (*ka*- 'suddenly, after trying, manage to,' always requiring the reinforcing enclitic *ˌa*); S: subject; SG: singular; TEL: telic reduplication; TR: transitivizer other than IND or REL (and comprising various markers indicating causation, direct transitivization, addressing the object, or nourishing a thought on the object).

Numerals 1, 2, 3 indicate first, second and third person. The text has two examples of words with roots that have no clearly identifiable meaning, viz., *x̌l* in *x̌l-akaʔ* (?-hand) (3) 'pail, bucket' and *zay* in *s.záy-tən* (NOM.?-instrument) (10) 'business, what one does.' Forms with interior (diminutive) reduplication or interior glottalization have DIM or INCH glossed after the targeted form, as in *na{ʔ}q̓* (rot{INCH}) (8) 'rotten.'

(1) nił ʔayɬ l.cʔa s.máma ti˪húẋ̌˫a
KAT next in.DEM NOM.Mama ART˪about to˫REIN
qʷəl̓:qʷal̓ə<l̓>t-mín-an.
AUG:speak<DIM/*u*>-REL-1SG/S.
‘This time it is Mama I am going to talk about.’

(2) nás˪kʷuʔ ʔám-ləx ʔá.kʷuʔ cípun-s˫a.
go˪REP feed-body thither.DEM root cellar-3SG/POSS˫REIN.
‘As I was told, she went that way to get some food from her roothouse.’

(3) níɬ˪ƛ̓uʔ s.ƛ̓ák-s-as ti˪x̌l-áka?-s˫a.
KAT˪DISC FACT.go-TR-3SG/S ART˪?-hand-3SG/POSS˫REIN.
‘So she took along her bucket.’

(4) cixʷ ʔá.kʷuʔ, níɬ˪ƛ̓uʔ sɔs˫wáʔ, kʷán-as ʔə.tʔú
arrive there thither.DEM, KAT˪DISC FACT˪be, take-3SG/S thither.DEM
ʔi˫s.qáwc˫a.
ART˪NOM.potato˫REIN.
‘She got over there, so she stayed around, taking potatoes.’

(5) wáʔ˪kʷuʔ˪ƛ̓uʔ ʔá.tiʔ x̌íl-əm, ƛ̓ák˪kʷuʔ ká.tiʔ
be˪REP˪DISC thither.DEM do like that-INTR, go˪REP around.DEM
ti˫púʔẏaxʷ˫a.
ART˪mouse˫REIN.
‘So, as I was told, she was busy doing that, and then a mouse came by.’

(6) níɬ˪kʷuʔ˪ƛ̓uʔ s.kʷán-as, lip̓-iṅ-ás˫kʷuʔ.
KAT˪REP˪DISC FACT.take-3SG/S, squeeze-TR-3SG/S˫REP.
‘So she grabbed it, and she squeezed it.’

(7) níɬ˪kʷuʔ˪ƛ̓uʔ ʔayɬ s.cut-s: “wáʔ˫maɬ ʔayɬ lá.tiʔ
KAT˪REP˪DISC next FACT.say-3SG/POSS: “be˫ADH next in.DEM
ka.pc̓̍t˫a!”
RES˫squish˫REIN!”
‘So she said: “Get all squashed then!”’

(8) níɬ˪kʷu?˪x̌̓u? ?ayɬ s.kɬ-aka?-mín-as˪kʷu? lá.ti?
KAT˪REP˪DISC next FACT.release-hand-REL˪REP in.DEM
ti˪s.qawc˪a˪xʷiɬ˪á˪ǩa, na{?}q̓ s.qawc
ART˪potato˪REIN˪CONCL˪REIN˪HYP, rot{INCH} NOM.potato
ti˪kʷan=ən-s-ás˪a.
art˪take=TEL-TR-3SG/S˪REIN.
'So, as I was told, she then released her grip on what turned out to be a potato, it was a rotten potato that she had caught.'

(9) n.ka?-as˪ǩá˪həm̓˪tu? ?ayɬ ni˪pú?y̓axʷ˪a.
LOC.where-3SG/S˪HYP˪CONF˪COMP next ART˪mouse˪REIN.
'The mouse must have run off somewhere.'

(10) níɬ˪ti? qʷám:qʷm-ət s.záy-tən-s s.máma.
KAT˪DEM AUG:funny-ASP NOM.?-instrument-3SG/POSS NOM.Mama.
'That is a funny thing that happened to Mama.'

(11) cúkʷ˪ti?.
finish˪DEM.
'That's all.'

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