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Preface

This volume is composed of papers submitted to the 52nd International Conference on Salish and Neighbouring Languages, hosted by Simon Fraser University August 18–19th, 2017. In addition, this volume contains papers by Roger Lo, Gloria Mellesmoen, and Hank Nater that will not be presented at the conference, but are nevertheless valuable contributions exploring the themes of the conference.

Marianne Huijsmans
on behalf of the UBCWPL Editors

The story of Jack McDougall: A St'át'imcets narrative*

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Bridge River Indian Band

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Lil'wat Nation

John Lyon
University of Victoria

Abstract: This paper presents a narrative from the life of story-teller Carl Alexander (Qwa7yán'ak), recorded by John Lyon, and transcribed by Matt Andrew and John Lyon. The narrative tells how an old gold miner and friend of the family, Jack McDougall, meets his demise at the hands of two white men. The recording, transcription, and translation as given here are the result of a collaboration between a fluent elder of the Shalalth (Tsal'álh) dialect (Carl Alexander), a language learner from Mt. Currie (Lil'wat7úl) (Matt Andrew), and a linguist (John Lyon). We hope this to be a small but significant contribution to the ever-growing body of St'át'imcets literature.

Keywords: narrative, St'át'imcets, Lillooet, Bridge River, Northern Interior Salish, history

1 Prologue by Matt Andrew

I am grateful to be part of something that creates more stories in Ucwalmícwts. There weren't many stories in St'át'imcets when I first started learning.

I first learned St'át'imcets through deciphering stories and legends. It is a great way for me to learn by seeing the language in its context. It was a very helpful and fun way to learn my language. I became more confident with the words because I was able to see how they were used.

It's important to get these stories out to the public because they are valuable resources. There are only a limited number of resources for language learners. It is very challenging to learn a language you don't hear. The sounds files that come along with St'át'imcets story collections are valuable for understanding the stress

* Matt Andrew and John Lyon wish to thank Carl Alexander for sharing his knowledge and stories, and John Lyon wishes to thank the Social Sciences and Humanities Research Council of Canada (SSHRC) and Simon Fraser University Departments of Linguistics and First Nations Studies for supporting this work. Thanks to Henry Davis for his translation assistance in several places.
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and rhythm of the language. It is also a great way to hear words that we wouldn't hear anywhere else.

It's important for me to be a part of transcribing stories because it is giving me valuable tools to benefit my nation. I hope I can inspire other speakers to share their stories because I feel we all have our own story to tell. Language learners have always commented on the lack of resources. By creating more stories for them, we are giving proper reverence to the language.

The Story of Jack McDougall told by Carl Alexander is a unique story of its time. Through the story, we are able to learn about laws that were in place around 1940. We are also able to see that even though decades have past, the acts and the conscience of a murderer are still the same.

I'm grateful to Carl Alexander for telling his story and expanding the St'át'imcets library. People are able to compare his story to ones from the 1970s. They are able to see the subtle changes in the language. They will be able to understand that changes in language happen, but the beauty of the language always stays in hearts of the people that speak it.

2 Introduction by John Lyon

I've had the privilege of working with Carl over the last 3 years as part of my post-doctoral work under Marianne Ignace's grant, *First Nations Languages in the 21st Century: Looking Forward, Looking Back*. Together with Henry Davis, Lisa Matthewson, and Elliott Callahan, our work with Carl culminated in the 2016 UBCOPL publication of *Sqwéqwel' múta7 sptakwlh: St'át'imcets Narratives by Qwa7yán'ak (Carl Alexander)*. Of course, no 18-story volume will encapsulate or describe all of the life experiences of a single individual, and so it should come as no surprise that several narrative recordings were not included in that volume. Of these, two relating to the flooding of the Upper Bridge River Valley, Carl's childhood home, were published as part of the 2016 ICSNL precedings. Several more remain, however, and we continue to document St'át'imcets narratives as the opportunity arises.

I first met Matt Andrew at a beginner's level St'át'imcets course for community members in East Vancouver, taught by Dr. Henry Davis. Matt's level of skill with the language is uncommon for someone his age: he is conversationally fluent, an avid reader, and a student of morphology: he is one of the few language learners I have met who enthusiastically studies interlinear glosses. Together with Pat Alec from Cácl'ep, we started holding informal St'át'imcets conversation sessions at local coffee shops in East Vancouver during the Summer of 2016.

I am currently a co-investigator on a SSHRC Insight Grant studying prosody in several Interior Salish languages. Part of our mandate is to involve community members in transcription and data analysis. I asked Matt whether he'd be interested in helping to transcribe some of Carl's narratives, and we began to meet weekly at SFU Burnaby campus for transcription training sessions. As it happens, Matt was able to apply this training time towards a mentorship course he was completing for his certificate program.

The Story of Jack McDougall was recorded on July 18, 2016 by Carl Alexander at his home in Bridge River (Nxwísten). It is one of two stories transcribed and translated primarily by Matt, with some assistance from me. It is presented below in a 2-column format: St'át'imcets sentences are given on the left, and an English translation on the right. Additional comments from Carl are given as footnotes. Bracketed sounds in the St'át'imcets column indicate expected but unpronounced morphology, parenthesized sounds indicate pronounced by unexpected morphology. A transcription of Carl's free English translation is given after the story.

3 The Story

Láti7 snat' tswaw'c lhus estsítcw ts7a ta sám7a.	This white person had a house at Keary Creek (*snat' tswaw'c*).
Wa7 k'a tu7 cwíl'em ku sqlaw' láti7, skéla7s kw sqelhmémen's, nilh sláti7s t'u7 lhwá7as kwánensas i sqláw'sa lhélta sqelhmémen'a.	Apparently, he was a gold prospector before he became old, so that's where they took the old man's money from him.
Nilh t'u7... k'wínas k'a máqa7 láti7 kw swa7s... aoz t'u7 kw sqwatsátss kenká7.	He had been there quite a few years, but he didn't leave to go anywhere.
nilh k'a s7ats'xentánem... Áts'xenem láti7 i ucwalmícwa lhláku7 *Brixton,* lhus wa7 izá.	He must have been seen by people from Brixton when they were out there.
Sáwlhenwit láti7 kan kwas tsicw táowen láti7 ta qelhmémen'a.	They asked if they could go visit the old man.
Sawlhenmintwál'wit láti7, wa7 tsútwit, "Áo7zalh t'u7 ku7 t'u7 kw sqwátsatss."	When they asked each other about it, they were saying, "He never leaves to go anywhere."
Wa7 t'u7 metskán'as i sqláw'sa lhélta kvpmena, nilh t'u7 swas nasaka7mínas áku7 Minto, nilh skwánensas múta7.	He was endorsing his (pension) cheques from the government and sending them off to Minto, then he'd get another one.
Aoz t'u7 kws szwat lhus skástsas i sqláw'sa.	It wasn't known what he did with his money.
Nilh swas álkstwit láku7 lta xzúma sxetqs i wa7 cwíl'em ki sqláw'a láti7 Minto.	So they were working in the gold mine at Minto.
Qa7ez'minitás k'a wi7 kwa alkst, nilh t'u7 sptinusmínitas láti7 i sqláw'sa ta qelhmémen'a.	They must have gotten tired of working, and then they thought about the old man's money.

Nilh stsúti, “Nas ka áta7 cwíl’en... cwíl’enem skánas kw scw7it.s ku sqlaw’s.”	They said, “You should go look... let’s go look and see if he has a lot of money.”
Wa7 zam’ nilh lhláti7 na c.wéw’lha lhláti7 ntakíl’qtna t’u tsicw áta7... c.wéw’lhtsa láti7 ta qelhmémen’a.	There was a road that went from the Bottom of the Hill (*ntakíl’qtn*) until it got to the old man’s trail.
Nilh k’a ti7 kwánitas lhláti7 i sqáycwa, n7án’waswit.	The men must have taken it, the two of them.
Ni:::lh st’áki sísxets láti7, kakekéw’ ti7 lhláti7 ntakíl’qtna áta7 ta snát’a stswaw’c.	They were going along the shore, it was just a little ways from the Bottom of the Hill to Keary Creek.
Plans k’a gápalmen elh tsícwwit.	It must have been almost night before they got there.
Tsícwwit, put ku7 t’u7 cuz’ ílhen láti7 s*Jack*.	When they got there, Jack was just about to eat.
Nilh stsúti, “O, táytkalh wenácw,” nilh t’u7 spán’tsi láti7.	They said, “Oh, we’re really hungry,” so then they shared a meal there.
Nilh swas qwal’útwit láti7 i tákema, stám’as ku száyteni, nká7as lhus wá7wit.	They were talking about everything, whatever they had been doing, wherever they had been.
Wa7 ets’7a::ts’xenítas káti7 i tákema ken.... lti tsítcwa.	They were looking around at everything in the house.
Aoz... aoz kw szwatenítas nká7as kelh kaleg’wása ku sqlaw’, nilh sgúy’ti láti7.	They didn’t know where the money would be hidden, so they slept there.
Nas et7ú.... put t’u7 ts7as kakwél’a, nilh t’u7 swas sawenítas láti7 ta qelhmémen’a, “Nka7 tu7 tákem kwelh sqláw’su? Wa7 xát’min’em kwat kúlhen!”	It was getting towards... just when the sun was coming up, they asked the old man, ‘”Where did all your money go? We want to borrow it!”
Nilh swas tsut kw s*Jack*, “Kan ícwa7.” Nilh swas k’wínas k’a kwa sawenítas nká7as tu7 ku sqlaw’s, ao t’u7 kwas tsut.	Jack was saying, “I don’t have any.” They were asking him a few more times where his money was, but he didn’t say.
Nilh skwánitas láti7, nximalimatnítas láti7, nilh t’u7 st’akstwítas et7ú ta sut’átqw7a.	So they took him, they grabbed him by the neck, then they took him over to the river.
Tsúnem ku7 láti7, “Cw7áozas kw sqwal’entúmulhacw nká7as ku	They told him, “If you don’t tell us where your money is, we’ll hold your nose underwater.”

sqláw'su, cuz' nmuleqsán'tsim láti7 lta qú7a."	
Aoz t'u7 kw s7ínwat kw s*Jack*, nilh t'u7 skwánitas láti7.	Jack didn't say anything, so they took a hold of him.
Ntewtíwaswit láti7 nximalimatnítas, nilh t'u7 sp'its'usenítas áku7 ta qú7a t'u kats'k'úpa láti7.	They both grabbed him by the neck, then they pressed his face into the water until he ran out of breath.
Nilh slhwalenítas t'u7 láti7, wa7 esmúlus lta qú7a, nilh k'a t'u7 st'áki áku7 ulhcw ta tsítcwsa.	They just left him there, with his face in the water, then they must have gone inside his house.
Nilh scil'ín'itas tákem, tsegtsgenítas i tqína, tsegenítas.... Nik'alhmecanítas láti7 i nkúpsa.	They went through everything, they tore up his pillows... they sliced up his mattresses.
Aoz t'u7 kw spúnitas ku sqlaw', nilh stsúti, "Wa7 ku7 t'u7 káti7 ken... es7úll'us kénki s7ílhen[a]," nilh t'u7 skwánitas i tákema lhélta celepál'usa, ts'aq'min'ítas ta qwíxwlapa láti7.	They didn't find any money, then they said, "They say it should be in with the food," so they took everything out of the cupboards, and threw it onto the middle of the floor.
Aoy t'u7 kw spúnitas, stsúti, "Ícwa7 k'a t'u7 wenácw sqlaw'."	They didn't find it, so they said, "He must not really have any money."
Nilh slhexwpí... án'was k'a kw sq'em'ps wi án'was máqa7, elh xat' ta sptínusemsa ta twíw'ta sqaycw.	They got away with it for 22 years maybe, and then the young man got a guilty conscience.
Wa7... k'wzúswit iz', stsut.s ta twíw'ta, "aoz kwénswa kaxílha, náskan sqwal'."	They were working, then the younger one said, "I can't handle it, I'm going to tell."
Skalk'cítas k'a i plísmena ets7á::: sát'a, pináni7 aoz ku c.walh ets7á, lhkúnsa lhelts7á nxwístena.	He must have phoned the police over here in Lillooet (*sat'*), at that time there wasn't any road there, the one that goes from here at Bridge River (*nxwísten*).
Tsukw t'u7 lhélta... utsenítas *gas car,* wa7 t'ak lhelts7á sát'a éta tsal'álha. Nlham' i káoha, nlham' i ucwalmícwa.	Just from..... they called it a gas car, it went from Lillooet to Shalath (*tsal'álh*). The cars went on, and the people went on.
Lhláti7 aylh múta7 lhus xlipt i wa7 nas káku7 sqém'qem'a áti7 *Mission Mountain*, tsícwwit k'a áku7 ntakíl'qtna...	From there, the ones going to the Upper Bridge River Valley (*sqém'qem'*) (i.e. the policemen) went over Mission Mountain, and then they must have gotten to the Bottom of the Hill (*ntakíl'qtn*)...

Lhláti7 aylh lhmatq.wítas áku7 ta tsítcwsa s*Jack*, lhzuqwstwítas, lhláku7 aylh múta7 lhp'án'twitas.	Then they walked over to Jack's house, over to where they had killed him, and then back from there.
Nilh tu7 slhexwpí nká7as k'a, aoz kw szewáts, t'u lkw7u t'u7 Bralorne, lta qw7áltcwa láku7 lh... sqwál'as láti7 ta twíw'ta sqaycw, xlítenas i plísmena, nilh t'u7 stsicws áku7.	They had escaped to somewhere, nobody knew where, until in Bralorne, at the pub, the young man reported what happened, he called the police, and they came.
Láti7 zam' lhut wa7... nqwáxwqtena pínani7, éta zíkaltsa tsítcwkalh.	We were actually there at Eagle's Nest (*nqwáxwten*) in our log home.[1]
Aoz kwas szewáten kánmas t'iq káti7 i plísmena, ni::lh swas sqwal'ut.stwítas ta nsqátsez7a láku7 álts'q7a.	He (i.e. my dad) didn't know why the policemen had arrived, but they were talking to my Dad outside.
Nilh t'u7 tu7 sqwátsatsi í7wa7 sRichard.	Then they left together with Richard.
Suxwastwít tu7 ku7 ekw7ú kekáw'a, t'u tsícwwit k'a áku7 ltsa scílstum' na t'láz'lhkalha.	They say they went a little ways down the hill, until they got to where we beached our canoe.
Nilh ti7 aylh kulhenmínitas i plísmena.	Then the policemen borrowed our canoe.
Nt'áq'.wit áta7 ltsa estsítcw kw s*Jack McDougall*.	They crossed over to where Jack McDougall had his house.
Ats'xenítas, wa::7 t'u7 láti7 ta sqáycwa esmúlus lta sísxetsa.	They saw him, there was a man face down in the water at the shore.
Ets'7ats'xenítas láti7: aoz t'u7 kw s7alas7úls skastwítas, tsukw t'u7 t.smulusnítasa láti7 t'u kats'kúpa.	They were looking at him there: they didn't do too much to him, since they had only put his face under water until he ran out of breath.
Nilh aylh zam' láti7 etsá kulhenmínitas éta zúscala láti7 i... ta t'láz'lhkalha, nilh t'u7 slhá7a7s aylh múta7 áti7 ta nsqátsz7a kw sqwal' lhus kánemwit.	So anyways, where the policemen borrowed our canoe, my father got close to them again and heard them report about what they were doing.
Aoz t'u7 kw snak' kw s7álasts szwáten[a]s lhus kánmas eszúqw ta sám7a, t'u7 wa7 k'a káti7 esk'alán'.	It didn't change what he (i.e. my father) really knew about when the white person died, but he must've been there listening anyways.

[1]Carl says that Jack McDougall lived right across the Bridge River from Nqwáxwqten, at Keary Creek, and was a family friend.

Snilh ti7 papt ta wa7 t'iq áti7 táw'tsam' áku7 Minto, láti7 lhus qan'ím lhus kánemwit, t'u7 aoz t'u7 kw[s] sqwal'.	He (i.e. my father) always came to Minto to buy groceries, that's where he heard what they did, but he didn't tell.[2]
Nilh t'u7 sk'wík'wena7s ta zewatenása, mes t'u7 kwánem ta plísmena, nilh t'u7 snilhts ta wa7 tsicw xékcal lta... ltsa tsicw xékcal i kýpmena.	He only knew a little about what happened, but he was taken by the police, and he was the one who was a witness in court.[3]
Nilh láti7 k'a lhtsúnmas láti7 ta... na núkwa, "Cúy'lhkan zúqwstum'in láti7 nká7as ku sq'it, nká7as t'u7 lhpzántsinas...." slans aylh nas nk'á7wit.	It must've been there where the other (i.e. the older killer) told my Dad, "I'm going to kill you some day, wherever I meet you." They were already going to jail at that point.
Ka7lhás t'u7 máqa7 láti7 kw snk'á7i, i zuqwstwítasa ta qelhmémen'a.	They were in jail for three years, the ones who killed the old man.
Lan tu7 wa7 tí7eg'wwit, t'u7 aoz t'u7 kw szwat.s nká7as tu7 lhus wá7wit elh t'u lhkun.	After they got free, it was never known where they were, even to this day.
Iy, nilh ti7 na sqwéqwel'a láku7 snát'a stswaw'c.	Yes, that's the story about Keary Creek.
Láku7 t'it lhas lak ta nq'w7umtenlhkálha, snát'a.	That's where our trapline was too, at Keary Creek.
Cin' t'u7 kwénswa ptínusmin... stám'as kanmás ti7 ku száyten.	I've been thinking about it for a long time... what happened then.
T'u7 tsukw t'u7 lati7 tsa xat'min'ítas kw snáq'wwit ku sqlaw' i sám7a.	But it was just because the white people wanted to steal money.
Aoz t'u7 kw skwanenstwítas, t'u...	But they didn't get it, until...
Wa7 k'a hem' t'cwáy'lup lati7 ta qelhmémen'a, nilh swas t'ecwnás áti7 éki n7átsqsa ta xéltena, plan t'u7 láti7 wa7 ca7 i wa7 sqwem.	The old man would sweep his floor, and he'd brush it over to the bottom of the wall, and it was already piled up high (with trash).
Aoz t'u7 kw scil'inítas iz' i wa7 naq'w.	Those thieves didn't search through the pile.

[2]Carl says that his Dad was sitting at the bar when he heard how they did it.
[3]Carl says he doesn't know why his father was called as a witness, since he wasn't there when the murder happened.

Láku7a cwilh k'a lhcw7ítas i sqláw'sa s*Jack*, lhus esqélh, wa7 slep'sás lki s7áxwila!	A lot of Jack's money must've been there, where it was stored, he was burying it under the scraps!
Aoz t'u7 kw spuns t'u tsicw.... wa7 ts'exenítas ta tsítcwsa s*Jack*, nilh t'u7 spúnitas i plísmena láti7 i sqláw'a.	It wasn't found until they came and... they were cleaning Jack's house, then the policemen found the money.
Nilh ti7 wa7 snasaka7mínitas nká7as k'a káku7, kéntsa wa7 ta *queen*a, *London*.	Then they sent it to wherever, around where the queen is at, in London.
Áku7 tu7 lhnasaka7mínitas i sqláw'sa s*Jack*.	That's where they sent Jack's money.
Wa7 k'a kwelh nukw káku7 nk'sáytkens.	He must've had some other relatives living there.
Iy, nilh ti7 zewátenan.	Yes, that's what I know.

4 Free Translation by Carl Alexander

[This happened] about 1939 or a little earlier, I don't know when. It was before my time.

These guys, you know, they had that mine at Minto, but they lived up at that lake at Brixton, and they had to come down to Minto to work everyday. And I guess one time.... well they listened to everything that goes on in the valley, and they knew that there was an old man, an old prospector that lived across the river at... it's across from Jones Creek: Keary Creek. And they found out that he never left at all, he didn't go anywhere. And he was a pensioner already. He must've been getting a pension for about ten years already, and he never spent his money.

So they said, "He must have a lot of money." And these two brothers, they said, "We'll go over and visit him." Jack McDougall had a trail from *ntakil'qten* ("Bottom of the Hill"), that's down at... there's a switchback down at the bottom of the hill, on the other side of the dam, on the south side of the river, there was a trail from there all the way over to Jack McDougall's place.

So they figured out they'd go visit him. They walked the trail, and they got there just about suppertime, Jack was cooking beans and I don't know what else. And he was telling them, "You guys are just in time, just in time!" And this guy said, "Ok, we'll eat." They were asking him if he had any money, and they said, "We want to borrow some! We want to borrow enough to get our claim started." And Jack said he was broke all the time, so they waited, and it was dark so they said... Jack told them, "Oh, you can camp here tonight." So they were talking away until long after dark.

The next morning, they woke up early because back then I remember it used to... we used to have sunrise about five. And those guys, they got up just a little before sunrise and Jack was cooking breakfast already. So they grabbed him by the collar on his shirt, and his arms, and they sat him down at the table, and told him, "We want some of your money!" And Jack said he's broke. And I guess they were telling him that, "We hear that you have a lot of money hiding somewhere. And if you don't tell us where that money is, we'll go and put your face in the water." And still Jack wouldn't give in, so they grabbed him, both of them grabbed him by the.... one arm each, and the collar, and they led him down to the beach there and they asked him one more time, and he wouldn't give in, so they put his head in the water until he smothered.

And they went and searched the house, they tore up the pillows and... Jack had those homemade couches, with canvas on it, they ripped those up with a knife, and they got the mattress, they pulled it out and ripped it open with a knife and looked in there, nothing. And the older brother said, "It must be in the food." They looked at the cupboard, and they went and got everything and... you know those rolled oats that used to come in little boxes like that? They cut those open and they dumped everything on the floor, and nothing; even the coffee, they cut the coffee open and dumped it on the floor, and nothing; and even the flour, they grabbed it, those 50 pound sacks of flour, they cut that open, dumped it in the middle, and nothing. They threw everything from the cupboard down on the floor and they never found anything. So they must've took off.

It must've been about... a little after two or three weeks, I guess then they missed Jack in Minto. So they sent somebody across there to see if he was okay, and they found him face-down in the river. And his house was a big mess. Then that guy went all the way back to Minto and told them what was the matter. I guess they never found anything at that time. So they took Jack's body and shipped it out somewhere, they didn't know where.

About 22 years after, I guess, these two guys were back at Bralorne, and they were sitting in the bar, and the younger brother said, "I've had enough, I've had enough! I can't get rid of the feeling!" He told his older brother, "I'm going to go and tell." And his brother tried to stop him, he couldn't.

The guy phoned all the way down to Lillooet, and it took the cops about a week before they got up there. At that time, you know, you had to go on the... they had a little car they called a 'gas car', it pulled flat cars with... that they'd drive the cars on, and they'd bring the cars to Shalalth, and they unloaded there. They had that road fixed over Mission Mountain, so the cops got over there and they drove over Mission Mountain to Bralorne. And they found the two brothers up there. And they took them in. I don't know, they.... told the cops that they couldn't find the money. So the cops borrowed our canoe. We were living in that old log house at Jones Creek then, they went across and they looked for the money. They found everything still on the floor. So they started cleaning up... looking for the money too.

Everything that those two brothers tore up and put in the middle of the floor, they just brought it out and dumped it outside in a little hole. Then they seen that old man Jack, he swept the floor but he didn't dump his garbage out, he just swept it over against the bottom of the wall. That's where the money was hidden, under the garbage. And that's the one place those brothers didn't look. And the cops, they looked at that garbage and they said, "Oh, we might as well take everything." And they started sweeping the trash away from the wall, and there was a whole pile of money lined up all the way across the wall. And they had a few big bags of gold about that big, and they were all piled up along the bottom of the wall, and the trash was piled up against them. They found out that Jack had relatives in London, so they shipped the money over there. And those poor guys went to jail for trying to get that money they never found, and they got three years each, and that was all. And when they were going to court, they hollered at Dad, "We're going to get you someday!" But they never did, I don't even know where those guys are now. They must be in their 90s or 100s now.

References

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Changes in the alignment of arguments in transitive clauses* in ʔayʔaǰuθəm (Comox-Sliammon)

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Abstract: This paper traces a major shift in the alignment of overt (DP) arguments in ʔayʔaǰuθəm (Comox-Sliammon; Central Salish) over the last three generations. The shift, which results in overt post-predicative A(gent) DPs being completely banned in ergative-marked clauses, is driven by two factors: loss of oblique marking, and a narrowing of the function of ergative marking to allow only anaphoric (continuing topic) subjects. The latter change also affects the use of active and passive morphology in discourse contexts, so that passive is restricted to the role of introducing overt A DPs, and no longer serves to maintain topic continuity for a covert non-agent protagonist, as in other Central Salish languages. A textual comparison of two stages of ʔayʔaǰuθəm with Lushootseed and (Island) Halkomelem further reveals that though Lushootseed has undergone a partially parallel development to ʔayʔaǰuθəm, its system has not been radically realigned in the same way.

Keywords: ʔayʔaǰuθəm, Comox-Sliammon, Central Salish, ergative, passive, discourse

1 Introduction

In this paper, we discuss a significant and relatively recent shift in the syntactic organization of ʔayʔaǰuθəm (a.k.a Mainland Comox, Comox-Sliammon), the northernmost Central Salish language, spoken at present by a diminishing number of elderly first language speakers from the communities of Klahoose, Homalco, and Sliammon on the south-central coast of mainland British Columbia and adjacent islands. We trace the shift over three generations, beginning with speakers recorded by John Davis in the 1970s and ending with the youngest contemporary speakers, now in their sixties.

While the shift has a number of syntactic and morphosyntactic consequences, its clearest manifestations are in the distribution of overt DPs in transitive clauses. To cut a long story short, for the youngest generation of first language speakers,

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only empty pronouns (*pro*) are allowed to occupy the subject positions of ergative-marked clauses; these speakers must resort to passive any time it is necessary to mention an overt (DP) subject in a transitive clause. As we will show, there are also discourse repercussions to the changes we delineate: the restriction of ergative subjects to *pro* has resulted in a parallel restriction on passive-marked clauses in narrative contexts, such that they are now used almost exclusively with *overt* rather than covert agent DPs.

The paper is organized as follows: in Section 2, we outline three stages in the recent history of the language, corresponding to the three generations of speakers whose grammars we are examining. In Section 3, we turn to an explanation for the changes, focusing on two trends: loss of oblique marking (3.1), and the narrowing of the function of ergative marking (3.2). In Section 4, we turn to textual evidence, showing a remarkable reduction in the use of passive marking in narrative contexts between earlier and later stages of the language, concomitant with the restriction of ergative marking to *pro* subjects. Section 5 broadens the examination to other Central Salish languages, beginning in 5.1 with a syntactic comparison between ʔayʔaǰuθəm and the superficially similar Lushootseed system, and going on in 5.2 to a three-way comparison of textual evidence from ʔayʔaǰuθəm, Lushootseed and Island Halkomelem. Section 6 closes with some syntactic remarks on the relation of ʔayʔaʔǰuθəm to the Pronominal Argument Hypothesis and the ergative~passive alternation. There are two appendices, the first devoted to an examination of a hitherto unreported AVO variant order in ʔayʔaǰuθəm, the second to a discussion of the methodology employed in the investigation.

2 Detecting syntactic change over three generations of ʔayʔaǰuθəm speakers

Here we piece together what we believe are ongoing syntactic changes in the history of ʔayʔaǰuθəm. Our story is gleaned from the early work of J. Davis (1973, 1978, 1980), subsequent research by Blake (1997), Kroeber (1999, 2002a,b), Watanabe (2003), and our own ongoing fieldwork. Davis worked nearly half a century ago with speakers of the Homalco (χ^{w}umałk^{w}u) dialect, some of whom were already elderly at that point; some twenty years later, Blake and Watanabe worked mainly though not exclusively with speakers of the Sliammon (łaʔamin) dialect, while Kroeber worked mainly with Homalco speakers; and most recently, we have been working with the youngest fluent speakers of the Tla'amin, Homalco and Klahoose (t̓oq̓^{w}) dialects, now in their sixties and seventies, as well as some of the remaining speakers from the previous generation.

Obviously, given the critically endangered state of ʔayʔaǰuθəm, which has been losing first language speakers throughout the period we are investigating, our conclusions here are somewhat tentative. In particular, as is often the case with a language with a drastically diminished number of first language speakers, distinctions between dialects have become obscured as the language contracts, making it sometimes difficult to distinguish pre-existing geographical variation from diachronic change. Nevertheless, we are reasonably confident that the historical trajectory we trace here represents a genuine case of language change

rather than a pathological side-effect of language decline, and moreover, one that is powered by the internal dynamics of the system, as opposed to external pressures from English.

2.1 Stage I (J. Davis 1973, 1978, 1980)

We begin with the pioneering syntactic work of John Davis, who worked with speakers of the Homalco dialect in the community of Church House (ʔupˀ) in the late 1960s and early 1970s.

Davis (1973) outlines the distribution of both direct and oblique-marked DPs and their relation to pronominal inflection on the predicate. Here we focus on formally transitive clauses, marked by one of the three principal transitivizing suffixes *-t* 'control, *-ng* 'non-control', and *-stg* 'causative'.[1]

A first significant generalization (and one that has remained consistent throughout the time period we are considering) is that ʔayʔaǰuθəm as spoken by Davis' consultants conforms to what is known in the Salish literature as the *One Nominal Interpretation condition* (ONI), following Gerdts (1988: 57–59). As described by Gerdts, the ONI expresses the following generalization:

(1) In the absence of marking for other persons, a single third person nominal is interpreted as the absolutive.

In Davis' data, just as in the contemporary language, the ONI holds systematically for transitive predicates in 3-3 clauses marked by a third person object suffix (usually zero) and the third person ergative suffix *-as*.[2] In these cases, a single post-predicative DP is always interpreted as the patient (henceforth O), never as the agent (henceforth A).[3]

(2) səpˀ-t-**as**-uɬ Ralph
hit-CTR-**3ERG**-PAST Ralph
'S/he hit Ralph.' (only interpretation)[4] (J. Davis 1973: 2)

[1] There is also a fourth, lexically restricted transitivizer, *-Vš* (Watanabe 2003: 236).

[2] In very recent work (Mellesmoen, this volume), Gloria Mellesmoen has argued that in non-control transitives, ʔayʔaǰuθəm has innovated an overt third person object suffix *-x^w*. So that our glosses conform to the earlier work we are drawing on, we will ignore this possibility here, and more generally, we will not mark third person objects unless they are directly relevant to the discussion.

[3] In line with the literature on ergativity, we use A and O here as convenient cover terms for whatever thematic roles are assigned to the subject and object of a transitive verb, respectively, without committing ourselves to claims about what those roles are. In particular, we are not claiming that transitive subjects are always agentive.

[4] Examples are given in the version of the American Phonetic Alphabet (APA) standardly employed in Salish linguistics, including by those working on ʔayʔaǰuθəm (e.g., Watanabe 2003). Abbreviations are as follows: CLEFT = cleft particle, COP = copula, CTR = control

However, in transitive clauses with a first or second person object suffix, the ONI fails to hold; an overt post-predicative DP is interpreted as the A argument:[5]

(3) qə•qəy-**θi-s** Joe
IPFV•beat.up-CTR+**2SG.OBJ-3ERG** Joe
'Joe is beating you up.'[6] (J. Davis 1980: 281)

Transitive verbs suffixed with the passive marker *-(ə)m/-it* also behave differently than ergative-marked verbs with respect to the ONI, as is typical of Salish languages.[7] In Davis' data, either a direct (unmarked) O or an oblique-marked A may follow a passivized verb, with a concomitant difference in interpretation:

(4) a. səp̓-t-**am**-uɬ Ralph
hit-CTR-**PASS**-PAST Ralph
'Ralph got hit (by someone).'

b. səp̓-t-**am**-uɬ **ʔə**=Ralph
hit-CTR-**PASS**-PAST **OBL**=Ralph
'S/he got hit by Ralph.' (J. Davis 1973: 2)

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transitivizer, DEM = demonstrative, DET = determiner, DIR = direct evidence marker, ERG = ergative (transitive subject), FUT = future tense, IND = independent pronoun, IPFV = imperfective, NCT = non-control (limited control) transitivizer, NMLZ = nominalizer, OBJ = object, OBL = oblique, PASS = passive, PASS.OBJ = passive object, PAST = past tense, PL = plural, POSS = possessive, PRT = 'particle', QUOT = quotative, RFLX = reflexive, SG = singular, SU = (indicative) subject, SUB.PASS = subordinate passive . A dash (-) is used to mark an affix, an equals sign (=) a clitic, a bullet (•) a reduplicant, and angle brackets (< >) for infixation into the root; + is used where two or more morphemes are fused and cannot be linearly separated, as with e.g., CTR+1/2SG.OBJ.

[5] In neighbouring (and closely related) Central Salish languages, including Sechelt (Beaumont 1985: 91), Squamish (Jacobs 2013: 7), and Halkomelem (Galloway 1993: 179), the equivalents of sentences such as (4) are ungrammatical, due to an outright ban on transitive clauses with a second person object and a third person subject (*3>2); passive is triggered in these cases. (See Jelinek and Demers 1983 for an overview of person hierarchy effects in Central Salish). This ban does not hold in ʔayʔaǰuθəm, though independent changes have conspired to produce the same effect in recent stages of the language: see footnote 16.

[6] In Davis (1973), this example is given as *qə•qəy-**t-si-s** Joe*, with the transitivizer *-t* and 2nd person object marker *-si* written separately. This reflects their historical provenance, but not their realization in modern-day ʔayʔaǰuθəm, where they surface as the fused form *-θi* (see Davis 1978: 212 for discussion). We have altered Davis' transcription to more accurately reflect the modern-day pronunciation, in line with e.g., Watanabe (2003).

[7] We retain the traditional term 'passive', rather than adopting one of the various alternatives proposed in the Salish literature (e.g. 'agent demotion', as in Kroeber 1999); see 5.1, and Kinkade (1987) for a robust defense of the traditional label. The *-(ə)m* allomorph is employed (roughly) in main clauses, and the *-it* allomorph in subordinate clauses, though their distribution is considerably more complex: see Kroeber (2002a), Watanabe (2003) for details.

Turning to (formally) transitive clauses with two overt DPs, Davis records the existence of both ergative-marked and passive-marked variants. In the former case (5a), both DPs are unmarked; in the latter (5b), the A argument is oblique-marked, and the O argument unmarked:

(5) a. səṗ-t-**as**-uł Jim Joseph ʔə=šə=sayǰə
hit-CTR-**3ERG**-PAST Jim Joseph OBL=DET=branch
'Jim hit Joseph with a branch.'

b. səṗ-t-**am**-uł **ʔə**=Jim Joseph ʔə=šə=sayǰə
hit-CTR-**PASS**-PAST **OBL**=Jim Joseph OBL=DET=branch
'Jim hit Joseph with a branch.' ('Joseph was hit by Jim with a branch.')
(J. Davis 1973: 2)

In both cases, VAO order is preferred, though Davis (1973: 3) notes that all permutations of the post-verbal constituents are possible in *both* ergative and passive variants of (5), leading to ambiguity between A and O in the ergative variant (5a). As for the difference in use between the ergative and passive variants, Davis (1973: 12, note 13) identifies the following factors: (i) avoidance of ambiguity, leading to a preference for the unambiguous passive variant (5b); (ii) the relative 'power' of A and O, with the active variant used when the A is relatively more powerful than O, and the passive variant when the O outranks the A (in more conventional terms, this would presumably correspond to an animacy hierarchy); and (iii), stylistic variation, sometimes involving the direct repetition of a passive clause in its active guise, as in (6a) and (b), which are taken from the same narrative:

(6) a. qəẏ-θi-**m** ʔə=tə=ʔułq̇ay
die-CTR+2SG.OBJ-**PASS** OBL=DET=snake
'You are killed by the snake.'

b. qəẏ-θi-**s** tə=ʔułq̇ay
die-CTR+2SG.OBJ-**3ERG** DET=snake
'The snake kills you.' (Davis 1973: 13)

Like all Central Salish languages, ʔayʔaǰuθəm allows A'-extraction of an argument to a left peripheral pre-predicative position in WH-questions, clefts, and relative clauses. In Davis' data, O arguments may extract from either ergative (active) or passive clauses; in the former case (7a), a direct (unmarked) A argument may appear post-predicatively, while in the latter case (7b), an oblique-marked A may appear post-predicatively.

(7) a. (hił) Joseph (ʔə=)səṗ-t-**as**-uł Jim ʔə=šə=sayǰə
(COP) Joseph (CLEFT=)hit-CTR-**3ERG**-PAST Jim OBL=DET=branch
'It was Joseph whom Jim hit with a branch.'[8]

b. (hił) Joseph (ʔə=)səṗ-t-**am**-uł ʔə=Jim ʔə=šə=sayǰə
(COP) Joseph (CLEFT=)hit-CTR-**PASS**-PAST OBL=Jim OBL=DET=branch
'It was Joseph whom Jim hit with a branch.' ('It was Joseph who was hit by Jim with a branch.') (Davis 1973: 2)

A arguments also show two patterns of A'-extraction. In the first, typical of Central Salish, subject morphology is simply deleted (8). In the second, passive morphology is employed, with or without a post-predicative (unmarked) O argument (9).

(8) (hił) Jim (ʔə=)səṗ-t-uł Joseph ʔə=šə=sayǰə
(COP) Jim (CLEFT=)hit-CTR-PAST Joseph OBL=DET=branch
'It was Jim who hit Joseph with a branch.'

(9) (hił) Joseph (ʔə=)səṗ-t-**am**-uł Jim ʔə=šə=sayǰə
(COP) Joseph (CLEFT=)hit-CTR-**PASS**-PAST Jim OBL=DET=branch
'It was Joseph who hit Jim with a branch.' ('It was Joseph that Jim was hit by with a branch.') (Davis 1973: 2)

Table 1 summarizes these findings:

Table 1: The distribution of arguments in ʔayʔaǰuθəm at Stage I (J. Davis 1973, 1978, 1980)

	ERGATIVE	PASSIVE
First/second person O with overt A?	yes	yes
Two overt post-predicative arguments?	yes	yes
Oblique-marking with post-predicative A?	no	yes
Flexible ordering of arguments?	yes	yes
A'-extraction of O argument with overt A?	yes	yes
A'-extraction of A argument?	no	yes

2.2 Stage II (Kroeber 1999, 2002a, b, Watanabe 2003)

The second and most important stage of the diachronic development we are tracing is characteristic of speakers who are approximately one generation younger than J. Davis' consultants (though obviously, generational differences are gradient, so this is an idealization). Most previous work on ʔayaʔǰuθəm has

[8] The 'proclitic *ʔə*= which introduces the remnant clause of a cleft introduced by *hił* is homophonous with the general oblique marker, and like the latter, has recently undergone phonological erosion. Our youngest consultants do not use it at all, while older speakers tolerate it, occasionally employ it, but more often than not omit it.

concentrated on this generation of speakers; though its focus has been largely morphological, substantial syntactic information can be found in Kroeber (1999, 2002a, b) and Watanabe (2003). In addition, since some of these speakers are still with us, it has been possible to directly check some missing information.

We will focus on changes to the system recorded by J. Davis; unless mentioned here, the systems are otherwise the same.

The first change is that ergative-marked transitive clauses with an A DP may no longer occur with a first or second person object suffix (10a). Passive is used to circumvent this prohibition (10b).

(10) a. * čag-aθ-**as**-uɬ Devin
help-CTR+1SG.OBJ-**3ERG**-PAST Devin
'Devin helped me.'

b. čag-aθay-**əm** Devin
help-CTR+1SG.PASS.OBJ-**PASS** Devin
'Devin helped me.' (lit: 'I was helped by Devin.') (EP)

Watanabe (2003: 288) gives a particularly illuminating spontaneous example of the avoidance of first and second person object suffixes with an overt agent from a conversational text, where the speaker switches from an ergative- to a passive-marked verb when introducing an overt A argument:

(11) niʔ-iθ-**as**, niʔ-iθay-**əm** (ʔə=)Johnny
say-CTR+1SG.OBJ-**3ERG** say-CTR+1SG.PASS.OBJ-**PASS** (OBL=)Johnny
'…he said to me, Johnny said to me…'

The second and perhaps most striking change is that at Stage II, ergative-marked transitive clauses no longer allow two overt DPs: passive is obligatory whenever a transitive verb occurs with two overt arguments. See also Watanabe 2003: 286–287.

(12) a. * qay<i>k^{w}-at-**as** ta=mimaẇ ta=čanu
scratch<PL>-CTR-**3ERG** DET=cat DET=dog

b. qay<i>k^{w}-at-**əm** (ʔə=)ta=mimaẇ ta=čanu
scratch<PL>-CTR-**PASS** (OBL=)DET=cat DET=dog
'The cat scratched the dog.' (EP)

Third, while still apparently present at an underlying level, the oblique marker is frequently dropped at Stage II, as noted by both Kroeber (2002a) and Watanabe (2003).[9] This can be seen in the examples above, and is a striking

[9] Kroeber (2002a, b) speculates that deletion of the oblique marker may be subject to dialect variation, with Homalco speakers (including his consultants) more likely to drop it than

feature of the texts appended to Watanabe (2003), where the oblique marker is usually elided but can be reinserted in appropriate contexts: see Watanabe (2003: 539, footnote 429).

Fourth, word order with two post-predicative arguments (now confined to passive-marked clauses) is no longer flexible: the (optionally) oblique-marked A argument always precedes the unmarked O:

(13) a. * ǰaq̇-at-əm ta=ǰaǰa ʔə=ta=tumiš
fall-CTR-PASS DET=tree OBL=DET=man

b. ǰaq̇-at-əm ʔə=ta=tumiš ta=ǰaǰa
fall-CTR-PASS OBL=DET=man DET=tree
'The man felled the tree.' (EP)

Elision of the oblique marker also occurs before locative adjuncts, which show a similar development with respect to word order. Adjuncts introduced by an (optionally null) oblique marker may not be re-ordered with arguments at Stage II (14). Recall that speakers at Stage I, on the other hand, freely allow re-ordering of arguments with post-predicative adjuncts introduced by the oblique marker (see (5) above).

(14) a. ??k̇ʷə-t=gi ta=č̣aṅu. niʔ ʔaq̇•ʔaq̇-at-as
look-CTR=PRT DET=dog. be.there PL•chase-CTR-3ERG

ʔə=ta=q̣̇ʷit ta=mimaẇ.[10]
OBL=DET=beach DET=cat

b. k̇ʷə-t=gi ta=č̣aṅu. niʔ ʔaq̇•ʔaq̇-at-as
look-CTR=PRT DET=dog. be.there PL•chase-CTR-3ERG

ta=mimaẇ **ʔə=ta=q̣̇ʷit.**
DET=cat OBL=DET=beach
'Look at the dog. He's chasing the cat there on the beach.' (EP)

Not all word order between arguments and adjuncts is fixed at Stage II, however; adjuncts that are not introduced by the oblique marker may still be freely ordered with respect to arguments:

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those from Sliammon. However, note that J. Davis' consultants, who appear to employ the oblique marker more consistently, were also from Homalco: this suggests that the variation may be diachronic rather than geographical (though the two are not mutually exclusive, of course).

[10] As indicated by the double question mark (??), our consultant found this example marginal rather than totally ungrammatical. She mentioned that 'some people might say it like that', but clearly preferred (14b).

(15) a. ǰaq̓-at=səm kʷisəm ta=ǰaǰa
fall-CTR=FUT tomorrow DET=tree

b. ǰaq̓-at=səm ta=ǰaǰa kʷisəm
fall-CTR=FUT DET=tree tomorrow
'He'll fell the tree tomorrow.'[11] (EP)

Turning to A'-extraction contexts, we see a fifth change: extraction of a passive agent is no longer possible. This is shown in the WH-questions in (16):

(16) a. * gat=ga kʷ=ǰaq̓-at-**əm**-uɬ
who=PRT DET=fall-CTR-**PASS**-PST

b. gat=ga kʷ=ǰaq̓-at-uɬ
who=PRT DET=fall-CTR-PST
Who felled it (the tree)? (EP)

Note that the grammatical variant of transitive subject extraction in (15b) involves deletion of subject morphology, a strategy well-instantiated at all stages of the language, and widespread across Central Salish (see (8) above).

Finally, there is one respect in which Stage II speakers retain the old Stage I pattern. A post-predicative overt A DP *is* still possible with O extraction: in other words, both examples like (7a) and (7b) are still grammatical. This is shown in the WH-questions in (17):

(17) a. tam (ta=)ʔaq̓•ʔaq̓-at-**as** **ta=c̓̓anu**
what (DET=)PL•chase-CTR-**3ERG** **DET=dog**

b. tam (ta=)ʔaq̓•ʔaq̓-at-**əm** **ta=c̓̓anu**
what (DET=)PL•chase-CTR-**PASS** **DET=dog**
'What is the dog chasing?' (EP)

Table 2 summarizes Stage II:

[11] The ergative suffix *-as* regularly deletes before the future enclitic *=səm*: see Kroeber (2002a) for discussion.

Table 2: The distribution of arguments in ʔayʔaǰuθəm at Stage II
(cf. Kroeber 1999, 2002a, b, Watanabe 2003)

	ERGATIVE	PASSIVE
First/second person O with overt A?	**no**	yes
Two overt post-predicative arguments?	**no**	yes
Oblique-marking with post-predicative A?	**-**	**optional**
Flexible ordering of arguments?	-	**no**
A'-extraction of O argument with overt A?	yes	yes
A'-extraction of A argument?	no	**no**

2.3 Stage III (Blake 1997, contemporary speakers)

Stage III, typical of the youngest generation of first language speakers of ʔayʔaǰuθəm, is not so much a stable system as a continuum, with some of the changes incipient at Stage II being pushed towards their logical conclusion.

The most noticeable of these changes is that at Stage III the oblique marker has disappeared altogether from passive agents: not only is it not normally present, but it cannot be restored in careful speech and is not recognized as grammatical. The following example from Blake (1997) shows this quite clearly, since it was specifically constructed on the basis of examples first provided (with an oblique-marked agent) in J. Davis (1980).

(18) a. qə•qəy-t-**əm** **ʔə**=Joe Jim
IPFV•beat.up-CTR-**PASS** **OBL**=Joe Jim
'Joe is beating Jim up.' (J. Davis 1980: 280)

b. qə•qəy-t-**əm** (***ʔə**)=Joe Jim
ipfv•beat.up-ctr-**pass** (***obl**)=Joe Jim
'Joe is beating Jim up.' (Blake 1997: 92)

The oblique marker has also disappeared before adjuncts and, at this stage, the ban on re-ordering adjuncts with arguments is absolute (19).

(19) a. * ʔaq̇•ʔaq̇-at-əm ta=č̣anu **ta=q̓ʷit** ta=mimaẇ
PL•chase-CTR-PASS DET=dog **DET=beach** DET=cat

b. ʔaq̇•ʔaq̇-at-əm ta=č̣anu ta=mimaẇ **ta=q̓ʷit**
PL•chase-CTR-PASS DET=dog DET=cat **DET=beach**
'The dog's chasing the cat along the beach.' (PD)

The ban extends to temporal adjuncts introduced by the nominalizer *=s* at Stage III (20); this is a shift from Stage II where temporal adjuncts still exhibit free word order (see (15) above).

(20) a. * ǰaq̇-at-as-uł s=ǰasuł ta=ǰaʔǰaʔ
fall-CTR-3ERG-PST **NMLZ=yesterday** DET=tree

b. ǰaq̇-at-as-uł ta=ǰaʔǰaʔ **s=ǰasuł**
fall-CTR-3ERG-PST DET=tree **NMLZ=yesterday**
'He fell the tree yesterday.' (PD)

A second change involves post-predicative A DPs in ergative-marked O extraction contexts. At Stage II, these are still possible, as shown in (17) above. At Stage III, this possibility is in the process of being eliminated. In fact, the oldest of our Stage III speakers embodies the process quite directly. This speaker was the principal language consultant for Blake (1997), and there her judgments match those of Stage I and II speakers in finding O-extraction examples with ergative marking and a post-predicative A DP grammatical:

(21) tam=k̇ʷaʔ ʔə=məkʷ-t-**as**-uł **tə=tumiš**
what=QUOT PRT=eat-CTR-**3ERG**-PAST **DET=man**
'What did the man eat?' (Blake 1997: 116)

However, we have been fortunate in being able to re-test this example (and others of the same type) with the same speaker some twenty years later. This time, the consultant *rejects* (21) in favour of its passive counterpart (22):

(22) tam məkʷ-t-**am**-uł **tə=tumiš**
what eat-CTR-**PASS**-PAST **DET=man**
'What did the man eat?' (PD)

Rather than simply treating these intuitions as inconsistent, we'd like to suggest that this is a case of language change *within a single speaker's grammar*: the change not only precisely mirrors the shift between older Stage II and younger Stage III speakers, but also represents the logical endpoint of a larger trend in which overt A DPs are ultimately banned altogether from ergative-marked clauses.

A third, rather distinct development is characteristic of the grammar of our youngest consultant, who was raised in Homalco. It involves a distinctive use of subject-initial word order in contexts without A'-extraction. However, since this is an aspect of the grammar that we suspect may in fact be a long-standing characteristic of the Homalco dialect, rather than an innovation, we set it aside here, and discuss it further in Appendix A.

Table 3 shows Stage III of the developments we have been tracing; differences between Stage II and III are italicized.

Table 3: The distribution of arguments in ʔayʔaǰuθəm at Stage III (cf. Blake 1997)

	ERGATIVE	PASSIVE
First/second person O with overt A?	**no**	yes
Two overt post-predicative arguments?	**no**	yes
Oblique-marking with post-predicative A?	-	***no***
Flexible ordering of arguments?	-	**no**
A'-extraction of O argument with overt A?	***no***	yes
A'-extraction of A argument?	no	**no**

3 Explaining the trajectory

The obvious question that now arises is whether a unified (or at least partially unified) explanation can be found for the developments we have outlined. Ideally, we would like to identify a single trigger, with the rest of the changes following from it as consequences; failing that, the convergence of two or more independent changes could account for the observed diachronic developments.

It seems unlikely that a single triggering factor is responsible. However, there are two independent trends whose interaction goes a long way towards accounting for the diachronic path. The first is the loss of the oblique marker (part of a more general trend involving the phonological attrition of pre-predicative material, including determiners). The second involves grammaticalization of the canonical Salish use of ergative marking in discourse to mark null topics. We discuss these two changes further in 3.1 and 3.2, respectively.

3.1 Loss of oblique marking

There is a clear historical trend in ʔayʔaǰuθəm towards the loss of functional elements in pre-predicative positions, quite possibly linked to the influence of the neighbouring Northern Wakashan language Kwak'wala, which like the rest of its family lacks both prefixes and proclitics. Most famously, this has resulted in ʔayʔaǰuθəm in the loss of the otherwise ubiquitous Salish nominalizing prefix **s-* (though it survives tenuously as a proclitic in clausal nominalization) (e.g. Davis 1970a; Blake 2000; Watanabe, 2003). Other prefixes have also been eliminated, leading, for example, to reanalysis of first and second person possessive pronouns as proclitics (Watanabe 2003: 84–85) and the replacement of the pan-Salish stative prefix **ʔac-* by an innovative combination of suffixation, infixation, and tone modulation (see Watanabe 2003: 410–449, Andreotti and Mellesmoen, this volume).

Though less advanced than the loss of prefixation, there is a parallel and obviously related set of incipient changes in ʔayʔaǰuθəm involving the erosion of proclitic elements. Aside from the oblique marker *ʔə=*, the most striking effect of this trend is the erosion of the determiner and complementizer systems, as noted

by e.g., Kroeber (1999, 2002b).[12] As with the loss of the oblique marker, there are at least two stages to determiner attrition in ʔayʔaǰuθəm: in the first, characteristic of Stage II speakers, determiners are subject to phonological reduction and omission, leading to surface opacity, while in the second, characteristic of younger Stage III speakers, they are partially or totally eliminated. However, this process has not yet gone as far as it has with oblique marking: more conservative Stage III speakers who have completely eliminated oblique marking still occasionally use and can always restore determiners in careful speech, and even the most innovative younger speakers retain determiners in some environments.[13] Nevertheless, the overall trajectory of phonological reduction followed by syntactic restructuring is very similar in the two cases.

At least three other Stage II developments can be directly linked to the loss of oblique marking. First, the shift from flexible to rigid word order for post-predicate DPs in passive clauses enables the language to continue to distinguish A from O arguments when oblique marking no longer does so.[14] Second, the shift to rigid ordering between arguments and oblique adjuncts keeps adjuncts distinct from arguments in the absence of the oblique marker; the additional shift to rigid word order for temporal adjuncts at Stage III may be related, motivated by a drive towards uniform treatment of adjuncts across the system. Third, the prohibition against A'-extracting a passive agent can be made to follow from the fact that without oblique marking, it is impossible to tell whether a post-predicative DP in a passive clause with A'-extraction represents an A or an O argument.[15]

3.2 Restriction in the function of ergative marking

The second general trend we consider here involves a narrowing of the function of ergative marking. In particular, by Stage III, ʔayʔaǰuθəm speakers employ the third person ergative suffix *-as* only to mark a *null* third person; all overt A arguments are introduced via passive morphology.

This development is a logical extension of the pan-Salish use of ergative marking to track continuing topics in discourse, as previously investigated by Kinkade (1989, 1990), H. Davis (1994), and Gerdts and Hukari (2003), inter alia. The basic generalization is that once established, usually as the subject of an intransitive clause, the 'topic' (or more accurately, *primary protagonist*) of a discourse is represented by a null pronoun (*pro*) which is systematically mapped

[12] As with the loss of the oblique marker, there may also be a dialectal dimension at play in determiner attrition: Kroeber (2002b) mentions that it is most characteristic of Homalco speakers.

[13] The exact syntactic and semantic circumstances under which this is possible remain to be explored.

[14] Recall in this regard J. Davis' (1973: 13) note to the effect that one of the functions of passive was precisely to avoid ambiguity via use of the oblique marker on passive agents.

[15] While this might be a plausible diachronic motivation for the prohibition against A'-extracting the agents of passive-marked clauses in Stage II ʔayʔaǰuθəm, cross-linguistic evidence shows that it cannot be the only factor responsible: Island Halkomelem, Squamish, and Lushootseed all retain oblique marking but do not permit passive agent extraction.

onto the subject position of an active transitive clause, representing the A argument. This is the most plausible source for the ONI condition (see (1) above): since the A argument is represented by *pro* in subject position, a single DP in an active transitive clause will inevitably represent the O argument. The relevant mapping is schematized in (23):

(23) *primary protagonist (pro) → transitive (ergative) subject → agent*

As far as (23) is concerned, ʔayʔaǰuθəm is not only a typical but an *arche*typical Salish language: not only does it never violate the ONI, but at Stage III the mapping in (23) is the *only* one permitted for ergative marking, thereby effectively precluding overt DPs from ever representing the A argument in an active transitive clause.[16] In other words, Stage III ʔayʔaǰuθəm obeys the following condition:

(24) *The A-nominal Restriction*
An overt post-predicative DP in an active transitive clause can never be interpreted as the A argument.

The A-nominal Restriction has two further consequences. First, it naturally extends to first and second person arguments, thereby accounting for the fact that even by Stage II, ʔayʔaǰuθəm disallows ergative-marked clauses with first and second person object suffixes and overt agent DPs (see (10–11) above).[17]

Second, the condition predicts that in ergative O-extraction contexts, there can never be a post-predicative A argument; passive will always be employed instead. This prediction is borne out in the shift from Stage II to Stage III: see (21) and (22) above.

To conclude, of the six changes we identified in Tables 1–3, two (loss of word order flexibility in passivized clauses with two overt arguments, and loss of the ability of passive agents to extract) may be plausibly linked to a third (loss of oblique marking), while the other three (the prohibition in ergative clauses against a single overt DP with a first or second person object, the prohibition in ergative-

[16] Watanabe (2003: 286) comes to the same conclusion: "When the agent is expressed by an NP, passive is used: the use of passive in this context may actually be obligatory."

[17] As observed in footnote 2, many Central Salish languages (including all of those immediately adjacent to ʔayʔaǰuθəm territory) have an independent *3>2 restriction, and circumvent it by employing the passive. The condition in (18) has the same effect, but crucially only for clauses with overt DPs: unlike its neighbours, ʔayʔaǰuθəm freely allows 3>2 clauses as long as there are no overt arguments:

(i) ʔaq̓-at-**anapi-s**
chase-CTR-**2PL.OBJ-3ERG**
'S/he chased you folks.' (Watanabe 2003: 217)

(ii) ʔaq̓-nu-**mi-s**
chase-NCT-**2SG.OBJ-3ERG**
'S/he caught up to you.' (Watanabe 2003: 219)

marked clauses against two overt DPs, and the prohibition in ergative clauses against a post-predicative DP in O-extraction contexts) can all be derived from the A-nominal Restriction in (24).

4 Textual evidence

The diachronic changes in the grammar of ʔayaʔǰuθəm which we have outlined have potential repercussions for the role of active and passive marking in narrative contexts. In particular, given the narrowing of the discourse function of ergative marking which we have identified as one of the major engines of syntactic change in the language, we might expect to find shifts in the way that topic tracking works in texts.

However, in order to investigate this issue fully, we need ample textual material from all three stages of the language, and unfortunately, at this point textual resources are fragmentary. This is either because recordings do not exist (particularly for the youngest generation of fluent speakers), or because existing recordings have not been fully transcribed and translated (particularly true of earlier stages of the language). Pending further work in this area, we provide here a preliminary comparison of textual data from Stage I and Stage II.

For Stage I, we used three texts from the John H. Davis collection in the California Language Archive that have been transcribed by Davis himself. For Stage II, we used the two texts in Part 4 of Watanabe (2003), which yield a comparable number of transitive clauses to the Davis texts (see Appendix B for details). In order to give us a rough idea of how active and passive are deployed, we separated out all transitive clauses, and classified them according to the number and role of overt post-predicative DPs they contained.

Results for Stage I are given in Table 4:

Table 4: The distribution of overt (DP) arguments at Stage I in three ʔayʔaǰuθəm texts

	ERGATIVE[18]	PASSIVE	Ø
No overt post-predicative DP	19	18	-
Overt O	29	7	-
Overt A	-	9	-
Overt A & O	1	-	-
A'-extraction of O, no overt A	4	2	-
A'-extraction of O, overt A	-	-	-
A'-extraction of A, no overt O	-	-	-
A'-extraction of A, overt O	-	-	-
Total	53	36	-

[18] This includes possessive subjects in nominalized transitive clause complements, where the third person possessive enclitic *=s* replaces the third ergative subject suffix *-as* unless an auxiliary is present, in which case the auxiliary hosts the enclitic and the suffix surfaces

At first glance, Table 4 does not seem very illuminating for the present study, since the overwhelming majority of transitive clauses in the texts belong to types whose grammaticality does not change over the time period we are examining. These include active and passive clauses with no overt DPs or a single overt O DP, passive clauses with a single A DP, and ergative-marked clauses with O-extraction and no overt post-predicative nominal. Together, these make up 88/89 of the total number of transitive clauses in the texts. This leaves just one clause predicted to be grammatical at Stage I, but not at stage II: an ergative-marked clause with both an overt A and an overt (clausal) O argument:[19]

(25) xʷa gay-nəxʷ=as ṫəčəwaǩanəm qʷə•qʷəl̓
NEG realize-NCT=3CNJ ṫəčəwaǩanəm IPFV•come
'ṫəčəwaǩanəm didn't realize they were coming.'[20]

This is indeed predicted to be possible at Stage I but not at Stage II, but hardly provides compelling evidence for the changes we have identified.

However, it turns out that there *are* in fact rather striking differences between Stage I and Stage II in the distribution of ergative and passive clauses in texts: it's just that these differences are not based on shifts in patterns of grammaticality, but in the relative *proportions* of (grammatical) clause types, reflecting shifts in their narrative function. This can be seen clearly when we compare Stage I with Stage II, given below in Table 5.

Table 5: The distribution of overt (DP) arguments at Stage II in two ʔayʔaǰuθəm texts

	ERGATIVE	PASSIVE	Ø
No overt post-predicative DP	19	-	-
Overt O	47	-	-
Overt A	-	11	-
Overt A & O	-	2	-
A'-extraction of O, no overt A	12	3	-
A'-extraction of O, overt A	1	1	-
A'-extraction of A, no overt O	-	-	1
A'-extraction of A, overt O	-	-	1
Total	80	17	2

on the main verb (Watanabe 2003: 115). We assume that in cases where possessive marking replaces the ergative suffix, the latter is still underlyingly present, and therefore that such clauses should count as ergative.

[19] Complement clauses generally count for the ONI, suggesting that they are genuine post-predicative arguments.

[20] The third person conjunctive enclitic *=as* replaces the homophonous ergative subject suffix *-as* in transitive clauses under negation. As with nominalized clauses, the subject suffix resurfaces if an auxiliary is present, indicating it is underlyingly present but deleted by a morphophonological rule (see Watanabe 2003: 107).

Note first of all the overall number of passives drops precipitously between Stage I and Stage II: at Stage I, the ratio of passives to transitive clauses is 40% (36/89), whereas at Stage II it is only 17% (17/99). A closer look at Table 5 shows clearly where this deficit comes from: whereas at Stage I there are 18 passives clauses with no overt DPs, and 7 with an overt O but no overt A, at Stage II there are *no* passives in either of these contexts.

This suggests that passive is functioning differently at the two stages. In particular, at Stage I, as in many Salish languages, active transitive (ergative) and passive clauses are used to regulate the interaction of two discourse referents over a stretch of narrative: ergative is used for the canonical mapping of the primary protagonist onto A and a secondary protagonist onto O (see (23)), and passive is used for the inverse mapping, in which the primary protagonist is mapped onto O and the secondary protagonist onto A. A good example of this kind of sequence is provided by Watanabe (2003: 289), who cites part of a traditional story about Mink and Wolf in his discussion of the functions of passive marking.[21] In this fragment, Mink is the primary protagonist, represented by a null subject (*pro*) in the ergative-marked main clause in (26a); Wolf is the secondary protagonist, explicitly mentioned as the passive agent of the relative clause in the same sentence. The immediately following sentence in (26b) features a main clause passive with no overt nominals: here Mink is the understood patient and Wolf is the understood agent.

(26) a. łəx̌^{w}-s-**as** k^{w}=na-t-**it** **ʔə=tə=ƛ̓aʔɬʔum**
dislike-CAUS-**3ERG** DET=say-CTR-**SUB.PASS** **OBL=DET=wolf**
'He [Mink] didn't like what Wolf had said.'

b. q̓am-at-**əm** k^{w}=s=t̓ut'$^{\theta}$-ut-**it**
threaten-CTR-**PASS** DET=NMLZ=shoot-CTR-**SUB.PASS**
'He [Wolf] threatened to shoot him [Mink].' ('He [Mink] was threatened to be shot at.') (Watanabe 2003: 289)

Now, whereas passive clauses such as that in (26a) with an *overt* A are used at both Stages I and II, Table 5 appears to show that by Stage II passive clauses such as (26b) with a *covert* A are no longer employed to keep track of a secondary protagonist.

The question now arises as to if and how this change in the discourse function of passive is linked to the syntactic changes which characterize Stages II and III. In answer to this question, notice that the restriction on the use of passive is almost precisely inverse to the restriction on ergative marking which constitutes one of the major innovations of Stage II ʔayʔaǰuθəm. While ergative marking is restricted to clauses *without* an over A DP, passive is being used *only* where an overt A DP is present. It thus appears that narrowing of the function of ergative morphology to mark *only* a null (*pro*) A argument has triggered a change in the use of passive, with the result that in narrative contexts, Stage II passive *cannot* be used to track a null A argument.

[21] Watanabe does not say who the storyteller is.

It is important to bear in mind that this does not mean that A arguments in passive clauses must *always* be overt at Stage II/III. As emphasized by Watanabe (2003: 285), referent tracking is not the only function of passive in ʔayʔaǰuθəm; there is also an impersonal or 'unspecified agent' use which typically does *not* involve an overt A DP:

(27) ṗit'$^{\theta}$-it-**əm**=ga huy tə̓qa-t-**əm**
squeeze-CTR-**PASS**=PRT then dry.berries-CTR-**PASS**
'They [berries] are squeezed and then dried.' (Watanabe 2003: 286)

Sentences such as (27) are still possible at Stage II/III of the grammar and can be elicited given the right discourse context:

(28) ni=ʔuɬ asq̓ tə=ʔiɬtan. čə̓a=q^{w}əl **məkʷ-t-əm**.
be.there=PST outside DET food EVD=come **eat-TR-PASS**

gat=čə̓a kʷ=məkʷ-t-uɬ t$^{\theta}$=ʔɛɬtən.
who=EVD DET=eat-TR-PST 1S.POSS=food
'I had my food outside and someone came and ate it. I wonder who ate my food.' (PD)

This tells us that the change seems to lie specifically in the discourse tracking function of passive. In fact, we can characterize both the ergative restriction and the passive restriction as conditions on discourse anaphora:

(29) *Referent tracking and the ergative~passive alternation at Stage II/III*

a. *Ergative: the A argument **must** be anaphoric to a discourse referent.*
b. *Passive: the A argument **cannot** be anaphoric to a discourse referent.*

Obviously, the descriptive generalization in (29) has implications for the syntax of both active transitive and passive clauses which go well beyond the scope of this paper; for a few preliminary remarks, see Section 6 below.

Finally, as with any conclusions based on textual evidence, but particularly with a small sample size such as this, it is important to strike a note of caution. It is always possible that our results are skewed for some extraneous reason such as speaker style or the nature of the narratives themselves. The remedy for this, of course, is to increase the amount of textual data available, a need which this study highlights.

Turning to the more direct syntactic predictions of Stage II, we can see that the textual evidence shown in Table 5 is consistent not only with Stage II but also with Stage III changes. There are no cases of two overt post-predicative DPs with ergative marking; no cases of post-predicative DPs with ergative subject and first

or second person object marking;[22] and in almost every case of object extraction with a post-predicative DP, passive is employed, as shown in the cleft construction in (30), from the story 'Mink and Grizzly' in Watanabe (2003):

(30) hi=k̓ʷaʔ tə=qiǐ-ʔu-s qayǐ
be=QUOT DET=younger.sibling-PAST-3POSS Mink

ʔə=ƛəkʷ-əxʷ-əm (ʔə=)tə=ǐawgas
CLEFT=grab-NCT-PASS (OBL=)DET=grizzly
'It was Mink's younger brother that the grizzly grabbed (that was grabbed by the grizzly).' (Watanabe 2003: 568)

In fact, even the single apparent counter-example to the A-nominal Restriction in the Stage II texts we have examined turns out on closer inspection to conform to it. The relevant example comes from the same story as (29), and involves a relative clause with a locative demonstrative head and an apparent post-predicative A DP:

(31) θu::=k̓ʷaʔ=ga (ʔə=)taṅ təs-t-**as** **qayǐ**
go::=QUOT=PRT (OBL=)DEM reach-CTR-**3ERG** **Mink**
'She arrived at where Mink was (had reached).' (Watanabe 2003: 584)

However, follow-up with the original narrator of the text (EP) reveals that this apparent counter-example is the result of a mistranslation: rather than representing the A argument, the post-predicative DP *qayǐ* 'mink' in (31) is actually the *O* argument, and the correct translation is 'She (Grizzly) got to (the place) where she reached Mink.'

In other words, the available textual evidence at Stage II fully supports the A-nominal Restriction (24) which we have characterized as the logical endpoint of the restriction of ergative marking to *pro*, fully realized only at Stage III. The fact that there are no post-predicative agent DPs in ergative-marked clauses in the texts suggests that Stage III characteristics are already present in narrative contexts at Stage II.

[22] These are not included in the table; there are three relevant cases in the texts, all of which involve passive morphology.

5 Cross-Salishan perspectives

In this section, we turn to a comparison of the ʔayʔaǰuθəm system as presented here with two other Central Salish systems, Lushootseed and (Island) Halkomelem. We focus on two topics: a direct comparison of the ʔayʔaǰuθəm system with that of Lushootseed, which also exhibits a restriction against two overt DPs in active clauses; and a three-language survey of the active~passive alternation as viewed from the perspective of textual analysis.

5.1 ʔayʔaǰuθəm versus Lushootseed

For those with some knowledge of comparative Salish syntax, the developments we have outlined for ʔayʔaǰuθəm immediately bring to mind the other well-known Salish language where two overt DP arguments are banned in active transitive clauses: Lushootseed (32a), as described in particular by Hess (1995). Just as in ʔayʔaǰuθəm, passive is used to circumvent this proscription (32b):

(32) a.* ʔugʷəc̓-əd ti=c̓ac̓as ti=sqʷəbayʔ
seek-CTR DET=boy DET=dog

b. ʔugʷəc̓-t-**əb** **ʔə**=ti=c̓ac̓as ti=sqʷəbayʔ
seek-CTR-**PASS** **OBL**=DET=boy DET=dog
'The boy looked for the dog.' ('The dog was looked for by the boy.')
(Lushootseed: Hess 1995: 23)

The comparison between these two languages is even more interesting because there is no question of areal influence: though Lushootseed, like ʔayʔaǰuθəm, is part of the Central branch of Salish, it is spoken at the Southern end of the Salish sea (along with its close relative Twana, which is less well-documented but probably shared the relevant syntactic characteristics), whereas ʔayʔaǰuθəm is the most northerly Central Salish language. The question then is whether the independent development of a ban affecting two arguments in transitive clauses had the same preconditions or has followed the same diachronic trajectory in the two systems.

The answer appears to be only very partially. We have identified two central factors in the development of the ʔayʔaǰuθəm system: the loss of oblique marking, and the restriction of ergative marking to *pro* subjects. The first of these changes has not apparently affected Lushootseed at all. Hess (1995: 23) emphasizes the role of the oblique marker in distinguishing post-predicative A from O arguments, which (as in Stage I ʔayʔaǰuθəm), may be re-ordered from their canonical VAO order in passive clauses: compare (33) to (32b) above.

(33) ʔugʷəc̓gt-əb ti=sqʷəbayʔ **ʔə**=ti=c̓ac̓as
seek-CTR-PASS DET=dog **OBL**=DET=boy
'The boy looked for the dog.' (Lushootseed: Hess 1995: 23)

Lushootseed also differs partially from ʔayʔaǰuθəm in the second factor, the restriction of ergative marking to pronominal subjects. As pointed out in 2.2, the A-nominal Restriction (24) predicts that no overt agent DP will be possible in any active transitive clause, including those with a first or second person object suffix. We have seen that this prediction is borne out in Stage II and III ʔayʔaǰuθəm (see (10–11) above); however, in the equivalent Lushootseed sentences, both passive and active variants are allowed with an overt A DP, as seen in (34):

(34) a. ʔugʷəc̓̌-t-**əb=čəɬ** **ʔə=**ti=sqʷəbayʔ
seek-CTR-**PASS=1PL.SU** **OBL=**DET=dog
'The dog looked for us' ('We were looked for by the dog.')

b. ʔugʷəc̓̌-t-**ubuɬ** ti=sqʷəbayʔ
seek-CTR-**1PL.OBJ** DET=dog
'The dog looked for us.' (Lushootseed: Hess 1995: 41)

In other words, the narrowing of active transitive marking to *pro* which has reached its logical endpoint in ʔayʔaǰuθəm has only gone partway in Lushootseed, not yet having affected clauses with first or second person objects.

Lushootseed also differs from ʔayʔaǰuθəm in its A' extraction patterns, though here the differences are a consequence of an independent morphological development in Lushootseed which has led to the complete loss of ergative morphology. As has previously been observed (see in particular H. Davis 1999, 2000 and Kroeber 1999), the Lushootseed system represents the end point of a historical process which has seen the gradual replacement of Proto-Salish subject suffixes by one of the three clitic subject series (indicative, possessive, and conjunctive/subjunctive), with other Central Salish languages showing various intermediate stages along this diachronic path. The result is that the ergative~passive alternation has been replaced in Lushootseed by a Ø~passive alternation (as seen in (34) above, for example), with third person unmarked (or rather, marked only by a Ø indicative clitic) in main clauses, and marked by possessive and conjunctive clitics in subordinate clauses. This in turn has resulted in neutralization of extraction morphology for transitive subjects and objects, since the loss of ergative marking means that the standard Central Salish strategy of deleting the third person ergative suffix in A extraction contexts is now indistinguishable from the standard strategy for O extraction, in which ergative marking is retained. The Lushootseed system has consequently been realigned so that Ø always marks A extraction and passive is uniformly applied in O extraction contexts, as shown in the following pair of WH-questions: [23]

[23] As with the A-nominal Restriction, this realignment has not affected cases of O extraction with a first or second person subject, which remain in the active rather than the passive voice in Lushootseed, as shown in the WH-questions in (i) and (ii):

(35) a. gʷat kʷi=ʔuʔəẏ-dxʷ ti=sqʷəbayʔ
who DET=find-NCT DET=dog
'Who found the dog?'

b. gʷat kʷi=ʔuʔəẏ-du-**b** **ʔə**=ti=sqʷəbayʔ
who DET=find-NCT-**PASS** **OBL**=DET=dog
'Who did the dog find?' ('Who was found by the dog?'
(Lushootseed: Hess 1995: 101)

Table 6 summarizes our comparison between Stage III ʔayʔaǰuθəm and Lushootseed.

Table 6: The distribution of arguments in Stage III ʔayʔaǰuθəm versus Lushootseed

	ʔayʔaǰuθəm	Lushootseed
First/second person O suffix with A DP?	no	**yes**
Two overt DPs in active transitive clause?	no	no
Oblique-marking with post-predicative A?	no	**yes**
Flexible ordering of arguments?	no	**yes**
A'-extraction of O in active transitive?	yes	**no**
A'-extraction of O in passive	yes	yes

As Table 6 shows, there are more differences than similarities between the two systems. One of the major changes in ʔayʔaǰuθəm (the loss of oblique marking) has not affected Lushootseed at all; and though it is true that the shared ban against two post-predicative DPs in active transitive clauses does appear to derive from the same narrowing of the function of ergative morphology to mark only topical (*pro*) subjects, that change has also gone significantly further in ʔayʔaǰuθəm than in Lushootseed.

In this light, it is worth asking whether Lushootseed shows the discourse profile of Stage I or Stage II/III ʔayʔaǰuθəm, a topic to which we turn next.

5.1 Discourse use of the active~passive alternation across Central Salish

In this section, we present a four-way comparison in the textual distribution of DPs in transitive clauses between Stage I and Stage II ʔayaʔjuθəm, Lushootseed (Bates 2004), and Island Halkomelem (Gerdts and Hukari 2003). Of particular interest is the question of whether the differences we saw in 3.3 between the use

(i) gʷat kʷi=gʷəkʷaxʷ-**ad=čəd**
who DET=help-**CTR=1SG.SU**
'Whom can I help?' (Hess 1995: 100)

(ii) gʷat kʷi=ʔuʔəl-**təxʷ=čələp**
who DET=eat-**CAUS=2PL.SU**
'Whom did you folks feed?' (Hess 1995: 100)

of passives in Stage I and Stage II ʔayʔaǰuθəm are reflected cross-linguistically in Lushootseed (where ergative marking is partially restricted) as opposed to Halkomelem (where it is not).

For ease of comparison, we employ the classification system used by Gerdts and Hukari and subsequently adopted by Bates, which excludes cases of A'-extraction. To boost numbers for Stage II ʔayʔaǰuθəm, we have also added two more stories from the First Voices website: see Appendix B for details.

We begin with active transitive clauses, shown in Table 7:

Table 7: Distribution of DPs in active transitive clauses in three Central Salish languages[24]

	HK		LU		CX I		CX II	
	#	%	#	%	#	%	#	%
Subject and object are overt DPs	7	**9**	-	**Ø**	1	**2**	-	**Ø**
Only overt DP is subject	3	**4**	-	**Ø**	-	**Ø**	-	**Ø**
Only overt DP is object	43	**53**	40	**65**	29	**59**	60	**67**
Both subject and object are zero	28	**35**	22	**35**	19	**39**	30	**33**
Total 3rd person active transitives	**81**	100	**62**	100	**49**	100	**90**	100

(NB: all the HK cases with only overt subjects feature demonstratives, which act inversely to ordinary DPs in this context: see Gerdts and Hukari 2003 for discussion).

A glance at this table shows that as far as active transitives are concerned, the three languages (and both stages of ʔayʔaǰuθəm) are quite close to each other, setting aside the ban on two DPs in active transitive clauses in Lushootseed and Stage II/III ʔayʔaǰuθəm, which differentiates them from all other Salish languages save Twana. All four systems obey the ONI almost uniformly (the only exceptions involving demonstratives in Halkomelem), and in all of them the majority of clauses (53%–67%) contain a single overt O DP, with clauses containing no overt DPs the second most common pattern (33%–39%).

Next, we turn to passives.

[24] We use the standard Salishanist abbreviation CX (Comox) for ʔayʔaǰuθəm in tables 7 and 8.

Table 8: Distribution of DPs in passive clauses in three Central Salish languages

	HK		LU		CX I		CX II	
	#	%	#	%	#	%	#	%
Subject and object are overt DPs	3	**2**	4	**4**	-	**Ø**	2	**16**
Only overt DP is subject	14	**9**	22	**26**	9	**29**	11	**80**
Only overt DP is object	58	**36**	17	**20**	7	**21**	1	**4**
Both subject and object are zero	76	**53**	41	**50**	18	**50**	-	**Ø**
Total 3rd person passive	**151**	100	**84**	100	**34**	100	**14**	100
3rd person passive/ total 3rd person	151/ 232	**65%**	84/ 146	**54%**	34/ 85	**40%**	14/ 104	**13%**

Here, the data are less uniform and more illuminating. First of all, cross-Salishan comparison shows that Stage II ʔayʔaǰuθəm is indeed the outlier as far as the overall percentage of passive clauses is concerned: while even at Stage I, the ratio of passives to actives in ʔayʔaǰuθəm is lower (at 40%) than that for either Halkomelem (65%) or Lushootseed (54%), it plunges to a mere 13% at Stage II.[25] The reason, as we already saw in comparing Stage I and Stage II ʔayʔaǰuθəm, is the near-total restriction of passives in narrative contexts at Stage II to clauses with overt A DPs. In contrast, both Halkomelem and Lushootseed line up closely with Stage I ʔayʔaǰuθəm in showing around 50% of passives with no overt arguments; for passives with a lone overt O argument, the range is from 20%–36%, with Halkomelem at the high end and Lushootseed nearly identical to Stage I ʔayʔaǰuθəm at 21%.

These results serve to strengthen our suspicion that there has been a rather radical change in the discourse use of passive in the recent history of ʔayʔaǰuθəm, which differentiates it from all other Central Salish systems, including Lushootseed. As proposed above in section 4, the change appears to be triggered by the restriction of ergative marking to *pro* A arguments, which in turn has led to a realignment of the discourse function of passive, so that in narrative contexts it can now no longer be used to refer to covert A arguments.

6 Implications for the Pronominal Argument Hypothesis

Before concluding, we address certain syntactic implications of the developments we have traced in this paper, focusing in particular on the Pronominal Argument Hypothesis (PAH: see e.g., Jelinek and Demers 1994).

Returning to the conditions in (29), repeated here as (36), and in particular the condition on ergative marking in (29a/36a), it is hard to escape the conclusion

[25] The Stage I ʔayʔaǰuθəm ratio is very similar to those of Squamish (42.5% passive: Jacobs 1994) and Bella Coola (41.5% passive: Forrest 1994).

that ʔayʔaǰuθəm shows 'pronominal argument' properties – in fact, rather literally so, since ergative subjects may only be represented by *pro*.

(36) *Referent tracking and the ergative~passive alternation at Stage II/III*

a. *Ergative: the A argument **must** be anaphoric to a discourse referent.*
b. *Passive: the A argument **cannot** be anaphoric to a discourse referent.*

However, it is important to point out that this is *only* true of ergative subjects. As far as we can tell, all other lexical (DP) arguments in ʔayʔaǰuθəm behave as though they occupy conventional argument positions, rather than being generated as clausal adjuncts coindexed with pronouns in argument positions, as predicted by the Pronominal Argument Hypothesis (PAH).[26] It is therefore misleading – at least for ʔayʔaǰuθəm – to talk about a pronominal argument *language* as opposed to a pronominal argument *configuration*.

It also matters which version of the PAH we adopt to describe the ergative pattern in ʔayʔaǰuθəm. In the version proposed by Jelinek and Demers (1994) for Northern Straits Salish, pronominal clitics and affixes on the predicate *directly* represent arguments, which for ʔayʔaǰuθəm would mean that the ergative suffix *-as* was a pronoun. Though there is evidence that e.g., third person plural subject markers in some Salish languages may indeed be pronouns rather than agreement morphemes (see e.g., H. Davis 2003 on St'át'imcets/Lillooet), none of this evidence applies to *-as*.

On the other hand, a version of the PAH whereby agreement morphology *indirectly* represents arguments by obligatorily licensing *pro* in argument position is more easily applicable to ʔayʔaǰuθəm. The obvious candidate is Baker's (1996) version of the PAH, which claims that in languages with 'super-rich' agreement, agreement morphology absorbs case, allowing only *pro* (which is caseless, by hypothesis) to occupy argument positions.

However, while Baker's version of the PAH mechanically accounts for the restriction of ergative subjects to *pro*, it misses the essence of the restriction in ʔayʔaǰuθəm, which is driven not by the richness of agreement morphology but by the obligatorily anaphoric nature of transitive subjects. In terms of the diachronic trajectory of ʔayʔaǰuθəm, nothing about the morphology of the agreement system of Stage II differs from that of Stage I; what does differ, as we have seen, is that a preference for ergative subjects to be anaphoric to a discourse topic becomes entrenched as a requirement.

This in turn suggests a different way to look at 'pronominal argument' configurations, not in terms of agreement parameters, but in terms of their anaphoric properties; such a perspective certainly seems more promising for ergative subjects in ʔayʔaǰuθəm, and has the additional advantage that it can be

[26] Though it is also true that many of the critical diagnostic tests (e.g., island effects) have yet to be systematically carried out in ʔayʔaǰuθəm.

potentially extended to the condition on passive clauses in (36b), which states that the A argument of a passive *cannot* be anaphoric.

Formalizing the properties of the relevant system of discourse anaphora is beyond the scope of this paper, but we have a few thoughts about the direction this might take. There are two basic approaches, the first involving a theory of cross-sentential anaphora specifically designed to handle text-level coreference, the second involving an extension of intra-sentential anaphora to cross-sentential contexts.

Though either approach is in principle able to account for the basic facts, here we tentatively offer two arguments in favour of the second alternative, where the dependency is represented sentence-internally via a null topic which A'-binds *pro* in the subject position of a transitive clause. The first argument concerns the possibility of an *overt* topic binding a *pro* subject: in Appendix A below, we argue that this possibility is exemplified by one of our Stage III speakers, who allows AVO order with ergative marking. The second argument is that A'-extraction of the A argument of a passive becomes impossible at Stage II at approximately the same time as its anaphoric use in discourse becomes restricted: if the two are seen as facets of the same restriction on intra-sentential A'-binding, a unified explanation becomes possible, whereas if they derive from separate components of the grammar (text-level anaphora and intra-sentential A'-binding), their simultaneous appearance must be regarded as coincidental.

7 Conclusion

We hope to have shown in this paper that some apparently confusing and even contradictory previous findings on the distribution of DPs in ʔayʔaǰuθəm can be resolved once a diachronic dimension is introduced. Arranged over a period of about three generations, the data show that the language has been undergoing rapid and far-reaching syntactic changes.

These changes are not due to the influence of English, nor are they a pathological symptom of a language in terminal decline.[27] Rather, they are driven by the internal dynamics of ʔayʔaǰuθəm grammar, and in particular by two dominant trends. The first is morphophonological, and has resulted in the gradual loss of all pre-predicative material, beginning with prefixes and progressing to proclitics, probably under the influence of neighbouring Kwak'wala, which lacks both prefixes and proclitics, and is known to have influenced ʔayʔaǰuθəm in phonological respects (see J. Davis 1970b).

The second is syntactic, and represents an extension of a widespread Salish trend: the tendency to reserve transitive subject (ergative) marking for continuing (null) topics. In ʔayʔaǰuθəm, this tendency has simply been taken to its logical endpoint: ergative *only* marks null topics, leading the language to adopt the A-nominal Restriction given in (24) above, and repeated here as (37):

[27] Though we cannot dismiss the possibility that the *rate* of change may have been influenced by language attrition.

(37) *The A-nominal Restriction*
An overt post-predicative DP in an active transitive clause can never be interpreted as the A argument.

We have shown, furthermore, that the A-nominal Restriction has had an impact on discourse structure, where the restriction of ergative marking to anaphoric (*pro*) A arguments has led to a complementary restriction on passive, which at Stage II/III *cannot* license anaphoric A arguments, unlike at Stage I or in either Lushootseed or Island Halkomelem. This development is summarized in (28), repeated below as (38):

(38) *Referent tracking and the ergative~passive alternation at Stage II/III*

a. *Ergative: the A argument **must** be anaphoric to a discourse referent.*
b. *Passive: the A argument **cannot** be anaphoric to a discourse referent.*

One implication of these changes is that the 'pronominal argument' configuration associated with ergative marking is tied to specific discourse conditions, rather than purely structural considerations (e.g. Case-absorbing agreement morphology). At the same time, however, an account relying on a purely discourse-centered theory of cross-sentential anaphora would miss the syntactic nature of the configuration and the changes that produced it.

Obviously, there is more to say here and much more research to be done. We hope, though, to have at least started to ask the right questions.

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Appendix A: subject-initial order

As noted in 2.3 and 6.1, our youngest Stage III speaker, who was raised in Homalco, unexpectedly but quite regularly uses AVO word order with ergative marking, as shown in (1):

(1) **mimaẇ̓** ʔa•ʔaq̓-at-**as** č̓aṅu
cat IPFV•chase-CTR-**3ERG** dog
'The cat is chasing the dog.' (JF)

It is important to distinguish this word order possibility from 'concealed' clefts with an extracted A argument. Since clefts commonly lack the introductory predicate *hi(ɬ)*, and Stage III speakers have lost the *ʔə=* 'cleft particle' entirely, an A argument in initial position could at first sight either be a genuine pre-predicative subject or a clefted (A'-extracted) subject. However, for our consultant, as for the language more generally, only O arguments may ever be A'-

extracted from ergative-marked predicates; extracted A arguments always trigger deletion, as shown in the WH-question in (2):

(2) gat ʔa•ʔaq̓-at**(*-as)** mimaẇ
who IPFV•chase-CTR**(*-3ERG)** cat
Who's chasing the cat? (JF)

A string consisting of [A V+erg O] cannot therefore be treated as a concealed cleft.

This still leaves us with the question of what position a pre-predicative subject *does* occupy, and in particular, whether it sits relatively low in the structure (below T(ense), for example) or higher up, in a left-peripheral functional projection. Here, its position relative to negation is significant: it *precedes* the negative predicate *xʷa*, as shown in (3b).

(3) a. xʷa ʔa•ʔaq̓-at-it č̓anu q̓atən
NEG IPFV•chase-CTR-SB.PASS dog rat
'The dog didn't chase the rat.'[28]

b. **č̓anu** **xʷa** ʔaʔaq̓-at=as q̓atən
dog **NEG** IPFV•chase-CTR=3SJV rat
'The dog didn't chase the rat.'[29] (JF)

Negation in Central Salish languages is independently known to occupy a position either very high in the clausal superstructure (as in the analysis of Wiltschko 2002) or outside the negated clause altogether (as in that of H. Davis 2005): see Kroeber (2002b) for pertinent discussion on ʔayʔaǰuθəm. The position of the A argument at the extreme left periphery of negated AVO clauses thus indicates it is even higher up in the structure, in a sentence-external topic position.

An analysis involving a left-peripheral topic is also supported by the rather specific discourse circumstances under which our consultant most often uses AVO order: namely, in all-new contexts, and especially at the beginning of a narrative. In other words, it looks like a sentence-initial A occupies a left-peripheral position, from where it serves to introduce a new discourse topic (and possibly to re-establish an old one).[30]

A topic analysis also provides a solution for the problem that the presence of an overt A-argument raises for the A-nominal Restriction in (33), which bans all

[28] When passive clauses occur under negation, the subordinate passive marker *-it* is employed: see Watanabe (2003: 295).

[29] The ergative marking characteristic of AVO word order is replaced here by the homophonous third person subjunctive enclitic induced by negation (Kroeber, 2002a); however, it is still underlyingly present, as can be seen if an auxiliary is supplied to host the enclitic, in which case the ergative suffix resurfaces on the main verb.

[30] This line of analysis also predicts that a sentence-initial A will occupy its own Intonation Phrase (see Koch 2008) for evidence that this is indeed the case for SV(O) structures in Thompson River Salish). We have not yet had time to investigate this prediction.

overt A DPs in ergative-marked clauses, and is characteristic of Stage III ʔayaʔǰuθəm speakers, including the present consultant. If a pre-predicative A occupies a left-peripheral topic position, it can bind a *pro* in argument position just like an extra-sentential discourse topic: the dependency between the topic and *pro* is then subject to the mapping in (20), and conforms to the A-nominal Restriction in (33). In fact, as noted in 6.2, the existence of *overt* discourse topics in Stage III ʔayʔaǰuθəm might be used to argue that a *null* topic anaphoric to the principal protagonist of the discourse is present at the left periphery of *every* ergative-marked clause, from where it binds a *pro* in argument position.

Finally, while (as far as we are aware) it has never been previously discussed, AVO order is not quite unattested in the previous literature on ʔayʔaǰuθəm. We have found one other instance, in J. Davis (1978):

(4)	**θə=č̓anu**	**nəgi**	ʔaq̓-at-**as**	šə=t^{θ}ə=lamatù
	2SG.POSS=dog	**2SG.IND**	chase-CTR-**3ERG**	DET=1SG.POSS= sheep
	‘YOUR dog chased my sheep.’			(J. Davis 1978: 234)

This example is significant for a couple of reasons. First, it appears to be an example of contrastive topicalization, judging by the translation and the emphatic independent pronoun adjoined to the fronted A argument; this fits with our tentative characterization of the AVO construction as involving a topic position.

Second, J. Davis did his early fieldwork in Homalco, which is where our consultant was raised. This raises the possibility that AVO order is not an innovation at all, but an instance of dialect variation, with Homalco speakers allowing and Sliammon speakers disallowing it. Unfortunately, we have as yet been unable to test this conjecture with older (Stage II) Homalco speakers: this is a priority for future work.

Appendix B: Methodology

The phenomena investigated in this paper involve both grammatical dependencies and discourse-conditioned alternations, with changes spanning three generations of speakers. As such, we felt it was important to use a variety of methodologies to investigate the patterns and a variety of sources for the data. In this appendix, we lay out some of the methodologies we used to gather linguistic evidence for the arguments made in this paper.

In order to initially characterize the distribution of ergative/passive and overt DPs, we used short storyboards set up to manipulate reference tracking across utterances. In particular, we presented a short sequence of pictures, varying which character was introduced as the topic and which character was the agent in subsequent transitive clauses.

Figures 1 and 2 illustrate a typical contrast. In Figure 1, the dog is introduced as the topic and remains the protagonist in the following two panels of the cartoon (created using the www.pixton.com website). In sample narrative (1), he is also the agent of the transitive predicate *ʔaq̓ʔaq̓atas* ‘chasing’. In Figure 2, the cat is introduced as the topic and remains the protagonist. However, in the sample narrative for this sequence (2), the cat is the agent of the first transitive verb

papkʷatas ‘he watches/looks at him’ but the patient of the second verb ‘chase’, which is given as a passive (*ʔaq̓atəm* ‘he was chased’).

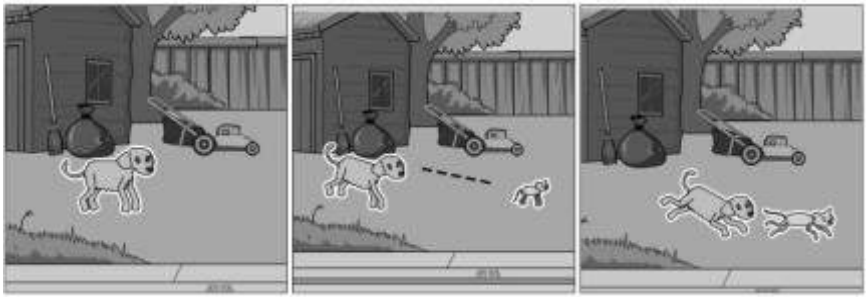

Figure 1 There’s a dog. He sees a cat. He chases the cat.

(1) a. q̓aq̓s-əm ta= … na=č̓an̓u
play-MID DET=… FILL=dog
‘The...um…dog is playing.’

b. ʔaq̓•ʔaq̓-at-as ta=mimaẇ
PL•chase-CTR-3ERG DET=cat
‘He’s chasing the cat.’

c. ǰəyƛ̓ taʔ ta=mimaẇ
run [IPFV] DEM DET=cat
‘He’s running towards the cat.’

d. səẏ•say
CHAR•scared
‘It’s scared.’

‘The dog is playing. He’s chasing the cat. He run toward the cat. It’s scared.’ (PD)

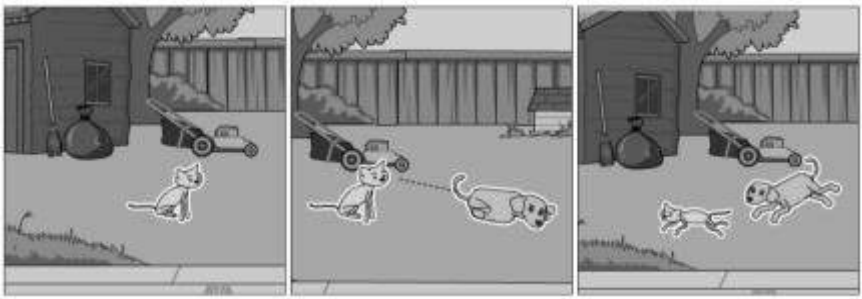

Figure 2 There’s a cat. He sees a dog. The dog chases him.

(2) a. niʔ ta=mimaẇ
be.there DET=cat
'There was a cat.'

b. kʷanəč tita, kʷən=s nunpiganəm
sit DEM maybe=3POSS think
'He was sitting, probably thinking.'

c. hu papkʷ-at-as ta= … na=č̣aṅu
go watch-CTR-3ERG DET=… FILL=dog
'He went and watched an...um…dog.'

d. gawṫ$^{\theta}$-at-as ta=č̣aṅu.
tease-CTR-3ERG DET=dog
'He teased the dog.'

e. x̌ał-əxʷ-as ta=č̣aṅu, huy ʔaq̇-at-əm ta=č̣aṅu
angry-NTR-3ERG DET=dog then chase-CTR-PASS DET=dog
'He made the dog angry, and then he was chased by the dog.'

f. čit=ga łag-aθut ta=mimaẇ
then=PRT run.away-CTR.RFLX DET=cat
'So the cat ran away.'

'He saw a dog. He teased the dog. He made the dog angry, and the dog chased him. The cat ran away.' (EP)

These sequences set the stage for follow up elicitation in the form of questions and answers, which allowed us to examine transitive predicates in extraction contexts (3). For these, we would both elicit questions ('How would I ask what the dog chased?') and ask questions in ʔayʔaǰuθəm to elicit answers in ʔayʔaǰuθəm from our consultants.

(3) a. tam ʔa•ʔaq̇-at-əm ta=č̣aṅu?
what IPFV•chase-CTR-PASS DET=dog
'What did the dog chase?'

b. hił ta=mimaẇ ʔaq̇-at-as
be DET =cat chase-CTR-3ERG
'He chased the cat.' (PD)

We also examined the realization of transitive predicates and overt DPs in available narratives for both Stage I and Stage II ʔayʔaǰuθəm. For this textual analysis, we coded all transitive verbs with two third-person arguments for whether the transitive marker was followed by ergative, passive, possessive or no morphology and whether there were any pre-predicative (extracted) or post-predicative DP arguments.

For Stage I, we used three texts from the John H. Davis collection of recordings in the California Language Archive at http://cla.berkeley.edu/collection/10048): 'T'echewaxanam' told by Ambrose Wilson, and 'Transformer and the Birds' and 'Thanch and P'ah' told by Tommy Paul.

For Stage II, we drew on the two texts in Section 4 of Watanabe (2003): 'The Basket Ogre', told by Mary George, and 'Mink and Grizzly', told by Elsie Paul, as well as two additional stories from the First Voices website (http://www.firstvoices.com/en/Sliammon/stories): 'Mink and Grey Bird', told by Sue Pielle, and 'Mink Marries Barnacle' told by Elsie Paul.

Concurrently with these other methods of investigation, we used direct elicitation in order to answer questions about specific constructions, filling in gaps in the paradigm and gathering negative data. This allowed us to be sure that an unattested construction was not an accidental gap in the data, for instance, but actually disallowed in the grammar of our consultants. The direct elicitation built directly on our observations of the data in more naturalistic, ongoing speech contexts, but established the parameters of the alternations more firmly. Taken together with the textual evidence and storyboard elicitation, this allowed us to draw more concrete conclusions about the status of various constructions.

Three Gitksan texts*

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Abstract: This paper presents three stories told in Gitksan by three speakers from different villages. These are Barbara Sennott's *Gitxsan Barbie's Scandinavian Series*, Vince Gogag's *Kitwancool Reserve Surveyed*, and Hector Hill's *Betl'a Betl'*. It is one of the first published collections of Gitksan texts with accompanying full interlinear gloss, and allows for comparison of some dialect differences. Texts are presented first in Gitksan and English. The interlinear gloss includes 1) a line of unbroken orthography, 2) a line of morpheme-broken orthography with morphophonological processes undone, 3) a phonemic line, 4) a line of morpheme gloss, and 5) a free translation. These stories are a small sample of the text-collection work done by the UBC Gitksan Lab since 2010.

Keywords: Gitksan, Tsimshianic, texts, narratives

1 Introduction

One of the major undertakings of the UBC Gitksan Research Laboratory since its inception in 2010 has been the transcription, translation, and analysis of textual material. The reason is simple: though many Gitksan recordings have been made over the years, there is little fully transcribed material currently available in the language, and almost none of it has been analyzed.[2] A corpus of transcribed,

* As always, *'wii t'isim ha'miyaa 'nuu'm ahl* our consultants (and story authors) Barbara Sennott (Harris), Vincent Gogag, and Hector Hill. Additional thanks go to Kevin Liang for assistance with formatting. This research was supported by the Social Sciences and Humanities Research Council of Canada (via Standard Research Grant 410-2008-2535 and Insight Grant 435-2015-1694), several grants from the Jacobs Research Funds, and UBC-internal funding via a Hampton Fund Research Grant and three Arts Undergraduate Research Assistantships.

[1] Active academic members of the UBC Gitksan Lab include Jason Brown (University of Auckland), Henry Davis, Mark Egelhoff, Gabrielle Guerrier, Lisa Matthewson, and Michael David Schwan (UBC), Clarissa Forbes (University of Toronto), Catherine Dworak and Kyra Fortier (University of Victoria), Katie Bicevskis, Colin Brown, Kevin Liang, and Aidan Pine (unaffiliated).

[2] We employ the term 'Gitksan' for the entire dialect continuum from Kispiox in the east to Gitanyow in the west (excluding Nisga'a). For community members as well as linguists, this appears to be the least contentious cover term for the language, and does not preclude the use of local pronunciations and alternative language names (e.g., Gyaanimx for the language spoken at Gitanyow). In the headings for the Gitksan versions of the stories, we have retained the speakers' preferred pronunciations/names for their own dialects.

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analyzed texts is important for linguistic, cultural, and pedagogical reasons. For linguistic analysis, it serves not only as a spontaneously generated database which can be used to check on hypotheses based on directly elicited examples, but also as a source of new and unexpected lexical items and grammatical structures. For Gitksan culture, it serves to preserve an oral heritage which includes not only traditional narratives and their meanings (*adaawk̲)*, but history, genealogy, and protocol (*ayook̲*). And for language pedagogy, which is becoming an increasingly important component of work on Gitksan as the language transitions from a first to a second language, texts serve as an indispensable resource for curriculum development.

We have recorded a substantial number of texts over the last several years, including historical narratives and personal recollections as well as fairly extensive conversational data, both with our consultants in Vancouver and those in Gitksan territory in northern British Columbia. The process of transcription and analysis is a lengthy one, however, not least because as yet there is no widely accepted, conventionalized procedure for morpheme breakdown, but also because of questions that inevitably arise when we are dealing with a language whose surface phonetics is relatively distant from the underlying forms of its component morphemes.

We have chosen to publish these three stories as a kind of trial balloon for a larger text collection, precisely in order to test our working assumptions about transcription and analysis. We give each story in three parts: a Gitksan-only version using a variant of the Hindle-Rigsby orthography in widespread (though not necessarily uniform) use across Gitksan territory;[3] an English translation; and an interlinearized gloss. The three-part presentation (modeled on the format employed in e.g., Callahan et al. 2016) seeks to address the needs of three overlapping readerships: the Gitksan-only text is designed for speakers and students of Gitksan, the English-only text for casual (non-Gitksan speaking) readers, and the fully interlinearized text for linguists, curriculum developers, and others interested in the fine structure of the language.

For the interlinear sections, we have adopted a five-line format. The first line matches the Gitksan orthographic representation in the Gitksan-only section. (For a conversion chart from the Hindle-Rigsby orthography to the APA, see Appendix A.)

The second line is a partially analyzed orthographic representation which includes morpheme boundaries and undoes boundary-sensitive phonological rules. For example, an epenthesized schwa – realized variably as *i, a,* or *u* in the orthography – is phonetically present between a stem-final consonant and a following resonant-initial suffix: the latter includes several very common inflectional morphemes, most notably the Series II pronouns *-'y* '1st person singular', *-n* '2nd person singular', and *-'m* '1st person plural'. There is also a *non*-epenthetic schwa (glossed TR for 'transitive') which is present in a subset of the

[3] The main difference between our version and the original system as employed in e.g., Hindle and Rigsby (1973) is that (following common practice in Gitksan territory) we write prevelar stops before back vowels with a *y*: thus we write *gyat/gyet* as opposed to *gat/get* for 'man, person'. See also Appendix A.

epenthesis environments – namely, in independent clauses and object-centred relative clauses between the stem and the Series II pronoun. However, this underlying TR schwa also shows up between a stem-final consonant and a non-resonant pronominal suffix (e.g. *-t*, '3rd person Series II'), where epenthesis is *not* triggered. Sorting out these phonetically identical but morphologically distinct schwas is very tricky for e.g., a language learner, but comparing lines 1 and 2 of the interlinear gloss provides the relevant information: the epenthetic schwa is present in the first line, but not the second.[4]

In inserting morpheme boundaries, we have assumed a convential three way-distinction between affixes (marked by a dash -), clitics (marked by an equals sign =), and reduplicants (marked by a tilde ~). This is almost certainly an oversimplification, since even within the class of clitics, Gitksan shows a wide diversity of morphophonological behavior. For example, the common noun connective clitic *=hl* is unselective as to host, but systematic in its phonological behavior, invariably attaching to the prosodic word immediately to its left. In contrast, the proper noun clitic *t* is 'ambidirectional' – as a stray consonant, it needs a host, but it can either encliticize (usually) or procliticize (occasionally) to any available host. When we look further afield to other elements that have been termed 'clitics' in the Tsimshianic literature, the problem becomes even more acute: for example, we have so far been unable to find a consistent way to represent the relation between the elements known as 'preverbals' and 'prenominals' in the literature and the stems to which they attach, probably because they do not act as a uniform class, either syntactically or semantically. More work is obviously needed in this area.

The third line is a full phonemic representation, employing the 'northwestern' version of the Americanist Phonetic Alphabet (APA) in standard use by linguists working on languages of the region (including Rigsby 1986 and Tarpent 1987 in their grammars of Gitksan and Nisg̲a'a, respectively).[5] Allophonic rules whose output is reflected in the Gitksan orthography, such as the pervasive process of prevocalic stop voicing, are fully undone in the phonemic representation, whereas in the second (orthographic) line they are only resolved where an alternation surfaces.

The fourth line is a morpheme-by-morpheme gloss: see Appendix B for abbreviations. By and large, we have based our glossing conventions on those in Rigsby (1986), though sometimes we adopt those of Tarpent (1987) (e.g., we follow her use of 'T' for the mysterious 'big T' morpheme which shows up on certain transitive verbs, and has allomorphs [t], [d], and [ə]). In addition, some of our glosses reflect our own recent analyses of e.g., extraction morphology (Davis and Brown 2011), tense and aspect (Matthewson 2013), and the connective system (Davis and Forbes 2015), as well as ongoing work on discourse particles, agreement, and other areas of the grammar.

[4] It is notable in this respect that fluent, literate speakers often waver between writing e.g., *wili'y* and *wil'y* for 'I do'.

[5] However, we employ the IPA symbol [χ] for the voiceless uvular fricative, as opposed to [x], as used by Rigsby and Tarpent; we find the underdot in the latter is rather too easily lost in retranscription and copying.

Of course, a glossing system always embodies a set of working hypotheses about a language, and as such is inevitably provisional. Though the system used here builds on an increasingly rich descriptive and theoretical literature on Tsimshianic, and embodies our current thinking about Gitksan grammar, there are certainly areas where further revision will be necessary. For example, we have followed Rigsby (1986) in glossing the valency suffix *-txw* as 'passive', but there are clearly cases where that label is inadequate, since *-txw* yields an active transitive verb. A case in point is in line 18 of Vince Gogag's story: the verb *sga-sgi-txw-i-'m*, which we have glossed *block.way-lie-PASS-TR-1PL.II* is clearly transitive, as evidenced by the 'transitive' schwa and the following Series II first person plural suffix, which marks a transitive subject in an independent clause. 'Passive' is therefore clearly an inadequate label in this case, and more generally, our understanding of valency-marking is in obvious need of an overhaul.

The three stories follow, each preceded by brief biographical notes about the speaker, together with details of when, where, and by whom the story was recorded.

2 Gitxsan Barbie's Scandinavian Series, by Barbara Sennott (Harris)

This story tells about an incident that happened to Barbara while she was traveling in Sweden when she was younger. It was elicited January 16, 2012 at UBC, by Clarissa Forbes, Michael Schwan, Andrei Angelescu, and Jesse Lawrence. Editors include Clarissa Forbes and Henry Davis.

Barbara was raised in Ansbayaxw (Kispiox) by her grandparents. Her dialect is representative of the Eastern variety described by Hindle and Rigsby (1973), particularly with regard to the vowel space. Some consonants are more lenis compared to the other speakers in this paper, with some former plain dorsal stops having shifted to fricatives (e.g. *kw* to *xw*), and some former glottalized dorsal stops debuccalizing (e.g. *k'* reducing to a simple glottal stop).

2.1 Gitxsanimx̲

'Nakwhl hlidaa 'wihl wili'y g̲oohl wag̲ayt andoosda wil jok̲hl amxsiwaa. Ii na'wahl anhahla'lst g̲oohl *Stockholm* sawatdiit. Ii hahla'lsdi'y g̲oohl *IBM*.

Ii hlaa k'i'yhl k'uuhl ii na sdilhl ansiip'insxwi'y g̲anhl nakst g̲oohl wag̲ayt *Spain* 'wayi'm. Ii hlaa guxws luu yaltxu'm ii basax̲xu'm g̲oohl *Denmark*. Ii na yuxwhl *train* loo'y ii yee'y g̲oohl *Stockholm*. Ii hlaa bagu'm g̲oohl *Stockholm* ii ha'wi'y. Ii 'nakwhl 'wihl wili'm, gwila'lhl g̲anuutxw, g̲an wihl needii lax̲'nisxwi'y g̲oohl Gigeenix.

Ii yee'y g̲oohl anhahla'lsdi'y. Ap yukwhl ha'niisgwaa'ytxw. Ii neediit naa dim 'witxwit. Ii yee'y loot nii dok̲hl *mail*'y. Ii hlag̲ook̲ dim ha'wi'y ii ky'aa isxwi'y g̲oohl wilp xseek̲.

Ii daayimaahl wili'y g̲an wina sg̲at'akwhl aats'ip. Ii hlaa yukwhl dim xsawi'y ii needii 'nim k̲'ak̲hl aats'ip. Ii xsi hlguxwsxwi'y ii lip ligi agwihl bag̲a'y ii ap neet.

Ii k̲'aa 'nii giihli'y lax̲ ha'niiwan. Ak̲hl ligi 'wihl he'y.

Ii 'nii yatshl *pipe*—nii gya'a wil sgihl *pipe* aloohl ha'niiyo'oxsxw. Nii xhlii guut iin yatshl *pole* loot, upja ligi 'wihl wihl ligit naa. Ii neediit naa ji 'witxwit. Agwiyukwhl ha'niisgwaa'ytxwhl gan wihl neediit naa ji hahla'ljit.

Ii hehl t'ilxootxwi'y, "Dim aam dim wili'y, yukwhl baxhl aks. Ii akhl ligi 'wihl baasxi'y goosun." Ii giihli'y, ii si'ix woksi'y. Ii ap neet, gan wina guuhl hlgu *pipe* gi nii yatshl aats'ip loot. Ii hlaa aamhl ga'nagwit iin gya'ahl gadaaxhl wilp xseek. Nii japhl 'wii luu no'o dim xsi yuwi'y, ii 'nithl wili'y. Hlaa xsa'akxwi'y 'nii gayoo ts'imil t'aahlihl jabi'y goohl ts'im wilp xseek.

Hlaa yukwhl hahla'lsdi'm ii ha'niigoodi'y wihl ii'uxwt ganwila 'nii yuxwdiithl *office*'y. Ii hediit, "Oo, 'nit *Canadanska flika* tun ant kw'asinhl wilp xseek."

2.2 English

A long time ago, I lived overseas where the white people lived. And I found work in Stockholm, that's what they call it. And I worked for IBM.

After one year, my friend and her husband and I traveled all the way to Spain. And on the way back we separated in Denmark. And I took the train and I went to Stockholm. And we arrived in Stockholm and I went home. And we were away a long time, three weeks, and that's why I didn't hear from Gigeenix.[6]

And I went to my work, but it was Sunday, and no one would be there.

And I went there and I got my mail. And before I went home I had a short pee in the bathroom.

And I don't know why I locked the door. And I was going to go out but the door didn't want to open. And I couldn't get out, and I tried everything but I couldn't get out.

And I laid on the floor for a while. I didn't know what to think.

And I hit the pipe—I saw there was a pipe on the sink. And I took it apart, and I hit the pole with the pipe in case anybody was around. But no one came. Because it was Sunday, no one was at work.

And my thoughts said, "I will be alright because there is running water. And there is nothing for me to fear here." And I laid down, and tried to sleep. But it wasn't to be. That's why I took the little pipe and I hit the door with it. And after a while I was able to see the outside of the bathroom. I made a big hole to go through, and that's what I did. When I made it out, then I put the evidence of what I had done back in the bathroom.

We went back to work and I wondered why the men kept coming into my office. And they said, "Oh, this is the *Canadanska flika* who broke the toilet."

[6] *Gigeenix* 'upstream, east' references the Kispiox area, or "back home".

2.3 Interlinear gloss

(1) 'Nakwhl hlidaa 'wihl wili'y g̲oohl
'nakw=hl hli-daa 'wihl- wil-'y g̲oo=hl
ṅakʷ=ɬ łə-ta: ẇəɬ- wil-ẏ qo:=ɬ
long=CN PART-SPT around- LVB-1SG.II LOC[-3.II]=CN
wag̲ayt andoosda wil jok̲hl amxsiwaa.
wag̲ayt an-doosda wil jok̲=hl amxsiwaa
waqəyt ʔən-to:sta wəl cuq=ɬ ʔəmxsəwa:
completely NMLZ-across COMP live[-3.II]=CN white.person
'A long time ago, I lived overseas where the white people lived.'

(2) Ii na 'wahl anhahla'lst g̲oohl *Stockholm*
ii n= 'wa=hl an-hahla'lst g̲oo=hl Stockholm
ʔi: n= ẇa=ɬ ʔən-həɬaḷst qo:=ɬ Stockholm
CCNJ 1.I= find[-3.II]=CN NMLZ-work LOC[-3.II]=CN Stockholm
sawatdiit.
si-wa-t-diit[7]
sə-wa-t-ti:t
CAUS1-name-T-3PL.II
'And I found work in Stockholm, that's what they call it.'

(3) Ii hahla'lsdi'y g̲oohl *IBM*.
ii hahla'lst-'y g̲oo=hl IBM
ʔi: həɬaḷst-ẏ qo:=ɬ IBM
CCNJ work-1SG.II LOC[-3.II]=CN IBM
'And I worked for IBM.'

[7] This is a headless relative clause focusing the oblique 'specified complement', *Stockholm* (Tarpent 1987: 283).

(4) Ii hlaa k'i'yhl k'uuhl ii na
ii hlaa k'i'y=hl k'uuhl ii n=
ʔi: ła: kiẏ=ɬ kʷu:ɬ ʔi: n=
CCNJ INCEP one[-3.II]=CN year CCNJ 1.I=
sdilhl ansiip'insxwi'y ganhl
sdil=hl an-siip'-in-sxw-'y gan=hl
stil=ɬ ʔən-si:ṗ-ən-sxʷ-ẏ qən=ɬ
accompany[-3.II]=CN NMLZ-like-CAUS2-ANTIP-1SG.II PCNJ[-3.II]=CN
nakst goohl wagayt *Spain*
naks-t goo=hl wagayt Spain
naks-t qo:=ɬ waqəyt Spain
spouse-3.II LOC[-3.II]=CN completely Spain
'wayi'm.
'wa-i-'m
wa-ə-ṁ
reach-TR-1PL.II
'After one year, my friend and her husband and I traveled all the way to Spain.'

(5) Ii hlaa guxws luu yaltxu'm
ii hlaa guxws- luu- yalt-xw-'m
ʔi: ła: kʷuxʷs- lu:- yalt-xʷ-ṁ
CCNJ INCEP back- in- return-PASS-1PL.II
ii basaxxu'm goohl *Denmark*.
ii basax-xw-'m goo=hl Denmark
ʔi: pasəχ-xʷ-ṁ qo:=ɬ Denmark
CCNJ separate-PASS-1PL.II LOC[-3.II]=CN Denmark
'And on the way back we separated in Denmark.'

(6) Ii na yuxwhl *train*
ii n= yuxw=hl train
ʔi: n= yuxʷ=ɬ train
CCNJ 1.I= follow[-3.II]=CN train
ii yee'y goohl *Stockholm*.
ii yee-'y goo=hl Stockholm
ʔi: ye:-ẏ qo:=ɬ Stockholm
CCNJ go-1SG.II LOC[-3.II]=CN Stockholm
'And I took the train and I went to Stockholm.'

(7) Ii hlaa bagu'm goohl *Stockholm*
ii hlaa bakw-'m goo=hl Stockholm
ʔi: ła: pakʷ-ṁ qo:=ł Stockholm
CCNJ INCEP arrive.PL-1PL.II LOC[-3.II]=CN Stockholm
ii ha'wi'y.
ii ha'w-'y
ʔi: haẇ-ẏ
CCNJ go.home-1SG.II
'And we arrived in Stockholm and I went home.'

(8) Ii 'nakwhl 'wihl wili'm, gwila'lhl ganuutxw,
ii 'nakw=hl 'wihl- wil-'m gwila'l=hl ganuutxw
ʔi: ṅakʷ=ł ẇəł- wil-ṁ kʷəlaḷ=ł qənu:txʷ
CCNJ long[-3.II]=CN around- LVB-1PL.II three=CN week
gan wihl needii laxʷ'nisxwi'y goohl
gan wil=hl nee=dii laxʷ'ni-sxw-'y goo=hl
qən wəl=ł ne:=ti: ləχṅi-sxʷ-ẏ qo:=ł
REAS COMP=CN NEG=FOC hear-ANTIP-1SG.II LOC=CN
Gigeenix.
gi-geenix
kə-ke:nəx
place-upriver
'And we were away a long time, three weeks, and that's why I didn't hear from Gigeenix.'

(9) Ii yee'y goohl anhahla'lsdi'y.
ii yee-'y goo=hl an-hahla'lst-'y
ʔi: ye:-ẏ qo:=ł ʔən-həłaḷst-ẏ
CCNJ go-1SG.II LOC[-3.II]=CN NMLZ-work-1SG.II
'And I went to my work.'

(10) Ap yukwhl ha'niisgwaa'ytxw.
ap yukw=hl ha-'nii-sgwaa'ytxw
ʔəp yukʷ=ł hə-ṅi:-skʷa:ẏtxʷ
VER IPFV=CN INS-on-rest
'But it was Sunday.'

(11) Ii nediit naa dim 'witxwit.
ii nee=dii=t naa dim 'witxw-it
ʔi: ne:=ti:=t na: təm ẇitxʷ-ət
CCNJ NEG=FOC=DM who PROSP come-SX
'And no one would be there.'

(12) Ii yee'y loot nii dokhl *mail*'y.
ii yee-'y loo-t n=ii dok=hl mail
ʔi: ye:-ẏ lo:-t n=ʔi: tuq=ɬ mail
CCNJ go-1SG.II OBL-3.II 1.I=CCNJ take.PL[-3.II]=CN mail
'And I went there and I got my mail.'

(13) Ii hlagook dim ha'wi'y ii
ii hla-gook dim ha'w-'y ii
ʔi: łə-qo:q təm haẇ-ẏ ʔi:
CCNJ PART-first PROSP go.home-1SG.II CCNJ
ky'aa isxwi'y goohl wilp xseek.
ky'aa- isxw-'y goo=hl wilp- xseek
ka:- ʔisx^{w}-ẏ qo:=ɬ wilp- xse:q
short.prepare- pee-1SG.II LOC[-3.II]=CN house- go.out.PL
'And before I went home I had a short pee in the bathroom.'

(14) Ii daayimaahl wili'y gan wina
ii daa=imaa=hl wil-'y gan wil=ni
ʔi: ta:=əma:=ɬ wil-ẏ qən wəl=nə
CCNJ SPT=EPIS=CN LVB-1SG.II REAS COMP=1.I
sgat'akwhl aats'ip.
sga-t'akw=hl aats'ip
sqə-ta̓k^{w}=ɬ ʔa:c̓əp
block.way-turn[-3.II]=CN door
'And I don't know why I locked the door.'

(15) Ii hlaa yukwhl dim xsawi'y
ii hlaa yukw=hl dim xsaxw-'y
ʔi: ła: yuk^{w}=ɬ təm xsax^{w}-ẏ
CCNJ INCEP IPFV=CN PROSP go.out-1SG.II
ii needii 'nim k'akhl aats'ip.
ii nee=dii 'nim- k'ak=hl aats'ip
ʔi: ne:=ti: n̓əm- q̓aq=ɬ ʔa:c̓əp
CCNJ NEG=FOC DES- open[-3.II]=CN door
'And I was going to go out but the door didn't want to open.'

(16) Ii xsi hlguxwsxwi'y
ii xsi hlguxws-xw-'y
ʔi: xsə ɬkʷuxʷs-xʷ-ẏ
CCNJ out unable.to-PASS-1SG.II
ii lip ligi agwihl bag̲a'y
ii lip ligi agwi=hl bak̲-a-'y
ʔi: ləp likə ʔəkʷi=ɬ paq-ə-ẏ
CCNJ SELF DWID what=CN try-TR-1SG.II
ii ap neet.
ii ap nee-t
ʔi: ʔəp ne:-t
CCNJ VER not.so-3.II
'And I couldn't get out, and whatever I tried I couldn't get out.'

(17) Ii k̲'aa 'nii giihli'y lax̲ ha'niiwan.
ii k̲'aa 'nii- giihl-'y lax̲- ha-'nii-wan
ʔi: q̇a: ṅi:- ki:ɬ-ẏ ləχ- hə-ṅi:-wan
CCNJ short.time on- lay-1SG.II on- INS-on-sit.PL
'And I laid on the floor for a while.'

(18) Ak̲hl ligi 'wihl he'y.
ak̲=hl ligi 'wihl- he-'y
ʔaq=ɬ likə ẇəɬ- hi-ẏ
lack=CN DWID around- say-1SG.II
'I didn't know what to think.'

(19) Ii 'nii yatshl *pipe*, nii gya'a wil
ii 'nii- yats=hl pipe n=ii gya'a wil
ʔi: ṅi:- yac=ɬ pipe n=ʔi: kaʔ wəl
CCNJ on- hit[-3.II]=CN pipe 1.I=CCNJ see COMP
sgihl *pipe* aloohl ha'niiyo'oxsxw.
sgi=hl pipe a-loo=hl ha-'nii-yo'oxs-xw
ski=ɬ pipe ʔə-lo:=ɬ hə-ṅi:-yuʔxs-xʷ
lie.on[-3.II]=CN pipe PREP-OBL[-3.II]=CN INS-on-wash-PASS
'And I hit the pipe – I saw there was a pipe on the sink.'

(20) Nii xhlii guut
n=ii xhlii- guu-t
n=ʔi: xɬi:- kʷu:-t
1.I=CCNJ all.the.way- take[-T]-3.II
iin yatshl *pole* loot,
ii=n yats=hl pole loo-t
ʔi:=n yac=ɬ pole lo:-t
CCNJ=1.I hit[-3.II]=CN pole OBL-3.II
upja ligi 'wihl wihl ligit naa.
up-ji ligi 'wihl- wil=hl ligi=t naa
ʔup-cə likə ẇəɬ- wil=ɬ likə=t na:
in.case-IRR DWID around- LVB[-3.II]=CN DWID=DM who
'And I took it apart, and I hit the pole with it in case anybody was around.'

(21) Ii nediit naa ji 'witxwit.
ii nee=dii=t naa ji 'witxw-it
ʔi: ne:=ti:=t na: cə ẇitxʷ-it
CCNJ NEG=FOC=DM who IRR come-SX
'But no one came.'

(22) Agwiyukwhl ha'niisgwaa'ytxwhl g̲an wihl
agwiyukw=hl ha-'nii-sgwaa'ytxw=hl g̲an wil=hl
ʔəkʷiyukʷ=ɬ hə-n̓i:-skʷaẏtxʷ=ɬ qən wəl=ɬ
because=CN INS-on-rest=CN REAS COMP=CN
nediit naa ji hahla'ljit.
nee=dii=t naa ji hahla'lst-it[8]
ne:=ti:=t na: cə həɬal̓st-ət
NEG=FOC=DM who IRR work-SX
'Because it was Sunday, no one was at work.'

(23) Ii hehl t'il̲xootxwi'y, "Dim aam
ii he=hl t'il̲xoo-txw-'y dim aam
ʔi: hi=ɬ t̓əlqo:-txʷ-ẏ təm ʔa:m
CCNJ say[-3.II]=CN thought-PASS-1SG.II PROSP good
dim wili'y, yukwhl ba̲xhl aks."
dim wil-'y yukw=hl ba̲x̲=hl aks
təm wil-ẏ yukʷ=ɬ paχ=ɬ ʔaks
PROSP LVB-1SG.II IPFV=CN run[-3.II]=CN water
'And my thoughts said, "I will be alright because there is running water."'

[8] The root *hahla'lst* 'work' undergoes metathesis of the last two consonants /st/ in this word *hahla'ljit*. This requires further investigation. As a preliminary generalization, it seems to happen after suffixed underlying vowels but not epenthesized vowels (e.g. before *-it* 'SX', cf. *hahla'ljit*, but not -'y '1SG.II', cf. *hahla'lsdi'y*).

(24) “Ii akhl ligi 'wihl baasxi'y
ii ak=hl ligi 'wihl- baasx-i-'y
ʔi: ʔaq=ɬ likə ẇəɬ- pa:sx-ə-ẏ
CCNJ lack[-3.II]=CN DWID around- fear-TR-1SG.II
goosun.”
goo=s=xwin
qo:=s=xʷən
LOC[-3.II]=PN=DEM.PROX
‘And there is nothing for me to fear here.’

(25) Ii giihli'y, ii si'ix woksi'y.
ii giihl-'y ii si'ix- wok-s-'y
ʔi: ki:ɬ-ẏ ʔi: siẏx- wuq-s-ẏ
CCNJ lay-1SG.II CCNJ try- sleep-PASS-1SG.II
‘And I laid down, and tried to sleep.’

(26) Ii ap neet, gan wina guuhl
ii ap nee-t gan wil=na guu=hl
ʔi: ʔəp ne:-t qən wəl=nə kʷu:=ɬ
CCNJ VER not.so-3.II REAS COMP=1.I take[-T-3.II]=CN
hlgu *pipe* gi nii yatshl aats'ip loot.
hlgu- pipe gi n=ii yats=hl aats'ip loo-t
ɬkʷu- pipe kə n=ʔi: yac=ɬ ʔa:c̓əp lo:-t
small- pipe PR.EVID 1.I=CCNJ hit[-3.II]=CN door OBL-3.II
‘But no, that’s why I took the little pipe and I hit the door with it.’

(27) Ii hlaa aamhl ga'nagwit
ii hlaa aam=hl ga-'nakw-it
ʔi: ła: ʔa:m=ɬ qə-n̓akʷ-ət
CCNJ INCEP good[-3.II]=CN DISTR-long-SX
iin gya'ahl gadaaxhl wilp xseek.
ii=n gya'a=hl gadaax=hl wilp- xseek
ʔi:=n kaʔ=ɬ qəda:x=ɬ wilp- xse:q
CCNJ=1.I see[-3.II]=CN perimeter[-3.II]=CN house go.out.PL
‘And after a while I was able to see the outside of the bathroom.’

(28) Nii japhl 'wii luu no'o dim xsi
n=ii jap=hl 'wii- luu- no'o dim xsi-
n=ʔi: cap=ɬ ẇi:- lu:- nuʔ təm xsə-
1.I=CCNJ make[-3.II]=CN big- in- hole PROSP out-
yuwi'y, ii 'nithl wili'y.
yuxw-i-'y ii 'nit=hl wil-'y
yuxʷ-ə-ẏ ʔi: n̓it=ɬ wil-ẏ
follow-TR-1SG.II CCNJ 3.III=CN LVB-1SG.II
‘I made a big hole to go through, and that’s what I did.’

(29) Hlaa xsa'akxwi'y 'nii gayoo ts'imil
hlaa xsi-akxw-'y n=ii gay-hoo ts'imil-
ła: xsə-ʔaqxʷ-ẏ n=ʔi: qəy-ho: c̓əmwəl-
INCEP out-able-1SG.II 1.I=CCNJ CNTR-again inside-
t'aahlihl jabi'y goohl
t'aahl-i=hl jap-i-'y goo=hl
t̓a:ɬ-ə=ɬ cap-ə-ẏ qo:=ɬ
pick-T[-3.II]=CN make-TR-1SG.II LOC[-3.II]=CN
ts'im wilp xseek.
ts'im- wilp xseek
c̓əm- wilp xse:q
in- house go.out.PL
'When I made it out, then I put what I had done (the rubble) back in the bathroom.'

(30) Hlaa yukwhl hahla'lsdi'm ii ha'niigoodi'y wihl
hlaa yukw=hl hahla'lst-'m ii ha-'nii-goot-'y wil=hl
ła: yukʷ=ɬ həɬal̓st-m̓ ʔi: hə-n̓i:-qo:t-ẏ wəl=ɬ
INCEP IPFV=CN work-1PL.II CCNJ INS-on-heart-1SG.II COMP=CN
ii'uxwt ganwilat 'nii yuxwdiithl *office*'y.
ii'uxwt gani-wila=t 'nii- yuxw-diit=hl office-'y
ʔi:ẇxt qənə-wəla=t n̓i:- yuxʷ-ti:t=ɬ office-ẏ
man.PL continually-MANR=3.I on- follow-3PL.II=CN office-1SG.II
'We went back to work and I wondered why the men kept coming into my office.'

(31) Ii hediit, "Oo, 'nit *Canadanska flika* tun
ii he-diit oo 'nit canadanska flika t=xwin
ʔi: hi-ti:t ʔo: n̓it canadanska flika t=xʷən
CCNJ say-3PL.II oh 3.III Canadian girl DM=DEM.PROX
ant kw'asinhl wilp xseek."
an=t k̓w'as-in=hl wilp- xseek
ʔən=t k̓ʷas-ən=ɬ wilp- xse:q
AX=3.I break-CAUS2[-3.II]=CN house- go.out.PL
'And they said, "Oh, this is the Canadian girl who broke the toilet."'

3 Kitwancool Reserve Surveyed, by Vincent Gogag

This story is about the time when the current Kitwancool (Gitanyow) reserve was marked out, and the resistance that the surveyors met from the inhabitants of the village. Vince notes that people who know this story laughingly call Kitwancool 'The Oakalla Reserve', after the prison of the same name (now closed) where many villagers were imprisoned as a result of their resistance. The story was recorded at UBC on January 29, 2014 by Aidan Pine. Editors include Aidan Pine, Clarissa Forbes, and Henry Davis.

Vince was born and raised in Gitanyow. His dialect is considered Western, and shares occasional properties with the language of the Nass region. While

vowels in this dialect are somewhat shifted from those of the East region, this is most prominent with long back vowels. A shift between short *a* and *e* is present, but less pronounced in careful speech, where it remains more *a*-like.

3.1 Gyaanimx

Dim mehldi'y wila wilhl win ksi hogwin bakwhl mismaaxwsxum gyet go'ohl ts'ebi'm Gitwinhlguu'l gik'uuhl.

Ha'ondii 'nakw hlidaa bakwhl gyet dipun, ii sagaytgoodindiithl hli gyedihl Gitwinhlguu'l. Hasakdiit dim mehldiit win hlaa dim sii ha'niijokt go'ohl win t'aahl galts'ephl Gitwinhlguu'l. 'Nit sagootxwhl *government* siwetdiit, ii dim 'nii wenhl dim jokhl aluugigyet go'ohl lax *reserve* siwetdiit.

Ii sagaytgoodihl hli gyedihl Gitwinhlguu'l ii nax'nidiit win dim wihl ligi… needimdii aam dim wila wil ji gi'namihl – hasakhl k'amksiwaa dim gi'namdiithl – ii laxyip ehl Gitwinhlguu'l.

"Gu ganwilt," diyehl hli gyedihl Gitwinhlguu'l, "ehl 'nii jogo'm go'ohl laxyibi'm go'osun."

Ii nax'nidiit win dim bakwhl siwetdiit ehl *surveyors*. Way dimdii depdiithl ga'nagwihl 'naayeja'a dim win daa'whl *reserve* siwetxwist.[9] Ii aam win ky'ax hehl Gitwinhlguu'l dim 'wiit'is, dim wagayt jogo daa'whl go'ohl k'i'yhl sga'nist, dim ii lok'on daa'whl go'ohl k'i'yhl aks, go'ohl Ksen, 'nii ga'wayit k'ali daa'whl go'ohl Meji'aadin. 'Nithl hasakdiithl *reserve*.

Way ii needii hehl *Indian Agent*-ima'a, siwetxwit ehl *Indian Agent*, ent sagaytgoodinhl gyet, sagaytwendiit. Ii 'nii win hehl hli gyedihl Gitwinhlguu'l, "Jidaa neeja wilsi'm, way ii needimdii hasaga'm ehl k'am hlguts'uusxhl laxyiphl dim ksi jebisi'm."

Way ts'ax wildiihl hehl Gitwinhlguu'l ii needii hasakdiit ehl *reserve*. "Needii hasaga'm dim dip suwii gi'namhl laxyibi'm," diida. Ii hediitgat ehl *Indian Agent* dimt ha'widinhl *surveyors*, dim suwii huudindiithl *surveyors*.

Way, ts'ax wildiihl hehl Gitwinhlguu'l ii needii hasakdiithl *reserve*, ii hets'imox bakwtgathl *surveyors*. Ii sit'aa'mam depdiithl hlidaaxhl hlgu lax ha'niijok. Ii al'algaltgathl gyet hlis hediit ehl *surveyors*, "Neemdii hogyax dim wilsi'm jidaa sit'aa'masi'm."

Ii k'ap ganiwila yukwhl *surveyors*.

Way ii sagaytgoodinhl ky'ulhl sim'oogit hli gyedihl Gitwinhlguu'l, ii hediit, "Dim sgasgitxu'm, dim suwii huudini'm 'nidiit. Ii hasaga'm dim hogwin litxwhl k'ay limxsim gyet dim ent hlimoo'm."

Way 'nithl wildiit. Iit hapdiithl *surveyors*.[10] Iit dokdiithl andeba'a, *tape* dip siwedit. Dokdiithl anooya'a, *surveyors equipment* siwedihl anooya'ahl *surveyors*. Iit sim kwhlii hisyetsdiit ehl luuhligyootxw. Iit huudindiithl *surveyors*.

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[9] Vince notes that the boundary perimeter was called *'naayeja'a gadaax* (plural: *'naahisyeja'a gadaax*) and that it describes the way the surveyors blazed trees around the perimeter of the reserve.

[10] Vince notes: "*Tk'esxw* [plural seen in text: *hap*] is to approach with great aggression. When a grizzly bear approaches you to kill you, we call that *tk'esxw*. Just the approaching, not the actual violence."

Needii 'nakwt ii bakwhl *police*. Gididokdiithl naahl gay ha'niigootdiit huksxwit ehl win sim kwhlii gatgoodindiithl anooya'ahl *surveyors*. Iit luuwendindiit.

Hlist disekshl *police*hl gyet ent sim kwhlii hisyetshl anooya'ahl *surveyors*, ii gani 'nihl hehl hli gyedihl Gitwinhlguu'l. "K'ap dim sgasgitxu'm." Ii luuwenhl ligi gwilunima'ahl simgigyet go'ohl *Oakalla Prison* siwetxwist. Ligi t'imisima'hl k'uuhl luuwendiit.

Way ii yukwhl luuwenhl simgigyet dipun, ii hets'imox bakwhl *surveyors*. Way ii sim dit'e'lt iit depdiithl hlguts'uusxhl lax ha'niiyip gi'namihl *Indian Agent* tun ehl hli gyedihl Gitwinhlguu'l. *"One mile by one mile,"* diphiida 'nuu'm.

Gasgoohl laxbits'iixwhl *surveyors*, ii k'ap 'nihl ganwihl hehl Gitwinhlguu'l gyuu'n, needii sgidimdii k'uhl t'aadihl *surveyor's reserve*. Needii gu ji t'amdiit, diyehl het.

'Nihl gabit.

3.2 English

I will tell about when the white men first came to Kitwancool long ago.

Not long after these people arrived, they gathered together the people of Kitwancool. They wanted to tell about the new place where the village of Kitwancool is to be. The plan of the so-called government was that they will have Indian people live on a so-called reserve.

The people of Kitwancool gathered, and they immediately heard that this will not be a good plan for the villagers, if the white people gave what they wanted to give – which was the Kitwancool's own land.

"Why?" the people of Kitwancool asked. "We live on our land, here."

They heard that the workers – called surveyors – were coming. They would measure out the distance/length and circumference of what is called the reserve. The people agreed that they wanted a big reserve which would encompass mountains starting from the Skeena all the way up to Meji'aadin. They wanted that for a reserve.

The Indian Agent disagreed, the so-called Indian Agent who gathered the people together for the meeting. And the people of the village Kitwancool said, "If you don't do that, then we don't want you to carve out a very small reserve."

And now even though the people of Kitwancool said they did not want the little reserve – "We don't want to give away our land," they said. And they told the Indian Agent to stop the surveyors, they will chase away the surveyors.

Even though Kitwancool said they did not want the reserve, the surveyors apparently came back. They started measuring out the little settlement. So they stood by and watched after they told the surveyors, "It will not not be right that you start."

The surveyors continued.

One chief gathered together some people of the village, and they said, "We will oppose them and we will chase them away. We will want young men to help us."

And that's what they did. They mobbed the surveyors. They took the measuring tape. They took the surveyors' other equipment. And they completely chopped it up with axes. And they chased away the surveyors.

Not long after, the police came. They arrested people who they thought were around there when they destroyed the surveyors' tools. And they jailed them.

After the police took away the men who destroyed the surveyors' tools[11] the Kitwancool people still objected. "We will absolutely oppose it." And there were maybe three chiefs who were jailed at what was known as Oakalla Prison.[12] It wasn't recorded how many years they were incarcerated.

While these chiefs were in prison, the surveyors returned. They hurriedly measured out the tiny reserve that the Indian Agent gave Kitwancool. It's one mile by one mile, we said.

Because the surveyors were so afraid, the villagers say today that they should not have made a surveyor's reserve. They never signed anything, they said.

That's it.

3.3 Interlinear

(1)

Dim	mehldi'y	wila	wilhl	win	ksi	
dim	mehl-d-i-'y	wila	wil=hl	win	ksi-	
təm	meɬ-t-ə-ẏ	wəla	wil=ɬ	wən	ksə-	
PROSP	tell-T-TR-1SG.II	MANR	LVB[-3.II]=CN	COMP	in-	

hogwin	bakwhl	mismaaxwsxum	gyet	
hogwin-	bakw=hl	mis~maaxwsxw-m	gyet	
huk^{w}ən-	pak^{w}=ɬ	məs~ma:x^{w}sx^{w}-	ket	
toward-	come.PL[-3.II]=CN	PL~white-ATTR	person	

go̲'ohl	ts'ebi'm	Gitwinhlguu'l	gik'uuhl.
go̲'o=hl	ts'ep-'m	gitwinhlguu'l	gik̓uuhl
quʔ=ɬ	c̓ep-m̓	kətwənɬk^{w}u:ɬ	kək^{w}u:ɬ
LOC[-3.II]=CN	inhabitants-1PL.II	Kitwancool	long.ago

'I will tell about when the white men first came to Kitwancool long ago.'

[11] Vince emphasizes that the people who were taken away were those who were *alleged* to have taken part in destroying the tools.

[12] Oakalla Prison, located in Burnaby, was closed in 1991.

(2) Ha'ondii 'nakw hlidaa bakwhl gyet
ha'wen=dii 'nakw hli-daa bakw=hl gyet
haẇen-ti: n̓akʷ hlə-ta: pakʷ=ł ket
not.yet=FOC long PART-SPT come.PL[-3.II]=CN person
dipun, ii sa<u>g</u>aytg<u>g</u>oodindiithl
dip=xwin ii sa<u>g</u>ayt-<u>g</u>oot-in-diit=hl
təp-xʷin ʔi: saqəyt-qo:t-ən-ti:t=ł
ASSOC=DEM.PROX CCNJ together-heart-CAUS2-3PL.II=CN
hli gyedihl Gitwinhlguu'l.
hli gyet-i=hl gitwinhlguu'l
łə ket-ə=ł kətwənłkʷu:l̓
PART person-T=CN Kitwancool
'Not long after these people arrived, they gathered together the people of Kitwancool.'

(3) Hasa<u>k</u>diit dim mehldiit win hlaa dim sii
hasa<u>k</u>-diit dim mehl-diit win hlaa dim sii-
həsaq-ti:t təm meł-ti:t wən ła: təm si:-
want-3PL.II PROSP tell-3PL.II COMP INCEP PROSP new-
ha'niijo<u>k</u>t <u>g</u>o'ohl win t'aahl
ha-'nii-jo<u>k</u>-t <u>g</u>o'o=hl win t̓'aa=hl
hə-n̓i:-cuq-t quʔ=ł wən t̓a:=ł
INS-on-live-3.II LOC[-3.II]=CN COMP sit[-3.II]=CN
<u>g</u>alts'ephl Gitwinhlguu'l.
<u>g</u>alts'ep=hl gitwinhlguu'l
qəlc̓ep=ł kətwənłkʷu:l̓
village[-3.II]=CN Kitwancool
'They wanted to tell about the new place where the village of Kitwancool is to be.'

(4) 'Nit sagootxwhl *government* siwetdiit,
'nit sa-goot-xw=hl government si-we-t-diit
ṅit sə-qo:t-xʷ=ł government sə-we-t-ti:t
3.III CAUS1-heart-PASS[-3.II]=CN government CAUS1-name-T-3PL.II

ii dim 'nii wenhl dim jokhl
ii dim 'nii- wen=hl dim jok=hl
ʔi: təm ṅi:- wen=ł təm cuq=ł
CCNJ PROSP on- sit.PL[-3.II]=CN PROSP live[-3.II]=CN

aluugigyet go'ohl lax *reserve*
aluu-gi~gyet go'o=hl lax- reserve
ʔəlu:-kə~ket quʔ=ł ləχ- reserve
plainly-PL~person LOC[-3.II]=CN on- reserve

siwetdiit.
si-we-t-diit
sə-we-t-ti:t
CAUS1-name-T-3PL.II

'The plan of the so-called government was that they will have Indian people live on a so-called reserve.'

(5) Ii sagaytgoodihl hli gyedihl
ii sagayt-goot-i=hl hli gyet-i=hl
ʔi: saqəyt-qo:t-ə=ł łə ket-ə=ł
CCNJ together-heart-T[-3.II]=CN PART person-T=CN

Gitwinhlguu'l ii naxʼnidiit win dim
gitwinhlguu'l ii naxʼni-diit win dim
kətwənłkʷu:ɬ ʔi: nəχṅi-ti:t wən təm
Kitwancool CCNJ hear-3PL.II COMP PROSP

wihl ligi… needimdii aam dim
wil=hl ligi nee=dim=dii aam dim
wil=ł likə ne:=təm=ti: ʔa:m təm
LVB[-3.II]=CN DWID NEG=PROSP=FOC good PROSP

wila wil ji gi'namihl hasakhl
wila wil ji gi'nam-i=hl hasakhl
wəla wil cə kəṅam-ə=ł həsaq=ł
MANR LVB[-3.II] IRR give-T[-3.II]=CN want[-3.II]=CN

kʼamksiwaa dim gi'namdiithl – ii
kʼamksiwaa dim gi'nam-diit=hl ii
q̇əmksəwa: təm kəṅam-ti:t=ł ʔi:
white.person PROSP give-3PL.II=CN CCNJ

laxyip ehl Gitwinhlguu'l.
laxyip e=hl gitwinhlguu'l
ləχyip ʔə=ł kətwənłkʷu:ɬ
land PREP[-3.II]=CN Kitwancool

'The people of Kitwancool gathered, and they heard that this will not be a good plan (for the villagers), if the white people gave what they wanted to give – which was the Kitwancool's own land.'

(6) “Gu ganwilt,” diyehl hli gyedihl
gu gan-wil-t diye=hl hli gyet-i=hl
kʷi qən-wil-t təye=ɬ łə ket-ə=ɬ
what REAS-LVB-3.II QUOT.3SG=CN PART- person-T=CN
Gitwinhlguu'l “ehl 'nii jogo'm
gitwinhlguu'l e=hl 'nii- jok̲-'m
kətwənɬkʷu:l̓ ʔə=ɬ ṅi:- cuq-ṁ
Kitwancool PREP[-3.II]=CN on- live-1PL.II
go̲'ohl laxyibi'm go̲'osun.”
go̲'o=hl laxyip-'m go̲'o=s=xwin
quʔ=ɬ ləχyip-ṁ quʔ=s=xʷin
LOC[-3.II]=CN land-1PL.II LOC[-3.II]=PN=DEM.PROX
‘“Why?” the people of Kitwancool asked. “We live on our land, here.”’

(7) Ii nax̲'nidiit win dim bakwhl siwetdiit
ii nax̲'ni-diit win dim bakw=hl si-we-t-diit
ʔi: nəχṅi-ti:t wən təm bakʷ=ɬ sə-we-t-ti:t
CCNJ hear-3PL.II COMP PROSP come.PL=CN CAUS1-name-T-3PL.II
ehl surveyors.
e=hl surveyors
ʔə=ɬ surveyors
PREP[-3.II]=CN surveyors
‘They heard that what they call surveyors were coming.’

(8) Way dimdii depdiithl ga'nagwihl
way dim=dii dep-diit=hl ga̲-'nakw-it=hl
way təm=ti: tep-ti:t=ɬ qə-ṅakʷ-ət=ɬ
so PROSP=FOC measure[-TR]-3PL.II=CN DISTR-long-SX=CN
'naayeja'a[13] dim win daa'whl *reserve*
'naa-yets-a'a dim win daa'whl=hl reserve
ṅa:-yec-aʔ təm wən ta:ẇɬ=ɬ reserve
perimeter PROSP COMP leave=CN reserve
siwetxwist.
si-we-txw=ist
sə-we-txʷ=əst
CAUS1-name-PASS=QUDD
‘They will measure out the length of the perimeter of what is called the reserve.’

[13] Glottal stops in Gitksan are typically followed by an ‘echo vowel’ of similar or reduced quality to the vowel preceding the stop. In Vince and Hector’s dialects, these echo vowels tend to surface as devoiced in word-final position where not followed by a glottal-initial word. Similarly, preglottalized sonorants at the end of words (such as the /m̓/ in *'nuu'm*) are rarely voiced after the glottal closure; they are ‘swallowed’.

(9) Ii aam win ky'ax̲ hehl Gitwinhlguu'l
ii aam win k̲y'ax̲ he=hl gitwinhlguu'l
ʔi: ʔa:m wən k̓əχ hi=ɬ kətwənɬkʷu:l̓
CCNJ good COMP unanimously say[-3.II]=CN Kitwancool
dim 'wiit'is, dim wag̲ayt jog̲o daa'whl
dim 'wii-t'is dim wag̲ayt jog̲o- daa'whl
təm ẇi:-l̓is təm waqəyt cuqə- ta:ẇɬ
PROSP big-large PROSP completely across- leave
g̲o'ohl k'i'yhl sg̲a'nist, dim ii
g̲o'o=hl k̓'i'y=hl sg̲a'nist dim ii
quʔ=ɬ k̓iẏ=ɬ sqəṅist təm ʔi:
LOC[-3.II]=CN one=CN mountain PROSP CCNJ
lok̲'on daa'whl g̲o'ohl k'i'yhl aks,
lok̲'on- daa'whl g̲o'o=hl k̓'i'y=hl aks
luq̓ən- ta:ẇɬ quʔ=ɬ k̓iẏ=ɬ ʔaks
into.low.plane- leave LOC[-3.II]=CN one=CN river
g̲o'ohl Ksen, 'nii g̲a'wayit k̓'ali
g̲o'o=hl ksen 'nii- g̲a-'wa-it k̓'ali-
quʔ=ɬ ksen ṅi:- qə-ẇa-ət q̓ali-
LOC=CN Skeena on- DISTR-find-SX upstream-
daa'whl g̲o'ohl Meji'aadin. 'Nithl
daa'whl g̲o'o=hl meji'aadin 'nit=hl
da:ẇɬ quʔ=ɬ meciʔa:tən ṅit=ɬ
leave LOC[-3.II]=CN Mejiaadin 3.III=CN
hasak̲diithl *reserve*.
hasak̲-diit=hl reserve
həsaq-ti:t=ɬ reserve
want-3PL.II=CN reserve

'The people agreed that they wanted a big reserve which would encompass mountains starting from the Skeena all the way up to Meji'aadin. They wanted that for a reserve.'

(10) Way ii needii hehl *Indian* *Agent*-ima'a,
way ii nee=dii he=hl Indian Agent=ima'a
way ʔi: ne:=ti: hi=ɬ Indian Agent=imaʔ
so CCNJ NEG=FOC say[-3.II]=CN Indian Agent=EPIS
siwetxwit ehl *Indian Agent*, ent
si-we-txw-it e=hl Indian Agent en=t
sə-we-txʷ-ət ʔə=ɬ Indian Agent ʔən=t
CAUS1-name-PASS-SX PREP[-3.II]=CN Indian Agent AX=3.I
sag̲aytg̲oodinhl gyet, sag̲aytwendiit.
sag̲ayt-g̲oot-in=hl gyet sag̲ayt-wen-diit
saqəyt-qo:t-ən=ɬ ket saqəyt-wen-ti:t
together-heart-CAUS2[-3.II]=CN people together-sit.PL-3PL.II

'The Indian Agent disagreed, the so-called Indian Agent who gathered the people together for the meeting.'

(11) Ii 'nii win[14] hehl hli gyedihl
ii 'nii win he=hl hli gyet-i=hl
ʔi: ṅii wən hi=ɬ łə ket-ə=ɬ
CCNJ on COMP say[-3.II]=CN PART person-T=CN
Gitwinhlguu'l, “Jidaa neeja wilsi'm, way ii
gitwinhlguu'l ji=daa nee=ji wil-si'm way ii
kətwənɬkʷu:l̓ cə=ta: ne:=cə wil-səm̓ way ʔi:
Kitwancool IRR=SPT NEG=IRR LVB-2PL.II so CCNJ
needimdii hasaga'm ehl k'am
nee=dim=dii hasak̲-'m e=hl k'am
ne:=təm=ti: həsaq-m̓ ʔə=ɬ q̓əm
NEG=PROSP=FOC want-1PL.II PREP=CN only
hlguts'uusxhl laxyiphl dim ksi
hlgu-ts'uusx=hl laxyip=hl dim ksi-
ɬkʷu-c̓u:sx=ɬ ləχyip=ɬ təm ksə-
small-little=CN land=CN PROSP in-
jebisi'm.”
jep-i-si'm
cep-ə=səm̓
make-TR-2PL.II

‘And the people of the village Kitwancool said, “If you don't do that, then we don't want you to carve out a very small reserve.”’

(12) Way ts'ax wildiihl hehl Gitwinhlguu'l
way ts'ax wil-t-ii=hl he=hl gitwinhlguu'l
way c̓əχ wil-t-i:=ɬ hi=ɬ kəwənɬkʷu:l̓
so though LVB-3.II-like=CN say[-3.II]=CN Kitwancool
needii hasakdiit ehl *reserve*.
nee=dii hasak̲-diit e=hl reserve
ʔi: ne:=ti: həsaq-ti:t ʔə=ɬ reserve
CCNJ NEG=FOC want-3PL.II PREP[-3.II]=CN reserve
“Needii hasaga'm dim dip suwii
nee=dii hasak̲-'m dim dip suwii-
ne:=ti: həsaq-m̓ təm təp suwi:-
NEG=FOC want-1PL.II PROSP 1PL.I away-
gi'namhl laxyibi'm,” dihiida.
gi'nam=hl laxyip-'m dihiida
kən̓am=ɬ ləχyip-m̓ təhi:ta
give[-3.II]=CN territory-1PL.II QUOT.3PL

‘And now even though the people of Kitwancool said they did not want the little reserve; “We don't want to give away our land,” they said.’

[14] The construction *'nii win* ‘thus, thereupon’, literally involving a preverb meaning ‘on’, is used in discourse by both Vince and Hector.

(13) Ii hediitgat ehl *Indian Agent*
ii he-diit=gat e=hl Indian Agent
ʔi: hi-ti:t=qət ʔə=ł Indian Agent
CCNJ say-3PL.II=REPORT PREP[-3.II]=CN Indian Agent
dimt ha'widinhl *surveyors*, dim suwii
dim=t ha'wit-in=hl surveyors dim suwii-
təm=t haẇt-ən=ł surveyors təm suwi:-
PROSP=3.I stop-CAUS2[-3.II]=CN surveyors PROSP away-
huudindiithl *surveyors*.
huut-in-diit=hl surveyors
hu:t-ən-ti:t=ł surveyors
flee-CAUS2-3PL.II=CN surveyors
'And they told the Indian Agent to stop the surveyors; they will chase away the surveyors.'

(14) Way, ts'ax̲ wildiihl hehl Gitwinhlguu'l
way ts'ax̲ wil-t-ii=hl he=hl gitwinhlguu'l̓
way c̓əχ wil-t-i:=ł hi=ł kətwənɬkʷu:l̓
so though LVB-3.II-like=CN say[-3.II]=CN Kitwancool
ii needii hasak̲diithl *reserve*,
ii nee=dii hasak̲-diit=hl reserve
ʔi: ne:=ti: həsaq-ti:t=ł reserve
CCNJ NEG=FOC want-3PL.II=CN reserve
ii hets'imox̲ bakwtg̲athl *surveyors*.
ii hets'im-hox̲ bakw-t=g̲at=hl surveyors
ʔi: hec̓əm-huχ pakʷ-t=qət=ł surveyors
CCNJ just=again come.PL-3.II=REPORT=CN surveyors
'Even though Kitwancool said they did not want the reserve, the surveyors (apparently) came back.'

(15) Ii sit'aa'mam depdiithl
ii si-t'aa-'ma-m dep-diit=hl
ʔi: sə-ta:-ma-m tep-ti:t=ł
CCNJ CAUS1-sit-DETR-ATTR measure-3PL.II=CN
hlidaaxhl hlgu lax̲ ha'niijok̲.
hlidaax=hl hlgu- lax̲- ha-'nii-jok̲
łəta:x=ł ɬkʷu- ləχ- hə-ni:-cuq
circumference[-3.II]=CN little- on- INS-on-live
'They started measuring out the little settlement.'

(16) Ii al'algaltgathl gyet hlis hediit
ii al~'algal-t=gat=hl gyet hlis he-diit
ʔi: ʔəl~ʔalqəl-t=qət=ɬ ket ɬis hi-ti:t
CCNJ PL~watch-3.II=REPORT=CN person PFV say-3PL.II
ehl *surveyors*, "Neemdii hogyax dim
e=hl surveyors nee=m=dii hogyax dim
ʔə=ɬ surveyors ne:=m=ti: hukəχ təm
PREP[-3.II]=CN surveyors NEG=2.I=FOC right PROSP
wilsi'm jidaa sit'aa'masi'm."
wil-si'm ji=daa si-t'aa-'ma-si'm
wil-səm̓ cə=ta: sə-t̓a:-m̓a-səm̓
LVB-2PL.II IRR=SPT CAUS1-sit-DETR-2PL.II
'So they stood by and watched after they told the surveyors, "It will not be right that you start."'

(17) Ii k'ap ganiwila yukwhl *surveyors*.
ii k'ap gani-wila yukw=hl surveyors
ʔi: q̓əp qəni-wəla yuk^{w}=ɬ surveyors
CCNJ VER continually-MANR do[-3.II]=CN surveyors
'But the surveyors continued.'

(18) Way ii sagaytgoodinhl ky'ulhl
way ii sagayt-goot-in=hl k̓y'ul=hl
way ʔi: saqəyt-qo:t-ən=ɬ k̓ul=hl'
so CCNJ together-heart-CAUS2[-3.II]=CN one.HUM[-3.II]=CN
sim'oogit hli gyedihl Gitwinhlguu'l,
sim'oogit hli gyet-i=hl gitwinhlguu'l
səmʔo:kit łə ket-ə=ɬ kətwənɬk^{w}u:l
chief PART person-T=CN Kitwancool
ii hediit, "Dim sgasgitxu'm,
ii he-diit dim sga-sgi-txw-i-'m
ʔi: hi-ti:t təm sqə-ski-tx^{w}-ə-m̓
CCNJ say-3PL.II PROSP block.way-lie-PASS-TR-1PL.II
dim suwii huudini'm 'nidiit."
dim suwii- huut-in-'m 'nidiit
təm suwi:- hu:t-ən-m̓ n̓iti:t
PROSP away- run.away-CAUS2[-TR]-1PL.II 3PL.III
'One chief gathered together some people of the village, and they said "We will oppose (them) and we will chase them away."'

(19) “Ii hasaga'm dim hogwin litxwhl k'ay
ii hasak̲-'m dim hogwin lit-xw=hl k̲'ay-
ʔi: həsaq-ṁ təm huk^{w}ən lit-x^{w}=ł q̇əy-
CCNJ want-1PL.II PROSP near stand-PASS[-3.II]=CN still-
limx̲sim gyet dim ent hlimoo'm.”
limx̲s-m gyet dim en=t hlimoo-'m
limx̲s-m ket təm ʔən=t łəmoo-m
grow-ATTR man PROSP AX=3.I help-1PL.II
‘“We will want the support of young men to help us.”’

(20) Way 'nithl wildiit.
way 'nit=hl wil-diit
way ṅit=ł wil-ti:t
so 3.III=CN LVB-3PL.II
‘And that’s what they did.’

(21) Iit hapdiithl *surveyors*.
ii=t hap-diit=hl surveyors
ʔi:=t hap-ti:t=ł surveyors
CCNJ=3.I swarm-3PL.II=CN surveyors
‘They mobbed the surveyors.’

(22) Iit dok̲diithl andeba'a *tape*
ii=t dok̲-diit=hl an-dep-a'a tape
ʔi:=t tuq-ti:t=ł ʔən-tep-aʔ tape
CCNJ=3.I take.PL-3PL.II=CN NMLZ-measure-DETR tape
dip siwedit.
dip si-we-di-t
təp sə-we-tə-t
1PL.I CAUS1-name-T-3.II
‘They took the measuring tape (what we call *tape* in English).’

(23) Dok̲diithl anooya'a *surveyors* *equipment*
dok̲-diit=hl an-hoox-a'a surveyors equipment
tuq-ti:t=ł ʔən-ho:x-aʔ surveyors equipment
take.PL-3PL.II=CN NMLZ-use-DETR surveyors equipment
siwedihl anooya'ahl *surveyors*.
si-we-di=hl an-hooy-a'a=hl surveyors
sə-we-tə=ł ʔən-ho:x-aʔ=ł surveyors
CAUS1-name-T[-3.II]=CN NMLZ-use-DETR[-3.II]=CN surveyors
‘They took the tools, surveyors’ equipment, what the surveyors’ tools were called.’

(24) Iit sim kwhlii hisyetsdiit
ii=t sim- kwhlii- his~yets-diit
ʔi:=t səm- kʷɬi:- həs~yec-ti:t
CCNJ=3.I truly- all.over- PL~chop-3PL.II
ehl luuhligyootxw.
e=hl luu-hli-gyoo-txw
ʔə=ɬ lu:-łə-ko:-txʷ
PREP[-3.II]=CN axe
'And they completely chopped it up with axes.'

(25) Iit huudindiithl *surveyors*.
ii=t huut-in-diit=hl surveyors
ʔi:=t hu:t-ən-ti:t=ɬ surveyors
CCNJ=3.I run.away-CAUS2-3PL.II=CN surveyors
'And they chased away the surveyors.'

(26) Needii 'nakwt ii bakwhl *police*.
nee=dii 'nakw-t ii bakw=hl police
ne:=ti: n̓akʷ-t ʔi: pakʷ=ɬ police
NEG=FOC long-3.II CCNJ come.PL[-3.II]=CN police
'Not long after, the police came.'

(27) Gididokdiithl naahl gay ha'niigootdiit
gidi-dok-diit=hl naa=hl gay ha'niigoot-diit
kiti-tuq-ti:t=ɬ na:=ɬ qəy han̓i:qo:t-ti:t
stop.in.motion-take.PL[-TR]-3PL.II=CN who=CN CNTR thought-3PL.II
huksxwit ehl win sim kwhlii
huk-sxw-it e=hl win sim- kwhlii-
huk-sxʷ-ət ʔə=ɬ wən səm- kʷɬi:-
accompany-ANTIP-SX PREP[-3.II]=CN COMP truly- all.over-
gatgoodindiithl anooya'ahl
gat~goo-din-diit=hl an-hoox-a'a=hl
qət-qo:-tən-ti:t=ɬ ʔən-ho:x-aʔ=ɬ
PL~empty-CAUS2-3PL.II=CN NMLZ-use-DETR[-3.II]=CN
surveyors.
surveyors
surveyors
surveyors
'They arrested people who they thought were around there when they destroyed the surveyors' tools.'

(28) Iit luuwendindiit.
ii=t luu-wen-din-diit
ʔi:=t lu:-wen-tən-ti:t
CCNJ=3.I in-sit.PL-CAUS2-3PL.II
'And they jailed them.'

(29) Hlist diseksh̲l *police*hl gyet ent
hlis=t di-seks=hl police=hl gyet en=t
ɬis=t tə-seks=ɬ police=ɬ ket ʔən=t
PFV=3.I COM-leave.PL[-3.II]=CN police=CN people AX=3.I
sim kwhlii hisyetshl anooya'ahl
sim- kwhlii- his~yets=hl an-hoox-a'=hl
səm- kʷɬi:- həs~yec=ɬ ʔən-ho:x-aʔ=ɬ
truly- completely- PL~chop[-3.II]=CN NMLZ-use-DETR[-3.II]=CN
surveyors, ii g̲ani 'nihl hehl
surveyors ii g̲ani 'nit=hl he=hl
surveyors ʔi: qəni ṅit=ɬ hi=ɬ
surveyors CCNJ continually 3.III=CN SAY[-3.II]= CN
hli gyedihl Gitwinhlguu'l.
hli gyet-i=hl gitwinhlguuḷ
ɬə ket-ə=ɬ kətwənɬkʷu:ḷ
PART person-T=CN Kitwancool
'After the police took away the men who destroyed the surveyors' tools, the Kitwancool people still objected.'

(30) "K̲'ap dim sg̲asgitxu'm."
k̲'ap dim sg̲a-sgi-txw-i-'m
q̓əp təm sqə-ski-txʷ-ə-m̓
VER PROSP block-lie.on-PASS-TR-1PL.II
""We will absolutely oppose it.""

(31) Ii luuwenh̲l ligi gwilunima'ahl
ii luu-wen=hl ligi gwilun=ima'a=hl
ʔi: lu:-wen=ɬ likə kʷilun=əmaʔ=ɬ
CCNJ in-sit.PL[-3.II]=CN DWID three.HUM=EPIS=CN
simgigyet g̲o'ohl *Oakalla Prison*
simgigyet g̲o'o=hl Oakalla Prison
səm-kə~ket quʔ=ɬ Oakalla Prison
true-PL~person LOC[-3.II]=CN Oakalla Prison
siwetxwist.
si-we-txw=ist
sə-we-txʷ=əst
CAUS1-name-PASS=QUDD
'And there were maybe three chiefs who were jailed at what was known as Oakalla Prison.'

(32) Ligi t'imisima'hl k'uuhl luuwendiit.
ligi t'am-is=ima'=hl[15] k'uuhl luu-wen-diit
likə ṫam-is=əma?=ɬ k̓ʷu:ɬ lu:-wen-ti:t
DWID write=EPIS=CN year in-sit.PL-3PL.II
'It wasn't recorded how many years they were incarcerated.'

(33) Way ii yukwhl luuwenhl simgigyet
way ii yukw=hl luu-wen=hl sim-gi~gyet
way ʔi: yukʷ=ɬ lu:-wen=ɬ səm-ki~ket
so CCNJ IPFV=CN in-sit.PL[-3.II]=CN true-PL~person
dipun, ii hets'imox̲
dip=xwin ii hets'im-hox̲
təp=xʷin ʔi: hec̓əm-huχ
ASSOC=DEM.PROX CCNJ just=again
bakwhl *surveyors*.
bakw=hl surveyors
pakʷ=ɬ surveyors
come.PL[-3.II]=CN surveyors
'While these chiefs were in prison, the surveyors returned.'

(34) Way ii sim dit'e'lt iit
way ii sim- di-t'e'l-t ii=t
way ʔi: səm- tə-ṫel̓-t ʔi:=t
so CCNJ truly- DUR-hurry-3.II CCNJ=3.I
depdiithl hlguts'uusxhl lax̲ ha'niiyip
dep-diit=hl hlgu-ts'uusx=hl lax̲- ha-'nii-yip
tep-ti:t=ɬ ɬkʷu-c̓u:sx=ɬ ləχ- hə-ṅi:-yip
measure-3PL.II=CN small-little=CN on- INS-on-earth
gi'namihl *Indian* *Agent* tun
gi'nam-i=hl Indian Agent t=xwin
kəṅam-ə=ɬ Indian Agent t=xʷin
give-TR[-3.II]=CN Indian Agent DM=DEM.PROX
ehl hli gyedihl Gitwinhlguu'l.
e=hl hli gyet-i=hl gitwinhlguu'l
ʔə=ɬ ɬə ket-ə=ɬ kətwənɬkʷu:l̓
PREP[-3.II]=CN PART person-T=CN Kitwancool
'They hurriedly measured out the tiny reserve that the Indian Agent gave Kitwancool.'

[15] The word *t'imis* 'write' is one of the few instances where an affix *-is* (precise meaning unknown) attracts stress away from the root. Here, the vowel in the root *t'am* /ṫam/ undergoes vowel reduction in unstressed position, shifting to [ṫɪm].

(35) “One mile by one mile,” diphiida 'nuu'm.
one mile by one mile diphiida 'nuu'm
one mile by one mile təphi:ta ṅu:m̓
one mile by one mile QUOT.1PL 1PL.III
‘“It’s one mile by one mile,” we said.’

(36) Gasgoohl laxbits'iixwhl *surveyors*,
gasgoo=hl laxbits'iixw=hl surveyors
qəsqo:=ɬ ləχpəc̓i:xʷ=ɬ surveyors
MS.AMT=CN afraid.PL[-3.II]=CN surveyors
ii k'ap 'nihl ganwihl hehl
ii k'ap 'nit=hl gan-wil=hl he=hl
ʔi: q̓əp ṅit=ɬ qən-wəl=ɬ hi=ɬ
CCNJ VER 3.III=CN REAS-COMP=CN say[-3.II]=CN
Gitwinhlguu'l gyuu'n, needii sgidimdii
gitwinhlguu'l gyuu'n nee=dii sgi=dim=dii
kətwənɬkʷu:l̓ ku:ṅ ne:=ti: ski=təm=ti:
Kitwancool now NEG=FOC CIRC.NECESS=PROSP=FOC
k'uhl t'aadihl *surveyor's* *reserve*.
k̓'uhl t̓'aa-ti=hl surveyors reserve
k̓ʷuɬ t̓a:-tə=ɬ surveyors reserve
around sit-T[-3.II]=CN surveyors reserve
‘Because the surveyors were so afraid, the villagers say today that they should not have made a surveyor’s reserve.’

(37) Needii gu ji t'amdiit, diyehl het.
nee=dii gu ji t'am-diit diye=hl he-t
ne:=ti: kʷu cə t'am-ti:t təye=ɬ hi-t
NEG=FOC what IRR mark-3PL.II QUOT.3SG=CN say-3.II
‘They never signed anything, they said.’

(38) 'Nihl gabit.
'nit=hl gabi-t
ṅit=ɬ qəpi-t
3.III=CN CNT.AMT-3.II
‘That's it.’

4 Betl'a Betl' (The Name Story), by Hector Hill

This story is about Hector’s youth, and how he received the name Betl'a Betl'. It was recorded on March 9, 2012 by Michael Schwan and Clarissa Forbes. Editors include Mark Egelhoff, Clarissa Forbes, and Henry Davis.

Hector was born and raised in Gitsegukla. His father was from the west, where Coast Tsimshian (Sm'algyax) is spoken. His dialect is considered Western, and has the most dramatic vowel shift difference from the variety discussed by Hindle and Rigsby (1973); the *a*~*e* vowel is notably *e*-like. More dorsal stops are

retained compared to the other speakers in this paper (the *k'~ʔ* alternation retains *k'*, and the *kw'~'w* alternation retains *kw'*).

4.1 Gitxsenimx

K'ay yukwhl guts'uusgi'y, k'ay guts'uusgi'y dis wihl hogwin kw'itxwhl hla gu'm aloohl ga'ahl Gijigyukwhla'a. K'ay yukwhl jogo'm ga'ahl ts'im wilps noxo'm gan nigwoodi'm. Ii hogwin kw'itxws *Man*hl wat, *Man*, hogwin kw'itxw *Jacob Brown*. Ii hasakt dimt mehlihl wila wilt win yukwhl silinasxwt.

Ii hlaa yukw dim saa yeet, iit dokhl walk'a 'nithl gabiihl dim hooyit, dim wila da'akhlxw silinasxwt. Ii hasakt dimt mehlit loo'm wila wilt. Iit wendi'm, t'aatdit 'nuu'm, 'nii'y ganhl gasdik'eekwsi'y. Ii 'nii win het, "Dim mehldi'y tun loon.

"Yukwhl yee'y dim silinasxwi'y, ii t'aahl bisde'y, sga t'aahl bisde'y," diye 'nit. "Ii na gya'ahl xadaa. Yukwhl hasaga'y dim an txooganhl galts'ebi'y. Ii jida hlentxwi'y," diya, "dim ii gipaykwhl bisde'y dim ii huuthl xadaa hasaga'y."

Ii 'nii win needii xsdeltxws *Man*. Disim t'aa 'nit… gya'at 'nuu'm… gya'at wila jepdi'm… gya'at wila wili'y.

Iin dip gidax guhl wilt. "Guhl gay guxwin, bisde'y ji ligi xadaa?"

Ii 'nii win t'aat, ii het: "Jida na guxw bisde'y… jida na guxw bisde'y, mi k'am ky'ulhl 'nii'y dim yookxwit. Ii jida gibee'esxwi'y waayt dim an suwi yeehl bisde'y, dim iin da'akhlxw dim hogwin yee ga'ahl, ts'uusgim hogwin dulbinsxwi'y ga'ahl xadaa. Dim iin da'akhlxw dim an guxwt dim ii txookxwhl walk'a 'nihl gyet."

Ii 'nii win hlisxwt mehlit loo'm ii daa'whl ha'wt. Ii hlaa gilbil sa hlisit saa daa'whlit dis wihl na heksimox gya'at. Ii hogwin baxa'y go'ot ii 'nii win he'y loot, "Neema da'akhlxw dima mehlihl wila wihl bisde'y gi?"

Ii 'nii win het, "Dim hogwin kw'itxw 'nii'y ga'ahl wilps noxon dim iin mehlit loon."

Ii gukws ha'wi'y ii na gibee'esxwi'y loot iit mehla wila wihl bisde'y. Ii yukwt mehlit ii 'nii win het, "Yukwhl silinasxwi'y ii hasaga'm aloohl xadaa. Ii hasaga'm dim txoogan 'walk'a 'nihl gyet ii sga t'aahl bisde'y. Ii jida hlentxwi'y dim ii gipaykw bisde'y." Ii 'nii win hes *Man*, "betl'a betl'a betl'a betl'," diya, dim wila gipaykwhl bisde'y.

"Sim 'nii win hlentxwi'y," diya, "sim 'nii win hlentxwi'y kw'esini'yhl gan. Ii ts'eekxwhl windiit liipaykwhl bisde'y, ii 'nii win gipaykwdiit iima xa'nit – betl'a betl'a betl'a betl'a betl' gi. Ii needii hasaga'y dim an hlentxwi'y dim wila huuthl xadaa, silinasxwi'y, win sga t'aahl bisde'y."

Wina k'uxw gya'as *Man*, *Jacob Brown*, ii na hox gidaxt, "Neem da'akhlxw dima mehlihl wila wihl betl'a betl' loo'maa?" Ii 'nii win sit'aa'mam siwetdi'yt *Man* Betl'a Betl'. 'Nii gan wihl we'y gyuu'n as Betl'a Betl'.

Gabiihl he'y.

4.2 English

When I was young our relative came over that lives in Gitsegyukla. I was still living at my mom and dad's house. And Man came over, he was called *Man*. Jacob Brown came over. He wanted to tell the story of when he was hunting.

Before he went, he gathered everything to use so he could catch what he was hunting. And he wanted to tell us how he would do it. And he made us sit down, he sat us down, me and my brothers and sisters. And then he said, "I will tell you this.

"I was going hunting, and a grouse was there, a grouse was in the way," he said. "And I saw the moose. I wanted to feed my village. And if I moved," he said, "the grouse would fly away, and the moose that I wanted would run away."[16]

And Man didn't make a sound. He sat still, he looked at us, he looked at what we were doing, he looked at how we were.

And we asked what he did. "What did you shoot, a grouse or a moose?"

And then he sat down, and he said "If I shot the grouse… If I shot the grouse, I would be the only one to eat. And if I waited until the grouse walked away, then I would be able to walk real close to the moose. And then I would be able to shoot it and then all the people would eat."

After he finished telling us, he went home. And then after two days I seen him again. And I ran toward him and I said to him, "Can you tell what happened about the grouse?"

And then he said, "I will be over at your mom's house and I will tell you."

And I went home and waited for him and then he told me about the grouse. And when he was telling it, he said, "I was hunting and we wanted to get the moose. And we wanted to feed all the people but the grouse was in the way. If I moved, the grouse would fly." Man said that the grouse started to fly and made the sound *betl'a betl'a betl'a betl'a betl'*.

"As soon as I moved," he said, "as soon as I moved, I broke a stick. It's noisy when the grouse flies, and you can hear them when they fly – *betl'a betl'a betl'a betl'a betl'*. So I didn't want to move, so that the moose would not run away because of the grouse."

Every time I saw Man I asked him to tell us the story about *betl'a betl'*. This was when Man named me Betl'a Betl'. That's why I am named Betl'a Betl' now.[17]

[16] There are some issues with the translation in this portion; plural marking on the Gitksan verb suggests that Hector is talking generally about animals fleeing when they hear a noise, but the use of the English *the* in the translation indicates the specific grouse and moose that Man was confronted with.

[17] Gitksan is a morphologically tenseless language. The tense of this English translation has been made consistently past for ease of reading. Hector's original translation, which is often in the present tense, is preserved below in the interlinear gloss.

4.3 Interlinear

(1) K'ay yukwhl guts'uusgi'y, k'ay guts'uusgi'y
k'ay yukw=hl hlgu-ts'uusk-'y k'ay hlgu-ts'uusk-'y
q̓əy yukʷ=ɬ ɬkʷu-c̓u:sk-y̓ q̓əy ɬkʷu-c̓u:sk-y̓
still IPFV=CN small-little-1SG.II still small-little-1SG.II

dis	wihl	hogwin	kw'itxwhl	hla	gu'm
dis	wil=hl	hogwin-	k̓w'itxw=hl	hli	gu'm
təs	wəl=ɬ	hukʷən-	k̓ʷitxʷ=ɬ	ɬə	kʷum̓
time	COMP=CN	toward-	come[-3.II]=CN	PART	relative

aloohl	ga'ahl	Gijigyukwhla'a.
a-loo=hl	ga'a=hl	Gijigyukwhla'a
ʔə-lo:=ɬ	qaʔ=ɬ	kətcəkukʷɬaʔ
PREP-OBL[-3.II]=CN	LOC[-3.II]=CN	Gitsegyukla

'When I was young our relative came over that lives in Gitsegyukla.'

(2) K'ay yukwhl jogo'm ga'ahl ts'im
k'ay yukw=hl jok-'m ga'a=hl ts'im-
q̓əy yukʷ=ɬ cuq-m̓ qaʔ=ɬ c̓əm-
still IPFV=CN live-1PL.II LOC[-3.II]=CN in-

wilps	noxo'm	gan	nigwoodi'm.
wilp=s	nox-'m	gan	nigwoot-'m
wilp=s	nuχ-m̓	qən	nəkʷo:t-m̓
house[-3.II]=PN	mother-1SG.II	PCNJ	father-1SG.II

'We were still living at our mom and dad's house.'

(3) Ii hogwin kw'itxws *Man*hl wat, *Man*,
ii hogwin- k̓w'itxw=s Man=hl wa-t Man
ʔi: hukʷən- k̓ʷitxʷ=s Man=ɬ wa-t Man
CCNJ toward- come[-3.II]=PN Man=CN name-3.II Man

hogwin	kw'itxw	*Jacob Brown*.
hogwin-	k̓w'itxw	Jacob Brown
hukʷən-	k̓ʷitxʷ	Jacob Brown
toward-	arrive	Jacob Brown

'And Man came over, he was called "Man". Jacob Brown came over.'

(4) Ii hasakt dimt mehlihl wila wilt
ii hasak-t dim=t mehl-i=hl wila wil-t
ʔi: həsaq-t təm=t meɬ-ə=ɬ wəla wil-t
CCNJ want-3.II PROSP=3.I tell-T[-3.II]=CN MANR LVB-3.II

win	yukwhl	silinasxwt.
win	yukw=hl	silin-asxw-t
wən	yukʷ=ɬ	səlin-asxʷ-t
COMP	IPFV=CN	hunt-ANTIP-3.II

'He wants to tell the story of when he was hunting.'

(5) Ii hlaa yukw dim saa yeet.
ii hlaa yukw dim saa yee-t
ʔi: ła: yuk^{w} təm sa: ye:-t
CCNJ INCEP IPFV PROSP away go-3.II
'And before he goes,'

(6) Iit dokhl walk'a 'nithl gabiihl dim
ii=t dok=hl walk'a 'nit=hl gabii=hl dim
ʔi:=t tuq=ł walq̓ə n̓ət=ł qəbi:=ł təm
CCNJ=3.I take.PL[-3.II]=CN all 3.III=CN CNT.AMT=CN PROSP
hooyit, dim wila da'akhlxw silinasxwt.
hoox-i-t dim wila da'akhlxw silin-asxw-t
ho:x-ə-t təm wəla təʔaqłx^{w} səlin-asx^{w}-t
use-TR-3.II PROSP MANR CIRC.PSBL hunt-ANTIP-3.II
'And he gathers everything to use so he can catch (what he's hunting).'

(7) Ii hasakt dimt mehlit loo'm
ii hasak-t dim=t mehl-i-t loo-'m
ʔi: həsaq-t təm=t meł-ə-t lo:-m̓
CCNJ want-3.II PROSP=3.I tell-T-3.II OBL-1PL.II
wila wilt.
wila wil-t
wəla wil-t
MANR LVB-3.II
'And he wants to tell us how he would do it.'

(8) Iit wendi'm, t'aatdit 'nuu'm, 'nii'y ganhl
ii=t wen-di-'m t'aa-t-i-t[18] 'nuu'm 'nii'y gan=hl
ʔi:=t wen-tə-m̓ t̓a:-t-ə-t n̓u:m̓ n̓i:y̓ qən=ł
CCNJ=3.I sit.PL-T-1PL.II sit-T-TR-3.II 1PL.III 1SG.III PCNJ=CN
gasdik'eekwsi'y.
ga-sdik'eekw-s-'y
PL-sibling-PASS-1SG.II
qə-stə̓ke:k^{w}-s-y̓
'And he made us sit down, he sat us down, me and my brothers and sisters.'

[18] The morpheme glossed as T has the peculiar property of surfacing as an onset /t/~[d] when suffixed to a vowel-final stem with no existing coda. This is seen in forms like *t'aatdit* above, and *siwatdit, guutdit*, etc.

(9) Ii 'nii win het, “Dim mehldi'y tun
ii 'nii win he-t dim mehl-d-i-'y t=xwin
ʔi: ṅi: wən hi-t təm meɬ-t-ə-ẏ t=xʷin
CCNJ on COMP say-3.II PROSP tell-T-TR-1SG.II DM=DEM.PROX
loon.”
loo-n
lo:-n
OBL-2SG.II
‘And then he said, “I will tell you this.”’

(10) “Yukwhl yee'y dim silinasxwi'y, ii
yukw=hl yee-'y dim silin-asxw-'y ii
yukʷ=ɬ ye:-ẏ təm səlin-asxʷ-ẏ ʔi:
IPFV=CN go-1SG.II PROSP hunt-ANTIP-1SG.II CCNJ
t'aahl bisde'y, sg̲a t'aahl bisde'y,”
t'aa=hl bisde'y sg̲a- t'aa=hl bisde'y
ṫa:=ɬ pəsteẏ sqə- ṫa:=ɬ pəsteẏ
sit[-3.II]=CN grouse block.way- sit=CN grouse
diye 'nit.
diye 'nit
təye ṅit
QUOT.3SG 3.III
‘“I’m going to hunt, and a grouse was there, a grouse was in the way,” he said.’

(11) “Ii na gya'ahl x̲adaa.”
ii n= gya'a=hl x̲adaa
ʔi: n= kaʔ=ɬ χəda:
CCNJ 1.I= see[-3.II]=CN moose
‘“And I saw the moose.”’

(12) “Yukwhl hasag̲a'y dim an tx̲oog̲anhl
yukw=hl hasak̲-'y dim =n tx̲ook̲-in=hl
yukʷ=ɬ həsaq-ẏ təm =n tχo:q-ən=ɬ
IPFV=CN want-1SG.II PROSP =1.I eat-CAUS2[-3.II]=CN
g̲alts'ebi'y.”
g̲al-ts'ep-'y
qəl-ċep-ẏ
contain-village.people-1SG.II
‘“I want to feed my village.”’

(13) “Ii jida hlentxwi'y,” diya,
ii ji-da hlen-txw-'y diya
ʔi: cə-ta ɬen-txʷ-ẏ təya
CCNJ IRR-SPT move-PASS-1SG.II QUOT.3SG
‘“And if I move,” he said,’

(14) “Dim ii gipaykwhl bisde'y dim ii huuthl
dim ii gipaykw=hl bisde'y dim ii huut=hl
təm ʔi: kəphayk^{w}=ł pəsteẏ təm ʔi: hu:t=ł
PROSP CCNJ fly[-3.II]=CN grouse PROSP CCNJ flee.PL[-3.II]=CN
xadaa hasaga'y.”
xadaa hasak-'y[19]
χəta: həsaq-ẏ
moose want-1SG.II
‘“The grouse will fly away, and the moose that I want will run away.”’

(15) Ii 'nii win needii xsdeltxws
ii 'nii win nee=dii xs-del-txw=s
ʔi: ṅi: wən ne:=ti: χs-tel-tx^{w}=s
CCNJ on COMP NEG=FOC SUPER-make.noise-PASS-[-3.II]=PN
Man.
Man
Man
Man
‘And Man didn’t make a sound.’

(16) Disim t'aa 'nit… gya'at 'nuu'm… gya'at wila
disim- t'aa 'nit gya'a-t 'nuu'm gya'a-t wila
tisəm- ṫa: ṅit kaʔ-t ṅu:ṁ kaʔ-t wəla
keep.on- sit 3.III see[-TR]-3.II 1PL.III see[-TR]-3.II MANR
jepdi'm… gya'at wila wili'y.
jep-t-i-'m gya'a-t wila wil-'y
cep-t-ə-ṁ kaʔ-t wəla wil-ẏ
make-T-TR-1PL.II see[-TR]-3.II MANR LVB-1SG.II
‘He had to sit still, he looked at us, he looked at what we were doing, he looked at how we were.’

(17) Iin dip gidax guhl wilt.
ii=n dip gidax gu=hl wil-t
ʔi:=n təp kidəχ k^{w}u=ł wil-t
CCNJ=1.I 1PL.I ask what=CN LVB-3.II
‘And we asked what he did.’

(18) “Guhl gay guxwin, bisde'y ji ligi xadaa?”
gu=hl gay guxw-i-n bisde'y ji ligi xadaa
k^{w}u=ł qəy k^{w}ux^{w}-ə-n pəsteẏ cə ləki: χəta:
what=CN CONTR shoot-TR-2SG.II grouse IRR DWID moose
‘“What did you shoot, a grouse or a moose?”’

[19] In contrast to the translation, which involves an object-centered relative clause, the construction *xadaa hasaga'y* is based on the noun *hasak* ‘desire’, making ‘the moose of my wanting’ a more literal translation.

(19) Ii 'nii win t'aat,
ii 'nii win t'aa-t
ʔi: ṅi: wən ṫa:-t
CCNJ on COMP sit-3.II
'And then he sat down.'

(20) Ii het: "Jida na guxw bisde'y,"
ii he-t ji-da n= guxw bisde'y
ʔi: hi-t cə-ta n= kʷuxʷ pəsteẏ
CCNJ say-3.II IRR-SPT 1.I= shoot[-3.II] grouse
'And he said "If I shoot the grouse,"'

(21) "Jida na guxw bisde'y dim ii k̲'am
ji-da n= guxw bisde'y dim ii k̲'am
cə-ta n= kʷuxʷ pəsteẏ dəm ʔi: q̇əm
IRR-SPT 1.I= shoot[-3.II=CN] grouse PROSP CCNJ only
ky'ul 'nii'y dim yook̲xwit."
k̲y'ul 'nii'y dim yook̲-xw-it
ṅul ṅi:ẏ təm yo:q-xʷ-ət
one.HUM 1SG.III PROSP eat-PASS-SX
'"If I shoot the grouse, I will be the only one to eat."'

(22) "Ii jida gibee'esxwi'y waayt dim an
ii ji-da gibe-'esxw-'y wa̲gayt dim an[20]
ʔi: cə-ta gəbe-ʔsxʷ-ẏ waqəyt təm ʔən
CCNJ IRR-SPT wait-ANTIP-1SG.II completely PROSP NMLZ
suwi yeehl bisde'y,"
suwi- yee=hl bisde'y
suwi- ye:=ɬ pəsteẏ
away- go[-3.II]=CN grouse
'"And if I wait until the grouse walks away,"'

[20] This marker *an* in is most likely a nominalizer; this suggests the interpretation of this line is most literally 'And if I wait until the going away of the grouse…'

(23) “Dim iin da'a<u>k</u>hlxw dim hogwin yee <u>g</u>a'ahl,
dim ii=n da'a<u>k</u>hlxw dim hogwin- yee <u>g</u>a'a=hl
təm ʔi:=n təʔaqɬx^{w} təm huk^{w}ən- ye: qaʔ=ɬ
PROSP CCNJ=1.I CIRC.PSBL PROSP toward- go LOC[-3.II]=CN
ts'uusgim hogwin dulbinsxwi'y <u>g</u>a'ahl
ts'uusk-m hogwin- dulp-in-sxw-'y <u>g</u>a'a=hl
c̓u:sk-m huk^{w}ən- tulp-ən-sx^{w}-y̓ qaʔ=ɬ
little-ATTR toward- close-CAUS2-ANTIP-1SG.II LOC[-3.II]=CN
<u>x</u>adaa.”
<u>x</u>adaa
χəta:
moose
‘“Then I’ll be able to walk right to, to get real close to the moose.”’

(24) “Dim iin da'a<u>k</u>hlxw dim an guxwt dim
dim ii=n da'a<u>k</u>hlxw dim =n guxw-t dim
təm ʔi:=n təʔaqɬx^{w} təm =n k^{w}ux^{w}-t təm
PROSP CCNJ=1.I CIRC.PSBL PROSP =1.I shoot-3.II PROSP
ii t<u>x</u>oo<u>k</u>xwhl walk'a 'nihl gyet.”
ii t<u>x</u>oo<u>k</u>-xw=hl walk'a 'nit=hl gyet
ʔi: tχo:q-x^{w}=ɬ walq̓ə n̓ət=ɬ ket
CCNJ eat.PL-PASS[-3.II]=CN all 3.III=CN people
‘“And then I will be able to shoot it and then all the people will eat.”’

(25) Ii 'nii win hlisxwt mehlit loo'm
ii 'nii win hlis-xw-t mehl-i-t loo-'m
ʔi: n̓i: wən ɬis-x^{w}-t meɬ-ə-t lo:-m̓
CCNJ on COMP finish-PASS-3.II tell-T-3.II OBL-1PL.II
ii daa'whl ha'wt.
ii daa'whl ha'w-t
ʔi: ta:ẇɬ haẇ-t
CCNJ leave go.home-3.II
‘After he finished telling (it to) us, he went home.’

(26) Ii hlaa gilbil sa hlisit saa daa'whlit dis
ii hlaa gilbil sa hlis-it saa- daa'whl-it dis
ʔi: ɬa: kilpəl sa ɬis-ət sa:- ta:ẇɬ-ət təs
CCNJ INCEP two day finish-SX away- leave-SX time
wihl na heksimo<u>x</u> gya'at.
wil=hl n= heksim-ho<u>x</u> gya'a-t
wəl=ɬ n= heksəm-huχ kaʔ-t
COMP=CN 1.I= just-again see-3.II
‘And then after two days (had passed) I seen him again.’

(27) Ii hogwin baxa'y go'ot ii 'nii win he'y
ii hugwin- bax-'y go'o-t ii 'nii win he-'y
ʔi: hukʷən- paχ-ẏ quʔ-t ʔi: ṅi: wən hi-ẏ
CCNJ toward- run-1SG.II LOC-3.II CCNJ on COMP say-1SG.II
loot:
loo-t
lo:-t
OBL-3.II
'And I ran toward him and I said to him:'

(28) "Neema da'akhlxw dima mehlihl wila
nee=ma da'akhlxw dim=ma mehl-i=hl wila
ne:=mə təʔaqɬxʷ təm=mə meɬ-ə=ɬ wəla
NEG=2.I CIRC.PSBL PROSP=2.I tell-T[-3.II]=CN MANR
wihl bisde'y gi?"
wil=hl bisde'y =gi
wil=ɬ pəsteẏ =ki
LVB[-3.II]=CN grouse =PR.EVID
'"Can you tell what happened about the grouse?"'

(29) Ii 'nii win het: "Dim hogwin kw'itxw 'nii'y
ii 'nii win he-t dim hogwin- ḳw'itxw 'nii'y
ʔi: ṅi: wən hi-t təm hukʷən- ḳʷitxʷ ṅi:ẏ
CCNJ on COMP say-3.II PROSP toward- arrive 1SG.III
ga'ahl wilps noxon dim iin
ga'a=hl wilp=s nox-n dim ii=n
qaʔ=ɬ wilp=s noχ-n təm ʔi:=n
LOC[-3.II]=CN house[-3.II]=PN mother-2SG.II PROSP CCNJ=1.I
mehlit loon."
mehl-i-t loo-n
meɬ-ə-t lo:-n
tell-T-3.II OBL-2.II
'And then he said: "I will be over at your mom's house and I will tell you."'

(30) Ii gukws ha'wi'y ii na gibee'esxwi'y
ii gukws- ha'w-'y ii n=[21] gibe-'esxw-'y
ʔi: kʷukʷs- haẇ-ẏ ʔi: n= gəbe-ʔsxʷ-ẏ
CCNJ back- go.home-1SG.II CCNJ 1.I= wait-ANTIP-1SG.II

loot	iit	mehlihl	wila	wihl
loo-t	ii=t	mehl-i=hl	wila	wil=hl
lo:-t	ʔi:=t	meɬ-ə=ɬ	wəla	wəl=ɬ
OBL-3.II	CCNJ=3.I	tell-TR[-3.II]=CN	MANR	LVB[-3.II]=CN

bisde'y.
bisde'y
pəsteẏ
grouse

'And I went home and waited for him and then he told me about the grouse.'

(31) Ii yukwt mehlit ii 'nii win het:
ii yukw=t mehl-i-t ii 'nii win he-t
ʔi: yukʷ=t meɬ-ə-t ʔi: ṅi: wən hi-t
CCNJ IPFV=3.I tell-T-3.II CCNJ on COMP say-3.II
'And when he was telling it (the story), and then he says:'

(32) "Yukwhl silinasxwi'y ii hasaga'm
yukw=hl silin-asxw-'y ii hasak̲-'m
yukʷ=ɬ səlin-asxʷ-ẏ ʔi: həsaq-ṁ
IPFV=CN hunt-ANTIP-1SG.II CCNJ want-1PL.II

aloohl		x̲adaa."
a-loo=hl		x̲adaa
ʔə-lo:=ɬ		χəta:
PREP-OBL[-3.II]=CN		moose

'"I was hunting and we wanted to get the moose."'

[21] The appearance of *na* in this sentence, if it is indeed a Series I 1SG marker, is unexpected, as it results in anomalous doubling of Series I and II morphemes for a first person (*na gibee'esxwi'y*). An alternate possibility is that it is an aspectual marker more characteristic of Coast Tsimshian (cf. *na(h)* 'PAST'). Hector comments that it emphasizes the fact that he actually waited.

(33) “Ii hasaga'm dim txoogan[22] 'walk'a 'nihl
ii hasak̲-'m dim txook̲-in 'walk'a 'nit=hl
ʔi: həsaq-ṁ təm tχo:q-ən ẇalq̇ə ṅət=ɬ
CCNJ want-1PL.II PROSP eat-CAUS2[-3.II=CN] all 3.III=CN
gyet ii sga t'aahl bisde'y.”
gyet ii sg̲a- t'aa=hl bisde'y
ket ʔi: sqə- ṭa:=ɬ pəsteẏ
people CCNJ block.way- sit[-3.II]=CN grouse
‘“And we wanted to feed all the people but the grouse was in the way.”’

(34) “Ii jida hlentxwi'y dim ii gipaykw
ii ji-da hlen-txw-'y dim ii gipaykw
ʔi: cə-ta ɬen-tx^{w}-ẏ təm ʔi: kəphayk^{w}
CCNJ IRR-SPT move-PASS-1SG.II PROSP CCNJ fly[-3.I=CN]
bisde'y.”
bisde'y
pəsteẏ
grouse
‘“If I moved, the grouse would fly.”’

(35) Ii 'nii win hes Man, “Betl'a betl'a betl'a
ii 'nii win he=s Man betl̓'a betl̓'a betl̓'a
ʔi: ṅi: wən hi=s Man peƛ̓a peƛ̓a peƛ̓a
CCNJ on COMP say[-3.II]=PN Man flap flap flap
betl',” diya, dim wila gipaykwhl bisde'y.
betl̓' diya dim wila gipaykw=hl bisde'y
peƛ̓ təya təm wəla kəphayk^{w}=ɬ pəsteẏ
flap QUOT.3SG PROSP MANR fly[-3.II]=CN grouse
‘Man said that the grouse started to fly and made the sound *betl'a betl'a betl'a betl'a betl'*.’

(36) “Sim 'nii win hlentxwi'y,” diya, “sim 'nii
sim 'nii win hlen-txw-'y təya sim 'nii
səm ṅi: wən ɬen-tx^{w}-ẏ QUOT.3SG səm ṅi:
true on COMP move-PASS-1SG.II true on
win hlentxwi'y kw'esini'yhl g̲an.”
win hlen-txw-'y k̲w'es-in-'y=hl g̲an
wən ɬen-tx^{w}-ẏ k̓^{w}es-ən-ẏ=ɬ qən
COMP move-PASS-1SG.II break-CAUS2-1SG.II=CN stick
‘“As soon as I moved,” he said, “as soon as I moved, I broke a stick.”’

[22] The lower clause in this sentence is missing its subject; this is unusual in Gitksan, which generally lacks subject control constructions. Further investigation is warranted.

(37) “Ii ts'eek̲xwhl windiit liipaykwhl bisde'y,
ii ts'eek̲xw=hl win=dii=t[23] liipaykw=hl bisde'y
ʔi: c̓e:qxʷ=ɬ wən=ti:=t li:phaykʷ=ɬ pəsteẏ
CCNJ noisy[-3.II]=CN COMP=FOC=3.I fly.PL[-3.II]=CN grouse
ii 'nii win gipaykwdiit iima x̲a'nit –
ii 'nii win gipaykw-diit ii=ma x̲a'ni-t
ʔi: ṅi: wən kəphaykʷ-ti:t ʔi:=mə χəṅi-t
CCNJ on COMP fly-3PL.II CCNJ=2.I hear-3.II
betl'a betl'a betl'a betl'a betl' gi.”
betl̓'a betl̓'a betl̓'a betl̓'a betl̓' =gi
peƛ̓a peƛ̓a peƛ̓a peƛ̓a peƛ̓ =kə
flap flap flap flap flap =PR.EVID
‘“It's noisy when the grouse flies, and you can hear them when they fly – betl'a betl'a betl'a betl'a betl'.”’

(38) “Ii needii hasag̲a'y dim an hlentxwi'y
ii nee=dii hasak̲-'y dim an- hlen-txw-'y
ʔi: ne:=ti: həsaq-ẏ təm ʔən- ɬen-txʷ-ẏ
CCNJ NEG=FOC want-1SG.II PROSP NMLZ- move-PASS-1SG.II
dim wila huuthl x̲adaa, silinasxwi'y,
dim wila huut=hl x̲adaa silin-asxw-'y
təm wəla hu:t=ɬ χəta: səlin-asxʷ-ẏ
PROSP MANR flee.PL[-3.II]=CN moose hunt-ANTIP-1SG.II
win sg̲a t'aahl bisde'y.”
win sg̲a- t̓'aa=hl bisde'y
wən sqə- t̓a:=ɬ pəsteẏ
COMP block.way- sit[-3.II]=CN grouse
‘“So I didn’t want to move, so that the moose, (my game,) will not run away because of the grouse being there.”’

[23] There are two possible interpretations of the form *windiit* – as above, with the complementizer *win*, focal *=dii* and Series I clitic *=t,* or one where it is broken as *win-diit*, based on the light verb *wil* with Series II third plural suffix *-diit.* Both analyses are somewhat anomalous: the first version has an ergative clitic appearing in an intransitive clause, where one would not be expected. Under the second hypothesis, the light verb would be expected to surface as *wildiit – win* typically only appears as the Western dialect variant of the complementizer. Furthermore, the stress pattern recorded here for this combination is characteristic of preverbal material, not a main verb.

(39) Wina k'uxw gya'as Man, Jacob Brown, ii na
win=na k'uxw gya'a=s Man Jacob Brown, ii n=
wən=nə kʷ̓uxʷ kaʔ=s Man Jacob Brown ʔi: n=
COMP=1.I HAB see[-3.II]=PN Man Jacob Brown CCNJ 1.I=
hox̲ gidax̲t, "Neem da'ak̲hlxw dima mehlihl
hox̲ gidax̲-t nee=m da'ak̲hlxw dim=ma mehl-i=hl
huχ kitəχ-t ne:=m təʔaqɬxʷ təm=mə meɬ-ə=ɬ
again ask-3.II NEG=2.I CIRC.PSBL PROSP=2.I tell-T[-3.II]=CN
wila wihl betl'a betl' loo'maa?"
wila wil=hl betl̓'a betl̓' loo-'m=aa
wəla wil=ɬ peƛ̓a peƛ̓ lo:-m̓=a:
MANR LVB[-3.II]=CN flap flap OBL-1PL.II=Q
'Every time I see Man I ask him, "Will you tell us the story about *betl'a betl'*?"'

(40) Ii 'nii win sit'aa'mam siwetdi'yt
ii 'nii win si-t'aa-'ma-m si-we-t-i-'y=t
ʔi: n̓i: wən sə-t̓a:-m̓ə-m sə-we-t-ə-y̓=t
CCNJ on COMP CAUS1-sit-DETR-ATTR CAUS1-name-T-TR-1SG.II=DM
Man Betl'a Betl'.
Man betl̓'a betl̓'
Man peƛ̓a peƛ̓
Man Betl'a Betl'
'This is when Man named me Betl'a Betl'.'

(41) 'Nii g̲an wihl we'y gyuu'n as
'nii g̲an wil=hl we-'y gyuu'n a=s
n̓i: q̲ən wəl=ɬ we-y̓ ku:n̓ ʔə=s
on REAS COMP=CN name-1SG.II now PREP[-3.II]=PN
Betl'a Betl'.
Betl̓'a Betl̓'
peƛ̓a peƛ̓
Betl'a Betl'
'That's why I am named Betl'a Betl' now.'

(42) G̲abiihl he'y.
g̲abii=hl he-'y
q̲əpi:=ɬ hi-y̓
CNT.AMT=CN say-1SG.II
'That's as much as I have to say.'

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Appendix A: Orthography

In the following table we present a key to our phonemic representation in the Americanist Phonetic Alphabet, linked to our variant of Hindle and Rigsby's (1973) orthography. A third column presents an IPA version of those symbols where the APA and IPA do not match. Note that, following Rigsby (1986), the phonemes /kʸ/ & /xʸ/ in the APA have been simplified in notation to /k/ and /x/, respectively.

Orth.	APA	(IPA)	Orth.	APA	(IPA)	Orth.	APA	(IPA)
a	a		k̲	q		t'	t̓	
aa	a:		k̲'	q̓		tl'	ƛ̓	t͡ɬ’
b	p		kw	kʷ		ts	c	t͡s
d	t		kw'	kʷ̓		ts'	c̓	t͡s’
e	e		l	l		u	u	
ee	e:		'l	l̓		uu	u:	
g, gy	k	kʲ, c	m	m		w	w	
g	q		'm	m̓		'w	w̓	
gw	kʷ		n	n		x	x	xʲ, ç
h	h		'n	n̓		x̲	χ	
hl	ɬ		o	o		xw	xʷ	
i	i		oo	o:		y	y	j
ii	i:		p	p		'y	y̓	j̓
j	c	t͡s	p'	p̓		a, i, u	ə	
k, ky	k	kʲ, c	s	s		', -	ʔ	
k', ky'	k̓	kʲ’, c’	t	t				

Table 1: Key to orthographic and phonemic representations

Appendix B: Abbreviations

The linguistic abbreviations used in the interlinearization are as follows:

1 = first person, 2 = second person, 3 = third person, I = Series I pronoun, II = Series II pronoun, III = Series III pronoun, AMT = amount, ANTIP = antipassive, ASSOC = associative, ATTR = attributive, AX = agent (A) extraction, CAUS = causative, CCNJ = clausal conjunction, CIRC = circumstantial, CN = common noun (connective), CNT = count, CNTR = contrastive, COM = comitative, COMP = complementizer, DEM = demonstrative, DES = desiderative, DETR = detransitivizer, DIST = distal, DISTR = distributive, DM = determinate noun (connective), DUR = durative, DWID = domain widener, EPIS = epistemic modal, HAB = habitual, HUM = human, INCEP = inceptive, INS = instrument, IPFV = imperfective, IRR = irrealis, LOC = locative, LVB = light verb, MANR = manner, MS = mass, NECESS = necessity, NMLZ = nominalizer, OBL = oblique, PART = partitive, PASS = passive, PCNJ = phrasal conjunction, PFV = perfective, PL = plural, PN = proper noun (connective), PR.EVID = prior evidence, PREP = preposition, PROSP = prospective, PROX = proximal, PSBL = possibility, Q = yes/no question, QUDD = question under discussion downdate, QUOT = quotative, REAS = reason, REPORT = reportative, SG = singular, SPT = spatiotemporal, SUPER = superlative, SX = subject (S) extraction, T = 'big T', TR = transitive, VER = verum focus, WH = WH-word

'Schwat's up' with short vowels in Gitksan pre-verbs?*

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Abstract: This paper investigates the distribution of the surface forms of short vowels in pre-verbs in Gitksan. The goal of this investigation is to determine what features are underlyingly present for these vowels. I propose that almost all of the data can be accounted for when taking the perspective that the underlying vowel is the featureless vowel segment, schwa. This proposal is only preliminary and is intended to set the stage for additional investigation.

Keywords: Phonology, schwa, underlying phonemes, Gitksan, pre-verbs

1 Introduction

The goal of this paper is to present a distributional account and proposal concerning the short vowels in Gitksan pre-verbs. I address this goal by asking the following: *What evidence is there that schwa (an abstract, featureless vowel segment) is underlyingly present in Gitksan pre-verbs, and how is its surface form derived?* Early grammars analysed the final vowel in Gitksan pre-verbs as underlying schwa (Rigsby, 1986). More recent work has analysed the final vowel in a pre-verb before it attaches to a verb root as epenthetic (Brown, Davis, Schwan, & Sennott, 2016). I propose that the majority of the short vowels in the data, including but not limited to the final vowel, are underlyingly schwa /ə/. This paper also provides a description of a subset of Gitksan pre-verbs whose vowels may be underlyingly specified for some feature, and cannot be accounted for with the current proposal. The purpose of this work is to serve as a basis for future analysis of the underlying phonemic inventory of Gitksan, which has implications for the historical reconstruction of proto-Tsimshianic.

Section 2 gives a literature review of themes relevant to this paper. 2.1 gives a description of Gitksan and its vowel inventory. 2.2 discusses how this paper is situated within phonological theory and acknowledges relevant theoretical assumptions. Section 2 concludes by situating my proposal within the context of the literature, and how it addresses the goal stated above. Section 3 describes the

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data used to motivate my proposal. Section 4 outlines my proposal that attempts to account for the data from section 3, provides observations supporting this proposal, and explains why alternative proposals do not account for the data to the same extent that my proposal is able. The proposal is that schwa, an abstract, featureless segment, is underlyingly present where short vowels surface in Gitksan pre-verbs. This paper concludes with section 5, which discusses the implications of this paper, and summarizes the key points that have been outlined.

2 Literature Review

2.1 Language Context

Gitksan is a Tsimshianic language spoken by communities in Northern British Columbia, along the upriver areas of the Skeena River. There are ~300 fluent speakers of Gitksan, many more semi-proficient speakers, and ~600 community members actively engaged in learning the language (Gessner, Herbert, Parker, Thorburn, & Wadsworth, 2014). The Gitksan community has been engaged in the documentation of their language for many years, with the first grammar of Gitksan being published in 1986 (Rigsby, 1986). This grammar uses primarily source data from the Eastern Anspayaxw dialect (Kispiox area), which is thus the focus of this paper.

Gitksan's **vowel inventory** has been documented as having 5 full vowels /a, i, e, o, u/, and sometimes includes the featureless vowel segment, /ə/ (schwa) (Yamane-Tanaka, 2006). A discussion of schwa follows in section 2.2. The full vowels have a length contrast, surfacing as either short (e.g. /a/), or long (e.g. /aa/) (Brown et al., 2016; Rigsby, 1986). The Eastern dialect, which this paper considers, does not have the short vowel /e/ (but retains the long variant) (Brown et al., 2016). Where short /e/ surfaces in other dialects, the Eastern variety has /a/. The data and proposal presented in this paper will deal with short vowels exclusively.

Table 1: Eastern Gitksan short vowel inventory feature chart.

	[-back]	[+back]
[+high]	i, i:	**u, u**:
[-high], [-low]	e:	**o, o**:
[+low]		a, a:

Segments in **bold** are rounded. Schwa not represented because it is *featureless* (see 2.2).

I will also briefly describe the consonant inventory in Gitksan, as is relevant to the current investigation. The language has a full set of labial, coronal and velar stops and fricatives, which are differentiated from the uvular, and glottal consonants by the feature [+PHAR] (Yamane-Tanaka, 2006). As such, the uvular, and glottal segments have been shown to pattern as a phonologically

significant natural class in Gitksan. These consonants have been shown to have co-articulatory effects to adjacent vowels. In particular, uvular consonants lower preceding vowels (Brown et al., 2016; Fortier, 2016).

Lastly, it is important to describe the nature of pre-verbs. These are bound prefixes that appear to be unique to Gitksan in some respects (Rigsby, 1986). Like English adverbs, Gitksan pre-verbs modify the meaning of the lexical root in some way. Rigsby (1986) made the claim that the final vowel in any pre-verb is underlyingly schwa, observing that the vowel's surface features could be derived in a predictable way from its phonological environment. My proposal differs in that I extend this observation to all short vowels in pre-verbs.

2.2 Phonological Context

To provide the basis for a preliminary phonological proposal, this paper will address the following questions in phonological theory: what does it mean to be underlying, and what features are assumed to be represented at the underlying phonological level? What is schwa, and what does it mean to be featureless?

What does it mean to be underlyingly present? This paper assumes that underlyingly, vowel segments have the features [± high], [±low] and [± back]. This is consistent with proposals from generative phonology in a broad context (Kenstowicz & Kisseberth, 2014), and can clearly be used to distinguish the vowel that are assumed by Rigsby (1986) to be underlyingly present: /i, a, u/. When a vowel's surface form is not predictable based on the quality of adjacent consonants (due to feature sharing/spreading), the features that are present on the surface can be presumed to be specified in the underlying form. Furthermore, if the features of a surface vowel segment are entirely predictable based on their phonological environment, it can be posited that the underlying vowel segment is not inherently specified for any feature. In summary: vowels that *are predictable* at the surface level are unspecified at the underlying level, and vowels that *lack predictability* at the surface level are likely specified for some or all of their features at the underlying level. I will use the following two aspects of surface distribution to investigate the predictability of short vowels: (i) the distribution of vowels between two consonants that would otherwise be a legal consonant cluster without an intervening vowel, (ii) the quality of the surface vowel and its features, as compared with the features of adjacent consonants.

What is schwa? At the underlying level, schwa is described as a **featureless** (placeless) vowel segment, or 'placeholder' (Blake, 2000; Blake & Shahin, 2008; Krämer, 2012; Parker, 2011). Its surface form is therefore *predictable* based on its linguistic environment. Segments that are underlyingly schwa get their vowel features at the surface level by undergoing abstract phonological processes (such as feature spreading from adjacent consonants), and surface as allophones/variants of the underlying segment (schwa). Indeed, surface vowels in Gitksan are highly variable in their quality (Fortier, 2016). This distinction between underlying forms and surface allophones was crucial to

Odden's analysis of abstractness, where he asserted that "underlying forms do not contain allophonic variants of phonemes" (Odden, 2005).

In addition to the perspective that schwa is underlyingly present, epenthetic analyses of schwa are also prominent in the literature. This account posits that schwa is essentially a repair strategy inserted at some stage between the underlying form and the surface representation to satisfy some constraint on syllable structure (Ito, 1989). For example, languages that don't allow complex onsets can either reduce a word-initial consonant cluster, or insert schwa and re-syllabify:

(i) CCVC → CVC

(ii) CCVC → Cə.CVC → CV^{1}.CVC
(where V^{1} derives its surface features from the surrounding consonants)

Schwa is still featureless when introduced at the intermediate stage of insertion ((ii) above). Schwa remains an abstract placeholder before undergoing some phonological process in order to obtain features from adjacent segments.

2.3 Gitksan Literature Context:

How does the discussion of abstractness and schwa relate to the literature on Gitksan? Gitksan schwa has been analysed as both underlying (Rigsby, 1986), and epenthetic (Brown et al., 2016) in specific morphophonemic contexts. In Rigsby's 1986 grammar of Gitksan, he makes a statement that any final vowel of a Gitksan pre-verb (bound affixes that act semantically similar to English adverbs) is underlyingly schwa. This statement makes the following prediction:

(1) ma
/mə/
[ma]
'like (similar to)'[1]

The phonological form is not specified for the surface features of the vowel /a/. This form is derived through intermediary phonological processes unspecified by Rigsby's account.

Brown et al. 2016 provide an example of epenthetic schwa, seen below in (2) and (3). When the suffix *–m* is added to *gipaykw*, a vowel segment is inserted to resolve the illegal consonant cluster /k^{w}m/.

[1] Examples are formatted such that line 1 gives the orthography based on Rigsby (1986), line 2 gives a phonemic transcription, line 3 (where given) is a phonetic transcription, and line 4 is the English translation.

(2) gipaykw
/kʲəphajkʷ/
[kipaʸkʷ]
‘to fly’

(3) gipaygwum
/kʲəphajkʷ-m/
[kipaʸkʷum]
‘airplane’, see (2) ‘to fly’

For the above examples, note that voiced stops are analysed as underlyingly voiceless ([g] is underlyingly /k/). Furthermore, sequences like /gw/ are assumed to underlyingly be [kʷ]. Also note that there is no underlying voicing contrast in the stops, which is reflected in the phonemic transcription. Rounding is underlyingly present and a feature of some velar stops.

Some of the literature on Gitksan has documented specific abstract phonological processes that are known to colour (give features to) the surface representation of schwa. Yamane-Tanaka (2006) documents vowel harmony, which can occur across some classes of intervening consonants, matching the quality of schwa to an adjacent vowel. For example, vowel harmony occurs across the intervening glottal fricative in the following, spoken by a Western Gitksen speaking consultant:

(4) behe’y
/pexəʔy/
[pehe’y]
‘my lungs’

Note that this speaker pronounced the underlying /x/ as [h]. Brown et al. (2016) assert that rounding also colours schwa. For example:

(5) gipaygwum
/kʲəphajkʷ-m/
[kipaʸkʷum]
‘airplane’, see (2) ‘to fly’

In (5), schwa is inserted before the /m/. Due to the labial consonant immediately following the epenthesized schwa, it surfaces phonetically as /u/. This is feature spreading, the labial consonant gives the schwa the feature [+round], which surfaces as [u].

Given this body of literature on Gitksan schwa, I developed the following research question to address the goal of this paper: *What evidence is there that schwa (an abstract, featureless vowel segment) is underlyingly present in Gitksan pre-verbs, and how is its surface form derived?*

3 Description of the Data

The data I use in this paper are sourced directly from Hindle & Rigsby (1973). My goal is to look at short vowels in pre-verbs, so I adapted the data set along the following parameters:

(i) **Part of speech:** I considered only entries labeled as 'pre-verbs' (lexically-bound prefixes that function similar to English adverbs)
(ii) **Number of morphemes:** I considered only entries with a single morpheme, as multi-morphemic entries did not allow me to control for part of speech (some pre-verbs are bound to particular verb roots, and this creates a confound)
(iii) **Vowel length:** I considered only short vowels, excluding entries with long vowels.
(iv) **Variants:** I excluded entries that included multiple pronunciation variants, as the variants are not labeled for origin.

These variables left me with 58 entries that were appropriate to include in my data set.

The surface vowels in the data set are /a, i, o, u/. Note that /e/ is not present (predicted by the restriction to Eastern dialect data). /o/ and /u/ are both infrequent, with /o/ only observed twice in the data (within one prosodic word – see example (6)) and /u/ surfacing in seven environments. I am using the term 'environments' to refer to the preceding and following consonants that surround the vowel.

(6) sogom
/soqom/
'from the water onto land'

/a/ and /i/ are both much more frequent, surfacing in 31 and 29 environments, respectively. The distributions of /a, i, o, u/ are nearly complementary, with some exceptions, which are presented in the following examples. Observe example (7), where /a/ occurs in a similar environment as /o/ in (6):

(7) sagayt
/saqaʸt/
'together'

Additionally, the following examples show that both /i/ and /u/ can occur in the environment g__n.

(8) gun
/kun/
'to cause to'

(9) hagun
/hakun/
‘near, toward’

(10) gina
/kina/
‘behind’

Lastly, both /a/ and /i/ can occur in the environment b__l.

(11) balgi
/palki/
‘sudden, spontaneously, uncausedly’

(12) χbil
/x̲pil/
‘partly’

In conclusion, examples (8–12) show that the distribution of the short vowels is not entirely complementary. There are some few environments in which the surface distribution overlaps. Section 4 will outline a preliminary proposal, of which the central claim is that the underlying vowel for all short vowels in Gitksan pre-verbs is schwa. My proposal attempts to account for the surface distribution of the vowels, including positing possible explanations for the overlapping distributions in (8–12).

4 Proposal

Despite working with a small data set for this paper, I am able to show that the distribution of the short vowel is almost always predictable based on the environment. To this end, section 4.1 will show how these surface forms might be derived based on the features of adjacent consonants. I propose that the underlying vowel is therefore featureless – schwa. Alternate accounts of the data and why I think an underlying analysis is preferable will be discussed in 4.2.

4.1 Observations

4.1.1 Conditions for /a/

/a/ occurs only preceding uvular consonants (k̲, g̲ , x̲), glottalized and glottal consonants (k’, ‘m, ‘w, ‘y, ‘t, h), and morpheme-initially and -finally. Glottal stops are often phonetically inserted at morpheme boundaries (Rigsby, 1986), so this would satisfy the glottal condition (see (16)). Therefore, the conditions for /a/ are that it surfaces adjacent to a uvular or a glottal/glottalized segment. Glottalized consonants are similar to ejectives, in that they combine glottal constriction with another consonant segment which is fully realized (Brown et

al., 2016). These conditions form the natural class [+PHAR], which is motivated in Gitksan by Yamane-Tanaka (2006). Uvular and glottal articulations involve retraction of the tongue root towards the back of the oral cavity, which articulatorily conditions /a/, because it is a low back vowel (refer to Table 1). Co-articulation effects resulting from uvular and glottal articulations are known to produce /a/ in Gitksan surface forms, both proceeding and following the vowel (Fortier, 2016; Yamane-Tanaka, 2006). Observe:

Uvular:
(13) bag̲ayt
/paqaʸt/
'in the middle'

Glottalized consonant:
(14) 'masim
/ṁasim/
'separately, apart'

Glottal /h/:
(15) hagul
/hakul/
'slowly'

Glottal stop (inserted word-initially):
(16) ahlax̲
/ʔałaχ/
'in bad health'

The only exceptions to these conditions are as follows:

(17) balim
/palim/
'to act like one is X' (where X is the verb root)

(18) balgi
/palki/
'sudden, spontaneously, uncausedly'.

There is nothing about b__l known to condition /a/ in Gitksan. There are two possible analyses for this: (i) the features [+back, -high] are underlying in the initial vowel in 'balim' and 'balgi', (ii) some unknown phonetic feature in the environment b__l is conditioning /a/ to surface. (ii) might be the favourable proposal. Further investigation is needed to determine the exact quality if /l/ and whether it is articulatorily motivated to suggest that /l/ can condition an adjacent schwa to surface as /a/. If /l/ is produced with a retracted tongue position, for example, this might explain the retracted quality of the vowel. However,

examples (21) and (22) in the next section show that /i/ can surface adjacent to /l/, so this requires further phonological investigation as well.

4.1.2 Conditions for /i/

/i/ occurs only adjacent to labial (m, p, b), alveolar (t, d, s, n), lateral (l, hl) and velar consonants (k, g, x). These consonant sets are representative of the full consonant inventory in Gitksan, excluding those that are [+PHAR]. Given that these do not form a natural class, the simpler analysis is to say that when the [+PHAR] condition is not triggered, the default surface form is /i/. Observe:

Labial:
(19) ‘masim
/ṁasim/
‘separately, apart’

Alveolar:
(20) ‘wahlin
/ẇałin/
‘former, old-fashioned’

Lateral:
(21) gyuwil
/kʸuwil/
‘past, beyond’

Velar:
(22) lixs
/lixs/
‘strange, by itself, different’

The exceptions to these conditions are as follows:

(23) x̱ts’i
/χṯsi/
‘in the middle of a long object’

(24) hi’la
/hiʔla/
‘close, nearby’

In both cases, there is a glottal stop that we would expect to reinforce the [+PHAR] feature condition. Therefore, I have two possible analyses of these exceptions: (1) the features [+high, -back] are underlying in ‘hi’la’ and ‘xts’i’, or (2) some unknown feature is present at the intermediate stage of representation,

such that the [+PHAR] condition is blocked, and /a/ does not surface, resulting in the surface form /i/.

My proposal for /a/ and /i/ cannot at this time predict why /a/ surfaces over /i/ in certain environments. This is a job for future analysis, possibly within an Optimality Theory framework such as was offered by Blake (2000). The possible conditions I have proposed are useful building blocks for such an analysis.

4.1.3 Conditions for /o/ and /u/

As described in section 3, /o/ and /u/ are relatively infrequent in the data. I propose that /o/ and /u/ correlate to /a/ and /i/, respectively, with the addition of the rounding feature. This is to say that they are conditioned similarly. This is articulatorily motivated as /u/ and /i/ are both [+high] and /o/ and /a/ are both [-high]. While /u/ surfaces in a variety of environments, /o/ appears to only surface in the [+PHAR] condition:

(25) sogom
/soqom/
'from the water onto land'

(26) gun
/kun/
'cause to'

(27) gyuwil
/kʸuwil/
'past, beyond'

(28) hagul
/hakul/
'slowly'

(29) hagun
/hakun/
'near, toward'

(30) k̓utk̓u
/kutku/
'around, turn, spin'

(31) tuxs
/t̓uxs/
'out of a portable of movable object'

(32) uxs
/ʔuxs/
‘from the land into the water, toward the water’

My proposal is that /o/ and /u/ are both triggered by a rounding condition, which has been neutralized at an intermediate stage of the phonological derivation. Where the [+PHAR] condition is triggered, /o/ will surface, and /u/ will surface elsewhere. Davis (1970) makes similar observations about the surface distribution of schwa in Mainland Comox. Davis observes that /u/ surfaces between two ‘high consonants’ if at least one is round. /o/ is not observed.

/xw/, /xs/, or /xws/, and /gw/ are all frequent consonant clusters in Gitksan. I propose that (26, 28–9, 31–2) are examples where the /w/ has triggered rounding of the vowel, and has then been deleted (neutralized) before the final surface form is derived. Indeed, (28) varies dialectally as ‘hagwil’ (Rigsby, 1986). This predicts the following derivation:

UR:	/hg^{w}l/
Schwa-insertion:	/həg^{w}əl/
[+PHAR] condition:	/hag^{w}il/
Vowel rounding:	/hag^{w}ul/
Rounding-deletion:	/hagul/
SR:	[hagul]

That leaves (25, 27, 30) to be accounted for. I propose the following two possible analyses: (1) a consonant adjacent to /o/ or /u/ in these segments is underlyingly rounded, which spreads to the vowel, and is neutralized at some intermediate phonological process, or (2) the vowel is underlyingly rounded. Further data is needed to make additional observations or claims.

I cannot yet account for how the phonology selects either /a/ or /i/ when either could be derived from the adjacent consonants. For example, (11) /kina/ and (12) /palki/. In both of these examples, the final vowel could be conditioned /a/ because it is morpheme-final, or /i/ because the preceding consonant is not [+PHAR]. I suggest that future analysis take an Optimality Theory approach, to investigate how the phonology selects one form over another in examples such as this.

4.2 Why not epenthesis?

Previous works have given evidence for schwa-epenthesis in Gitksan, such as (5). (Brown et al., 2016). Why haven’t I argued for an analysis that relies on **epenthesis,** such as I discussed in 2.2? Gitksan allows complex onsets, and a variety of consonant clusters (Brown, 2010; Rigsby, 1986). Consider the following examples:

(33) sg̲a
/sqa/
'across the way'

(34) sag̲ayt
/saqaʸt/
'together'

(33) shows that Gitksan allows the complex onset /sg̲/. Therefore, the first /a/ in 'sag̲ayt' must be underlyingly present. However, the quality of this /a/ is predictable based on the [+PHAR] condition. Therefore, this evidence supports my proposal that schwa is underlyingly present in examples like (33) (and not specified for any set of features). An epenthetic analysis would fail to account for this pattern.

(33) and (34) also show why Rigsby's 1986 analysis fails to capture the observable patterning of underlying schwa in Gitksan pre-verbs. Rigsby proposed that only the final vowel of Gitksan pre-verbs was underlyingly schwa, and assumed that any preceding vowels were underlying specified for their features. Yet, my proposal of (34) shows that it is the initial vowel which is underlyingly present, and featureless.

5 Conclusion

5.1 Implications

The data and discussion presented in this paper have both practical and theoretical implications. Firstly, there is growing interest in the reconstruction of proto-Tsimshian. Investigations such as the one undertaken in this paper contribute to the reconstruction of the underlying phonemic inventory of proto-Tsimshian. If we can determine what features are underlyingly present in modern Tsimshianic languages, then we can identify what the related languages have in common and begin to develop a proposal concerning what the features of the common root language were. Secondly, this data and the proposal I have put forward have implications for the continuing discussion of abstractness and the underlying features of vowels. The predictable nature of the surface realization of schwa as I have demonstrated in this paper contributes to broader phonological debates on what it means to be underlying, what it means to have features, and what 'schwa' is (see Barthmaier, 1998; Blake, 2000; Blake & Shahin, 2008; Leonard, 2007; Parker, 2011). Further investigation into how these patterns emerge in the associated dialects of Gitksan may help to shed light on the surface differences in vowel quality, how they are conditioned, and how they can be accounted for in dialect-specific and dialect-inclusive language materials.

Future research should attempt to develop a more complete phonological analysis of the patterns observed in this paper. Working within the Optimality Theory framework, one could investigate how the phonology selects one form

over another, when the linguistic environment is such that either /a/ or /i/ could be conditioned, based on the observation presented in this paper. For inspiration, see Blake (2000). Such an analysis should take care to expand the current data set.

5.2 Summary

Section 1.1 introduced the goal of this paper: to present a distributional account and preliminary proposal to account for the phonological distribution of short vowels in Gitksan pre-verbs . Section 2.1 introduced the language context for this paper: Gitksan, an understudied language. I began the theoretical discussion in this paper in 2.2 by reviewing the relevant phonological theory for this paper, including vowel features, and the notion of underlying features. My proposal supports the assertion that schwa is an underlying vowel segment that is unspecified for any features. Therefore, schwa only exists as a phonological unit at the level of underlying representation (or the intermediate level, in the case of epenthesis) and has no independent phonetic consequence. Schwa is only phonetically real when given its features by surrounding segments. Rather, schwa surfaces predictably based on its phonological environments.

In section 3 I presented data from Gitksan pre-verbs, and described the distribution of short vowels /a, i, o, u/ within them. It was also noted that /a/ and /i/ were the most frequent surface forms, and that their distribution was nearly complimentary. Section 4 accounted for this distribution, and proposed that the underlying vowel of the full range of short vowels in Gitksan pre-verbs is the featureless vowel segment, schwa (4.1). In 4.2 I proposed that /a/ is motivated by the condition [+PHAR], and that /i/ surfaces when this condition is not triggered. I was not able to account for when this condition is triggered, only to motivate it as a possible approach. I proposed that /o/ and /u/ arose in the data as a result of underlying rounding in the surrounding consonants, giving the vowel rounding features. I suggested that an epenthetic analysis would not account for the data that my proposal has captured, and that Rigsby's 1986 assertion that schwa was the underlying vowel of only the final vowel in a pre-verb (not extending to other vowels in polysyllabic pre-verbs) was too limited in scope (4.3).

This is a preliminary account of the surface distribution and possible underlying representations of short vowels in the Eastern dialect of Gitksan. This proposal should be further investigated using data not limited to pre-verbs, and from other dialects.

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W7éyle – The Moon's Wife (Wala)*

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1 Introduction

Secwépemc oral narratives consist of two genres: First, *slexéy̓em* are tellings of events personally remembered by the storyteller, or in some cases handed down from a member of a known previous generation who experienced the event. By contrast, *stsptekwll* are stories set in the ancient times of transformers. The essential transformers are Coyote, Tlli7sa and his brothers, and Qweq̓wile see Ignace and Ignace (2017). In addition, *stsptekwll* include many narratives about other animals with supernatural powers and shape-shifting abilities, and many of these *stsptekwll* include contests between such protagonists. An essential feature of these *stsptekwll* is that characters shape-shift between animal and human shape and in the course of the events of the story create the status quo of the physical, ecological, astronomical, and geological characteristics of the beings described as sentient in the story. Of course, they also entail moral-educational messages of the consequences of human action, and in that sense they are parables that serve to point out issues of present relevance.

R. Ignace (2008) and M. and R. Ignace (2017) have pointed out how *stsptekwll* embody Secwépemc Indigenous law by providing a moral-educational code of conduct and speaking to an environmental ethic (Armstrong, 2009), but also expressing the *deeds* of ancestors by commemorating ancient ancestors' experiences and actions, which are in turn marked on the land and thus express the legitimate ownership of Secwépemc people of the Secwépemc homeland. This complex sense is expressed in the term *stsq̓ey̓*, which means "deeds" in the double sense of the English meaning of action and experience, combined with deeds being legitimate evidence of the ownership of land as evidenced in markings like pictographs, rock formations and other markers which in turn harken back to place names that commemorate them and stories that both bear witness to them and elaborate on them:

> Our Secwépemc *stsptékwle* or *tellqelm̓úcw* (ancestors) left us a legacy of experience and knowledge handed down through countless generations that, if we connect the dots meticulously, provides the moral and spiritual foundation of our society and the *stsq̓ey̓* (laws) that show

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us how to act toward one another and with respect for all the living beings on the land that give us life (Ignace and Ignace 2017: 63).[1]

Recordings of Secwépemc *stsptekwll* began with Dawson (1891)'s retellings, in his own prose, of narratives of places and mythical beings he learned from his (unnamed) Secwépemc guides while in Secwépemc territory during his geological survey of Canada between between 1877 and the late 1880s. In 1888–89, at the near beginning of his anthropological career, Franz Boas spent a short period in the Tk̓emlúps (Kamloops) area, recording ethnographic information and a remarkably detailed version of the eastern and southern portion of the Secwépemc Tllí7sa epic from an anonymous storyteller, likely through the medium of the Chinook Jargon. Between 1900 and 1904, James A. Teit, hired by Boas under the auspices of the Jesup North Pacific Expedition, added a significant body of *stsptekwll* recorded with Secwépemc storytellers Sxwéy̓lecken from Big Bar and Dog Creek, and Sisyúl̓ecw from Simpcw (North Thompson). Unlike the body of work left by Boas' associates Henry Tate (see Boas 1912, 1916), George Hunt (Boas & Hunt, 1905, 1906), John Swanton (1905, 1908), and later William Beynon (Anderson and Halpin, 2000), the *stsptekwll* recorded with the above narrators by Teit do not involve verbatim transcriptions of what the narrators dictated in the original Indigenous languages, but are instead Teit's renderings in his own 1900-ish prose, which are based on his notes and memories of the tellings. Plot-wise, they are remarkably detailed. Language-wise, they leave us only guessing how the storytellers told these *stsptekwll* or how they knew them.[2]

In the 1960s–1980s, linguist Aert Kuipers recorded a set of texts from Secwépemc speakers as part of his 1974 *The Shuswap Language*, and subsequently, the 1989

[1] According to the late Dr. Mary Thomas and other elders, the term *tellqel̓múcw* (the root *tell* for shape-shift, change appearance plus *qel̓múcw* for people) references ancient ancestors, more precisely the ancient transformers or shapeshifters who lived a long time ago. Teit (1909: 595) uses the term spetakuɬ (*stsptékwll* or possible *stsptekwle*) to refer to the people who inhabited the earth during [the mythological age and] partook of the characteristics of both men and animals, whereas Aert Kuiperss (1983) Secwépemc dictionary glosses *stsptékwll* as myth, legend, to tell a myth – although the verb usually adds the intransitive suffix, producing the term *(ts)ptékwllem*. Since Secwépemc morphology in personal names suggests that the suffix *-(e)le* is a person suffix, often used in names that honour the deeds of a person, with *-ll* acting as a perpetual marker for nonhuman life forms, we use *stsptékwll* for story or oral history and *stsptékwle* for the ancient storied beings, or the transformers. We use *tellqel̓múcw* and *stsptékwle* interchangeably to refer to the ancient people as transformers who developed the skills of visioning and shapeshifting through the *étsxem* (spirit guardian quest) and through being doctored by their own elders.

[2] As is evidenced in Teit's renderings of Secwépemc personal names, place names and other terms (Teit, 1909) he knew Secwepemctsín well, although he occasionally struggled with certain phonemes. Historical documents from the time of the McKenna-McBride commission and Delegation visits of chiefs to Ottawa attest to his ability to translate and interpret Secwépemc chiefs' presentations to commissioners and government representatives. Wendy Wickwire (1994, 1998, 2001) has also reflected on the accuracy, lack of male-bias and sincerity of his ethnographic work.

Studies on Shuswap. These include several short Coyote stories, but also much longer, epic tellings by storytellers remembered among the present generation of elders and Secwepemctsín speakers Seymour Pitel, Charlie Draney, Edward Stobie Billy, and Lena Bell. In the 1970s, Randy Bouchard and Dorothy Kennedy recorded further stories in Secwepemctsín with various storytellers, notably Ike Willard, Aimee August and Charlie Draney, but their subsequent publication (1979) provides but poor, summarized, English-only versions of the Secwépemc narrators' stories. Marianne Ignace and Ron Ignace recorded further stories with various storytellers, including Sisyúlecw's grand-daughter Ida William and Stuxtéws storyteller Louisa Basil in Secwepemctsín, subsequently transcribed and translated in interlinear versions (see R. Ignace, 2008; M. and R. Ignace, 2017). A small number of the English-only *stsptekwll* told by Sxwéylecken and Sisyúlecw in the early 1900s were thus voice-recorded with elders born during the late 1800s and early 1900s, and were subsequently transcribed, often involving some differences of plot in comparison with the Teit versions.

For present and future generations of Secwépemc storytellers and story-learners, the dilemma is that the vast majority of Sxweylecken's and Sisyúlecw's stories do not exist in Secwepemctsín, despite the fact that we have renditions of these *stsptekwll* in English prose provided principally by James Teit. How can we add to the body of Secwépemc *stsptekwll* by re-creating them in Secwepemctsín?

Between 2013 and 2017, Marianne and Ron Ignace set out with a group of 6 elders-speakers of the Western dialect of Secwepemctsín in their home community of Skeetchestn to translate these stories back into Secwepemctsín, and in the process, reclaim and re-literature them for present and future generations. The elders in our group are between their late 60s and mid 80s. All went to Residential School, and thus never had a chance to train in the art of storytelling, but most were still raised with Secwepemctsín as their first language. Our method was this: we would agree on a story we wanted to work on, and then review the English version of the story as rendered by Teit (1909), discussing – often in a mixture of Secwepemctsín and English the sequence of events, and sometimes with the help of Google Earth, Wikipedia, and other bits of knowledge, also discussing the role of animal and plant characters and characteristics, place-names and other natural phenomena, as well as vocabulary, phrases and knowledge expressed in Secwepemctsín that contribute to understanding plot, message, context and significance of what the storyteller's intent may have been. We would then, usually led by our three or four most eloquent speakers, write the text out in Secwepemctsín with the help of a digital projector, one sentence at a time, slowly repeating it for all to hear, and making improvements to vocabulary, grammar, and flow of sentence. Following this, Marianne Ignace re-read the story, one sentence at a time, to the group of elders, also making a print-out, and we subsequently reviewed it. In addition, Marianne and Ron Ignace proof-read each story work, making further slight revisions to spellings and morphology. For some of the *stsptekwll*, in August 2016, Bridget Dan, Cecilia DeRose (Eskét) and Clara Camille (Dog Creek) provided additional feed-back and proof-reading.

At this point in our project (May 2017), we have re-translated, transcribed

and re-claimed, in Secwepemctsín, the 18-episode epic story of Tllí7sa and his Brothers, along with reviewing Charlie Draney's detailed Trout Children epic. We have also translated twelve additional *stspekwll* of varying length. The *stsptekwll* we present here is one of the shorter ones of our work to date.

Before presenting the story itself (§4), we discuss the Secwépemc astronomical and ecological knowledge conveyed by the story as it connects to the idiom of social interaction and family (§2), followed by a brief discussion of the linguistic conventions used in our presentation of the story (§3).

2 Astronomical and Ecological Knowledge

The following *stsptekwll* is the first of twelve stories in Chapter XIV of the myths section of Teit's (1909: 653) *The Shuswap*. We assume that Sxwéy̓lecken was the storyteller.

Teit's rendition of the female protagonist's name is Wala (see also Secwépemc Cultural Education Society, 1993), but in Secwepemctsín the name is actually *W7éyle*, consisting of the root *wey-* "be visible" followed by the glottal stop *7*, here indicating the inchoative coming to be", and the personal name suffix *-le*. The story references the moon's travel through the night sky and the 13 lunar months: hence the many children, as elders thought, should number 13, representing the 13 lunar months of the year as the moon travels through the sky. The moon is conceived of as "making a house or camp" (*pelltsitcwem*[3]) each night as the lunar phases progress from crescent moon to full moon, and then waning again. Thus, *pelltsitcwem* is the lunar ring around the moon, and represents his family's camping ground.

In the social realm, the story reflects on the woman's wish for security about where the next camp might be, as opposed to supporting her children and likely carrying the familys gear. With the husband in front scouting things out, he is thinking of her as a nuisance (*yéwyut*) for pressing him concerning where the next camp will be, then eventually lashes out at her.

The story also has an interesting ethnobotanical message about birchbark buckets which of course are water-tight birchbark baskets, and the snow shovel of birch-bark in her hands (Teit, ibid.). While we were trying to imagine what birch-bark shovels might be, elder Christine Simon reminded us that when she was a child in the 1930s, she saw her own elders making and using birch-bark shovels that were made by gathering up and charring one end of a sheet of birch-bark, thus producing a handle. These implements were used to scoop up earth, snow or other substances.[4]

In the end, the Secwépemc perception of the image on the moon's surface is not that of a man in the moon but that of a woman sitting sideways with a

[3] *Pelltsitcwem* consists morphologically of *pell* "have" + *tsitcw* "house" + middle suffix *-em*.

[4] See Nicholas, Bonneau, and Westfall (2017), an article on charred charred birch-bark in old archaeological sites. A footnote contributed by M. Ignace to the article citing the information from Christine Simon throws light on the mystery of charred rolls of birchbark found in Interior Plateau archaeological sites.

Figure 1: Outline of W7éyle on the Moon (by Braden Hallett, 2016)

birch-bark basket on her back and holding up her birch-bark shovel (see Figure 1 below). Her children are imagined as the visible craters surrounding her.

3 Interlinear Format

This *stsptekwll* is presented in an interlinear format, consisting of a series of stanzas, each stanza consisting of one or more sentences.

For each stanza, we first give the unbroken Secwepemctsín form in the practical orthography used by the language community. This is followed by a series of cascading pairs of lines. The first line in each cascading pair shows the Secwepemctsín forms divided into morphemes: The equal symbol ('=') indicates a clitic boundary, and the hyphen ('-') indicates an affixal boundary.[5] Infixing is indicated by use of angle brackets ('<', '>'). Square brackets around a sound or morpheme indicate unpronounced but underlying morphology. Where practical, forms are parsed down to the root-level, however in cases where a root-level analysis overly obscures the meaning of a form, we do not analyze down to the root-level (e.g. *mégcen* "moon", rather than *még-cen* "[?]-foot"). In the second cascading line, directly below each individual morpheme, is a lexical or a grammatical gloss. Grammatical glosses are abbreviations shown in small caps (see the key for the meanings of these abbreviations). Lastly, we give an English

[5]The actual clitic vs. affixal status of some of the morphemes here is tentative, and requires further work.

translation for the stanza. Noteworthy grammatical phenomena are discussed in footnotes.

The general format is similar to that used in Alexander et al. (2016) and other UBCOPL publications. Our approach here differs, however, since we include an unbroken, practical orthographic line. This line partially fulfills the need to have a separate, Secwepemctsín-only section.

4 W7éyle: The Secwépemc Woman in the Moon

(1) Le q̓7éses-ekwe m-lecélqwem te sqélemcw lu7 re mégcen. Le istkmes, tikwemtús re scweséts, xwexwéyt te sítest m-sixelcúl̓ecwes, m-nék̓enses re cyistén̓s.

le=q̓7és=es=ekwe m=lec-élqwem
COMP=long.ago=3SBJV=QUOT PAST=good-appearance
te=sqélemcw lu7 re=mégcen. le=7istkm=es,
OBL=man then DET=moon COMP=be.winter=3SBJV
tikwemtús re=s=cweséts, xwexwéyt
always DET=NMLZ=travel=3POSS all
te=sítest m=six-elc-úl̓ecw=es,
DET=night PAST=move-AUT-land=3SBJV
m=nék̓-en-s=es
PAST=change-DIR-3ERG=3SBJV
re=c-yist-[t]én̓-s.
DET=LOC-camp-INS-3POSS

A long time ago the moon was a handsome man, they say. When it was winter, he always travelled, and changed camp every night.

(2) Pellsem7é7em te skwest.s W7éyle, ell cw7it re stsmelt.s.

pell-sem7é7em te=skwest-s w7éyle, ell cw7it
have-wife OBL=name-3POSS W7eyle and.then many
re=stsmelt-s.
DET=children-3POSS

He had a wife called W7eyle and they had many children.

(3) Le cwesétes, tikwemtús ne sxetéqst.s re mégcen, es tsewéllcwct.s re k̓wséltkten te syistén̓s.

le=cwesét=es, tikwemtús ne=s-xetéqs-ts
COMP=travel=3SBJV always at=NMLZ-ahead-3POSS
re=mégcen, es=tsew-éllcw-ct-s re=k̓wséltkten
DET=moon DET+NMLZ=build-house-IND-3ERG DET=relative
te=s-yist-[t]én̓-s.
OBL=NMLZ-camp-INS-3POSS

When they were travelling, the moon always was ahead so that he could make a house for his wife and children to camp overnight.

(4) Re W7éyle tikwemtús re stécknems te xyum te mim̓cs, ell m-tskwenstéses re qwllin te cllúqwke7tens.

re=w7éyle tikwemtús re=stéckn-em-s
DET=W7eyle always DET=pack.carried.on.back-MID-3POSS
te=xyum te=mim̓c-s, ell
OBL=large OBL=large.basket-3POSS and.then
m=ts-kwen-st-és=es re=qwllin
PAST=CUST-take-CAUS-3ERG=3SBJV OBL=birch.bark
te=c-llúqw-ke7-ten-s.
OBL=LOC-bail-implement-INS-3POSS

W7eyle always carried her big birch bark basket on her back and she held her birch bark scooper (shovel).

(5) M-tskwenstés re cllúqwke7tens es cllémens re mim̓cs te swucwt wel re m-qwets̓t, m-tsímenses re swucwt es k̓úlems te séwllkwe.

m=ts-kwen-st-és re=c-llúqw-ke7-ten-s
PAST=CUST-take-CAUS-3ERG DET=LOC-bail-implement-INS-3POSS
es=c-llém-en-s re=mim̓c-s
DET+NMLZ=LOC-put.into-DIR-3ERG DET=large.basket-3POSS
te=swucwt wel re=m=qwets̓t, m=tsím-en-s=es
OBL=snow until DET=PAST=full PAST=melt-DIR-3ERG=3SBJV
re=swucwt es=k̓úl-em=s te=séwllkwe.
DET=snow DET+NMLZ=make-MID=3POSS OBL=water

She always used her scooper to fill up her basket with snow and then she melted it for water.

(6) Tsukw re tsímllkwe re stskwenwéllens e ste7s ne s7istk.

tsukw re=tsím-llkwe re=s=ts-kwen-[n]wéllen=s
only DET=melt-water DET=NMLZ=CUST-take-LC.INTR=3POSS
e=ste7s ne=s7istk.
DET=drink at=winter

In winter all they had for to drink was melted snow.

(7) W7e....c-ekwe, le cwéȼwenes lu7 m-séwens re W7éyle re sxélwes, T̓hé7en me7 tsk̓úlctc-kucw te cyistéȼns e r7áleses, t̓hé7en me7 tsewéllcwctcwes re7 stsmelt?

w7ec=ekwe le=c.wéȼwen=es lu7 m=séw-en-s
IPFV=QUOT COMP=next.morning=3SBJV then PAST=ask-DIR-3ERG
re=w7éyle re=sxélwe-s, t̓hé7en
DET=W7eyle DET=husband-3POSS to+where
me7=ts-k̓úl-ct-c=kucw
FUT=CUST-make-IND-2SG.ERG=1PL.EXCL
te=c-yist-[t]éȼn-s e=r7áles=es,
OBL=LOC-camp-INS-3POSS COMP=evening=3SBJV
t̓hé7en me7=tsew-éllcw-ct-c=wes
to.where FUT=build-house-IND-2SG.ERG=3SBJV
re7=stsmelt?
DET+2SG.POSS=children

They say they lived like that for a long time, and one morning W7eyle asked her husband, Where are you going to make a camp tonight, where are you going to make a camp for your children?

(8) K’wíncwes-enke k sewséwentem re mégcen, ta7 k s7éytsens re sem7é7ems.

k̓wínc=wes=enke k=sew●séwe-nt-em re=mégcen, ta7
how.many=3SBJV=PERC DET=TRED●ask-DIR-PASS DET=moon NEG
k=s=7éy-tsen-[n]-s re=sem7é7em-s.
DET=NMLZ=in.return-mouth-DIR-3ERG DET=wife-3POSS

She asked the moon several times but he never answered his wife.

(9) Yéwsentem, m-geyeptsín̓mentmes, tsúntmes, me7 yist-k nen skwtuts̓!

yéws-ent-em, m=geyep-tsín̓-men-[n]t-m=es,
fed.up-DIR-PASS PAST=angry-mouth-REL-DIR-PASS=3SBJV
tsún-[n]t-m=es, me7=yist=k
say-DIR-PASS=3SBJV FUT=camp=2SG.SBJ
nen=skw•t•uts̓!
at+DET+1SG.POSS=face•CRED•

He found her a nuisance, and getting angry, he said, Camp on my face, then!

(10) Necwentém te seqwlút.s re mégcen, m-cllgwelctúsen̓tmes. [6]

necw-ent-ém te=seqwlút-s re=mégcen,
believe-DIR-PASS OBL=talk-3POSS DET=moon
m=c-llgw-elc-t-ús-en̓t-m=es.
PAST=LOC-jump-AUT-STAT[?]-face-DIR-PASS=3SBJV

She took him by his word, and jumped on his face.

(11) Yerí7 re stspaq̓emí7s re sem7é7ems, ta7mí7 k stsklleps.

yerí7 re=s=ts-paq̓-emí7=s
COP+that.VIS DET=NMLZ=STAT-get.stuck-all.the.time=3POSS
re=sem7é7em-s, ta7-mí7
DET=wife-3POSS NEG-all.the.time
k=s=ts-k[i]ll-ep=s.
DET=NMLZ=STAT-take.off-INCH=3POSS

And his wife got stuck there for good, she never came off.

[6]The stative suffix *-t* (Kuipers 1974: 62) in *llgw-ilc-t-ús-en̓t-m* is unexpected following the suffix *-ilc* "autonomous", since it normally attaches directly to a root (cf. examples in Kuipers (1974: 55–56)). Daniel Calhoun emphatically pronounced the term with *-t*, whereas Ron Ignace also accepts *llgw-ilc-ús-en̓tm*. The fluent speakers we consulted with think of status forms ending in *-t* as involving a "through and through" or "entirely" meaning. The verb *cllegwelctúsen̓tmes* thus implies that W7éyle jumped on her husband's face entirely covering it.

(12) Ta7 pyin k slecúst.s re mégcen wel tspaq̓tu7smi7 neri7 re sem7é7ems.

ta7	pyin	k=s=lec-ús=ts	re=mégcen	wel
NEG	now	DET=NMLZ=good-face=3POSS	DET=moon	until

ts-paq̓-t-ew̓s-mi7	neri7
STAT-get.stuck-STAT-surface-all.the.time	at+that.VIS

re=sem7é7em-s.
DET=wife-3POSS

The moon no longer has a handsome face, because his wife sat on it for good.

(13) M-n7ék̓ lu7 re mégcen, wel ta7 put k stsekwtsek̓w7úẃis te tspaq̓tu7semi7[7] re sem7é7ems.

m=n<7>ék̓	lu7	re=mégcen,	wel	ta7
PAST=change<INCH>	then	DET=moon	until	NEG

put	k=s=tsekw•tsek̓w-7úẃi=s
exactly	DET=NMLZ=TRED•bright-too=3POSS

te=ts-paq̓-t-ew̓s-emi7	re=sem7é7em-s.
OBL=STAT-get.stuck-STAT-surface-all.the.time	DET=wife-3POSS

He was changed into how the moon looks nowadays, and he is not so bright anymore where his wife sits on his face.

[7] The root *n7ek̓*, which includes the inchoative infix <*7*>, means "he/she/it is changed". The distal deictic *lu7* makes the event perfective, however: "he was changed".

(14) Telrí7 pyin me7 wiktc re W7éyle ne skwt̓ust.s re mégcen, stécken te mím̓cs, ell stskwenstés re cllúqwke7tens. Me7 wiktc ell re stsmelt.s.

telrí7 pyin me7=wik-t-c
from+that.VIS now FUT=see-DIR-2SG.ERG
re=w7éyle ne=skwt̓us-ts re=mégcen,
DET=W7eyle at+DET=face-3POSS DET=moon
stécken te=mím̓c-s,
pack.carried.on.back OBL=large.basket-3POSS
ell s-ts-kwen-st-és
and.then NMLZ-CUST-take-CAUS-3ERG
re=c-llúqw-ke7-ten-s.
DET=LOC-bail-implement-INS-3POSS
me7=wik-t-c ell
FUT=see-DIR-2SG.ERG and.then
re=stsmelt-s.
DET=children-3POSS

You can still see W7eyle sitting on his face with her basket on her back, and holding her birch bark scooper. You can also see his children.

5 Conclusion

Our project of re-claiming narratives by re-conceptualizing and translating *stsptekwll* back into the language from which they originate shows that the Skeetchestn fluent speakers with whom we collaborate use morphology and lexicon that is in-line with Kuipers' research on Western Secwepemctsín (1974, 1989). This is no wonder, since the elders involved in the project acquired the language from the same generation of speakers who were Kuipers' consultants, or even from the parent generation of his consultants. In some instances, the particular forms used by the Skeetchestn speakers throw further light on grammatical forms only broadly explained and likely not fully understood by Kuipers, such as the use of status forms. Further analysis of the additional texts produced by our group will permit further investigation into these and other topics.

In addition, the project's focus on the production of narrative, rather than the deciphering thereof, has contributed to a better understanding of grammar-in-use, and of linguistic choices made by the last generation of first-language speakers of Secwepemctsín, including the use of evidentials, and the alternation between active and passive voice in discourse.

The choices made by speakers in the use of evidentials,[8] for example, clearly

[8] Secwepemctsín uses three evidential markers: "zero" marking of evidence implies that an event was personally experienced; the evidential suffix *ekwe* marks "hearsay" or quotative information; and the evidential suffix *enke* marks information based on physical evidence perceived by the senses (e.g. seeing, smelling). See relevant work for the neighbouring

show that in narration, the quotative *-ekwe* is used at the beginning of a new subject matter, or scene, but not in every stanza or line. By contrast, *-enke* is obligatory in each instance where information is characterized as based on evidence rather than personally experienced.

Salish languages are well known for their elaborate use of subordination in discourse (Kroeber 1999). The short W7éyle story illustrates the use of subordination (conjunctive) verb marking as a way of "talking in paragraphs," or topic tracking that identifies distinct scenes and sequences of events. In particular, stanzas 5, 9 and 10 illustrate how conjunctive pronoun marking involves temporal sequencing, beginning with the propositional statement in the first clause (non-conjunctive) and then moving on to one or more conjunctive clauses, whose clausal ordering reflects the temporal ordering of events.

The short story of W7éyle also shows how speakers intuitively switch back between active and passive voice in narrating different scenes, or events within scenes, from a particular protagonist's point of view, or as experienced by a particular character in the story. Kuipers (1974: 78–9) noticed this "focusing" and "switch-focus" function of the passive in Secwépemc narrative (see also Boelscher [Ignace], 1989). Further detailed analysis of the use of the passive in the body of narratives reconstructed by the Skeetchestn elders will shed additional light on the use of these and other narrative devices.

Last but not least, we hope that the short narrative of W7éyle and other stories produced by the group will enable learners of Secwepemctsín to increase the repertoire of stories that they can tell in the language, and we also hope that it will inspire them to learn more about form, style, plot and cultural context of these *stsptekwll*.

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The truncated reduplication in Twana: Another case of synergistic weakening*

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Abstract: Drachman's (1969) examples of CVC reduplication are reanalyzed to show that the consonant cluster reduction of $C_1C_2C_1 \rightarrow C_2C_1$ that Kim and Gardiner (2016) analyzed under synergy of dissimilation and cluster simplification also occurs in Twana. Twana differs from Tillamook, however, as it also has newly formed surface $C_1C_2C_1$ clusters that do not reduce. The paper explains this inconsistency in consonant cluster reduction by referring to the type of CVC root. Even though the reduplicant vowel is unstressed in reduplications of both strong and weak roots, it is only in the latter that the vowel drops out, allowing early formation and reduction of $C_1C_2C_1$ clusters; the reduplicant vowel in the former, on the other hand, generally weakens to a schwa, except when it occurs between voiceless consonants where it devoices and drops. From this late deletion of reduplicant schwa emerges a new triconsonantal cluster, which remains unreduced because it was formed after the consonant cluster reduction rule has already occurred. Van Eijk's (1998) comparative work on stress patterns for CVC reduplication in Salish languages plays an important role in establishing this alternative explanation to Drachman's often complex rules of cluster reduction, while the remaining changes in the reduplicant shape are explained by interaction of the triconsonantal reduction with rules such as schwa insertion and deletion, assimilation of consonants between members of a cluster, and contraction of the reduplicant schwa with the following /w/ and /y/.

Keywords: CVC reduplication, synergistic weakening, dissimilation, cluster simplification, augmentatives, Tillamook, Twana, Salish

1 Introduction

It has been shown in Kim and Gardiner (2016) that $C_1C_2C_1$ reduces to C_2C_1 in Tillamook augmentative reduplication, by synergy of dissimilation and cluster simplification, as in the following examples from Edel (1939: 15):[1]

* I would like to thank Marianne Huijsmans and the editors at the UBCWPL for letting me go through many versions of the paper and correcting some typological and grammatical mistakes. All errors, however, remain my own responsibility.
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[1] Throughout the paper, reduplicants are boldfaced.

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(1)	Root	Gloss	Reduplicated	Gloss
	tq	'to break'	dʌc-**q**tɛ′q-en	'they tried to break it'
	tł	'to tell'	da s-**ł**tʊ′ł-ɛn	'they went and told him'
	dak'	'to lie'	nic-**k**dʊk' ns-adzʌgil-agă′s	'they put her in their canoe'
	tsq-il	'to climb'	**q**dzʊ′qil	'they climb'
	gał	'eye'	a ns-**ł**gał	'my eyes'
	nica	'to be on	**c**nica-wi′sti	'I lie on my side' the side'
	łaq-il	'to sit'	nc-**q**łʌ′q-il	'he was sitting in it'

The analysis noted that these examples cannot be explained by simple cluster simplification as three (or more) consonant groups are generally permitted in Tillamook, e.g. Ti. *ts-qep-st-és* 'he habitually bandages it'; nor can they be explained by dissimilation, because they do not really meet the condition for Grassmann's Law type of dissimilation. It argued that they arise by a peculiar consonant cluster reduction that occurs when two processes that share the same function of weakening a consonant work together: After loss of the unstressed reduplicant vowel, the process of dissimilation weakens the first of the two identical consonants, and then cluster simplification weakens the pre-weakened consonant further, resulting in its eventual elision. Consider the following derivation of Ti. *dʌc-qtɛ′q-en* 'they tried to break it' and Ti. *nc-qłʌ′q-il* 'he was sitting in it' based on the roots *tq* 'to break' and *łaq-il* 'to sit' respectively:

(2)	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[2]
	qt⁺q-en	qł⁺aq-il	cluster simplification
	qtɛ′q-en	qłʌ′q-il	MR[3]

The goal of this paper is to show that the same synergistic weakening occurs in Twana, which, like Tillamook, also forms its augmentatives by reduplication of the root initial C(V)C.

[2] The symbols '⁻' and '⁺' indicate 'weakening' and 'strengthening', respectively. For the mechanism of dissimilation as 'strength fluxion' in which the first of two similar consonants weakens with concomitant strengthening of the second consonant, see Kim (1991) and Foley (1981). For more examples of consonant cluster reduction occurring under synergy of dissimilation and cluster simplification, see Kim (1991, Ch. 2). For the roles that strengthening and weakening play in phonological theory, see Foley (1977).

[3] 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.

That Tillamook and Twana share the same consonant cluster reduction has already been noted by Thompson and Thompson (1985: 145, fn. 7):

> The details of a similar formation [of the truncated augmentative] in Twana have been worked out by Drachman (1969: 53ff), and it seems likely that similar constraints govern the cases in Tillamook. It is conceivable that the truncation rules in these two languages are historically related, but this can be determined only after the historical development of both is more fully understood…

Moreover, as mentioned in the quotation, Drachman (1969) himself knew that a form of similar consonant cluster reduction is in operation in Twana augmentatives, even though he did not define the process as 'synergistic weakening' by dissimilation and cluster simplification.

In this paper I reanalyze Drachmann's examples of consonant cluster reduction in Twana augmentative reduplication and show how they are subsumed under the simple rule of $C_1C_2C_1 \rightarrow C_2C_1$. Particularly important in this reanalysis is the stress pattern in reduplicating stem types in Salish languages, as described by van Eijk (1998: 460). In CVC reduplications of weak roots (WR), the reduplicant vowel is generally unstressed, so that it elides in languages like Twana, forming clusters of the type $C_1C_2C_1$, the first consonant of which then drops by the above rule of consonant cluster reduction. In reduplications of strong roots (SR), on the other hand, the reduplicant vowel, being stressed, is generally maintained in Salish languages. But in Twana, the stress generally moves to the second syllable of the reduplicative stem, so that the reduplicant vowel of strong roots that has just been bereft of its stress weakens to a schwa. Having been once stressed, this weakened schwa never drops in Twana except when it comes between voiceless consonants where it is devoiced and elides. It is thus only in reduplications of weak roots in Twana that the cluster reduction of $C_1C_2C_1 \rightarrow C_2C_1$ is observed, while elision of the weakened schwa between voiceless consonants in strong roots gives rise to new surface $C_1C_2C_1$ clusters to which the cluster reduction rule fails to occur. This alternative explanation of Twana augmentatives is not only simpler and more insightful than Drachman's rules[4] but it also shows how insights gained from a typologico-comparative description can help explain the problems that arise in synchronic phonology and morphology of reduplication.

[4] While Drachman (1969) provides us with precious data for CVC reduplication in Twana, the only reliable reference in existence, his rules of cluster reduction are often complex and sometimes even ad hoc; I have therefore generally refrained from referring to them directly, preferring instead to expose the alternative rules and let them speak for themselves.

2 The CVC reduplication in Twana augmentatives: truncation by synergy of dissimilation and cluster simplification.

As in Tillamook (Kim & Gardiner 2016; Edel 1939), Twana also exhibits unusual C_2-reduplication which at first glance appears to attach to the 'wrong side' (cf. Nelson 2005). Consider (3) in which the reduplicated C_2 appears to attach to the prefixal position rather than the usual suffixal position:[5]

(3)	Unaugmented	Augmented	Gloss
	sóq̓ʷay	**q̓ʷ**-sóq̓ʷay	'elder sister'
	s-teqéw	s-**q**-téqaw	'horse'
	s-təq	s-**q**-təq	'logjam'
	ʔas-báx̣	ʔəs-**x̣ə**-báx̣	'worn out'
	bəqsəd	**qə**-bə́qsəd	'nose'
	wəq̓əb	**q̓ə**-wə́q̓ab	'box'

There is, however, nothing unusual about this reduplication once we realize that this is just another case of truncated reduplication in which consonant clusters of the type $C_1C_2C_1$ reduce to C_2C_1 under synergy of dissimilation and cluster simplification, as has been reported in detail by Kim and Gardiner (2016) for Tillamook augmentatives. The only difference for the examples in (3) from those of Tillamook in (1) is that a schwa sometimes appears between C_2 of the reduplicant and the following C_1 of the root, as in the last three examples. This anaptyctic schwa is also predictable, as it occurs only when the two consonants are not voiceless: note the first three examples where the insertion fails to occur, or more precisely, it occurs but elides at once because the schwa is surrounded by voiceless consonants. Consider the following comparative derivation of *q̓ʷ-sóqʷay* < **soq̓ʷ-sóq̓ʷay*[6] and *ʔəs-x̣əbáx̣* < **ʔas-bax̣-báx̣*:

(4)	soqʷ-sóq̓ʷay	ʔas-bax̣-báx̣	
	sqʷ-sóq̓ʷay	ʔas-bx̣-báx̣	unstressed reduplicant vowel loss
	qʷ-sóq̓ʷay	ʔas-x̣-báx̣	synergistic weakening: $C_1C_2C_1 \rightarrow C_2C_1$
	——	ʔas-x̣ə-báx̣	anaptyxis: $\#C_2C_1 \rightarrow \#C_2əC_1$
	——	ʔəs-x̣ə-báx̣	MR[7]

For this explanation to be convincing, examples such as (5) have to be considered, as the triconsonantal clusters formed by loss of the unstressed vowel in the reduplicant remain unreduced, seemingly denying the reduction rule itself:

[5] The data for Twana augmentative reduplication in this paper are entirely from Drachman (1969), which I have reorganized as befits the reduplicative stem types and their phonological behavior.

[6] Asterisks are used to indicate an underlying or etymological form.

[7] The prefix *ʔas-* appears as *ʔəs-* in reduplicated forms.

(5)	Unaugmented	Augmented	Gloss
	s-tə́čəd	s-**tč**-tə́čəd	‘slave’
	s-p̓ə́čo	s-**p̓č**-p̓ə́čo	‘berry-basket’
	šóλ̓	**šλ̓**-šóλ̓	‘grind’
	š-čótax̬	š-**čt**-čótax̬	‘halibut’

In examples such as (6), on the other hand, the C_1VC_2 of the root is faithfully repeated with the unstressed reduplicant vowel weakened to a schwa:

(6)	Unaugmented	Augmented	Gloss
	bə́də(h)	**bəd**-bə́də(h)	‘child’
	łób	**łəb**-łób	‘scar’
	bále(h)	**bəl**-bále(h)	‘roe, bait’
	yəlʔə́x̬	**yəlʔ**-yə́lʔəx̬	‘gather’
	q̓^{w}əláde(h)	**q̓^{w}əlʔ**-q̓^{w}ə́lde(h)	‘ear’
	sélə(h)	**səlʔ**-sélə(h)	‘grandfather’
	wədáwʔ	**wədʔ**-wə́dawʔ	‘horn’
	yədes	**yədʔ**-yə́das	‘tooth’

Note that unlike those in the last three examples of (3), the schwa in the reduplicant of these examples cannot have been inserted by anaptyxis. For, if that were the case, the cluster $C_1C_2C_1$ formed by prior loss of the reduplicant vowel should also have been reduced, and the schwa must have appeared between C_2 and C_1, as in ***¢də-bə́də(h)***, ***¢bə-łób***, etc.,[8] rather than between C_1 and C_2 as in *bəd-bə́də(h)*, *łəb-łób*, etc. This indicates that the unstressed reduplicant vowel, copied from the base by the mechanism of reduplication, has only weakened to a schwa rather than eliding. Since $C_1C_2C_1$ clusters do not reduce in the augmentatives of (5), the same schwa must have been present, except that it has subsequently dropped between voiceless consonants.[9] Consider the following derivation:

[8] The symbol ‘¢’ indicates an incorrect form; the asterisk is reserved to indicate an underlying or etymological form (see footnote 6).

[9] I presume that the schwa, surrounded by two voiceless consonants, first devoices and then drops. This assumption is plausible because such devoicing will leave only an /h/-like sound, a weak consonant that often drops in an unstressed syllable, e.g. ‘a’ history teacher but ‘an’ historical novel. This must be the [h] that has sometimes been reported to occur in initial voiceless clusters in some Salish languages such as Puget Sound Salish, e.g. [t^{h}sósəd] ‘punch someone in the face’ beside [tə́səd] ‘Punch someone!’ (Urbanczyk 1996: 122; Snyder 1968); and Moses-Columbian (Nxaʔamxcín), e.g. [p^{h}tíx̬^{w}] ~ [p^{ə}tíx̬^{w}] ‘spit’ and [xλ̓út] ~ [x$^{ə}\lambda$̓út] (Czaykowska-Higgins and Willett 1997: 394). The preconsonantal fricative absorbs the aspiration in the latter example; note the same deaspiration in English abstract noun suffixes, e.g. *depth*, *health*, *length*, but *gift*, *frost*, *height*, etc. (cf. Foley 1990). An extended version of the same schwa elision occurs in English, e.g. *suppose* [səpóʊ̯z] ~ [spóʊ̯z], *potato* [pət^{h}éɪ̯ro] ~ [pt^{h}éɪ̯ro], *correct* [kərékt] ~ [krékt], *police* [pəlís] ~ [plís], etc (Kaisse & Shaw 1985: 6) For evidence of the close

(7)	šoɬ̓-šóɬ̓	sel-sélə(h)	
	šəɬ̓-šóɬ̓	səl-sélə(h)	weakening of unstressed reduplicant vowel
	——	——	synergistic weakening: $C_1C_2C_1 \rightarrow C_2C_1$
	šɬ̓-šóɬ̓	səl-sélə(h)	schwa deletion (between voiceless consonants)
	——	səlˀ- sélə(h)	resonant glottalization[10,11]

Why does the reduplicant vowel drop in the augmentatives of (3), but remain as a schwa in those of (5) and (6), even though the reduplicant is generally unstressed in both? What distinguishes the examples of (3) that undergo cluster reduction from those of (5) and (6) that do not? These questions are important because, as one can see by comparing the derivations in (4) and (7), the synergistic weakening of $C_1C_2C_1 \rightarrow C_2C_1$ crucially depends on prior loss or retention of the reduplicant vowel: Its loss feeds the reduction as in (4), but its retention bleeds it as in (7).

According to van Eijk (1998:460), CVC reduplications in Salish generally fall into two patterns of stress assignment: (a) the stress falls on the CVC prefix; (b) the stress remains on a later syllable, i.e., on the root or on a suffix. Some roots choose the first pattern, others the second. While roots choosing the second pattern (weak roots, abbr. WR) uniformly have the stress on the syllable after the second consonant of the base, roots choosing the first pattern (strong roots, abbr. SR) vary their stress position, with stress falling on the reduplicative CVC prefix in some languages (*Type 1*) but on the base itself in others (*Type 2*). There are also languages that vary between the two patterns (*Type 3*).

relationship between aspiration and voiceless vowel, consider that in spectrograms of aspirated stops in English, vowel formants without voicing are sometimes visible for the duration of aspiration between the stop burst and the onset of voicing in the following vowel, e.g. Eng. pa[pʰa] ~ [pḁa] (cf. Kim 2016: 107).

[10] This rule generally occurs in CVC reduplications of the roots with a resonant. It however has a number of exceptions, as in *bəl-bále(h)*, not *¢bəlˀ-bále(h)* ‘roe, bait (PL)’.

[11] Throughout the paper, two symbols have been used to indicate a glottal stop: ‘ʔ’ when it is phonemic but ‘ˀ’ when it is derived by a phonological rule such as resonant glottalization, as in this case.

Table 1 Types of stress patterns in Salish CVC reduplication (cf. van Eijk 1998: 460)

stress assignment / type of reduplication	CV́C (..)[SR]	C(V)CV́ [WR]
1)	CV́C-CVC(..)	CVC-C(V)CV́ (CVC-CV́CV-Tw)
2)	CVC-CV́C(..)	
3)	CV́C-CVC(..) ~ CVC-CV́C(..)	

Van Eijk lists Lushootseed, Upper Chehalis, and Coeur d'Alene under *Type 1* languages; Shuswap and a host of other Interior and Coast Salish languages under *Type 3*;[12] and Twana as the only language under *Type 2*. As a pure *Type 2* language, Twana has the main stress on the base in the CVC reduplications of both strong and weak roots, moving the stress to the first vowel of the base if it is not there.[13]

The foregoing discussion suggests that *Type 1* was perhaps the original stress pattern for CVC reduplication in Salish languages in general, and *Type 2* developed from this original pattern by moving the stress to the base for the strong root reduplication, while in the weak roots the original stress on the base was maintained with the pretonic unstressed vowel often elided, except in Twana where the stress moves to the first syllable of the base in the CVC reduplications of both strong and weak roots.

Since no reduction of $C_1C_2C_1 \rightarrow C_2C_1$ occurs in strong root reduplication, we can hypothesize that the above movement of stress in Twana occurs quite late, after the synergistic weakening by dissimilation and cluster simplification has reduced the triconsonantal cluster in the reduplication of weak roots. Consider the comparative derivation of canonical forms:

[12] These include: Thompson, Okanagan, Kalispel-Spokane-Flathead, Halkomelem, Lillooet, Squamish, Sechelt, Saanich (Straits), and Columbian (Nxaʔamzcín). Bella Coola and Comox, which fall outside of these patterns, remain unclassified.

[13] Van Eijk attributes this movement of the stress to the strong tendency in Twana to stress the second syllable (cf. van Eijk 1998: 475, fn. 9).

(8)	$C_1\acute{V}C_2$-C_1VC_2X [SR]	C_1VC_2-$C_1\acute{V}C_2X$[14] [WR]	
	——	C_1C_2-$C_1\acute{V}C_2X$	reduplicant vowel loss
	——	C_2-$C_1\acute{V}C_2X$	$C_1C_2C_1 \rightarrow C_2C_1$
	C_1VC_2-$C_1\acute{V}C_2X$	——	stress movement
	$C_1əC_2$-$C_1\acute{V}C_2X$	——	reduplicant vowel weakening
	——	$C_2ə$-$C_1\acute{V}C_2X$	anaptyxis (C_1&C_2 ≠ voiceless)
	C_1C_2-$\dot{C}_1\acute{V}C_2X$	——	schwa deletion (C_1&C_2 = voiceless)
	(šɬ̓-šóɬ̓ < *šóɬ̓-šoɬ̓)	(qə̓-wəq̓ab < *wəq̓-wəq̓ab)	

A drawback of this explanation is that the stress movement, which occurs as part of reduplicative stem formation, applies after the phonological rules such as reduplicant vowel loss and cluster reduction of $C_1C_2C_1 \rightarrow C_2C_1$. This is undesirable as such ordering goes against the general principle that morphology precedes phonology in derivation. The root of the problem is that we know very little about how the stress pattern developed in the reduplicative stems of Salish languages. Nevertheless, there seems to be no doubt that it plays an important role in yielding the different outcome of consonant cluster reduction in reduplications of strong vs. weak roots.

As an alternative, we may reason that the schwa in the reduplicant generally maintains in strong roots because when the stress moves to the base in type 2) languages, it leaves a trace, in the form of a secondary stress, so that the reduplicant vowel in strong roots does not drop but only weakens to a schwa:

(9)	$C_1\acute{V}C_2$-C_1VC_2X [SR]	C_1VC_2-$C_1\acute{V}C_2X$ [WR]	
	$C_1\grave{V}C_2$-$C_1\acute{V}C_2X$	——	stress movement with sec. stress
	$C_1əC_2$-$C_1\acute{V}C_2X$	C_1C_2-$C_1\acute{V}C_2X$	reduplicant vowel weakening
	——	C_2-$C_1\acute{V}C_2X$	$C_1C_2C_1 \rightarrow C_2C_1$
	——	$C_2ə$-$C_1\acute{V}C_2X$	anaptyxis (C_1&C_2 ≠voiceless)
	C_1C_2-$\dot{C}_1\acute{V}C_2X$	——	schwa deletion (C_1&C_2 = voiceless)
	(šɬ̓-šóɬ̓ < *šóɬ̓-šoɬ̓)	(qə̓-wəq̓ab < *wəq̓-wəq̓ab)	

In this explanation, morphology does precede phonology, but there seems to be little evidence supporting such secondary stress in Twana.[15]

With no other alternative currently available, we leave the problems as they are for the future, and turn now to the cases that still remain puzzling in spite of the explanations in (8) and (9). These occur mostly at the interface of morphology and phonology, between reduplicative stem formation and the ensuing phonological rules that shape the reduplicant.

[14] 'X' refers to whatever follows after the C_1VC_2.

[15] Note that Drachman (1969: 49 and passim) also frequently refers to 'secondary stress' to explain certain vowel changes, even though there is no overt evidence for it.

3 Rule interactions

3.1 $C_1C_2VC_3X$ roots

These roots begin with two voiceless consonants in the unaugmented form and they regularly reduplicate as if the underlying root is *$C_1əC_2VC_3X$, with an etymological schwa between the two voiceless consonants. As predicted, strong roots keep the triconsonantal cluster, reduplicated as *C_1C_2-$C_1ə́C_2VC_3X$, while weak roots reduce it, as *C_2- $C_1ə́C_2VC_3X$:

(10)	Unaugmented	Augmented	Gloss
	ʔəs-qʷtáxʷ	ʔəs-**q̓ʷt**-q̓ʷətaxʷ	‘thin’ (SR)
	s-xp̓áb	s-**xp̓**-xə́p̓ab	‘cockle’ (SR)
	ʔəs-pqʷéqʷad	ʔəs-**pq̓ʷ**-pə́q̓ʷqʷəd	‘feather in hair’ (SR)
	š-c̓táy	š-**c̓t**-c̓ə́tay	‘pan’ (SR)
	s-pqálšəd	s-**pq**-pə́qalšəd	‘foot’ (SR)
	kʷtábac	**kʷt**-kʷə́təbəc	‘husband’ (SR)
	s-sq̓áče(h)	s-**q̓**-sə́q̓če(h)	‘finger’ (WR)
	s-łq̓áx̣ad	s-**q̓**-łə́q̓x̣əd	‘arm’ (WR)
	s-łqʷə́qs	s-**q̓ʷ**-łə́q̓ʷqs	‘nostril’ (WR)
	ʔəs-cx̓ʷálas	ʔəs-**xʷ**-c̓ə́xʷəlʔəs	‘steamed’ (WR)
	ʔəs-tqócad	ʔəs-**q**-tə́qcədəxʷ	‘closed’ (WR)
	s-ckábšəd	s-**k**-cə́kabšəd	‘shin’ (WR)
	tkʷápšəd	**kʷ**-tə́kʷapšəd	‘shoe’ (WR)

In the reduplication of the following weak root, on the other hand, regressive assimilation and subsequent degemination between C_2 of the reduplicant and C_1 of the base further reduces the cluster with the stressed schwa left as the only mark for the augmentative as illustrated in (12):

(11)	Unaugmented	Augmented	Gloss
	š-č̓éc̓aʔesəd	š-**č̓**éc̓aʔesəd	‘eyebrow’ (WR)

(12)	s-č̓əc̓-č̓éc̓aʔesəd	
	s-č̓c̓-č̓éc̓aʔesəd	loss of reduplicant schwa
	s-c̓-č̓éc̓aʔesəd	synergistic weakening: $C_1C_2C_1 \rightarrow C_2C_1$
	s-c̓-č̓éc̓aʔesəd	assimilation: c̓-č̓ → č̓-č̓
	s-č̓éc̓aʔesəd	degemination: č̓-č̓ → č̓
	š-č̓éc̓aʔesəd	palatal assimilation of s-č̓ → š-č̓

For evidence supporting the underlying etymological schwa between the voiceless consonants in the roots, note first that some of the bases in (10) appear

with a schwa between the first and the second consonant in Kuipers' (2002) reconstruction:[16]

(13)	Unaugmented	Gloss	Kuipers (2002)	
	ʔəs-pq̓ʷéqʷad	'feather in hair' (SR)	*pəq̓ʷ/kʷ	'to scatter; powder'
	ʔəs-tqócad	'closed' (WR)	*təq	'to obstruct'

Secondly, Kuipers (2002) also cites some of the Twana forms above with a schwa between the two voiceless consonants:

(14)	Unaugmented	Gloss	Kuipers (2002)	
	ʔəs-tqócad	'closed' (WR)	təqə́d	'close it'
	kʷtábac	'husband' (SR)	kʷətábac	'husband'

Finally, the assumption that an underlying schwa is present between the two voiceless consonants in the unaugmented forms of (10) is also consistent with our earlier postulation on the stress pattern in Twana: stress generally falls on the second syllable of reduplicative stems in CVC reduplications of both strong and weak roots. With the underlying schwa present between C_1 and C_2 of the root, moving the stress from its original position after C_2 to the interconsonantal schwa in the root automatically puts the stress on the second syllable of the reduplicative stem, even though the reduplicated schwa eventually drops in both strong and weak forms; in the strong forms, between voiceless consonants; in the weak forms, by the early rule dropping unstressed reduplicant vowel. It is thus reasonable to assume an unstressed etymological schwa between the two voiceless consonants that begin these $C_1C_2VC_3X$ roots.

3.2 C_1VC_2X roots with /w/ or /y/ as C_2

Most of the roots in (15) are strong; they thus exhibit no triconsonantal cluster reduction, except the last one, which, as a weak root, reduces the cluster with subsequent schwa insertion. Since the root in this class ends with a resonant, most of the reduplicants show glottalization at its end, though there are exceptions:

[16] However, these two were the only ones that I could find in his etymological dictionary.

(15)	Unaugmented	Augmented	Gloss
	łáwalbəš	**łoʔ**-łáwalbəš	‘person, Indian’ (SR)
	q̓əwəʔáče(h)	**q̓oʔ**-q̓áʔwače(h)	‘cane, walking-stick’ (SR)
	dəʔwat	**do**-dəʔwat	‘wave, surf’ (SR)
	t̓áwʔ	**t̓oʔ**-táw	‘mussel’ (SR)
	šáwʔ	**šoʔ**-šáwʔ	‘bone’ (SR)
	kəyə(h)	**keʔ**-kəyə(h)	‘grand-mother’ (SR)
	kʷóy	**kʷeʔ**-kʷóy	‘bend’ (SR)
	kʷ̓óy	**kʷ̓eʔ**-kʷ̓óy	‘mother’ (SR)
	s-c̓áʔyat	s-**c̓eʔ**-c̓áʔyat	‘salmon-gill’ (SR)
	ʔas-ʔəyʔ	ʔəs-**yə**-ʔəyʔ	‘paid’ (WR)

These forms are peculiar as /e/ and /o/ appear in the reduplicants of the strong roots, instead of the usual schwa expected from weakening of the unstressed reduplicant vowel. Note that this vowel change is not observed in the last form, *ʔəs-yə-ʔəyʔ* ‘paid’, which, as a weak root, exhibits the triconsonantal reduction and schwa insertion. Drachman (1969: 57) explains this appearance of the reduplicant vowel by vocalization of /w/ and /y/ between consonants, to /o/ and /e/ respectively. But such a rule necessitates loss of the reduplicant vowel not only in weak roots but also in strong roots:

(16)	ław-łáwalbəš	kʷ̓oy-kʷ̓óy	
	łw-łáwalbəš	kʷ̓y-kʷ̓óy	loss of the reduplicant vowel
	ło-łáwalbəš	kʷ̓e-kʷ̓óy	vocalization of /w/ and /y/
	łoʔ-łáwalbəš	kʷ̓eʔ-kʷ̓óy	glottalization

As we have shown repeatedly, however, the reduplicant vowel does not drop in strong roots, unless it is between voiceless consonants. The correct rule then is not vocalization of /w/ and /y/ in interconsonantal position but rather contraction of /əw/ to /o/ and /əy/ to /e/:

(17)	łàw-łáwalbəš	kʷ̓òy-kʷ̓óy	
	łəw-łáwalbəš	kʷ̓əy-kʷ̓óy	vowel weakening to /ə/
	łəwʔ-łáwalbəš	kʷ̓əyʔ-kʷ̓óy	resonant glottalization
	łoʔ-łáwalbəš	kʷ̓oʔ-kʷ̓óy	contraction: əw → o, əy → e

There are a number of reasons to prefer the analysis in (17) over the analysis in (16). First, what Drachman says in essence is that the unstressed reduplicant vowel drops in all CVC reduplications and a schwa is inserted between two consonants unless both of these consonants are voiceless, or the C_2 of the reduplicant is /w/ or /y/: In the former case the inserted schwa drops via devoicing, while in the latter case the interconsonantal /w/ and /y/ vocalize to /o/ and /e/. But this assumption runs into problems because according to his rule, schwa should be inserted in reduplications of /w/- and /y/-final roots as well.

Second, in the following form, the supposed vocalization of /y/ to /e/ seems to occur even though it is not in interconsonantal position:

(18)	Unaugmented	Augmented	Gloss
	t̓káyas	*k-t̓ə́kʷəs*	‘basket’ (WR)

As the augmented form shows, the root here is **tək,* which occurs with a lexical suffix *-áyas* ‘round object’; but the underlying /y/ of this suffix surfaces only in the unaugmented form *t̓káyas*. It seems to have converted into /e/ in the augmented form *k-t̓ə́keʾəs*, even though it is not between consonants at all. This suggests that a contraction of /əy/ to /e/ has occurred from the underlying form **t̓ək-t̓ək-áyas*. The reduplicant of this weak root is shaped by loss of the reduplicant vowel with subsequent reduction of the triconsonantal cluster. With the interconsonantal schwa present in this typical $C_1C_2VC_3X$ root, the stress moves to the second syllable of the reduplicative stem, weakening the once stressed /a/ to a schwa, which contracts with the following /y/ to give /e/. A glottal stop is then inserted between two vowels, as it often does in many languages to break up a hiatus. This example strongly suggests that the /o/ and /e/ in the reduplicants of strong roots in (15) occur not because /w/ and /y/ vocalized between consonants but because the schwa that appeared by weakening of the copied root vowel has undergone contraction with them.

A similar contraction rule can be inferred by comparative analysis of the following forms:[17]

(19)	Thompson	Lillooet	Gloss
	ciy-kst	cil-kst	‘five’
	cíy-cikst	n-**cíl**-cl-əkst	‘five people’
	ɬ’áq’-m-ekst	ɬ’áq’-əm-kst	‘six’
	ɬ’áq’-ɬ’əq-m-ekst	n-**ɬ’áq’**-ɬ’q’-əm-kst	‘six people’

The data shows that with stress falling on the reduplicant, Thompson and Lillooet both weaken the unstressed base vowel to a schwa; this weakened schwa drops in Lillooet though not in Thompson, as the examples for ‘six people’ in the last line testify. But neither this schwa nor the following /y/ show up in the base of Thompson *cíy-cikst* ‘five people’. This is because the two have undergone contraction to become /i/. Consider the following derivation:

(20)	ɬ’áq’-ɬ’aq-m-ekst	cíy-ciy-kst	
	ɬ’áq’-ɬ’əq-m-ekst	cíy-cəy-kst	unstressed base vowel weakening
	——	cíy-ci-kst	contraction: /əy/ → /i/

3.3 C_1VC_2X roots with /w/ or /y/ as C_1

Both types of reduplication occur with C_1VC_2X roots with /w/ or /y/ as C_1. Strong roots reduplicate without triconsonantal reduction, weak roots with it:

[17] Data cited from van Eijk (1998: 457); Thompson & Thompson (1992: 189). Note /y/ in Thompson corresponds to /l/ in Lillooet, as in the examples for ‘five’ in the first line.

(21)	Unaugmented	Augmented	Gloss
	wədáwʔ	**wədʔ**-wədaw	‘horn’ (SR)
	wələp	**wəlʔ**-wəlap	‘you’ (SR)
	yədés	**yədʔ**-yədas	‘tooth’ (SR)
	s-yələb	s-**yəlʔ**-yəlab	‘year’ (SR)
	wəq̓əb	**q̓ə**-wəq̓ab	‘box’ (WR)
	wəq̓ʷətəb	**q̓ʷə**-wəq̓ʷətəb	‘drifted’ (WR)
	yášqšče	**šeʔ**-yášqšče	‘long finger’ (WR)
	ʔas-yəxʷ	ʔəs-**xʷeʔ**-yəxʷ	‘disappeared’ (WR)
	ʔas-yəx̣	ʔəs-**x̣eʔ**-yəx̣	‘sorted’ (WR)
	ʔas-yəq̓	ʔəs-**q̓e**-yəq̓	‘filed’ (WR)
	ʔəs-yəq̓ʷáče(h)	ʔəs-**q̓ʷe**-yəq̓ʷče(h)	‘washed hand’ (WR)

The main issue with these forms is in the last six examples, in which /e/ occurs where we expect an inserted schwa. Interestingly, Drachman (1969: 228) also gives the following examples, which, unlike those in (21), occur with a schwa inserted instead of /e/ between C_2 and C_1:

(22)	Unaugmented	Augmented	Gloss
	yəq̓ósadəxʷ	**q̓ə**-yəq̓səsəxʷ	‘file’ (WR)
	yəq̓ʷáče	**q̓ʷə**-yəq̓ʷče	‘wash hand’ (WR)
	yóq̓ʷayʔdəxʷ	**q̓ʷə**-yóq̓ʷəyəb	‘rotten’ (WR)

As the glosses indicate, the first two of these obviously share the same roots with the last two examples of (21), which suggest that the schwa inserted by anaptyxis is in variation with /e/ before /y/. Perhaps this fluctuation of anaptyctic schwa is most evident in the augmentative of the following weak root, for which Drachman (1969: 37) gives three variants:

(23)	Unaugmented	Augmented	Gloss
	yəšəd	**šeʔ**-əšad ~ **šəʔ**-yəšad ~ **še**ʔ-yəšad	‘foot’ (WR)

Of these, the last two examples show the variation between the inserted schwa and /e/, while the first shows the contraction of the inserted schwa with the root initial /y/ into /e/, something we have not seen in the preceding examples but that which also occurs in the following example (Drachman 1969: 229):

(24)	Unaugmented	Augmented	Gloss
	ʔasə-ʔyášədəb	ʔəš-**šəʔ**-yášədəb ~ ʔəš-**še**ʔ-ášədəb	‘carry on back’ (WR)

There are also examples in which /yə/ is in free variation with /e/, e.g. (Drachman (1969: 74 & 114):

(25)	Unaugmented	Augmented	Gloss
	s-yoʔés ~ s-yəʔwés ~ s-eʔwés	s-**yoʔ**-yə́was	‘wood’ (SR)
	yəq̓wólʔwəltxʷ ~ eq̓wólʔwəltxʷ	(**q̓ʷə**-yə́q̓ʷče)[18]	‘washing the house’ (WR)

Unaugmented s-yoʔés and augmented *s-yoʔ-yə́was* in the first line of examples show contraction of /əw/ to /o/,[19] while the rest show the free variation /yə/ ~ /e/.

3.4 C_1VC_2X roots with /ʔ/ or /h/ as C_1

The most salient feature in reduplication of C_1VC_2X roots with /ʔ/ or /h/ as C_1 is that they show identical vowels across the laryngeal. Consider:

(26)	Unaugmented	Augmented	Gloss
	ʔáx̣cəd	**x̣a**-ʔáx̣əd	‘bed’ (WR)
	ʔélal	**le**-ʔélal ~ **lə**-ʔélal	‘sing’ (WR)
	ʔaléš	**la**-ʔálaš ~ **lə**-ʔálaš	‘sister’ (m. speaker) (WR)
	ʔébac	**be**-ʔébac	‘grandchild’ (WR)
	ʔas-hóbšəd	ʔəsə-**bo**-hóbšəd	‘red-foot’ (WR)
	ʔas-ʔə́yʔ	ʔəs-**yə**-ʔə́yʔ	‘paid’ (WR)
	həlɛ́	ʔəs-**lə**-hə́le-ɬ	‘alive, we’re alive’ (WR)

Since these are all weak roots, the schwa that appears as the reduplicant vowel in the alternate forms of *lə-ʔélal* and *lə-ʔálaš* must have been inserted and later assimilated to the following root vowel across the laryngeal. To maintain this hypothesis, however, the schwa insertion rule should be allowed to occur between a voiceless consonant and a glottal stop, which is voiceless. With no better alternative at hand, it is perhaps a solution that one can gladly entertain until a better one is available in the future.

3.5 C_1VC_2X roots with /ʔ/ as C_2

These roots are all strong. Thus, they occur with no triconsonantal cluster reduction in the augmented form. The root vowel /ə/ changes to /o/ and the glottal stop disappears in the reduplicant, perhaps to avoid its repetition.

[18] No augmented form was given by Drachman for this example, but this form from (23) has been filled in to show that the root is *yə́q̓ʷ* ‘wash’ and begins with /yə/.

[19] This must have occurred after metathesis of *ʔw* to *wʔ*, the glottal stop having been attracted by the stress in the following vowel.

(27)	Unaugmented	Augmented	Gloss
	qʷɔ́ʔ	**qʷo**-qʷɔ́ʔ	‘water; river’ (SR)
	dɔ́ʔ	**do**-dɔ́ʔ	‘rotten’ (SR)
	čáʔləš	**ča**-čáʔləš	‘branch’ (SR)
	dáʔšəd	**da**-dáʔšəd	‘foot-print’ (SR)
	q̓áʔbe	**q̓a**-q̓áʔbe	‘girl’ (SR)

Interestingly, Drachman (1969: 111) gives another form without the glottal stop for ‘foot-print’, which reduplicates as a weak root:

(28)	Unaugmented	Augmented	Gloss
	dášəd	**šə**-dášəd	‘foot-print’ (WR)

The same vowel change and loss of glottal stop are observed in *sqʷoqʷɔ́ʔbəš* ‘Skokomish’, analyzed as *s-qʷo-qʷɔ́ʔ-bəš* ‘river people’ (Drachman 1969: 111).

There are two questions that have to be answered with regard to the reduplication in (27): 1) why does the glottal stop disappear? 2) why does the reduplicant vowel remain rather than weaken to a schwa, despite being based on strong roots? Perhaps the first question can be answered by referring to dissimilation between laryngeals, that the glottal stop elides to avoid repetition. But then we have also seen many cases where such a rule does not apply. For the second question, Drachman (1969: 110) attributes the retention of the vowel to the loss of the glottal stop, but there seems to be no phonological reason for it. Further investigation of the matter is called for.

Finally, note that in the following forms, not glottal stops but /w/ and /y/ occur as C_2 of the roots, which contract with the weakened reduplicant schwa to give /o/ and /e/ respectively. The underlying forms are thus as in (30):

(29)	Unaugmented	Augmented	Gloss
	dəʔwat	do-dəʔwat	‘wave’ (SR)
	c̓áʔyat	c̓eʔ-c̓áʔyat	‘fish gill’ (SR)

(30)	Unaugmented	Augmented	Gloss
	*dəwʔat	*dəw-dəwʔat	‘wave’
	*c̓áyʔat	*c̓əy-c̓áyʔat	‘fish gill’

A metathesis of /w/ and /y/ with the following glottal stop must have occurred, due to the glottal attraction by the stressed vowel (Drachman 1969: 108ff). In the following unaugmented forms, the same metathesis rule, occurring optionally, puts the schwa and /w/ in direct contact, allowing them to contract to /o/. In the augmented forms, on the other hand the weakened reduplicant schwa

undergoes obligatory contraction with /w/, while the glottal stop in the base drops rather than occurring adjacent to the glottal stop in the reduplicant:[20]

(31)	Unaugmented	Augmented	Gloss
	čəʔwás ~ čoʔás	čoʔ-čə́waš	'wife' (SR)
	šəʔwáł ~ šoʔáł	šoʔ-šə́wał	'road' (SR)

4 Conclusion

It is confirmed that Twana has the same synergistic weakening by dissimilation and cluster simplification that have been claimed to occur in Tillamook by Kim and Gardiner (2016): it shares the same cluster reduction of $C_1C_2C_1 \rightarrow C_2C_1$ with Tillamook, but differs from it in having surface $C_1C_2C_1$ clusters that appear to deny the existence of the reduction rule itself. It is argued that these clusters arise due to late elision of schwa between two voiceless consonants in reduplication of strong roots, which unlike in reduplication of weak roots generally maintain the vowel in the reduplicant. Other eccentricities in reduplicant shapes are explained by analyzing rules that interact at the interface of morphology and phonology, rules such as the stress placement in reduplicative stems, schwa insertion and deletion, assimilation of consonants between members of a cluster, and contraction of the reduplicant schwa and following /w/ or /y/.

One of the difficulties in drawing up the above analysis has been the problem of identifying the origins of various schwas that appear the same in the surface phonetic description. This, of course, is an old problem in Salish linguistics that has been noted a number of times by previous scholarship (Kuipers 1974; Urbanczyk 1996; Kinkade 1997; Czaykowska-Higgins and Willett 1997; Blake 2000). In Twana CVC reduplication, I have detected three kinds of schwas directly related to analyzing the shape of the CVC reduplicant: the etymological, the lenited, and the anaptyctic.

Even though these schwas appear the same on the surface, their different behavior in phonological analysis is obvious on many fronts. The etymological schwa does not show up in the $C_1C_2\acute{V}C_3X$ roots because the underlying schwa elides between two voiceless consonants; it emerges only when it occurs as the stressed radical vowel in reduplication of this root class, for both strong and weak roots. The lenited schwa occurs as an unstressed reduplicant vowel, which drops in weak roots but never does in strong roots, except when it occurs between two voiceless consonants. The anaptyctic schwa, on the other hand, is inserted between two consonants to meet syllabification conditions. This inserted schwa occurs still later, after phonological rules have acted on the

[20] The disappearance of the underlying glottal stop, however, is problematic and left for future research.

preceding two kinds. This schwa also drops when it occurs between voiceless consonants, yielding new triconsonantal clusters that do not reduce. [21]

Identifying when the schwa drops in the reduplicant is therefore crucial in unearthing the causes of consonant cluster reduction: if it drops early, as in the case of the etymological schwa and the lenited schwa in the weak roots, reduction of $C_1C_2C_3 \rightarrow C_2C_3$ ensues; but if it drops late, as in the case of the lenited schwa between the voiceless consonants in strong roots, the same rule does not materialize.

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[21] Another schwa has also played an indirect yet important role in untangling the complex processes shaping the various allomorphs of CVC reduplicant in Twana: This is the schwa that becomes devoiced between two voiceless consonants in unstressed syllables and then elides, leaving a residual aspiration [ʰ] in some Salish languages (cf. footnote 9). When any of the three schwas happen to occur between two voiceless consonants in an unstressed syllable, they too can undergo the same devoicing and elision. Moreover, another schwa may be inserted between the two voiceless consonants to break up the cluster immediately after such elision has occurred, which then elides again as it becomes devoiced. This cycle of insertion and deletion results in what has previously been referred to as 'excrescent' schwa in Salish phonology (cf. Parker 2011 and the references therein).

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Not all there: The interactions of negation and universal quantifier *ʔuk̓ʷ* in ʔayʔaǰuθəm*

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Abstract: The current paper examines the ambiguity between negation and the universal quantifier *ʔuk̓ʷ* in ʔayʔaǰuθəm, a critically endangered Central Salish language. I argue that the ambiguity in ʔayʔaǰuθəm arises from the nonmaximal, exception-tolerating property of Salish *all*, instead of resorting to the scopal interaction between negation and the universal quantifier, as in English. Specifically, by assuming that negation in ʔayʔaǰuθəm is always interpreted with the maximal force, the ambiguity can be understood as originating from exceptions to this canonical interpretation. Whether or not this ambiguity is only available in ʔayʔaǰuθəm is still unclear, and further data elicitation and cross-Salish comparison are underway.

Keywords: ʔayʔaǰuθəm (Mainland Comox), semantics, ambiguities, negation, universal quantifier

1 Introduction

This paper presents a preliminary analysis of the semantic ambiguity involved in the combination of negation and the universal quantifier *ʔuk̓ʷ* in ʔayʔaǰuθəm, a critically endangered Central Salish language. The ambiguity between a negative element and a universal quantifier is also found in English. For example, consider the English paradigm in (1) from Carden (1976), where (1a) has only one reading while (1b) is ambiguous.

(1) a. Not all the boys will run.
$\neg(\forall x, \text{boy}(x), \text{run}(x))$

b. [All the boys] won't run.
i. $\neg(\forall x, \text{boy}(x), \text{run}(x))$
ii. $(\forall x, \text{boy}(x)), \neg(\text{run}(x))$

In the traditional account, with the readings in (1a) and (1b-i), negation takes higher scope than the quantified DP at LF. With the reading in (1b-ii), the subject DP *all the boys* is assumed to undergo Quantifier Raising (QR) and move outside the scope of negation at LF.

An example that is semantically similar to the English one in (1a) can be constructed in ʔayʔaǰuθəm, such as in (2) below. Note first that in (2), the subject

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čəyčuy 'kids' follows the predicate *ƛ̓əč̓təm* 'sleepy', reflecting the canonical VSO word order of the language. Note also that the universal quantifier *ʔuk̓^{w}* 'all' in this case does not immediately precede the subject DP *čəyčuy*, unlike its English counterpart. The syntax of *ʔuk̓^{w}* will be briefly discussed below, but for now let us focus on the semantics of (2).[1]

(2) **x^{w}aʔ ʔuk̓^{w}**=as ƛ̓əč̓t-əm čəy-čuy
NEG all=3.CNJ sleep-DSD PL-child
a. 'Not all the kids are sleepy.' (some of them are)
$\neg(\forall x, \text{kid}(x), \text{sleepy}(x))$
b. 'All the kids are not sleepy.' (none of them is)
$(\forall x, \text{kid}(x)), \neg(\text{sleepy}(x))$ [ʔayʔaǰuθəm]

The most interesting fact about (2) is that there is semantic ambiguity between the readings in (2a) and (2b). As a first pass, it seems that the ambiguity can be straightforwardly accounted for by optionally allowing the universally quantified subject DP to raise over the negator *x^{w}aʔ*. The ambiguities are then reduced to scopal interactions between negation and the universal quantifier. However, as I will show below, this account raises problems as QR is argued to be absent in Salish languages (Davis 2010). Therefore, quantifiers have to be interpreted *in-situ*. The goal of this paper is to develop an analysis that captures the ambiguity between negation and a universal quantifier without resorting to QR. To foreshadow the analysis to follow, the core argument laid out in this paper is that the universal-quantificational force is introduced by a covert (distributive) D-operator on the predicate, and that DP-adjoined *all* simply serves to select the appropriate implicatures that are already associated with DPs (Schwarzschild 1996). Adopting this assumption, ʔayʔaǰuθəm *ʔuk̓^{w}* differs from English *all* in that it tolerates more implicatures and therefore allows some "exceptions" in both positive and negative sentences, which leads to ambiguities.

This paper is organized as follows: In section 2, I present data from other Salish languages and provide more ʔayʔaǰuθəm data that further demonstrate the scopal interactions between quantifiers and negation. In section 3, I present core assumptions and a preliminary analysis. Finally, the last section concludes the study.

[1] Abbreviations used in this paper are as follows: A.INTR = active-intransitive; ASP = aspect; AUX = auxiliary; CAUS = causative; CLT = clitic; CNJ = conjunctive; CONJ = conjunction; CTR = control transitive; DET = determiner; DSD = desiderative; ERG = ergative; EXCL = exclusive; EXIS = existential; IMPF = imperfective; INDC = indicative; INTR = intransitive; IRR = irrealis; LINK = link particle; MDL = middle; NEG = negation; NMLZ = nominalizer; NTR = noncontrol transitive; OBL = oblique; PASS = passive; PERF = perfective; PL = plural; POSS = possessive; RED = reduplication; REM = remote in time; RFL = reflexive; RLT = relational; SG = singular; TR = transitive; YNQ = yes-no question enclitic. A hyphen (-) stands for an affix boundary, and an equal sign (=) for a clitic boundary.

2 The data from ʔayʔaǰuθəm and beyond

Before diving into ʔayʔaǰuθəm data, it is useful to survey similar examples from the other Salish languages. Examples (3), (4), and (5) include data from St'át'imcets (Northern Interior), Squamish (Central), and Secwepemctsín (Northern Interior), lifted from Matthewson (1998) and Demirdache et al. (1994). In all three languages, the interpretation of a sentence is contingent on scope relations between negation and a quantifier which are present at the S-structure (Matthewson 1998). For instance, (3a) shows negation taking higher scope than the universal quantifier at both S-structure and LF. However, in (3b) and (3c), the quantified subject DP escapes the scope of negation again at both S-structure and LF. In other words, LF preserves the scope relation from the S-structure. This results in a tendency for LF to be more transparently represented in the overt syntax in Salish languages than other languages, such as English.

(3) a. **cw7aoz** kw-s **tákem** i smelhmúlhats-a
NEG DET-NMLZ all PL.DET woman(RED)-EXIS
q'weláw'-em
pick.berries-INTR
'Not all of the women picked berries.' (some of the women did)
$\neg(\forall x, \text{woman}(x), \text{picked berries}(x))$

b. [**tákem** i smelhmúlhats-a]$_i$ **az'** t'u7 kw-s
all PL.DET woman(RED)-EXIS NEG just DET-NMLZ
q'weláw'-em t$_i$
pick.berries-INTR
'All the women didn't pick berries.' (none of them did)
$(\forall x, \text{woman}(x)), \neg(\text{pick berries}(x))$

c. [**tákem** i syeqyáqts7-a]$_i$ **ay** t'u7 kw-s
all PL.DET woman(RED)-EXIS NEG just DET-NMLZ
ts'aqw-an'-ítas [i mik'il-áw's-cen-a] t$_i$
eat-TR-3.PL.ERG PL.DET fish.oil-middle-foot-EXIS
'All the women did not eat the bannock.' (none of them did)
$(\forall x, \text{woman}(x)), \neg(\text{eat bannock}(x))$ [St'át'imcets; Matthewson (1998)]

(4) [**i7x̲w** ta sta7uxwlh]$_i$ **haw** k̲-as ya huyá7 t$_i$
all DET children not IRR-3.CNJ ASP leave
'All the children didn't leave.' (none of the children left)
$(\forall x, \text{child}(x)), \neg(\text{leave}(x))$ [Squamish; Demirdache et al. (1994)]

(5) a. **ta7** k s-qwetséts-s [**xwexwéyt** re stsmémelt]
NEG IRR NMLZ-leave-3.POSS all DET children
'Not all the children left.' (some children left)
$\neg(\forall x, \text{child}(x), \text{leave}(x))$

b. **ta7** k s-**xwexwéyt**-s re stsmémelt k s-qwetséts-s
NEG DET NMLZ-all-3.POSS DET children IRR NMLZ-leave-3.POSS
'Not all the children left.' (some children left)
$\neg(\forall x, \text{child}(x), \text{leave}(x))$

c. [**xwexwéyt** re stsmémelt]$_i$ **ta7** k s-qwetséts-s t$_i$
all DET children NEG IRR NMLZ-leave-3.POSS
'All the children didn't leave.' (none of the children left)
$(\forall x, \text{children}(x)), \neg(\text{leave}(x))$ [Secwepemctsín; Demirdache et al. (1994)]

The observation that scope relations at LF are mapped directly from S-structure does not seem to hold across all examples from in St'át'imcets or in the ʔayʔaǰuθəm data. For example, as noted by Matthewson (1998), some speakers of St'át'imcets allow quantified subjects to have higher scope than negation, even when the subject is clause-final at S-structure, as shown in (6) below. It is worth noting that, although (6) has two readings (6a) and (6b), it is not ambiguous for a given speaker: None of Matthewson's (1998) consultants allows ambiguity for (6), even though they may interpret it differently.

(6) **cwʔaoz** kw-s q'weláw'-em [**tákem** i
NEG DET-NMLZ pick.berries-INTR all PL.DET
smelhmúlhats-a]
woman(RED)-EXIS

a. 'None of the women picked berries.'
$(\forall x, \text{woman}(x)), \neg(\text{pick berries}(x))$

b. 'Not all of the women picked berries.'
$\neg(\forall x, \text{woman}(x), \text{picked berries}(x))$ [St'át'imcets; Matthewson (1998)]

Data from ʔayʔaǰuθəm show an even more interesting pattern. The sentences in (7) (=(2)) and (8) are ambiguous for my consultant, such that both (a) and (b) readings are available. Again, we see the interpretations containing scope relations not reflected at S-structure. Note also the flexibility with respect to the possible positions of *ʔuk̓^{w}*. With the crucial data laid out in this section, it is possible to form an analysis of the semantic ambiguity.

(7) a. **x^{w}aʔ** **ʔuk̓^{w}**=as ƛ̓əč̓t-əm čəy-čuy
NEG all=3.CNJ sleep-DSD PL-child

b. **x^{w}aʔ** ƛ̓əč̓t-əm=as **ʔuk̓^{w}** čəy-čuy
NEG sleep-DSD=3.CNJ all PL-child

i. ‘Not all the kids are sleepy.’ (some of them are)
$\neg(\forall x, \text{kid}(x), \text{sleepy}(x))$
ii. ‘All the kids are not sleepy.’ (none of them is)
$(\forall x, \text{kid}(x)), \neg(\text{sleepy}(x))$ [ʔayʔaǰuθəm]

(8) a. **xʷaʔ ʔuḵʷ**=as məkʷ-t-əm Tony ǰanxʷ
NEG all=3.CNJ eat-CTR-PASS Tony fish

b. **xʷaʔ** məkʷ-t-əm=as Tony **ʔuḵʷ** ǰanxʷ
NEG eat-CTR-PASS=3.CNJ Tony all fish
i. ‘Tony didnt eat all the fish.’ (he ate some)
$\neg(\forall x, \text{fish}(x), \text{eat}(x)(\text{Tony}))$
ii. ‘Tony didnt eat any fish.’ (he ate none)
$(\forall x, \text{fish}(x)), \neg(\text{eat}(x)(\text{Tony}))$ [ʔayʔaǰuθəm]

3 Toward an analysis

In this section, I attempt to account for the ambiguities reported above in the ʔayʔaǰuθəm data. This section proceeds in two parts. In the first part, the syntactic and semantic properties of the universal quantifier in Salish languages are presented, along with their key assumptions. In the second part, I show how the ambiguities as seen in (7) and (8) follow from these assumptions.

3.1 The absence of generalized quantifiers and Quantifier Raising in Salish languages

On first glance, it seems that the ambiguous scope relations between negation and the universal quantifier can be resolved if we assume, naïvely, that quantifiers in Salish languages behave exactly like their counterparts in English: They form a generalized quantifier (GQ) and then undergo QR. In this view, the ambiguities arise from whether QR carries the GQ containing the universal quantifier within or outside the scope of negation. However, this simple account does not hold water because, as argued by Davis (2010), there is evidence suggesting that Salish languages lack GQs and QR altogether.

Davis (2010) argues that Salish languages do not possess GQs, based on the observation that, in St’át’imcets, when both the subject and object DPs contain DP-adjoined strong quantifiers, they yield only cumulative readings; they do not yield distributive readings, which would be expected if DPs containing strong quantifiers behaved as GQs. Davis (2010) used the example in (9), with the quantifiers *tákəm* ‘all’ and *šaq̓ʷuɬ* ‘half’, to make this point.

(9) Context: Four children are meant to read four books over the summer holidays.

[**tákem** [ʔi=šk̓^{w}əmk̓^{w}úk̓^{w}miʔt=a]] paq^{w}alik̓št-mín-itaš [**šaq̓^{w}uł**
all PL.DET=child(PL)=EXIS read-RLT-3.PL.ERG half

[ʔi=púk^{w}=a]]
PL.DET=book=EXIS

'All the children read half the books.' [St'át'imcets; Davis (2010)]

Judged *good* in all situations where each child reads at least one of the books, and a total of two out of the four titles are read; *bad* otherwise.

Similarly, reversing the positions of the two quantifiers, as shown in (10), also produces just the accumulative reading.

(10) Context: Four children are meant to read four books over the summer holidays.

[**šaq̓^{w}uł** [ʔi=šk̓^{w}əmk̓^{w}úk̓^{w}miʔt=a]] paq^{w}alik̓št-mín-itaš [**tákem**
half PL.DET=child(PL)=EXIS read-RLT-3.PL.ERG all

[ʔi=púk^{w}=a]]
PL.DET=book=EXIS

'Half the children read all the books.' [St'át'imcets; Davis (2010)]

Judged *good* in all situations where exactly two of the children between them read a total of four titles; *bad* otherwise.

Based on this, Davis (2010) concludes that DPs containing *tákəm* 'all' or *šaq̓^{w}uł* 'half', an inherently proportional quantifier, do not show the behavior expected of GQs. One prediction following the absence of GQs in Salish languages is that QR may be absent as well. Davis (2010) provides evidence that this prediction is correct by showing that Antecedent Contained Deletion in St'át'imcets is impossible, as in (11). This is a strong argument for Salish languages lacking QR, in addition to GQs.

(11) * x^{w}úz̓=łkan [$_{VP1}$ ʔáč̓χ-ən [tákəm
going.to=1.SG.INDC see-TR all PL.DET=movie=EXIS

[ʔi=píkčh=a plán=tuʔ [$_{VP2}$ _____] k^{w}=š=Lisa]]
already=REM DET=NMLZ=Lisa

'I'm going to see all the movies that Lisa has.' [St'át'imcets; Davis (2010)]

3.2 D-type and A-type quantification in Salish

A characteristic of *ʔuk̓ʷ* that is immediately noticeable is its relatively flexible syntactic positions, as can be identified in (7) and (8). Following Davis (2013), I assume that *ʔuk̓ʷ* in different syntactic positions corresponds to distinct types of quantifiers, with the ones adjoining to DPs being the D-type (D stands roughly for "determiner") and the others the A-type (A stands for "adverb, auxiliary, affix, or argument adjuster"). The morphological and syntactic base for the opposition between D-type and A-type quantification in Salish is beyond the scope of the current paper; the interested reader is referred to Davis (2013). Specifically, I treat an *ʔuk̓ʷ* that precedes the predicate, as in (7a) and (8a), as the A-type quantifier and one that immediately precedes a DP, as in the case of (7b) and (8b), as the D-type quantifier.

Despite the fact that the Salish *all* might belong to distinct syntactic categories, depending on what syntactic constituent it adjoins to, D-type and A-type Salish quantifiers behave similarly semantically. Using data from St'át'imcets, Davis (2013) argues that adverbial *all* (i.e., the A-type) in Salish is invariably associated with the domain of entities, not with events or states, just like its adnominal counterpart. To demonstrate the exclusively entity-related reading associated with Salish *all*, consider the examples in (12).

(12) a. # takəm=ɬkán=x̓uʔ x̓alál
all=1.SG.INDC=EXCL tired
i. #'All of me is tired!' (i.e., each part of me)
ii. *'I'm completely exhausted.'

b. # takəm=ɬkáxʷ=ha čúkʷ-alč̓
all=2.SG.INDC=YNQ finish-food
i. #'Has all of you finished eating?' (i.e., each part of you)
ii. *'Have you completely finished eating?' [St'át'imcets; Davis (2013)]

In these cases, the pragmatically favored maximal event-related reading is consistently ruled out, and only the entity-related subpart reading is available, even if it is pragmatically implausible. Therefore we must conclude that the domain of *all* in Salish is restricted to entities, even when it occurs in adverbial positions.

Given that some occurrences of *all* in Salish fall into the adverbial category and that adverbials generally enjoy certain degree of freedom in terms of their syntactic positions, it seems plausible that one could account for the semantic ambiguities in (7) and (8) through LF movement of the adverbial *all*, either within or out of the scope of negation. In essence, instead of turning to QR, which is argued to be prohibited, LF movement of the adverbial *all* serves the same function, altering the scope relations between negation and quantifiers. Unfortunately, this step is not ideal either. The interpretation of scopal adverbials with negation also has to respect their relative order at S-structure, and therefore there are no

semantic ambiguities involved. Consider the examples in (13) from ʔayʔaǰuθəm, both containing the scopal adverbial *qəǰi* 'still'. It is clear now that the correct interpretations of sentences in (13) are sensitive to the relative positions of the adverbial *qəǰi* 'still' and the negator *xʷaʔ* 'not'.

(13) a. **xʷaʔ**=č **qəǰi**=an p̓ap̓-am
NEG=1.SG.INDC still=1.SG.CNJ work-MDL
'I'm not working any more.'

b. **qəǰi**=č=ʔut **xʷaʔ** p̓ap̓-am=an
still=1.SG.INDC=CLT NEG work-MDL=1.SG.CNJ
'I'm still not working.' [ʔayʔaǰuθəm]

If we allow adverbial *all* to optionally undergo LF movement in order to account for ambiguity, we cannot explain why sentences (13a) and (13b), which also have a scopal adverbial and negator, are not ambiguous. Therefore, I conclude that covert adverbial movement is not the solution to the semantic ambiguities in question.

3.3 The nonmaximal property of Salish *all*

Unlike English *all*, Salish *all* has a weaker effect on its domain, such that DPs quantified over by *all* readily tolerate exceptions, as shown in St'át'imcets and Halkomelem (Central) examples in (14) and (15) below (Davis 2013).

(14) a. **tákəm** ʔi=šk̓ʷəm.k̓ʷúk̓ʷmiʔt=a qʷačáč, χ̓uʔ xʷʔaz
all PL.DET=children(PL)=EXIS leave but NEG
ta=páplʔ=a, xʷʔaz kʷ=ə=š
DET=one=EXIS NEG DET+NMLZ=IMPF=3.POSS
χáχ̓-min̓-aš kʷ=ə=š ʔíʔwaʔ
want-RLT-3.ERG DET+NMLZ=IMPF=3.POSS go.along
'All the children left, but one didn't, he didn't want to go along.'

b. ? **tákəm** ʔi=šk̓ʷəm.k̓ʷúk̓ʷmiʔt=a qʷačáč, χ̓uʔ xʷʔaz
all PL.DET=children(PL)=EXIS leave but NEG
ʔi=núkʷ=a, xʷʔaz kʷ=ə=š
DET=other=EXIS NEG DET+NMLZ=IMPF=3.POSS
χáχ̓-min̓-ítaš kʷ=ə=š
want-RLT-3.PL.ERG DET+NMLZ=IMPF=3.POSS
ʔíʔwaʔ=wit
go.along=3.PL
'All the children left, but some didn't, they didn't want to go along.'

c. ?* **tákəm** ʔi=šk̓^{w}əm.k̓^{w}úk̓^{w}miʔt=a q^{w}ačáč, χ̓uʔ x^{w}ʔaz̓
all PL.DET=children(PL)=EXIS leave but NEG

ʔi=x^{w}ʔít=a, x^{w}ʔaz̓ k^{w}=ə=š
DET=many=EXIS NEG DET+NMLZ=IMPF=3.POSS

χáχ̓-min̓-ítaš k^{w}=ə=š
want-RLT-3.PL.ERG DET+NMLZ=IMPF=3.POSS

ʔíʔwaʔ=wit
go.along=3.PL

'All the children left, but many didn't, they didn't want to go along.'
[St'át'imcets; Davis (2013)]

(15) a. **mək̓^{w}** ʔəẇ-q̇^{w}əyiləš t^{θ}ə=məstiməx^{w} ʔiʔ yeẏsəl̓ə swaẇləs
all LINK-dance DET=people CONJ two.person boy

k^{w}θə=niʔ qəl-st-ənmət
DET=AUX bad-CAUS-NTR.RFL

'All the people danced but two boys who didn't want to.'

b. niʔ həliyeʔ **mək̓^{w}** k^{w}θə=swaẇləs ʔiʔ hay k^{w}θə=naṅəc̓aʔ
AUX leave all DET=boy CONJ only DET=one.person

qəl-st-ənmət
bad-CAUS-NTR.RFL

'All the boys left but only one who didn't want to.' [Halkomelem]

To explain this cross-linguistic difference requires a novel approach towards quantification. One such consideration concerns the source of universal-quantificational force. Instead of being introduced by the quantificational elements themselves, it is argued that universal quantification over the individuals in the subject position comes from a covert D-operator on the VP. The function of quantificational elements is simply to adjust the exact quantification domain, which is introduced by the D-operator (Schwarzschild 1996).

A crucial property of this new perspective is that this is a context-dependent domain selection variable, termed *Cov* (since the variable always takes the form of a cover of the universe of discourse) by Schwarzschild (1996), which always accompanies the D-operator. The definition of a cover is given in (16).

(16) *X* covers *Y* iff:
a. *X* is a set of nonempty subsets of *Y*
b. $\forall y \in Y \exists x \in X [y \in x]$

Applying this theory to an English example involving the universal quantifier *all* like (17a), the truth condition of this sentence now has a context-dependent Cov_i variable, as in (17b).

(17) a. All the children ^{D_i}left.

b. $\forall x[x \in [\![Cov_i]\!] \ \& \ x \subseteq [\![\textbf{the children}]\!] \rightarrow x \in [\![\textbf{left}]\!]]$

To illustrate this (for detailed discussion, see Brisson (2003)), consider a universe U and some possible covers of the set of singularities of U, which is given in (18).

(18) $U = \{a, b, c, s, t, \{a,b\}, \{a,c\}, \{a,s\}, \{a,t\}, \{a,s,t\}, \ldots\}$
$[\![\textbf{the children}]\!] = \{a,b,c\}$
$J = \{\{a\}, \{b\}, \{c\}, \{s,t\}\}$
$K = \{\{a\}, \{c\}, \{b,s,t\}\}$

Suppose the value J is assigned to Cov_i by the context in (17b). (17a) would be true because each child occupies a singleton set of the cover J assigned to Cov_i and thus each child is asserted to be in the extension of *left*. In this case, the J cover is called a "good-fitting" cover. In contrast, if the context assigns the value K to Cov_i, (17a) would be false because, in this case, the semantics in some sense does not care whether b left or not (since the set $\{b,s,t\}$ is not a subset of the set $\{a,b,c\}$, there is no cell containing b that satisfies the restriction of the quantifier), which does not correspond to how (17a) is interpreted in English. K is therefore called a "bad-fitting" cover in this scenario.

The approach described above allows for the comparison of English *all* and Salish *all*. While English *all* adjusts the domain and subsequently eliminates ill-fitting covers, thus ensuring that only a maximal interpretation of the plural DP surfaces, Salish *all* accommodates ill-fitting covers, allowing for a nonmaximal reading. This is the reason why *all*-adjoined DPs in English do not tolerate exceptions, but *all*-quantified DPs in Salish can easily tolerate exceptions (cf. (14) and (15)).

3.4 Negation and quantification in ʔayʔaǰuθəm

The patterns of negation show cross-linguistic variation across Salish languages (Davis 2005). As in many Central Salish languages, the basic pattern of negation in ʔayʔaǰuθəm involves a negator $x^wa?$ and a negated predicate, without any complementizer preceding the negated predicate. When the whole negative construction functions as a main clause, the negator $x^wa?$ hosts an indicative subject enclitic that agrees in person and number with a conjunctive subject suffix on the negated predicate, as illustrated in (19) below.

(19) a. x^{w}aʔ=**č** ʔaq̓-θi=**an**
NEG=1.SG.INDC chase-CTR+2.SG.OBJ=1.SG.CNJ
'I do not chase you.'

b. x^{w}aʔ=ʔut k̓əl̓t-aʔam-iyt=**as** ʔə=k^{w}=janx^{w}
NEG=CLT hook-A.INTR-PERF=3.CNJ OBL=DET=fish
'He did not hook any fish (with a fishhook).' [ʔayʔaǰuθəm; Watanabe 2003]

The syntactic category of the negator *x*^{w}*aʔ* and the exact clausal structures of the negative construction are still a subject of debate. Here I am only concerned about the semantic contribution of the negator; the reader interested in the syntactic aspects of the negative construction is referred to Davis (2005) and Wiltschko (2002).

The most important claim regarding the semantics of the negator *x*^{w}*aʔ* in ʔayʔaǰuθəm that I make (although I still need other language-internal as well as cross-Salish evidence to support this claim) is that, when universally quantified DPs fall within the scope of negation, negation effectively takes the complement of the set denoted by the universally quantified DPs. That is, the interpretation when negation takes scope over universal quantification is semantically equivalent when the universal quantification has higher scope than negation. This is illustrated in (20) (=(7a)). My claim asserts that, instead of the interpretation (20a), the canonical interpretation of (20) is actually (20b).

(20) **x^{w}aʔ ʔuk̓^{w}**=as ƛ̓əč̓t-əm čəy-čuy
NEG all=3.CNJ sleep-DSD PL-child
a. ‘Not all the kids are sleepy.’ (some of them are)
$\neg(\forall x, \text{kid}(x), \text{sleepy}(x))$
b. ‘All the kids are not sleepy.’ (none of them is)
$(\forall x, \text{kid}(x)), \neg(\text{sleepy}(x))$ [ʔayʔaǰuθəm]

The same rule of “maximal negativity” applies to all the examples in (7) and (8), repeated below as (21) and (22). According to this claim, the interpretations in (ii) should be taken as the standards.

(21) a. **x^{w}aʔ ʔuk̓^{w}**=as ƛ̓əč̓t-əm čəy-čuy
NEG all=3.CNJ sleep-DSD PL-child
b. **x^{w}aʔ** ƛ̓əč̓t-əm=as **ʔuk̓^{w}** čəy-čuy
NEG sleep-DSD=3.CNJ all PL-child
i. ‘Not all the kids are sleepy.’ (some of them are)
$\neg(\forall x, \text{kid}(x), \text{sleepy}(x))$
ii. ‘All the kids are not sleepy.’ (none of them is)
$(\forall x, \text{kid}(x)), \neg(\text{sleepy}(x))$ [ʔayʔaǰuθəm]

(22) a. **x^{w}aʔ ʔuk̓^{w}**=as mək^{w}-t-əm Tony ǰanx^{w}
NEG all=3.CNJ eat-CTR-PASS Tony fish
b. **x^{w}aʔ** mək^{w}-t-əm=as Tony **ʔuk̓^{w}** ǰanx^{w}
NEG eat-CTR-PASS=3.CNJ Tony all fish
i. ‘Tony didnt eat all the fish.’ (he ate some)
$\neg(\forall x, \text{fish}(x), \text{eat}(x)(\text{Tony}))$
ii. ‘Tony didnt eat any fish.’ (he ate none)
$(\forall x, \text{fish}(x)), \neg(\text{eat}(x)(\text{Tony}))$ [ʔayʔaǰuθəm]

If the interpretations in (ii) are canonical, the remaining question is how to account for the interpretations in (i) for the sentences above. The answer, I argue, lies in the nonmaximal nature of the universal quantifier in Salish. Recall from the discussion in section 3.3 that DPs quantified over by *all* readily tolerate exceptions in Salish. If exceptions can be tolerated in positive contexts, then they should also be tolerated in negative contexts. Using (20) from above again to illustrate, this means the sentence can be uttered even if there are some sleepy kids, which is essentially the truth condition of (20a). The same argument goes for the examples in (22): Sentences (22a) and (22b) are pragmatically felicitous even when Tony ate some fish, thanks to the nonmaximal nature of the universal quantifier *ʔuk̓ʷ*. Therefore the nonmaximal quantification property of Salish *all*, in conjunction with a special negation rule, gives rise to ambiguities for sentences containing both negative and universal-quantificational elements.

4 Conclusion

In this paper, I argue that, contra the ambiguity between negation and quantifiers in English, which results from the scopal interactions of negation with quantification, the similar ambiguity in ʔayʔaǰuθəm arises from the nonmaximal property of Salish *all*, together with the maximal negative force of the negator. Specifically, with the assumption that the interpretation equivalent to quantification over negation being canonical, the interpretation corresponding to negation taking scope over quantification originates from the fact that exceptions are tolerated with the canonical interpretation. While the current analysis accounts for the data seen so far, further data elicitation and analytical refinement are still needed to support this analysis.

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All the small things: Diminutive reduplication as infixation in ʔayʔaǰuθəm*

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Abstract: There are three reduplicative processes in ʔayʔaǰuθəm previously categorized as C_1V- prefixation (Davis, 1971; Blake, 2000; Watanabe, 2003). The treatment of the root vowel and the position of glottalization vary between them, despite the claim that their reduplicants are all C_1V- prefixes. Plural and diminutive reduplication pattern together, with the deletion of a root vowel and rightward glottalization, while the root vowel is retained in imperfective reduplication and glottalization is assigned leftward. The deletion of a root vowel in C_1V- reduplication is highly unusual in ʔayʔaǰuθəm and is problematic for Base-Reduplicant Correspondence Theory (McCarthy and Prince, 1995). This paper revisits diminutive reduplication in ʔayʔaǰuθəm and reanalyzes it as -C_1- infixation. I follow Riggle (2006) and adopt a gradient alignment constraint that motivates the infixation of a single consonant. This analysis is more compatible with the overall grammar of the language and accounts for the differences between diminutive and imperfective reduplication.

Keywords: diminutive, reduplication, Comox, infix, alignment constraints, imperfective

1 Introduction

Reduplication is a common morphological process in the Salish language family. ʔayʔaǰuθəm is no exception, having nine different reduplicative processes (Watanabe, 2003). Three of these have previously been analyzed as C_1V- prefixing reduplication. This type of reduplication can denote imperfective aspect, plurality with stative predicates, or the diminutive. Despite the argument that these reduplicative processes result from the same prefixed position and a C_1V shape, the surface forms differ, suggesting that they are subject to different phonological processes.

Table 1 summarizes surface forms described for roots under each type of C_1V- reduplication. The three reduplicative processes can be divided into two categories, based on the treatment of the root vowel in strong roots[1] and the position of glottalization. The stative plural and diminutive C_1V- pattern together, deleting the root vowel in most strong roots and displacing, or assigning, glottalization to the right-edge of the word or on the rightmost

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[1] Strong roots are roots with a full, moraic, vowel in the underlying form.

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resonant. An example of this is found in forming the diminutive for dog, *čaṅo*[2], where deletion of the root vowel and rightward displacement of glottalization result in *čačṅoʔ* for 'puppy'. However, in imperfective C_1V- reduplication, the root vowel is categorically retained in strong roots and glottalization is assigned toward the left edge of the word, on the stem-initial consonant, or to a resonant. For example, *gayətan* means 'I asked him', while the imperfective form *gaġayətas* means 'she is asking him'. In the imperfective example, the first resonant in the stem receives glottalization and the stem vowel in *gay*-, 'to ask', is retained. The treatment of root vowels and placement of glottalization associated with imperfective reduplication is different from the plural stative and diminutive reduplicative processes, despite the fact that they are all traditionally analyzed as instances of C_1V- prefixing reduplication.

Table 1: Summary of C_1V- reduplication in Watanabe (2003)

	Diminutive	**Stative Plural**	**Imperfective**
Shape of Reduplicant	C_1V- for most strong roots, C_1i- for CVC roots and stems with schwa as the first vowel	C_1V- for strong roots, C_1a- or C_1i- for weak roots	C_1V-
Root Vowel Deletion	Yes, excluding in strong mono-syllabic roots or if deletion creates a CCC cluster	Yes	Only for weak roots
Glottalization Direction	Rightward	Rightward	Leftward (or on one of the resonants)

Though the assignment and displacement of glottalization is an intriguing dissimilarity between the reduplication patterns characterized as C_1V- prefixing, it appears to have some lexically specified properties (Watanabe, 2003: 389, 394). It deserves a more careful analysis than can be levelled in the present paper. The present analysis focuses exclusively on the treatment of the root and reduplicant segments, leaving the glottalization for future research. In the present paper, I focus specifically on the shape and position of diminutive reduplicants in ʔayʔaǰuθəm, challenging their previous characterization as C_1V- prefixes. In Section 2, I provide an analysis of diminutive reduplication as

[2] Examples in-text are transcribed in APA. I mark glottalization in this paragraph following the literature. However, my consultant does not produce glottalized resonants as frequently as might be expected, given previous descriptions of the language. Therefore, I have not marked glottalization elsewhere in this paper.

infixation. In Section 3, I outline language-internal and theory-based motivation for reanalysis. Following this, in Section 4, I consider a possible alternate, contrast-motivated, source of variation between C_1V- reduplicants, proposed in Urbanczyk (2005). As a whole, this paper argues that the diminutive reduplicant in ʔayʔaǰuθəm is best characterized as a -C_1- infix.

2 Diminutive Reduplication as Infixation in ʔayʔaǰuθəm

The data in (1) represent the majority of reduplicated diminutive forms in ʔayʔaǰuθəm. All of the non-reduplicated words in (1) begin with a CVCV- pattern. In some cases, the CVCV shape is the entire word, such as (1b) *niǰɛ* 'far', and in others the CVCV shape is the beginning of a longer word, such as (1h) *qʷołayšɪn* 'shoe'. Out of a total of 72 diminutive forms elicited, 48 were formed on bases starting with CVCV. The corresponding diminutive forms begin with the shape CVCC, where the first two consonants are identical and match the first consonant in the base form. The vowel in the first syllable of a diminutive form matches the first vowel in its non-reduplicated equivalent. For example, the diminutive form *tatmɛqʷɛtən* 'small scarf' in (1a) comes from *tamɛqʷɛtən* 'scarf'. The first two consonants in the diminutive form are *t* and the first vowel is *a*, while the first consonant and vowel of the base are *ta*.

(1) Diminutive reduplication with CVCV- bases

a.	tamɛqʷɛtən	'scarf'	tatmɛqʷɛtən	'small scarf'
b.	niǰɛ	'far'	ninǰɛ	'a little far'
c.	tala	'money'	tatla	'a little bit of money'
d.	tułəł	'bed'	tutłəł	'small bed'
e.	sopayɛ	'axe'	sospayɛ	'small axe'
f.	kɪpəm	'button'	kɪkpəm	'small button'
g.	memo	'cat'	memmoʔ	'kitten'
h.	qʷołayšɪn	'shoe'	qʷoqʷłayšɪn	'small shoe'
i.	ʔayaʔ	'house'	ʔaʔyaʔ	'small house'
j.	qʷasəm	'flower'	qʷaqʷsəm	'small flower'
k.	kʷoθayɪs	'island'	kʷokʷθayɪs	'small island'
l.	ǰɛnɪs	'tooth'	ǰɛǰnɪs	'small tooth'
m.	nikʷayɛ	'lamp'	ninkʷayɛ	'small lamp'
n.	šukʷa	'sugar'	šušk ʷa	'little bit of sugar'
o.	talaʔostən	'eyeglasses'	tatlaʔostən	'small eyeglasses'
p.	pata	'butter'	papta	'little bit of butter'
q.	kɛpu	'coat'	kɛkpu	'small coat'
r.	talahayɛ	'purse'	tatlahayɛ	'small purse'
s.	c̓ɛłokʷt	'raincoat'	c̓ɛc̓łokʷt	'small raincoat'
t.	qegaθ	'deer'	qeqgaθ	'small deer'
u.	qaya	'water'	qaqya	'a little bit of water'
v.	maqɪn	'hair'	mamqɪn	'a little bit of hair'
w.	pipa	'paper'	pippa	'a small piece of paper'

x.	łəkamın	'spear'	łəłkamın	'small spear'
y.	kʷaxʷa	'box'	kʷakʷxʷa	'small box'
z.	ʔɛt̓θəm	'blanket'	ʔɛʔt̓θəm	'small blanket'

Under the traditional prefixing analysis, the forms in (1) represent the basic C_1V- reduplication pattern where the root vowel deletes. This means that the initial CV sequence in a diminutive form is treated as the reduplicant, such that *šu-* is analyzed as a prefixed reduplicant in (1n) *šušk*^{w}*a* 'little bit of sugar'. This analysis requires stipulating that the vowel in the root deletes to account for why the diminutive form of *šuk*^{w}*a* 'sugar' is *šušk*^{w}*a* and not **šušuk*^{w}*a*, where the vowel would be retained in both the base and the reduplicant. Though it is a necessary claim in the prefixing analysis, it is unclear what would motivate the deletion of a root vowel.

The data can be accounted for in much simpler manner by redefining the proposed identity of the diminutive reduplicant and its position relative to the base. Instead of treating diminutive reduplication as prefixing reduplication, I analyze it as -C_1- infixation into the root. Assuming an infixation analysis, the reduplicants in (1) can be analyzed as aligning with the right edge of the root vowel. In (1n) *šušk*^{w}*a* 'little bit of sugar', the initial C_1V sequence *šu* is part of the base and is followed by the -C_1- diminutive infix, the word-medial -*š*-. The reduplicant consists of a single segment that becomes the coda of the first syllable. This results in a perfect root input-output correspondence, because no root segments are deleted. Therefore, unlike the prefixing analysis, the infixation account of diminutive reduplication does not require finding motivation for root vowel deletion in addition to accounting for the reduplicative process itself. Treating diminutive reduplication as infixation allows for an analysis that is much tidier, given the data in (1). Further, the infixation analysis has the additional advantage of providing a concrete reason for why root vowel retention and glottalization would apply differently in imperfective reduplication as, unlike the literature, this analysis suggests that diminutive reduplication is not C_1V- prefixing.[3] Therefore, the reduplicative processes are distinct and it is unsurprising that they might result in different surface forms.

Diminutive infixation can be accounted for in Parallel OT with the combination of alignment, general faithfulness, and markedness constraints (McCarthy & Prince, 1993), as shown in (2). I follow Riggle (2006) and adopt a gradient alignment constraint that penalizes segments between the reduplicant and the left edge of the word. However, the ALIGN-L_{red} constraint used in the present analysis penalizes segments between the right edge of the reduplicant and the left edge of the word. Though it belongs to the class of alignment constraints, ALIGN-L_{red} has the desired effect of restricting the size of the reduplicant, which results in single consonant reduplicants, as proposed for the

[3] The stative plural reduplication behaves like the diminutive. I believe, by extension, that my infixation argument would apply to the stative plural as well, though I have not elicited enough data to confirm that at this time.

data in (1). However, this effect is limited by higher-ranked alignment, faithfulness, and markedness constraints. MAX-M ensures that every morpheme in the input has a correspondent in the output (Yu, 2016). This protects against EVAL selecting candidates where the reduplicant is not expressed in the output, though they vacuously satisfy ALIGN-L_{red}. The position of the infix depends on higher-ranked constraints, such *COMPLEXONSET and ALIGN-$L_{root,}$[4] the former ruling out infixation on the left edge of root vowel, which would create a complex onset, and the latter motivating infixed reduplicants rather than prefixes. Finally, MAX protects segments in the input against deletion and DEP penalizes segments in the output that are not in the input (McCarthy & Prince, 1995). Neither constraint applies to the reduplicant, as it has no concrete phonological shape in the input and is comprised of segments copied from the base in the output, such that the reduplicant C_1 and base C_1 both correspond to the same input C_1.

(2) Constraints

ALIGN(RED, R, WD, L): *(ALIGN-L_{red})*	The right edge of every reduplicant should align with the left edge of a word. Assign a violation mark for every segment between the right edge of a reduplicant and the left edge of the word.
ALIGN(WD, L, RT, L): *(ALIGN-L_{root})*	The left edge of every word should align with the left edge of a root. Assign a violation mark for every left edge of word that is not aligned with the left edge of a root.
MAX-M(ORPHEME):	All morphemes in the input must have a correspondent in the output (Yu, 2016).
*COMPLEX(ONSET):	Onsets should be maximally one segment. Assign a violation mark for any consonant cluster in an onset position of a syllable.

[4] This could also be ALIGN-L_{base}, symmetrical to the ALIGN-L_{red} constraint. I use ALIGN-L_{root} instead because it is highly motivated by the language. There is a categorical lack of prefixes, with the exception of some reduplicants, meaning that ALIGN-L_{root} > ALIGN-L_{affix}. The exceptional cases of reduplication, such as C_1əC_2- plural, are so few that they can be captured by some morpheme-specific constraints that force these reduplicants to the left, despite the overall dispreference for prefixation. Further, given that words can have a root and a lexical suffix (bound root), this constraint stipulates that word edges should coincide with a root edge to avoid unwanted infixation of roots into other roots. I also assess this constraint as categorical in the present analysis as it is ranked highly, such that even one violation is fatal.

MAX:	All segments in the input have a correspondent in the output. Assign a violation mark for every segment in the input that does not have a correspondent in the output.
DEP:	All segments in the output have a correspondent in the input. Assign a violation mark for every segment in the output that does not have a correspondent in the input.

In order to derive the correct surface forms, ALIGN-L_{red} must be ranked below the other constraints. This is shown in the derivation of *θoθmɪn* 'small eyebrow' in (3). Candidate (3a), which outright deletes the reduplicant, fatally violates MAX-M. The candidates which have the reduplicant aligned with the left edge of the word, (3c,d,g), are eliminated for violating ALIGN-L_{base}. Candidate (3f), which has the reduplicant aligned with the left edge of the root vowel, incurs a violation under *COMPLEX and Candidate (3h), which has vowel epenthesis, violates DEP. The final two candidates satisfy all of the higher-ranked constraints and are thus are ultimately discriminated by their respective violations of the reduplicant alignment constraint. Candidate (3e) incurs four violation marks, as there are four segments between the right edge of the -C_1V- reduplicant and the left edge of the word. Candidate (3b), the attested candidate with the -C_1- infix, only receives three violation marks under ALIGN-L_{red} and therefore is selected as the winner by EVAL.

(3)

	RED + θomɪn	ALIGN-L_{root}	MAX-M	*COMPLEX	MAX	DEP	ALIGN-L_{red}
	a. θomɪn		*!				
☞	b. θo**θ**mɪn						***
	c. **θo**θmɪn	*!			*!		**
	d. **θo**θomɪn	*!					**
	e. θo**θo**mɪn						****!
	f. θ**θ**omɪn			*!			**
	g. **θ**eθomɪn	*!				*!	*
	h. θe**θ**omɪn					*!	***

The constraints in (2) and the ranking in (3) can account for the -C_1- infixation diminutives formed on a CVCV- base, which comprise the majority of forms. However, they cannot capture all the data. As shown in (4), there are diminutives formed with CVCC- bases. In these cases, the reduplicated forms start with a CVCV- pattern where the first two consonants and first two vowels match. For example, the first two segments in the non-reduplicated form in (4c) *ʔasx*^{w} 'seal' appear twice in a CVCV pattern at the beginning of the reduplicated form *ʔaʔasx*^{w} 'small seal'.

(4) -C_1V- diminutive reduplication with CVCC- bases

a.	ʔułqay	'snake'	ʔuʔułqay	'small snake'
b.	sayǰɛ	'leaf'	sasayǰɛ	'small leaf'
c.	ʔasx^{w}	'seal'	ʔaʔasx^{w}	'small seal'
d.	hayšın	'ladder'	hahayšın	'small ladder'
e.	walθ	'frog'	wawalθ	'small frog'
f.	gaʔwut	'paddle'	gagaʔwut	'small paddle'
g.	x̣awgus	'grizzly bear'	x̣ax̣awgus	'grizzly bear'

Under a prefixing analysis, these would be described as C_1V- reduplication without root vowel deletion. The deletion of the root vowel would create a CCC cluster, which is relatively rare in a word-medial position in ʔayʔaǰuθəm. Retaining the vowel prevents CCC clusters, which is preferred by the grammar. The avoidance of tri-consonant clusters in reduplication is also relevant in the infixation analysis. Given the CVCC- base shape, the infixation of a single consonant would create a CCC cluster. Therefore, the reduplicant copies the first vowel in the base along with the initial consonant, resulting in a -C_1V- infix. This results in *x̣ax̣awgus*, instead of **x̣ax̣wgus*, as the diminutive form of *x̣awgus* 'grizzly bear' in (4g). Out of 72 elicited diminutives, there are only seven CVCC- forms that take a -C_1V- infix.

In order to account for -C_1V- infixes in (4), another markedness constraint is needed to limit the number of adjacent consonants. This constraint, *CCC, is given in (5) and has motivations elsewhere in the language.[5] First, the phonological grammar of ʔayʔaǰuθəm has a strong preference for bimoraic and binary feet (Blake, 2000: 202). This results in an ideal foot having a (CəC.CəC), (CV.CV), (CəC.CV), or (Cə.CVC) structure. Therefore, the situations where CCC clusters arise are generally considered less ideal. Further, across the 72 diminutive forms in this paper, there are only three examples with tri-consonantal clusters. Of these, all have [s], which is notably one of the only segments that appears in complex onsets for a very limited set of words

[5] It is possible that syllable structure constraints, *COMPLEXONSET and *COMPLEXCODA, could derive the same effects needed to ban CCC clusters. However, a constraint against branching codas would prove problematic with any CVCC root, such as *ʔasx*^{w} 'seal'. Despite being less elegant, *CCC is less problematic for the language.

(Watanabe 2003:16). Therefore, assuming violable constraints, *CCC does not pose problems for the phonological grammar of ʔayʔaǰuθəm.

(5) Tri-consonant cluster constraint

*CCC: There should not be three adjacent consonants word-medially. Assign a violation mark for every three consonants in a row that are not on the word edge.

The tableau in (6) shows how the *CCC constraint allows the candidate with -C_1V- reduplication to win over the -C_1- one, which has three adjacent consonants in a word-medial position. Candidate (6c) does not have a reduplicant in the output and violates MAX-M. Candidate (6d) deletes a root segment and candidates (6e) and (6f) epenthesize a vowel, all incurring fatal violations under the faithfulness constraints. Candidate (6g) aligns the reduplicant with the left edge, rather than the base, and therefore incurs a violation under the high-ranked ALIGN-L_{root} constraint. Candidate (6a) fatally violates *CCC, which results in Candidate (6b), the attested one, winning. In this tableau, it is evident that a markedness constraint, like *CCC, is needed to predict the correct surface form. Without it, the alignment constraint would force an infixed -C_1- reduplicant.

(6)

	RED + ʔułqay	MAX-M	ALIGN-L_{root}	*CCC	*COMPLEX	MAX	DEP	ALIGN-L_{red}
	a. ʔu**ʔ**łqay			*!				***
☞	b. ʔu**ʔu**łqay							****
	c. ʔułqay	*!						
	d. ʔu**ʔ**qay					*!		***
	e. ʔu**ʔ**əłqay						*!	***
	f. ʔe**ʔ**ułqay						*!	***
	g. **ʔu**ʔułqay		*!					**

Though the analysis thus far can account for most of the data, it does not explain the diminutive reduplication of the three CVC monosyllabic roots in (7). The non-reduplicated word *toʔ* 'ice' in (7b) corresponds to the diminutive form *tetoʔ*, which has an epenthetic vowel /i/ in the first syllable. This differs from the first two patterns, where we might expect forms like **totʔ* or **totoʔ*, which have no epenthetic vowel. In the prefixing analysis, these reduplicants are characterized as taking a C_1i- shape and occurring with nouns that have schwa as

a first vowel and strong roots of the shape CAC, where A represents a full vowel (Watanabe 2003: 386). In the present analysis, these nouns are best characterized as having -C_1- infixation, though the reduplicant is aligned with the left edge of the root vowel. /i/-epenthesis occurs between the stem C_1 and the reduplicant C_1 and the vowel surfaces as [e] in accordance with regular allophonic rules (Watanabe, 2003:11).

(7) -[i]C_1- diminutive reduplication with CVC# bases

a.	toʔ	'ice'	tetoʔ	'small amount of ice'
b.	puk	'book'	pepuk	'small book'
c.	pun	'spoon'	pepun	'small spoon'

The strong roots in (7), such as *puk* 'book', cannot be accounted for by the present analysis. The constraints presented so far and their relative ranking would predict a -C_1- infix with no epenthesis, **pupk*, such as in (8). This results from ranking DEP above ALIGN-L_{red}, such that the /i/-insertion in the attested candidate results in a fatal violation of DEP. The winning candidate, **pupk*, is further problematic because it inevitably forms a foot that is not binary on either the level of the mora or syllable. Therefore, this candidate can be ruled out with the inclusion of a FT-BIN constraint,[6] given in (9), which is highly motivated in the language (Blake, 2000) and ranked above the reduplicant alignment constraint.

(8)

	RED + puk	MAX-M	ALIGN-L_{root}	*CCC	*COMPLEX	MAX	DEP	ALIGN-L_{red}
	a. pu**pu**k							****!
☞	b. pu**p**k							***
☹	c. pe**p**uk						*!	***
	d. puk	*!						***
	e. **p**epuk		*!				*!	

[6] I assume a GRWD = PRWD constraint to necessitate building a foot.

(9) Binary feet constraint

FT-BIN:	Feet should be binary at either the level of the syllable or the mora. Assign a violation mark for any foot that is not binary on some level.

Though FT-BIN can successfully eliminate the candidate with a -C_1- reduplicant and no epenthesis, the -C_1V- candidate, **pupuk*, fares better on DEP. This suggests that ALIGN-L_{red} must be ranked above DEP, as shown with the partial ranking in (10). Candidate (10c) fatally violates FT-BIN because it does not have a binary foot at the level of the syllable or the mora[7]. Candidate (10a), with the -C_1V- infix, is eliminating for violating ALIGN-L_{red} four times. The attested candidate, (10b), violates the alignment constraint three times and the lower ranked DEP constraint once. This ranking predicts the correct winner.

(10)

	RED + puk	FT-BIN	ALIGN-L_{red}	DEP
	a. ($pu_{\mu}.\mathbf{pu}_{\mu}k_{\mu}$)		****!	
☞	b. ($pe_{\mu}.\mathbf{p}u_{\mu}k_{\mu}$)		***	*
	c. ($pu_{\mu}\mathbf{p}_{\mu}k_{\mu}$)	*!		

However, this introduces a ranking paradox because the -[i]C_1- diminutives, such as *puk* in (10), require ALIGN-L_{red} to be above DEP and the -C_1V- ones, such as *ʔułqay* in (6), require the reverse. This is immediately apparent when considering the form in (11), which shows *nanat* as the diminutive form of *nat* 'night'. This is the one example where a -C_1V- infix is found with a CVC# root. The ranking paradox is shown in (12), where the partial ranking needed to derive *pepuk* in (10) predicts the wrong diminutive form of *nat*. Candidate (12c), which builds a mono-syllabic tri-moraic foot, fatally violates FT-BIN. The attested candidate, (12a), incurs four violation marks under ALIGN-L_{red} and subsequently loses to the -[i]C_1- diminutive candidate, (12b). In order to predict the correct winner, DEP would need to be ranked above ALIGN-L_{red}.

[7] As in Blake (2000), I assume that full vowels and coda consonants are moraic.

(11) -C_1V- diminutive reduplication with a CVC# base

a. nat ‘night’ nanat ‘a short night (like in summer)’

(12)

	RED + nat	FT-BIN	ALIGN-L_{red}	DEP
☹	a. (na_{μ}.**na**$_{\mu}t_{\mu}$)		****!	
☞	b. (ne_{μ}.**na**$_{\mu}t_{\mu}$)		***	*
	c. (na_{μ}**n**$_{\mu}t_{\mu}$)	*!		

There is no clear way to resolve the ranking paradox through the reranking or addition of constraints. The base forms given in (7) and (11) differ minimally because they are all of a CVC# shape. Similarly, there are nouns that start with a CVCC- pattern but do not take a -C_1V- infix as in (4). Of the 72 diminutive forms, the two in (13) are formed with an -[i]C_1- infix. As -C_1V- and -[i]C_1- infixes are found in the diminutive forms of both the CVCC- and CVC# nouns, there is no clear phonological motivation for the choice of one over the other. Therefore, I do not propose any strict ranking of the two in the present analysis though and leave this open as an avenue of future examination. Out of the 72 diminutives considered in this paper, only five unambiguously take an -[i]C_1- infix. All four of the five diminutives that take a -[i]C_1- have an underlying /u/. In contrast, seven of the eight -C_1V- nouns have an underlying /a/, with only [ʔułqaj], *snake*, having an underlying /u/. Given the small number of -C_1V- and -[i]C_1- diminutive forms overall and that they were only provided with CVCC- and CVC# bases, -C_1- infixation seems to be the default reduplication strategy, with the other two arising in particular phonological environments where -C_1- infixation would result in worse surface forms. Based on preliminary data, it appears that -C_1V- infixes are preferred with roots with an underlying /a/ and -[i]C_1- infixes are preferred with /u/ roots. Additionally, given the relatively small number of nouns, it is possible that the relative ranking of DEP and ALIGN-L_{red} is lexically specified in the formation of the diminutive.

(13) -[i]C_1- diminutive reduplication with CVCC- bases

a. mušmuš	‘cow’	memušmuš	‘small cow’
b. ṯaqt	‘mountain’	ṯeṯaqt	‘small mountain’

The low number of -C_1V- and -[i]C_1- diminutives may suggest a lower frequency of CVCC- or CVC# nouns in the language. However, this is not necessarily true. Out of a total of 19 nouns that my consultant could not make diminutive through reduplication,[8] 11 were CVCC or CVC#. There is also an

[8] These words were given following the word *titul* ‘small’.

additional set of CVCC- nouns given in (14) that take a -C_1- infix in diminutive reduplication. These reduplicated forms also offer evidence for the *CCC constraint as the only tri-consonant clusters include *s*, which behaves exceptionally in clusters in ʔayʔaǰuθəm (Watanabe 2003: 16). Otherwise, clusters are simplified by deletion or epenthesis. This is seen with the loss of *y* in the diminutive form of *x̣ayǰɪs* 'rock' in (14f), *x̣əx̣ǰɪs*, and the addition of a schwa in the diminutive form of *qatxʷ* 'fire' in (14e), *qaqtəxʷ*. Further, with the exception of (14b) *saplin* 'bread', all of the non-reduplicated nouns in (14) have an underlying schwa in the first syllable. In Watanabe (2003: 386), stems with a schwa as the first vowel are shown to take an epenthetic /i/ in diminutive reduplication. The form *kʷekʷaʔsta* 'small cup' is reported in both Blake (2000:344) and Watanabe (2003: 390). Under the present analysis, this form has -[i]C_1- infix. However, in the present data, the same diminutive form was given as *kʷokʷsta*, with a -C_1- infix. While this minimally suggests interspeaker differences, it also indicates that changes may have occurred in the ʔayʔaǰuθəm reduplication system that have resulted in fewer -[i]C_1- diminutives.

(14) -C_1- diminutive reduplication with CVCC- bases

a.	qəsnay	'shirt'	qəqsnay	'small shirt'
b.	saplɪn	'bread'	sasplɪn	'small bread'
c.	kʷasta	'cup'	kʷokʷsta	'small cup'
d.	čɪtkamɪn	'knife'	čɪčkamɪn	'small knife'
e.	qatxʷ	'fire'	qaqtəxʷ	'small fire'
f.	x̣ayǰɪs	'rock'	x̣əx̣ǰɪs	'small rock'
g.	nʌpnač	'pants'	nanpɪnač	'small (child's) pants'
h.	ǰɛnxʷ	'fish'	ǰɪǰnəxʷ	'small fish'
i.	θʊkʷnačten	'chair'	θɪθkʷənačtən	'small chair'

Harris (1981: 4) described difficulties eliciting plural or diminutive reduplicated forms in his dissertation on the Island dialect of ʔayʔaǰuθəm. He suggests that a possible explanation for this is that the reduplicative processes fall out of use with the decline of the language. While the sparse number of -C_1V- and -[i]C_1- diminutives may suggest a similar situation for the Mainland dialect of ʔayʔaǰuθəm, the considerable number of -C_1- diminutives reflect a more positive reality. While there may be erosion in the breadth of reduplicative processes available to form diminutives, this does not necessarily reflect the vitality of diminutive reduplication or the state of the language as a whole. Sapir (1915) lists a considerable number of diminutive forms, which pattern in unique ways, further than the three types described in the present paper. Some of the listed nouns that would fall into the -[i]C_1- infix category, or a modified version of it with a different epenthetic vowel, correspond to nouns given with -C_1- diminutives in the present paper or those that could not be diminutivized in any of the three manners. While the variety of Sapir's (1915) reduplicated forms suggest lexically encoded reduplication strategies, the data in the present paper presents a phonologically regular division where -C_1V- and -[i]C_1- diminutives

only occur where -C_1- creates phonologically worse candidates. Therefore, the changes in diminutive reduplication in ʔayʔaǰuθəm may be analyzed as the extension of the -C_1- infixation strategy to a broader set of words. There may be some lexical properties of diminutive formation retained in the selection of -C_1V- and -[i]C_1- diminutives, which are only separable if the root vowel is /u/ or /a/. Given the lower frequency of these forms and that the major difference is limited to the choice between candidates with /i/-epenthesis or reduplication of the root vowel, I conclude that the ranking of ALIGN-L_{red} and DEP is variable and highly lexicalized, but can account for the data presented in this paper. However, overall, -C_1- infixing diminutive reduplication appears to be a productive and largely phonologically regular process in ʔayʔaǰuθəm.

3 Motivations for Reanalysis

A straightforward analysis of diminutive reduplication in ʔayʔaǰuθəm is possible when the reduplicant is treated as an infix, rather than a prefix. However, there are further reasons to re-evaluate the traditional prefixing analysis. For example, the clearly divisible behaviour between *root vowel retaining* (imperfective) and *root vowel deleting* (diminutive and stative plural) C_1V- types of reduplication provides a straightforward argument for reanalysis. If the reduplication is C_1V- for each of these processes, than it is unclear why the vowel would delete in some circumstances and not others. These differences are not an issue under the proposed infixation analysis as imperfective C_1V- prefix is inherently different from the diminutive -C_1- infix. Therefore, the divergent behaviour is expected, rather than challenging to account for. Additionally, the diminutive infix analysis does not require stipulating that the root vowel deletes, which fits better with the language overall. Deletion of a root segment, which is purported to happen to the root vowel in prefixing C_1V- reduplication, is an extremely uncommon phonological process in ʔayʔaǰuθəm. Further, there are instances where an analysis that proposes root vowel deletion must also propose that this deletion results in surface forms that are inconsistent with sound patterns elsewhere in the language.

There is strong evidence that the phonological grammar of ʔayʔaǰuθəm protects root segments from deletion. Every syllable in ʔayʔaǰuθəm must have an onset, suggesting that there is a high-ranked ONSET constraint and there is no evidence that this constraint is ever violated (Blake, 2000: 126). Following from this, a morphological process that results in two adjacent vowels, such as affixation, will motivate the resolution of hiatus by either epenthesis or deletion to ensure that every syllable has an onset. Both strategies are found in ʔayʔaǰuθəm. Deletion is found as a way of reconciling vowel hiatus between affixes. For example, when the second person plural object suffix *-anapi* is followed by the third person ergative subject suffix *-as*, the second vowel is deleted, such as in [ʔaq̓nampɪs][9], meaning ‘he chases you all’. Thus, the deletion

[9] There seems to be something else going on in this particular example, with the loss of

of an affix vowel is permitted when two vowels are adjacent. However, deletion is not found in the resolution of vowel hiatus between a root and a lexical suffix. When a vowel-final root and a vowel-initial lexical suffix are combined, epenthesis occurs, avoiding any violation of the high-ranked ONSET constraint. This is shown in (15) with data from Blake (2000) for the lexical suffix *-aya* in (15a–b), 'container', *-aj̓a* in (15c), 'leaves', and *-uɬ* in (15d–f), 'young of a species'. For *-aya*, [h]-epenthesis resolves the vowel hiatus resulting from the combination of the two morphemes. A similar effect is seen with *-uɬ*, where [ʔ]-epenthesis occurs. Deletion does not appear to occur between a vowel-final root and a vowel-initial lexical suffix.

(15) Vowel-final roots and vowel-initial lexical suffixes in Blake (2000)

a.	talahayɛ tala=aya 'purse'	b.	q̓ʌnayohayɛ q̓ʷn=ayu=aya 'sewing needle case'
c.	ʔosahaʔj̓ɛ ʔusa=aj̓a 'blueberry leaves'	d.	sɪsm̓aʔoɬ DIM+sm'a=uɬ 'small blue mussel'
e.	p̓ip̓x̌ʷuʔuɬ DIM+p̓uxu=uɬ 'small raven'	f.	t̓$^{\theta}$ot̓$^{\theta ǝ}$maj̓uʔoɬ DIM+t̓$^{\theta}$umaj̓u=uɬ 'small barnacle'

Blake (2000: 127) treats lexical suffixes as bound roots, which means that they are directly evaluated under the constraints targeting roots, rather than affixes. Therefore, the resolution of vowel hiatus provides a clearer picture regarding the status of root vowels. When the combination of roots and lexical suffixes results in adjacent vowels, the grammar prefers epenthesis. This satisfies the high-ranked ONSET constraint, while simultaneously protecting vowels with root-status in the input. This same retention is not seen when the combination of two grammatical affixes yields vowel hiatus. This suggests that root faithfulness is prioritized over affix faithfulness. This is further supported in Blake's (2000) partial rankings where ROOT FAITH constraints are undominated, while AFFIX FAITH is dominated by *COMPLEX ONSET. ʔayʔaj̓uθəm's strong preference for input-output root faithfulness is consistent with cross-linguistic literature, which argues that the ranking ROOT FAITH >> AFFIX FAITH is universal (McCarthy & Prince, 1995; Alderete, 2001). The deletion of a root vowel in ʔayʔaj̓uθəm, as posited in the diminutive reduplication process, is extremely marked.

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one of the object suffix vowels and place assimilation within the suffix. However, this fits with an assumption that deleting affix vowels is largely permissible.

Diminutive C_1V- prefixing reduplication is further problematic under Base-Reduplicant Correspondence Theory (BRCT) as described in McCarthy and Prince (1995). Some ʔayʔaǰuθəm diminutives are given in (16), with the reduplicant marked in bold following the traditional prefixing account. In (16b), the reduplicant is *tu-* from an underlying *tuɬəɬ*. However, not all of the reduplicant segments correspond to ones present in the surface form of the base. The vowel in the root *tuɬəɬ* is deleted in the surface form, meaning that the base-reduplicant relationship is inverted. This cannot be captured in the basic BRCT model, but requires appealing the full model, which includes an input-reduplicant correspondence relationship in addition to the input-base and base-reduplicant ones (McCarthy & Prince, 1995: 110). While Blake (2000: 198) does not give a formal account of reduplication in ʔayʔaǰuθəm, she reaches a similar conclusion, hypothesizing the deletion of the root vowel in diminutive reduplication requires comparing the vowel in the reduplicant to the vowel in the input, to ensure that they match. However, McCarthy and Prince's (1995) inclusion of input-reduplicant faithfulness constraints comes with the caveats that it has limited benefit and that it cannot be ranked above input-base faithfulness. This presents a significant problem in accounting for the ʔayʔaǰuθəm data in (16).

(16) ʔayʔaǰuθəm diminutive reduplicants under C_1V- prefixing analysis

a.	tala	'money'	**ta**tla	'a little bit of money'
b.	tuɬəɬ	'bed'	**tu**tɬəɬ	'small bed'
c.	ʔayaʔ	'house'	**ʔa**ʔyaʔ	'small house'
d.	memo	'cat'	**me**mmoʔ	'kitten'

In the full model of BRCT, the inclusion of an input-reduplicant correspondence relationship is crucial for accounting for languages where other markedness constraints interfere with the base-reduplicant correspondence. This accounts for cases, such as in (3), where the reduplicant has stem material from the input that is omitted from the base in the surface form. McCarthy and Prince (1995) argue for the inclusion of this additional correspondence relationship to account for distributive reduplication in Klamath, where markedness constraints motivate syncope of a base segment, while the reduplicant retains it. However, the reduction of the base is motivated by other constraints that are active in the general phonological grammar, rather than as an effect associated with a specific reduplicative process. A similar analysis cannot be extended to ʔayʔaǰuθəm, as the deletion of root vowels is extremely marked and not generally motivated by other constraints in the language. The diminutive root vowel deletion can only be explained as a part of the specific reduplicative process, as is evident in a comparison with the imperfective C_1V- reduplication where the root vowel is retained. While input-reduplicant correspondence could potentially account for the diminutive patterns in ʔayʔaǰuθəm in concert with other markedness constraints, this would require demoting the input-base reduplicant correspondence constraints in the assessment of diminutive and plural stative

reduplication, which violates universal assumption that input-base constraints dominate input-reduplicant ones.

As established above, there is little evidence for high ranked constraints that would motivate the deletion of a root vowel in the *root vowel deleting* (diminutive and stative plural) reduplicative processes but not in *root vowel retaining* (imperfective) ones. The deletion of the root vowel in diminutive reduplication does not appear to ameliorate candidate performance on any other markedness constraint, but it does result in a greater number of violations to other high-ranked constraints that would otherwise be satisfied. A substantial number of phonological processes in ʔayʔaǰuθəm apply to improve prosodic structure, with high-ranking constraints militating for binary feet at the level of the mora and, just beneath that, the level of the syllable (Blake, 2000). In (17), I show examples of C_1V- diminutive reduplicants in words with three syllables, where the retention of the root vowel would result in better forms than the attested ones. For example, retention of the root vowel in (17a) would result a form like **susupayɛ*. This unattested form perfectly meets the requirement of foot binarity at the level of the mora and the syllable. Whereas, *sospayɛ*, the actual diminutive form, does not have binary feet at the level of the syllable and thus incurs further violation marks under both foot structure and FAITH ROOT constraints. Similarly, **θɪθɪčapoq* would fare better on prosodic constraints than the form in (17d). The unattested candidate with the root vowel retained can be segmented into two bi-syllabic feet, where the last one incurs a single violation mark for being a tri-moraic foot. The actual form, *θɪθčapoq*, fares the same on the moraic foot binarity constraint and additionally violates the syllable-level binarity constraint. It is unclear what would motivate the choice of a candidate that deletes the root vowel, violating several high-ranked constraints, over other potential candidates that are better prosodically.

(17) Diminutive reduplication applied to 3 syllable bases in ʔayʔaǰuθəm

a.	supayɛ	‘axe’	**so**spayɛ	‘small axe’
b.	x̱aẋčmɪn	‘fork’	**x̱a**x̱čamɪn[10]	‘small fork’
c.	tihayɛ	‘tea’	**ti**thayɛ	‘a little bit of tea’
d.	θɪčapoq	‘hat’	**θɪ**θčapoq	‘small hat’

Given the language-internal and theoretical issues with treating diminutive reduplication as C_1V- prefixing, there is good reason to re-evaluate the shape and position of the reduplicant in ʔayʔaǰuθəm. The infixation analysis laid out in Section 2 does not stipulate root vowel deletion and therefore avoids the problems that arise with the deletion of the root vowel. For this reason, the infixation analysis is a better fit for the data and the language.

[10] I also have this transcribed elsewhere as *x̱əx̱čamɪn*, where vowel reduction improves foot binarity at the level of the mora because schwa is non-moraic.

4 The Cross-Salish Reduplication Contrast Enhancement Argument

The curious differences between the imperfective and diminutive "C_1V-prefixing" reduplicative processes in ʔayʔaǰuθəm have been previously highlighted in the study of contrast in reduplication. Though the present analysis shows that positing a different reduplicant shape and position can easily account for the divergent behaviour, there is an alternate explanation that merits consideration. Urbanczyk (2005) argues that the differences between diminutive and imperfective reduplication in ʔayʔaǰuθəm, with respect to root vowel deletion, arise to enhance contrast between similar surface forms. In this analysis, she retains the traditional C_1V- prefixing analysis and uses it as evidence for contrast enhancement in reduplication. She concludes the paper by noting that ʔayʔaǰuθəm might not be the best example, as diminutive reduplication occurs with nouns and the imperfective with verbs, meaning that the reduplicants may maintain contrast due the identity of the base. However, she points out the third type of C_1V- reduplication, plural C_1V-, can also occur on verbs and therefore further study may find minimal pairs with the imperfective.

While contrast enhancement is undoubtedly important in language, it is highly unlikely that this is the reason for the differences described in ʔayʔaǰuθəm. The contrast argument largely only pertains to strong roots, where root vowel deletion is apparent. Root vowel deletion is documented for weak roots in all three types of C_1V- reduplication, meaning contrast is not enhanced or only barely amplified in some forms by glottalization. Further, the diminutive and plural stative reduplication processes are almost identical, as laid out in Table 1 (in Section 1 above). Therefore, if the differences are the result of contrast enhancement, the extent of its helpfulness in acquisition and communication is questionable. It is also unclear why ʔayʔaǰuθəm would require an enhancement of contrast between these three particular types of reduplication, as they are used in considerably different contexts and constructions. Plural CV-reduplication occurs solely with stative predicates (Watanabe, 2003: 376). Therefore, this type of reduplication is accompanied by other aspectual marking that disambiguates it from the imperfective. Even more conclusively, the imperfective and the stative aspect cannot co-occur (Watanabe, 2003: 414), meaning a form marked for stative aspect which also bears CV- reduplication will necessarily denote plurality. Further, Urbanczyk's (2005: 232) observation that the diminutive does not occur with the same roots as the imperfective is largely correct. Imperfective reduplication is associated with verbs and the diminutive generally applies to nouns. The motivation for developing different surface forms in ʔayʔaǰuθəm for the same reduplicative process as a method of contrast enhancement is unclear as there are other cues to distinguish the imperfective from the stative plural and the diminutive.

The contrast enhancement analysis only solves the issue of the surface forms and does not address the deeper implications of CV- prefixing for the

grammar, as laid out in Section 2. While contrast is important for communication, it is doubtful that enhancement alone is reason to force violations of or demote multiple high-ranked faithfulness and prosodic constraints. Positing that diminutive reduplication is infixation is not only cohesive with the phonological grammar, it also fits with the morphological patterns in the language and with cross-Salish patterns. ʔayʔaǰuθəm has other affixes which are infixed into a root, such as the possessive affix /-hV-/ (Blake, 2000: 269) and a stative marker /-ʔ-/ (Watanabe 2003: 328). It is also pertinent to highlight that [ʔ]-infixation, following a root vowel, has been attested marginally to mark the diminutive in previous literature, though this fourth type of diminutive was only attested in one form (Watanabe 2003: 389). Further, -C_1-reduplication is not only attested elsewhere in Salish, but also is used to mark the diminutive in Shuswap (Bell, 1983). This provides support for the validity of such an analysis in ʔayʔaǰuθəm. Further, Haynes (2007) reanalyzes a type of reduplication, associated with the suffix -mút, in Kwak'wala as prefixing or infixing reduplication of a single consonant.[11] Though it is a Wakashan language, not Salish, Kwak'wala and ʔayʔaǰuθəm are traditionally spoken in neighbouring areas (Blake, 2000: 314). Therefore, proposing infixing reduplication for the diminutive is cohesive with the structure of ʔayʔaǰuθəm while fitting with familial and areal patterns.

5 Conclusion

Diminutive reduplication in ʔayʔaǰuθəm is best characterized as -C_1- infixation. This analysis addresses and resolves several key issues with the previous C_1V-prefixing analyses. It fits with language internal and external influences, appeases threats to well-established universals in phonological grammar, provides a more descriptively intuitive account of how surface forms are derived, and tidily accounts for the differences between diminutive and imperfective reduplication. While there are still open questions regarding the state and vitality of diminutive reduplication in ʔayʔaǰuθəm and the assignment of glottalization, which are crucial to a more complete formal analysis, there is strong evidence to treat diminutive reduplication as -C_1- infixation.

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Overt third person object agreement in ʔayʔaǰuθəm*

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Abstract: Though arguments have been made for overt third person object agreement in other Coast Salish languages, like Halkomelem (Wiltschko, 2003) and Squamish (Jacobs, 2011), a similar analysis has not yet been considered for ʔayʔaǰuθəm. However, the discovery of a non-control stative construction marked by raised pitch in ʔayʔaǰuθəm provides evidence for a reanalysis of transitivizer and object suffix morphology. This paper introduces new morphophonological evidence for an overt third person object suffix, *-x^{w}*, in ʔayʔaǰuθəm. This analysis is better able to account for stative allomorphy, particularly the under-described non-control stative, and the mapping between underlying forms and surface representations in the transitivizer-object paradigms. In the light of the proposed reanalysis, I propose revised underlying forms for transitivizer and object morphology. Overall, this paper provides morphophonological evidence for the innovation of overt third person agreement in a Coast Salish language, which complements the morphosyntactic arguments in Wiltschko (2003) and Jacobs (2011).

Keywords: object suffixes, third person, overt agreement, Comox, stative, transitivizer suffixes

1 Introduction

Most Salish languages, including the reconstructed Proto-Salish, lack overt third person object pronominal morphology (Newman, 1979). The only clear exception to this generalization is Bella Coola, which has innovated an overt third person object suffix, *-i* (Nater, 1984:38). Previous accounts of pronominal morphology in ʔayʔaǰuθəm, also known as Comox-Sliammon, have described the language as fitting with the general Salish pattern, taking a zero-marked third person object (Davis, 1978; Watanabe, 2003).

Watanabe (2003:201) provides full paradigms and supporting examples that demonstrate the full range of transitivizer and object suffix combinations. However, it is not clear how the surface forms, given in Table 1, are derived. In particular, problems arise when mapping underlying forms to the resultant non-control stative surface forms with a third person object, which behave as though

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they contain a full vowel in the input despite there being no possible source. Further, there are paradigmatic asymmetries between forms that are purported to have the same input, which cannot be readily explained by the phonology. For example, [xʷ] is a conditioned surface alternation of //g// that only occurs when in a word-final position (Blake, 1992; 2000). However, the //g// in the NTR and CTR transitivizers consistently surface as [xʷ] with a third person object, even if overt subject morphology follows. Additionally, the //g// in the causative transitivizer is retained with a third person object and //t// is deleted. With any other object suffix, it is the //g// that deletes.

Table 1: Transitivizer and Object Morphology in Watanabe (2003)

	CTR - //t//	NTR - //ng//	Causative - //stg//
1SG.OBJ	-θ	-nu-mš	-stu-mš
2SG.OBJ	-θi	-nu-mi	-stu-mi
3OBJ	-t-Ø	-(n)əxʷ-Ø	-sxʷ-Ø
1PL.OBJ	-t-umuł	-n-umuł	-st-umuł
2PL.OBJ	-t-anapi	-n-anapi	-st-anapi
Reflexive	-θut	-nu-mut	-st-namut
Reciprocal[1]	-t-awł	-nxʷ-igas	-st-awł

An alternative analysis, explored in the present paper, is that ʔayʔaǰuθəm, like Bella Coola, has developed overt third person object agreement. A similar claim has been made for other Central Salish languages. Wiltschko (2003) argues, on the basis of passive and reciprocal constructions, that the transitivizer *–nəxʷ* should be reanalyzed as a combination of a transitivizer *-n* and an overt third person object agreement suffix, *-əxʷ*, in Halkomelem. Jacobs (2011) presents an analogous treatment of this transitivizer in Squamish, also suggesting that *-əxʷ* is a third person object. ʔayʔaǰuθəm has a comparably shaped non-control transitivizer (NTR), *-əxʷ*. While this allomorph also occurs exclusively in the context of a third person object, a similar overt object agreement analysis has not been considered for ʔayʔaǰuθəm.

Wiltschko (2003) and Jacobs (2011) construct their arguments on the reinterpretation of existing morphological facts, rather than introducing new empirical evidence to support their conclusions. Further, their arguments come almost exclusively from the domain of morphosyntax. The present paper provides new phonological evidence for an overt third person object suffix in a Coast Salish language, which largely complements the conclusions of Wiltschko (2003) and Jacobs (2011) for Halkomelem and Squamish, respectively. More specifically, the paper introduces new evidence from the distribution of stative

[1] Note that the control and the causative reciprocal suffixes match where the non-control differs from them. The non-control and causative pattern together elsewhere, in contrast to the control forms, so this is an interesting exception.

marking on verbs suffixed with the non-control transitivizer. I will show that treating *-x*^{w} as third person object agreement and further revising the underlying forms for transitivizer and object morphology can account for the derivation of surface forms in ʔayʔaǰuθəm, both generally and in the formation of the non-control stative. The derivation of the non-control stative, which is marked by contrastive pitch, provides a morphophonological argument for overt third person agreement in a Coast Salish language.

2 Stative Morphology and the "Marginal" Non-Control Stative

Stative aspect in ʔayʔaǰuθəm is marked on a predicate in three main ways. As shown in Table 2, these include the affixation of an *-it* suffix, /í/-infixation, and raised pitch[2]. With the exception of suffixation, where *-it* attaches to the right edge of the root, the formation of the stative is generally more complicated than simple linear affixation. Further, raised pitch is found across all stative forms, even if other segmental stative morphology is present. While Watanabe (2003:410–449) offers an overview of the stative allomorphy and Blake (2000:111) describes an exceptional stress pattern that is associated with the *-it* suffix, the overall morphophonology of the stative has not previously been analyzed.

Table 2: Stative Morphology (Adapted from Watanabe, 2003)

Root and Morpheme Combination	Stative Marking
CVC Root (Intransitive)	-ít
CVCC Root (Intransitive)	CVC[í]C
Root + //-ʔəm// (Active Intransitive)	-ʔ[í]m
Root + //-Vm// (Middle)	-[í]m
Weak Root + //-t// (Control Transitive)	-[í]t
Strong Root + //-t// (Control Transitive)	Raised Pitch on Vowel
Root + //-ng// (Non-Control Transitive)	-n[í]x^{w}
Root + //-stg// (Causative)	-ít and -st[í]x^{w}

The data in Table 2 provide evidence for two generalizations. The first of these is that the *-it* suffix is limited to cases where the stative morpheme is attached to intransitive and causative markers. Second, there is a stative morpheme /i/ that applies with all the other intransitive and transitive suffixes. The only exception to this is the control stative with a strong, that is, full vowel, root. The strong root control transitive is only distinguished from its non-stative counterpart by raised pitch (Watanabe, 2003:433). Therefore, /í/-infixation applies when the transitivizer morpheme has either no vowel or a schwa. With a full moraic vowel, the surface variant of stative marking is raised pitch.

[2] Lexical suffixes can also mark stativity with glottal phenomena, such as /ʔ/-insertion or placement and displacement of glottalization (Watanabe, 2003:328–331).

Given the assumptions above, the alternation between [í] and raised pitch alone can be accounted for in a constraint-based analysis, such as Optimality Theory (Prince & Smolensky, 1993). I assume that schwa is non-moraic, as in Blake (2000). Stative marking can then be derived with two markedness constraints, two gradient alignment constraints, and two faithfulness constraints, all given in (1).

(1) Constraints for the Stative [í] ~ [Ø] Alternation

ONSET:	All syllables must have an onset. Assign a violation mark for any syllable that does not have an onset.
FT-BIN$_{Syll}$:	Feet should be binary at the level of the syllable. Assign a violation mark for any foot that does not have exactly two syllables.
ALIGN-R(Transitivizer, Stem): *[ALIGN-R(T,S)]*	The right edge of a transitivizer morpheme must align with the right edge of the stem. Assign a violation mark for every segment between the right edge of the transitivizer and the right edge of the stem.
ALIGN-R(Stative, Stem): *[ALIGN-R(S,S)]*	The right edge of a stative morpheme must align with the right edge of the stem. Assign a violation mark for every segment between the right edge of the stative morpheme and the right edge of the stem.
MAX$_{\mu}$:	Every mora in the input must be present in the output. Assign a violation mark for every mora in the input that is not present in the output.
MAX:	Every segment in the input must be present in the output. Assign a violation mark for every segment in the input that is not present in the output.

The constraint ONSET requires every syllable to have an onset. There is no evidence that this constraint is ever violated in the language (Blake, 2000:126), suggesting that it is highly ranked. FT-BIN$_{Syll}$ desires binary feet at the level of the syllable. This is also motivated elsewhere in the language, as the most optimal foot in ʔayʔaǰuθəm is binary at both the level of the syllable and the mora (Blake, 2000:202).

Alignment constraints, as in McCarthy and Prince (1993), determine where the stative morpheme is positioned, relative to the transitivizer. Both make

reference to the morphological stem, which is defined as the verb root and derivational suffixes, following Davis and Matthewson (2009:1011)[3]. ALIGN-R(T,S) motivates the alignment of the right edge of a transitivizer morpheme with the right edge of the stem and ALIGN-R(S,S) requires the same of the stative morpheme. Violation marks are assigned for every segment that interferes between the right edge of the suffix and the right edge of the stem. The faithfulness constraints MAX_{μ} and MAX punish mora and segment deletion, respectively, between the input and the output forms (McCarthy & Prince, 1995).

(2)

	yəp̓+[íμ]+ʔəm]stem	MAXμ	ALIGN-R(T,S)	ONSET	FT-BINSyll	ALIGN-R(S,S)	MAX
	a. yəp̓íʔəm]				*!	***	
	b. yəp̓ʔə́m]	*!					*
	c. yəp̓ʔəm]	*!					*
	d. yəp̓ʔəím]			*!	*!	*	
	e. yəp̓ʔəmí]		*!		*!		
☞	f. yəp̓ʔím]					*	*
	g. yəp̓ʔəm]í				*!	*	

A tableau for an active intransitive stative stem based on the root *yəp̓*- 'to break' is shown in (2), demonstrating that the /í/-infixation stative forms can be derived if ALIGN-R(S,S) and MAX are ranked below the other constraints. Otherwise, the constraints cannot be ranked relative to each other. Raised pitch is denoted by an accent, [´][4]. Candidates (2b) and (2c) fatally violate MAX_{μ}, by deleting the moraic /í/ of the stative morpheme. Candidate (2d) has vowel hiatus, which results in a fatal violation of ONSET. Candidate (2e) has the stative morpheme aligned with the right edge, resulting in a fatal violation of ALIGN-R(T,S). (2d) and (2e) also violate the high ranked prosodic constraint, $\text{FT-BIN}_{\text{Syll}}$. Candidate (2a), which positions the stative morpheme between the root and the active intransitive suffix, is eliminated by $\text{FT-BIN}_{\text{Syll}}$. The attested candidate, (2f), with the stative morpheme infixed into the active intransitive suffix, only violates lower ranked alignment and faithfulness constraints and is subsequently selected by EVAL. This supports the crucial ranking of MAX and ALIGN-R(S,S)

[3] The stem boundary is between transitivizer and object suffixes in the present analysis.

[4] There is reason to suspect that the language has developed sensitivity to pitch and, as such, I refrain from disambiguating pitch as a stand-alone feature from pitch as a possible correlate of stress. This is an issue for future phonetic work.

below the other constraints because the winning candidate violates each constraint once.

The contrastive pitch marking stativity on the control transitivizer (CTr) can be derived with the same constraints, though it requires MAX$_{\mu}$ to be ranked below ALIGN-R(T,S) and ONSET. This is shown in the derivation of the control stative with the root *yał-* 'to call' in (3). The candidates with no deletion, (3a) and (3d), fatally violate either ONSET and ALIGN-R(T,S) along with FT-BIN$_{Syll}$. Candidate (3e), which places the stative infix outside of the stem, fatally violates FT-BIN$_{Syll}$. The remaining two candidates, which feature the deletion of one of the full vowels, equally violate MAX$_{\mu}$. The attested candidate, (3c), vacuously satisfies the stative alignment constraint by deleting the segment, allowing it to win. Though not included in the present tableaux, the persistence of raised pitch, even with the loss of the original host segment, supports the existence of a high-ranked faithfulness constraint that penalizes the deletion of suprasegmental material. This motivates the re-association of high tone (raised pitch) to the transitivizer vowel, despite the deletion of /i/. The constraint ranking in (3) captures the generalization that /i/-epenthesis does not occur when the underlying form has a full, moraic, vowel. The ranking of MAX$_{\mu}$ over MAX means that it is preferable to delete a non-moraic segment, like a schwa, instead of a full vowel associated with a mora. In cases where there is no underlying vowel, such as weak CəC roots combined with the control transitivizer //-t//, /i/ is retained.

(3)

	$ya_{\mu}ł+[í_{\mu}]+a_{\mu}t]_{stem}$	ALIGN-R(T,S)	ONSET	FT-BIN$_{Syll}$	MAX$_{\mu}$	ALIGN-R(S,S)	MAX
	a. yałíat]		*!	*!		**	
	b. yałít]				*	*!	*
☞	c. yałát]				*		*
	d. yałatí]	*!		*!			
	e. yałat]í			*!		*	

Consistent with the generalizations about stative /í/-epenthesis, Watanabe (2003: 442) suggests that the non-control stative is marked by *-nix^{w}*, where the stative *-i-* is infixed into the non-control transitivizer, *-nx^{w}* (from //-ng//). However, this claim is based on only one root, *təχ^{w}-* 'to know'. The non-control stative form *təχ^{w}nínx^{w}* is odd, however, in that it retains the nasal from the underlying form //ng// of the non-control transitivizer, which is otherwise deleted before a third person object. Since *təχ^{w}-* is also the only inherently stative root to take stative morphology, and therefore appears to be semantically as well as morphologically anomalous, it seems safe to set it aside as an exceptional case.

Setting *təχ*^{w}- aside, there is an unexplained gap in the formation of stative predicates that has no clear semantic motivation. There is no reason why the aspectual properties of non-control and stativity would be incompatible. The absence of non-control stative forms is unexpected.

However, contrary to previous description, there is evidence for non-control stative forms that take an alternate form of stative marking: contrastive pitch. This means that the absence of *-nix*^{w} forms is not the result of semantic mismatch or chance, but instead the result of divergent morphology. Non-control and stative aspect can co-occur, as would be expected from their semantic properties: the gap is not indicative of a non-productive or marginal combination, but instead the result of an unexpected stative marking strategy. In particular, the non-control stative, *-núx*^{w}, is productively formed with raised pitch on the transitivizer vowel.

The data given in (4) are minimal pairs that exemplify a suprasegmental contrast in the non-control paradigm. The verbs in (4) are distinguished solely by pitch, and therefore are comparable to the strong root control stative forms described in Table 2. The transitivizer in the non-control predicate does not generally have raised pitch when paired with an auxiliary of rate, such as *hahays* 'slowly'. Watanabe (2003:413) claims that stative predicates are not accepted when accompanied by an auxiliary of rate since statives denote "a durative (possibly imperfective) situation that is not ongoing". A preliminary comparison shows that the distribution of raised pitch on the NTR morpheme corresponds to the stative. In other words, the alternation between high and low pitch shown in (4a) and (4b) represents a contrast between stative and non-stative forms.

(4) Non-Control Stative/Non-Stative Minimal Pairs – Auxiliary of Rate[5]

a. [hahays pənox^{w} q^{w}assəm]
hahays pən-ng q^{w}assəm
slowly bury-NTR flower
'She slowly planted the flower.'

b. [čɪč pənóx^{w} q^{w}assəm]
čɪ-č pən-ng q^{w}assəm
just.now-1SG.IND bury-NTR flower
'I just planted the flower.'

A similar alternation is shown in (5a) and (5b) between an event that happened in the past and one that has just occurred. In (5a), where the seal was caught the day before, the transitivizer does not have raised pitch. However, in (5b), where the seal was just caught, the transitivizer does demonstrate raised pitch, as expected for a stative. This interpretation is concurrent with a hypothesis of stativity as stative morphology refers directly to the result state of

[5] The first line in each of these examples represents a phonetic transcription and the second line is a morphemic breakdown.

an action. If an event has just occurred, the result state is more likely to hold. However, the addition of the time adverbial *sǰəsoɬ* 'yesterday' decreases the chance that the result state will still hold and therefore speakers are less likely to produce stative forms.

(5) Non-Control Stative/Non-Stative Minimal Pairs - Time of Event

a. [maʔax^{w}an ʔasx^{w}][6]
maʔ-ng-an ʔasx^{w} sdʒəsoɬ
get-NTR-1SG.ERG seal yesterday
'She caught a seal yesterday.'

b. [čɪč maʔáx^{w}an ʔasx^{w}]
čɪ-č maʔ-ng-an ʔasx^{w}
just.now-1SG.IND get-NTR-1SG.ERG seal
'I just caught a seal.'

Minimal pairs with contrastive pitch, such as those in (4) and (5), can be elicited for virtually any root. Almost every root can take the non-control stative raised pitch if given in a plausible and relevant context. Further, the addition of a time adverbial or auxiliary of rate can force a particular form. The use of contrastive pitch to signal stativity is highly productive, reinforcing the claim that there is no gap in the non-control stative paradigm. The combination of non-control and the stative aspect is not marginal.

3 NTR Stative: A Barrier to a Cohesive Analysis of Stative Morphology

Though contrastive pitch on the non-control transitivizer in (4) is analogous to that on the strong root control stative, it does not fit with the patterns in Table 2 and therefore proves problematic under the constraint ranking in (3). Watanabe (2003) suggests that the underlying form for the non-control transitivizer is //ng// and that the variation between surface forms arises from the alternation between [g], [w], [x^{w}], and [u], which is described in Blake (1992, 2000). Under this analysis, the *x^{w}* in the non-control transitivizer must come from //g// when before a null third person object. This means that the vowel in the non-control transitivizer suffix *-əx^{w}* must be epenthetic.[7] However, the high tone alternant

[6] The quality of the vowel in the non-control transitivizer differs from its usual value of [o] due to progressive vowel harmony across a glottal stop.

[7] The predicted form of the non-control stative is in fact the marginally attested *-nix^{w}*, given the generalization that morphemes without an underlying full vowel are marked for stative with /i/-epenthesis and is further predicted by the analysis that accounts for the other stative forms in (2) and (3). This is shown in (5), where the attested form incurs a violation under MAX$_{\mu}$ and subsequently loses to the form with /i/-epenthesis.

surfaces with [ú], not [í], meaning that it cannot be epenthetic and must be moraic.

In other words, the behaviour of the non-control stative predicts a full vowel in the underlying form. However, if //ng// is the underlying form of the non-control transitivizer, there is no possible source for this vowel, given that //g// is the only possible candidate, being able to become /u/ in a nuclear position (Blake, 1992). However, there is already an *x*^{w} in the surface form, which has no possible source aside from //g//, which becomes /x^{w}/ word finally. That in turn means that //g// cannot be the source of a full vowel and therefore that the transitivizer vowel can only be an epenthesized schwa. But if this is true, the non-control stative should be *-nix*^{w}, with /í/ replacing the schwa in the stative forms, following the general stative pattern shown in Table 2. With the availability of the /í/-infix to improve prosodic structure by breaking up consonant clusters, there is no clear motivation for the addition of an epenthetic vowel in the stative forms.

The retention of the vowel in the NTR morpheme, at the expense of the full stative vowel, argues that the transitivizer vowel is actually moraic, like the vowel in the strong root control statives. This is not consistent with the proposed underlying forms. Since the vowel in the non-control transitivizer, previously argued to be /ə/, is rounded and realized as [o], the general allophonic rules suggest that /u/ might be a more apt underlying form (Watanabe, 2003). However, it is unclear where /u/ could come from because the //g// cannot be the source and /u/ is not generally an epenthetic vowel in ʔayʔaǰuθəm (Blake, 2000:11), or any other Salish language.

(6)

	yəp+[íμ]+ng]stem	ALIGN-R(T,S)	ONSET	FT-BINSyll	MAXμ	ALIGN-R(S,S)	MAX
	a. yəṗínx^{w}]					**!	
☞	b. yəṗníx^{w}]					*	
☹	c. yəṗ(n)ə́x^{w}][8]				*		*!(*)
	d. yəṗnx^{w}í]	*!				*!	

The derivation of a non-control stative with the root *yəṗ-* ‘to break’ in (6) demonstrates how EVAL would select the incorrect form, with /í/-epenthesis, if the *x*^{w} is analyzed as part of the non-control transitivizer in the third person

[8] The (n) is bracketed in this example because it does not appear in the surface form, but the cluster simplification is motivated by additional constraints that are not included in the present analysis.

paradigm. Candidates (6a) and (6d) are eliminated for violations of the alignment constraints. The winning candidate, (6b), incurs a violation mark under the stem constraint, while the attested candidate, (6c), violates both MAX_{μ} and MAX. This results in EVAL selecting the wrong candidate. In order for the attested form to win, ALIGN-R(S,S) should be ranked above MAX_{μ}. This creates a ranking paradox, as it would predict that the stative infix should be deleted whenever a schwa is present, predicting the incorrect form in (6).

This paradox can be resolved by reconsidering the input forms, rather than the constraints. The contrastive pitch pattern is more compatible with analyzing *-x*^{w} as an object suffix, rather than as part of the underlying NTR //ng// morpheme. Under an overt third person object agreement analysis, the vowel in the NTR is not an epenthetic schwa. It comes from //g// and surfaces as /u/ because it is in a nuclear position. This /u/ is a full vowel, rather than a non-moraic epenthetic schwa, like in previous analyses: therefore it is unsurprising that it would act like the strong root control statives, which have a full link vowel that receives raised pitch rather than being replaced by /i/, as shown in Table 2. As shown in (7), reanalyzing the *x*^{w} as an object suffix allows for the derivation of the correct form. Candidates (7e) and (7f) maintain both vowels, resulting in vowel hiatus. This incurs violations under ONSET, as well as $\text{FT-BIN}_{\text{Syll}}$. Candidates (7a) and (7d), which maintain both vowels in non-adjacent positions, fatally violate $\text{FT-BIN}_{\text{Syll}}$ due to having three syllables that cannot be parsed fully into binary feet. Candidate (7b) is eliminated for violating ALIGN-R(T,S) because the transitivizer is one segment from the right edge of the stem. This means that candidate (7c), the attested form, wins. Treating *-x*^{w} as an object suffix accounts for why the non-control stative is marked with contrastive pitch, analogous to strong root control statives, and allows for a cohesive account of stative morphophonology. Though not explored in the present analysis, the reassignment of stative pitch to the full vowel can be accounted for with a faithfulness constraint that penalizes the deletion of suprasegmental features.

(7)

	yəp̓+[íμ]+ng]$_{\text{stem}}$+x^{w}	ALIGN-R(T,S)	ONSET	$\text{FT-BIN}_{\text{Syll}}$	MAX_{μ}	ALIGN-R(S,S)	MAX
	a. yəp̓ínu]x^{w}			*!		**	
	b. yəp̓ní]x^{w}	*!			*	*	*
☞	c. yəp̓(n)ú]x^{w}				*		*(*)
	d. yəp̓nu]x^{w}í			*!		**	
	e. yəp̓nuí]x^{w}		*!	*!			
	f. yəp̓níu]x^{w}		*!	*!			

3 Paradigmatic Evidence for Reanalysis

Previous descriptions of ʔayʔaǰuθəm state that the third person object suffix is a null morpheme (Davis, 1978; Blake, 1992; Watanabe, 2003). Table 1 summarizes the surface forms of transitivizers and objects under the null third person approach. The control transitivizer and object combinations are relatively straightforward. The transitivizer is *-t*, with the exception of the fused transitive-object suffixes for the first person singular, second person singular, and reflexive object suffixes, where the CTR *-t* has blended with a former *s* in the s-class object suffixes, yielding *-θ.*[9] Given that the CTR is uniformly *-t*, or a fused variant of it, //-t// is a sensible underlying form. The non-control and causative paradigms are not as straightforward. The surface forms of the non-control transitivizer are *-əx*^{w}*, -n, -nu,* and *-nx*^{w}. The *-əx*^{w} form surfaces exclusively with the third person object, singular or plural, regardless of root or other affixal morphology. The form *-nx*^{w} is only found before the reciprocal suffix. These two cases aside, the NTR morpheme alternates between *-n* and *-nu* in a phonologically predictable manner. If the object suffix starts with a vowel, the NTR shape is *-n*; if the object suffix begins with a consonant, the NTR shape is *-nu*. A similar account can be given for the causative //stg//, which surfaces as *stu-* before a consonant-initial object suffix and *st-* before a vowel-initial suffix. The third person cases are also exceptional, where the causative transitivizer is *-sx*^{w}, unaffected by root shape or following affixal morphology. A further exception is the reflexive, where *st-* surfaces before a consonant.

Table 3: Transitivizer and Object Morphology in Watanabe (2003)

	CTr - //t//	NTr - //ng//	Causative - //stg//
1SG.OBJ	-θ	-nu-mš	-stu-mš
2SG.OBJ	-θi	-nu-mi	-stu-mi
3OBJ	-t-Ø	-(n)əx^{w}-Ø	-sx^{w}-Ø
1PL.OBJ	-t-umuł	-n-umuł	-st-umuł
2PL.OBJ	-t-anapi	-n-anapi	-st-anapi
Reflexive	-θut	-nu-mut	-st-namut
Reciprocal[10]	-t-awł	-nx^{w}-igas	-st-awł

In the paradigm shown in Table 3(=Table 1), the object suffix appears to play a key role in determining transitivizer shape. The null third person object triggers forms ending in *-x*^{w} in the non-control and causative paradigms. Vowel

[9] This is from t-s → c → θ.

[10] Note that the control and the causative reciprocal suffixes match where the non-control differs from them. The non-control and causative pattern together elsewhere, in contrast to the control forms, so this is an interesting exception.

initial suffixes, which comprise three rows in Table 3, are preceded by vowel-less transitivizers. The consonant-initial object suffixes occur after transitivizers with vowels. The consonant-initial object suffixes for the non-control and causative forms correspond to the fused forms in the control paradigm. Thus, there are three rows in Table 3 with consonant-initial or fused object suffixes. These are the first singular, second singular, and the reflexive. The shape of the object suffixes, as presented in Watanabe (2003), appear to be largely based on their surface realizations. However, in the suffixes presented as consonant-initial, the source of the vowel /u/ is actually ambiguous. The strongest argument for it belonging to the transitivizer appears to be symmetry with fused control cases and adherence to diachronic development, where the Proto-Salish forms for the non-control and causative object suffixes are **-mx* and **-mi* (Kroeber, 1999:25). The Proto-Salish object suffixes are given in Table 4. The plural object forms with a vowel in Watanabe's (2003) analysis correspond to non-control and causative object suffixes in Proto-Salish *without* an initial vowel (Kroeber, 1999:25), suggesting that the paradigm was previously more uniform. There does not seem to be a synchronic reason why /u/ needs to belong to the transitivizers, and not the object suffixes, for half of the paradigm in ʔayʔaǰuθəm. Similarly, the argument for a null third person object is largely diachronic, as it follows from reconstructed paradigms in Proto-Salish (Kroeber, 1999). This also allows for generalizability across the Salish language family. However, it is possible that ʔayʔaǰuθəm, like Bella Coola, could have innovated overt third person object agreement.

Table 4: *PS Object Suffixes (Newman, 1979; Kroeber, 1999:25, Watanabe, 2003:282)

	1SG.OBJ	2SG.OBJ	1PL.OBJ	2PL.OBJ	3OBJ
Causative Series	**-mx*	**-mi*	**-muɬ (*-mul)*	**muɬ (*-mul)*	*-Ø*
Control Series	**-c*	**-ci*	**-al (*ul)*	**-ulm (*-ul)*	*-Ø*

There have been arguments from the domains of syntax and semantics in favour of non-null third person agreement in other Coast Salish languages. Wiltschko (2003) presents evidence for overt third person agreement in Halkomelem, which is largely based on where *-əx*^{w} disappears. In particular, she suggests that it should be present in the passive if it is a part of the transitivizer, but absent if it is actually an object suffix. This is argued on the basis that passive agreement is a type of object agreement and there is a "special passive agreement paradigm", which may not include *-əx*^{w} as a suffix (Wiltschko, 2003:83). Further, she predicts that *-əx*^{w} should not co-occur with reflexive and reciprocal morphology if it is an object suffix, as they do not co-occur in first and second person cases. The *-əx*^{w} is not found in these cases for Halkomelem, consistent with an overt object agreement analysis.

Jacobs (2011:277) makes a similar case for a third person object suffix in Squamish, pointing out that the *-nəx*^{w} form occurs exclusively with a third person object and further that "the allomorphy of the lc-transitivizer *-nəx*^{w} has to be lexically specified since it cannot be derived from any phonological principles". Reanalyzing *-nəx*^{w} as *-n-əx*^{w} also fits with his larger semantic

argument for differential object marking in Squamish, where he suggests that object suffixes encode the properties of (lack of) control, rather than the transitivizers. Treating *-əx*^{w} as an object suffix allows it to denote limited control, parallel to the first and second person object suffixes.

The evidence for overt third person agreement in other Coast Salish languages comes exclusively from the morphology and it is not clear that these arguments would apply in ʔayʔaǰuθəm. In Halkomelem and Squamish, the transitivizer would be either *-n* or *-nəx*^{w} under a traditional analysis. Jacobs (2011) identifies that there is no natural phonological environment that predicts this alternation, rendering it phonologically opaque. Proposing the third person object has the immediate effect of reducing allomorphy because there is no way to account for the paradigm aside from proposing two underlying forms. This is not necessarily the case in ʔayʔaǰuθəm, as the multiple surface variants are most often conditioned by their environment. For example, the NTR surfaces as *n-* before most vowel-initial suffixes and *nu-* before most consonant-initial ones. This alternation can be accounted for with the same underlying form and regular phonological rules. While there are some surface forms that cannot be accounted for as easily, such *-nx*^{w} before a vowel-initial suffix reciprocal suffix or *-nəg* before the subordinate passive, these are predominantly issues for the phonology. Both *-nx*^{w} and *-nəg* can theoretically come from an underlying //ng//, where //g// can become either /x^{w}/ or /g/. Similarly, the NTR *-əx*^{w} before a third person object could correspond to the same underlying form with //g//. The issue in ʔayʔaǰuθəm is within the phonology, where it is unclear how the grammar derives the surface forms. In other words, there is a source for *-əx*^{w} in the underlying form but no apparent reason why the surface form of //g// would vary in the same environment, sometimes becoming /g/ before a vowel and sometimes /x^{w}/. This is unlike Squamish or Halkomelem, where there is no evidence for *x*^{w}, or anything similar, elsewhere in the paradigm and thus an overt third person object analysis is predominantly motivated by the morphology. In ʔayʔaǰuθəm, an examination of the non-control stative provides morphophonological evidence for overt third person agreement in ʔayʔaǰuθəm, which complements the morphosyntactic arguments for the innovation of overt third person agreement in other Coast Salish languages.

4 -x^{w} as Third Person Object Agreement

The forms in Table 3 capture the surface forms of the transitivizer and object suffixes and, for the most part, clearly correspond to the posited underlying forms. However, the actual derivation of these forms is not straightforward. The mapping from underlying representation to surface form requires suspension or selective application of particular phonological processes that apply elsewhere in the paradigm or language, requiring the third person object to have some kind of special status in the grammar.

One of the immediate problems with the previously suggested transitivizer analysis is the invariant behaviour of *x*^{w}. Regardless of other affixal morphology, *x*^{w} never deletes or surfaces as a different segment. Watanabe (2003) states that

x^{w} in the NTR *-əx*^{w} and the causative *-sx*^{w} come from //g//, which undergoes alternation in different conditioning environments. Blake (1992) found that //g// is /g/ in an onset position, /u/ in a nucleus, /w/ in a coda, and /x^{w}/ word-finally. All of the given examples of the //g// surfacing as /x^{w}/ come from examples of the NTR suffix with third person objects. A possible analysis is that //g// becomes /x^{w}/ when word-final, as with null third person object and subject. The data in (8a-b) are consistent with this analysis. However, this does not work when an ergative subject suffix follows a third person object. As shown in (8c-d), the addition of these suffixes does not trigger a change to the surface realization of //g//; it remains /x^{w}/. In a form like *ǰɛšox*^{w}*ən* 'I carried him' in (8d), the affixation of an ergative suffix results in //g// being an onset. In this situation, a surface form like **ǰɛšogən* is predicted. //g// becoming /x^{w}/ word-medially in the non-control and causative paradigms suggests that there is something exceptional about the third person object. The invariant nature of the *x*^{w} in *-əx*^{w} and *-sx*^{w} leads one to question whether *x*^{w} comes from //g// or if it is actually represented as an invariable /x^{w}/ in the underlying form.[11]

(8) Word-Final and Pre-Ergative Suffix *x*^{w}[12]

a. [čɪgətəm čɪč ʔaqox^{w}]
čɪgətəm čɪ-č ʔaq-ng
almost just.now-1SG.IND chase-NTR
I almost caught him (just now).

b. [čɪgətəm yɛpox^{w}]
čɪgətəm yəp-ng
almost break-NTR
I almost broke it.

c. [hahays gaqox^{w}as ʔemən]
hahays gaq-ng-as ʔemən
slowly open-NTR-3ERG door
He slowly opens the door.

[11] Jacobs (2011:277) makes a similar point about Squamish, where it is difficult to find a phonological account that can explain the alternation between *-n* and *-nəx*^{w}. It would require stipulating that the third person cases are exceptional and lexically specified in some manner.

[12] The first line of these examples represents a phonetic transcription and the second is morphemic.

d. [ǰɛšoxʷən]
ǰeš-ng-an
carry-NTR-1SG.ERG
I carried him.

5 The Causative Paradigm

A further issue with the transitivizer analysis is that the shape of the causative transitivizer is different depending on whether a null third person or a reciprocal object suffix follows: it takes the shape *-sxʷ* in the third person cases, as in (8a), but it is *st-* before the reciprocal suffix, as in (9b).[13] It is unclear what would drive the deletion of the coronal obstruent in the former and //g// in the second. Deletion itself is predicted in both cases as the resultant cluster violates several high-ranked constraints that determine how many segments can be in an onset (such as *ComplexOnset) or a coda (prosodic constraints motivating binary feet at the level of the mora). Elsewhere in the paradigm, the //t// does not delete, such as before the 1SG.OBJ suffix in (9c). However, the //g// deletes in the first and second person plural before a vowel, shown in (9d), and in the reflexive before a consonant. This suggests that the grammar prefers to delete //g// to simplify the cluster everywhere except with a third person object. In order to account for this, we must postulate that this particular segment is exceptional in some manner or that the phonological constraints motivating deletion apply differently throughout the paradigm, such that retaining //t// is less optimal in the third person cases.

(9) Causative Transitivizer with Object Suffixes[14]

a. [qʷaqʷaysxʷas]
CV-qʷay-stg-as
impf-talk-caus-3erg
'He is talking to him.'

[13] Though not integral to the discussion of the third person object, I hypothesize that the causative reflexive has both causative and non-control morphology, such that it is *st-n-amut*. The combination of the two transitivizers is permitted in ʔayʔaǰuθəm, according to Watanabe (2003:230-233). Further work is necessary to explore the syntactic and semantic properties of these 'doubly transitivized' forms, but this may explain why this form is irregular.

[14] Thank you to Marianne Huijsmans for providing the reciprocal form, (9b). Interestingly, the vowel in this form is different from the other examples. While it may be an interspeaker difference, it could also be Ci- diminutive reduplication, rather than imperfective CV-. Also note that the vowel in (9d) is deleted in the object suffix and place assimilation occurs.

b. [qʷeqʷaystawɬ]
CV-qʷay-stg-awɬ
IMPF-talk-CAUS-RECP
'having a conversation'

c. [qʷaqʷaystumšuɬ hɛnɹi]
CV-qʷaj-stg-mʃ-uɬ Henry
IMPF-talk-CAUS-1SG.OBJ-PST Henry
'Henry was talking to me'

d. [qʷaqʷaystampi bɹuno]
CV-talk-stg-anapi Bruno
IMPF-talk-CAUS-2PL.OBJ Bruno
'Bruno is talking to you all.'

The data in (9) show that /t/ in the causative transitivizer is only deleted with a third person object. Further, *xʷ* is only present in the third person object cases. If we assume that the *xʷ* in the non-control and causative paradigms comes from an underlyingly /xʷ/, as the phonology suggests, it becomes plausible to assume that it is only present in the third person cases. If *xʷ* is only present in the third person and retained in cluster simplification, there is reason to consider it third person object agreement. This is shown in (10), where *-xʷ* is treated as an object suffix.[15] In this case, the deletion of /xʷ/ would also entail the deletion of an entire morpheme. It follows that it would be preferable to retain the /xʷ/ instead of the /t/ because the CAUS /s/ remains and less information is lost. Treating *-xʷ* as a mono-segmental object suffix can account for its exceptional behaviour.

(10) Causative Transitivizer with *-xʷ* Third Person Suffix

a. qʷa-qʷay-s-xʷ-as
//CV-qʷay-st-xʷ-as//
IMPF-talk-CAUS-3OBJ-3ERG
'He is talking to him.'

6 Precedent for Overt Third Person Agreement in ʔayʔaǰuθəm

Though most work on Mainland ʔayʔaǰuθəm has posited a null third person object suffix in the non-control transitive paradigm (i.e. Davis, 1978; Watanabe, 2003), there are some alternative perspectives that come close to an overt third person object analysis. In particular, Hagège (1981:69) suggests *-xʷ* as the third

[15] I propose //st-// for the underlying form of the CAUS suffix in (10). The motivation for this is laid out in the following section.

person form in the non-control paradigm. However, a survey of the other forms listed for the rest of the paradigm reveals that he is treating the transitive-object suffix as a single paradigm, rather than a combination of two different suffixes. As a further complication, a handful of the forms he reports appear to be exceptional. For example, he gives *-nomše-* in the first person singular cell of the paradigm, consisting of both the NTR morpheme and the object suffix, but *-anapi-* for the second person plural in both the control and non-control paradigms. The latter is missing a transitivizer, where we would expect *-tanapi* and *-nanapi*, following the other forms in the same paradigm, which clearly have the CTR *t-* and the NTR *n-* included. Therefore, it is unclear whether he believed that *-x^w* was the transitivizer (with null third person), a combined transitive-object morpheme, or an overt third person object. Given the other forms, it seems most likely that he was not treating the transitivizer and object as separate morphemes.

Harris (1981:57-58) makes a similar argument, suggesting that *n-* might be the NTR morpheme in the Island Comox dialect, which means that *-x^w* must be treated as a third person object suffix. However, he claims that the only way this could hold synchronically is to assume that the transitivizer and objects have been reanalyzed as a single morpheme. While the present analysis also argues that *-x^w* is an overt third person object suffix, it does not suggest that the transitivizer and object paradigms are completely fused. Overall, the observations of Hagège (1981) and Harris (1981) establish a precedent for proposing overt third person object agreement in ʔayʔaǰuθəm.

7 The Revised Paradigm

Table 5 summarizes my proposal for the revised transitivizer and object suffix forms. There are four major changes. The first involves a reanalysis of the non-control and causative transitivizer plus third person object forms, as argued above. Based on the evidence from the phonological analysis of stative morphology and further in a consideration of the relevant paradigms, there is reason to treat the *x^w* in the non-control as a third person object. This assumption can be extended to the causative third person, which patterns very similarly.

Table 5: Proposed Revised Transitivizer and Object Morphology

	CTR - //t//	NTR - //ng//	CAUS - //st//
1SG.OBJ	-θ	-n-umš	-st-umš
2SG.OBJ	-θi	-n-umi	-st-umi
3OBJ	-t-Ø	-(n)u-x^w	-s-x^w
1PL.OBJ	-t-umuɬ	-n-umuɬ	-st-umuɬ
2PL.OBJ	-t-anapi	-n-anapi	-st-anapi
Reflexive	-θut	-n-umut	-st-namut
Reciprocal	-t-awɬ	-nx^w-igas	-st-awɬ

Second, the vowels that were associated with the non-control and causative transitivizers before a first and second person singular in previous analyses (cf. Table 1) are now designated as part of the object suffixes. This is motivated by the observation in Section 3 that the source of the vowel, which could either be the transitivizer or the object suffix, is ambiguous. This addresses the fact that /u/ appears regularly in the paradigm, but is messily divided between transitivizers and objects. Further, as the deletion of //g// is unproblematic with the first and second person plural object, it poses no problem in the singular either. This reanalysis tidies the distribution of /u/ in the object suffixes.[16]

A potential issue with reanalyzing the vowels in this manner stems from where the stative raised pitch occurs with a first or second person pronoun in a non-control predicate. Given that stative aspect is a part of the derivational morphology, it is expected that it should be found within the stem domain, rather than the word domain along with inflectional morphology. The proposed reanalysis predicts that the stative high tone will associate with vowels in the object suffixes, rather than the transitivizer, which is not a trivial claim.[17] However, this potential problem is not limited to the present analysis: a traditional account would also require positing that stative marking appears on vowels in both the stem and word domain

Non-control statives with various object suffixes are given in Table 6, with the position of the stative marking shown in the traditional analysis on the left and in the proposed reanalysis on the right. In the revised paradigm, high tone associates with the vowel in the object suffix, if one is available. In the third person case, the suffix does not have a vowel and so raised pitch occurs on the transitivizer. In the traditional account, the raised pitch falls on the transitivizer with a singular or third person plural and on an object suffix in the first and second plural. Therefore, morphology associated with lexical aspect appears outside of the stem domain in either account. The present analysis has the advantage of making this behaviour more uniform across the paradigm.

[16] Admittedly, the paradigm would be more uniform if the object suffix was *-ux^{w},* rather than *-x^{w},* but if this were the case it would be more optimal to retain the vowel before a third person object or the causative. It also would not work to have all the object suffixes in the causative object suffixes be consonant initial as they were in *PS because the /a/ in *-anapi* cannot come from the transitivizer.

[17] Thank you to Henry Davis for bringing this to my attention.

Table 6: Position of Stative Marking in the Traditional and Proposed Analyses

Object	Non-Control Stative	Traditional	Proposed
1SG.OBJ	čəgitəm kon**ó**mšıs 'He almost saw me.'	NTR (*nu*)	1SG.OBJ (*umš*)
2SG.OBJ	yɛłn**ó**mıč 'I am going to call you.'	NTR (*nu*)	2SG.OBJ (*umi*)
3OBJ	yɛł**ó**x^{w}ən 'I am going to call him.'	NTR (*əx^{w}*)	NTR (*u*)
1PL.OBJ	ǰɛšn**ó**muł 'He is carrying us.'	1PL.OBJ (*umuł*)	1PL.OBJ (*umuł*)
2PL.OBJ	ʔaq̓n**á**mpič 'I am going to chase you all.'	2PL.OBJ (*anapi*)	2PL.OBJ (*anapi*)

Finally, I posit that the causative transitivizer is of the shape //-st//, rather than //-stg//. This addresses the issues within the causative paradigm regarding the motivations for the deletion of //t// in the third person cases and //g// elsewhere. Further, it provides an explanation for why *x^{w}* appears in the non-control reciprocal but not in the causative. In the revised paradigm in Table 4, it becomes evident that the non-control and causative paradigms are similar because they take the same reanalyzed set of object suffixes, not because the transitivizers are inherently similar.

There is evidence for //g// in the non-control transitivizer, because there is a full vowel before the third person object suffix and the transitivizer takes the shape *nx^{w}* before the reciprocal suffix. However, if the vowel in the 1SG.OBJ, 2SG.OBJ, and reflexive belongs to the object, rather than the transitivizer, there is no longer strong evidence supporting the presence of //g// in the causative transitivizer. With a vowel in the object suffixes and *x^{w}* analyzed as the third person object, the differences between the non-control and causative paradigm come for free.

There is no obvious reason for the difference between the non-control and causative transitivizers before a reciprocal suffix in the traditional account. The NTR morpheme surfaces as *-nx^{w}* and the causative transitivizer as *-st* in this position. It is unclear why the causative would not have *-sx^{w}*, analogous to the third person form and the non-control equivalent, as is expected if //g// is truly present in the underlying forms of both transitivizer suffixes. Further, Watanabe (2003:269) provides an example of a causative non-control construction, where //g// is lost and /ə/ is inserted. Following from the patterns elsewhere in the language, the causative //g// could easily become /u/ in that context and not incur violations under faithfulness constraints. The insertion of an epenthetic schwa paired with the loss of the //g// is extremely marked. This provides evidence against the causative transitivizer having //g// in its the underlying form.

The causative stative is also marked differently than the non-control stative. While the non-control stative is marked by contrastive pitch, the causative takes

double marking with an *-it* suffix following the root and /i/-epenthesis into the transitivizer.[18] The differences between the non-control and the causative are not clearly accounted for with the //ng// and //stg// underlying forms. If both have //g//, the causative should be marked with contrastive pitch and no /i/-infixation, following the patterns of the strong root plus control transitivizer with stative marking and the non-control stative. However, with the proposed paradigm, there is no underlying //g// in the causative transitivizer and thus there is no full vowel present. If the underlying form of the NTR suffix is //ng// and the causative is //st//, the divergent behaviour in the formation of the stative is predicted, given the generalizations regarding full vowels laid out in the phonological analysis of the stative in Section 2. In summary, the revised transitivizer-object forms in Table 4 can account for a number of paradigmatic differences between the non-control and causative forms, in addition to allowing for a unified analysis of the non-control stative.

8 Implications, Remaining Questions, and Future Considerations

The lack of the overt *–x*^{w} object suffix in the control paradigm might be raised as a point of contention for the present analysis. However, there are two reasons why this is unproblematic. First, there are traditionally two different classes of object suffixes in Salish, which Watanabe (2003:282) refers to as the control and causative series. The control transitivizers select control objects and the non-control and causative transitivizers select the causative series. This is the same division seen in the *–x*^{w} and null alternation in Table 4. Therefore, the lack of overt object marking in the control transitivizer-object paradigm can be accounted for as an alternation between a null morpheme in the control series and an overt one in the causative series. Further, the difference between the object suffix classes is evident in the first and second person suffixes, which are fused to the transitivizer in the control series. A plausible alternative analysis for the difference is that the third person CTR *-t* has been reanalyzed as fused, similar to the rest of the singular object suffixes. Kroeber (1999:29) points out that similar arguments have been made for *-t* being a third person object in other Salish languages. Though a comparable analysis for ʔayʔaǰuθəm is speculative at this point, it shows that there are multiple ways to interpret the lack of overt third person marking with the CTR morpheme that are consistent with the rest of the paradigm.

[18] It does not cause any issues for my analysis, but I am not convinced that the causative is double marked. The [i] reported in Watanabe (2003) could be epenthetic, breaking up the cluster /st+xʷ/. The language has very few CCC clusters and therefore this would be a normal target for epenthesis. Further, I have not managed to elicit any causative stative forms where this [i] has raised pitch, as would be expected if it were the stative /í/. I am unaware of a semantic reason why the causative would need to be double marked, but I leave this as a topic for further discussion.

The one thing that the present analysis does not offer an explanation for is the fact that the non-control and causative transitivizer have a /g/ in the subordinate passive, such as in *ʔaq̓-nəg-it* or *hu-stəg-it* (Watanabe, 2003: 295). While this is not an issue with an underlying //ng// for the non-control, there is no clear source in the proposed reanalysis for the /g/ in the causative. Further, this /g/ occurs where an overt third person *–x*^{w} might be expected. However, there are two reasons why this is not an issue. The first is that the active and passive object suffixes differ elsewhere in the paradigm, such that the first person plural is *-uw* in the passive, rather than *-umuł*, for example. Further, it is possible that the *-g* might be the third person object agreement marking in the causative passive paradigm or that *-gɨt* might be an allomorph of the passive marker. Each of these explanations can account for the subordinate passive form.

There is also a special subset of verbs which take *-š* as a transitivizer, instead of the control transitive *-t*, and take the causative series of pronominal objects (Watanabe, 2003). The prediction of the current analysis is that they should generally take the overt third person object *-x*^{w} as well. However, this is not necessarily an issue as there is a precedent for the loss of the *-x*^{w} object suffix following a fricative. Watanabe (2003: 222) notes that some speakers drop *-x*^{w} in the causative with a third person object, leaving just *-š*. The same thing could ostensibly occur with a /š-x^{w}/ combination.[19] Further, I have not found any words in my elicited data or Blake (2000) for any lexical item surfacing with [šx^{w}]. This suggests that the lack of overt phonological material for the third person object does not preclude its existence at some other level of the grammar.

The overt third person agreement analysis does have interesting implications for //g//. The evidence in Blake (1992; 1995; 2000) for /x^{w}/ being the surface form of a word-final underlying //g// comes directly from the third person non-control transitive, with the assumption that the third person object is null. However, Blake does not consider verbs with an ergative subject suffix, where *x*^{w} always surfaces word-medially. A possible workaround for this might be to reconsider the morphological stem domain, placing a boundary between the object and subject suffixes and to argue that //g// surfaces as [x^{w}] stem- or word-finally. This predicts [x^{w}], rather than [g], in the subordinate passive constructions. If *-x*^{w} is an overt third person object suffix, as argued in this paper, the only questionable suffix is the reciprocal *-nx*^{w}, where [x^{w}] is not phonologically predicted. In (11), the *x*^{w} is in an onset position and, coming from //g//, should be *g* instead. This predicts that (11a) should be ***k*^{w}*onogegəsoł*, rather than *k*^{w}*onox*^{w}*egəsoł*.

[19] A preliminary examination of predicates with the /š/ transitivizer shows some variation in the production of the fricative. Though there is an absence of a categorical pattern, there is sometimes a [x^{w}]-like sound following /š/ or it appears to be produced with some degree of lip rounding.

(11) Reciprocal Suffix as *-igas*

a. k̓ʷon-óxʷ-egəs-oł Gloria Bruno
see-NTR-RECP-PST Gloria Bruno
'Gloria and Bruno saw each other.'

b. ʔuk̓ʷ k̓ʷon-oxʷ-egəs sǰɛsoł
all see-NTR-RECP yesterday
'We all saw each other yesterday.'

However, it is possible that the reciprocal suffix has been reanalyzed as *-xʷigas*.[20] In (12), the same data is glossed under this assumption. In (12a) and (12b), there is a rounded vowel between *n* and *xʷ*, which comes from the //g// in the NTR //ng//. This is further supported by the raised pitch on (12a), marking stativity on the rounded vowel, paralleling the non-control stative patterns described in Section 2. This is consistent with analyzing *-xʷigas* as the reciprocal suffix as it requires a full vowel in the NTR, which suggests that *xʷ* cannot come from the NTR //g//.

(12) Reciprocal Suffix as *-xʷigas*

a. k̓ʷon-ó-xʷegəs-oł Gloria Bruno
see-NTR-RECP-PST Gloria Bruno
'Gloria and Bruno saw each other.'

b. ʔuk̓ʷ k̓ʷon-o-xʷegəs sǰɛsoł
all see-NTR-RECP yesterday
'We all saw each other yesterday.'

Setting the reciprocal suffix aside as a possible exception, there is no strong evidence for [xʷ] ever being a surface form of //g//. The only evidence for [xʷ] being part of the alternation comes from the non-control and causative paradigms (Blake, 1992; Blake, 1995). Under the present analysis, this is no longer applicable. Furthermore, Blake (2000:48) notes that the alternations of //dʒ// and //g// generally involve the loss of one feature, with the exception of /xʷ/, which involves two. If /xʷ/ is removed from the set of alternants that need to be accounted for, the phonological analysis of //g// may be simplified and closer echo //dʒ//, which has no word-final fricative form.

[20] Thank you to Marianne Huijsmans for suggesting this possible analysis.

9 Conclusion

There is strong morphophonological evidence for overt third person object marking in ʔayʔaǰuθəm. Treating *-x*^{w} as a third person object suffix allows for a constraint-based analysis stative allomorphy. In particular, this analysis can derive the contrastive pitch pattern associated with non-control stative, which poses problems under a null third person object account. Adopting this analysis additionally tidies up the transitivizer-object paradigms and better explains the differences between the causative and non-control morphology. The similarities stem from sharing the causative series of objects and the differences arise from different underlying forms for the transitivizers. Finally, the phonological and morphological evidence for overt third person object agreement in ʔayʔaǰuθəm complements the more paradigmatic evidence presented for Halkomelem in Wiltschko (2003) and Squamish in Jacobs (2011). Though the present paper does not touch on ʔayʔaǰuθəm syntax, the implications of an overt third person object for other areas of the grammar merit further investigation.

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Result state holds! Stative aspect and non-control morphology in ʔayʔaǰuθəm[1*]

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Abstract: Watanabe (2003) describes a very marginal co-occurrence of the non-control transitivizer (NTR) with the stative in ʔaẏaǰuθəm, attested with only one root and marked by an epenthetic vowel. However, stativity can also be expressed by a suprasegmental rather than a segmental contrast. In this paper, we present phonetic and semantic evidence for a productive non-control stative construction that is marked by contrastive pitch. The apparent scarcity of stative non-control forms is not due to semantic incompatibility, but simply reflects the fact that stativity is marked on non-control transitives by contrastive pitch, rather than /i/-infixation, as previously described. Semantically, the non-control stative highlights the result state of a process. We conclude that the non-control stative can be found with any root, in appropriate contexts.

Keywords: Stative, Aspect, Control, Contrastive Pitch, Comox

1 Introduction

Stress assignment in ʔayʔaǰuθəm (also known as Comox-Sliammon) is exceptional when compared with the rest of the Salish language family. ʔayʔaǰuθəm is a Coast Salish language spoken in British Columbia. It is critically endangered with 36 native speakers and 705 semi-speakers reported in 2014 (FPCC, 2014). While other Salish languages have complex, morphologically-governed, prosodic patterns, ʔayʔaǰuθəm stress is phonologically regular and primary stress falls, in most cases, on the initial syllable (Blake, 2000). However, like the other languages, ʔayʔaǰuθəm has retained a rich morphological system that expresses a range of grammatical properties, including overt morphology to indicate the valence of a predicate. These transitivizers also encode the property of AGENT CONTROL (Davis & Matthewson, 2009): the control transitivizer (CTR) asserts that the agent acts in full volition and capacity, while the non-control transitivizer (NTR) asserts that the event was accidental, or only accomplished after some difficulty (Thompson, 1985). The control system also interacts with aspect, and has even been proposed to be purely aspectual, where the control transitivizer asserts event

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initiation and the non-control transitivizer asserts event culmination (Jacobs, 2011). Though it is unclear if it can fully account for control in ʔayʔaǰuθəm (Andreotti, 2017), we adopt the purely aspectual analysis of AGENT CONTROL, as it is sufficient to understand the distribution of non-control morphology described in this paper.

ʔayʔaǰuθəm also has a morphological marker of stative aspect which, when it co-occurs with the control transitivizer on a strong root, can be expressed by an exceptional stress pattern (Watanabe, 2003: 433). Watanabe (2003: 442) also mentions that stative morphology co-occurs with the non-control transitivizer on a single root (təχʷ-), where it is marked by an epenthetic vowel as well as raised pitch. In the present paper, we compare suprasegmental qualities of the NTR in a variety of contexts, to evaluate whether the non-control stative is truly marginal or if it is marked systematically by higher pitch. In Section 2, we describe the regular suprasegmental patterns in ʔayʔaǰuθəm and outline exceptional behavior related to stativity and the NTR morpheme. Section 3 argues for the semantic compatibility of stativity and non-control, while Section 4 presents phonetic evidence for their co-occurrence. Finally, we explore the semantic properties of the non-control stative. Overall, a combination of phonetic and semantic evidence proves the existence of a productive non-control stative in ʔaẙaǰuθəm, marked most clearly by contrastive pitch.

2 Regular and Exceptional Suprasegmental Patterns

Stress assignment in ʔayʔaǰuθəm is phonologically regular, with only a few exceptions. It has a fixed initial pattern, with primary stress falling on the initial syllable and secondary stress on subsequent odd syllables (Blake, 2000). This yields a predictable trochaic pattern, as shown in (1). While this generalization holds across most of the language, there are certain lexical and grammatical suffixes which disrupt the pattern by "attracting stress", including certain reduplicants, the non-control transitivizer, and the indirective suffix (Watanabe, 2003: 22). There are even some minimal pairs where only suprasegmental features associated with stress, particularly pitch, distinguish between stative and non-stative aspectual readings (Watanabe, 2003: 23–29). However, despite the role of stress in these suprasegmental contrasts, little is known about the characteristics of exceptional stress in ʔayʔaǰuθəm or how it is used contrastively.

(1) Basic Stress Pattern (Adapted from Watanabe, 2003: 21)

a. [ˈqʌm.čʼoˌθɛn] [HLH/HLM]
/qəmc̆-uθin/
shut-mouth
'He has his mouth closed.'

b. [ˈqʌm.č’oˌθɛ.nəm] [HLML]
/qəmč̓-uθin-əm/
shut-mouth-MD
‘He closed his mouth.’

c. [ˈyɑ.łɑˌtʌ.soł] [HLML]
/yał-at-as-uł/
call-CTR-3ERG-PST
‘He called her.’

Contrastive stress, with raised pitch as the main acoustic correlate, is used in ʔayʔaǰuθəm to distinguish between the stative and non-stative aspect with strong roots when combined with the CTR morpheme (Watanabe, 2003: 433).[2] This is demonstrated by the minimal pair in (2), where the surface forms are segmentally identical, despite expressing different meanings. (2a) means ‘put it in mouth’, whereas (2b) means ‘keep it in mouth’. The only difference between these forms is in the placement of stress. In (2a), stress assignment follows the regular trochaic pattern shown in (1). In (2b), secondary stress falls on the second syllable, on the full vowel, which yields stress clash with two adjacent prosodic heads.

(2) STV and CTR Data (Adapted from Watanabe, 2003: 433)

a. [qʷoˑmotʰ] [HL]
qʷum-ut
put.in.mouth-CTR
‘put it in mouth’

b. [qʷoːmótʰ] [HH]
qʷum-[ˊ]-ut
put.in.mouth-[STV]-CTR
‘keep it in mouth’

Watanabe (2003: 22–23) also claims that the NTR suffix “attracts stress”, which interrupts the regular trochaic pattern. An example of this is shown in (3), where raised pitch occurs on the non-control transitivizer. Though he provides data illustrating this phenomenon, he does not give any further analysis or conclusions regarding its nature. Furthermore, it is unclear, based on the data he gives, whether the stressed variant is found in free variation with an unstressed variant or only in specific environments. There is also no indication whether this stress-attracting property is encoded in the lexicon as a property of the NTR morpheme or if it is indicative of something else in the grammar, aside from

[2] Strong roots are of the shape CVC, where V is a full (moraic) vowel.

control or transitivity. Finally, there are two indications that the stress-attracting property is not categorical. It can sometimes receive primary stress and it is less stressed when the root vowel is a schwa (Watanabe, 2003: 22). In both situations, regardless of purported degree of stress, the NTR morpheme is described as having raised pitch. This suggests that raised pitch can occur independently of stress, despite being the main acoustic correlate of stress (Watanabe, 2003: 22).

(3) Raised Pitch on NTR Suffix (Adapted from Watanabe, 2003: 22)

[wutúx^{w}as] [HHL]
wut-ng-as
bend-NTR-3ERG
'He has bent it.'

While the raised pitch on the NTR morpheme resembles the suprasegmental pattern used to mark stativity, contrastive pitch is only attested for the combination of a strong root with the CTR morpheme. Stative aspect is marked on the intransitive suffixes and the CTR suffix with a weak root by /i/-infixation, which is also accompanied by raised pitch (2003: 430). This is productive across a range of intransitive and transitive suffixes, not including the NTR morpheme. Watanabe (2003: 442) suggests that non-control stative is marked by /i/-epenthesis, rather than contrastive stress, yielding the form *-n[i]x^{w}*. However, he only identifies one root marked for both non-control and stativity, *təχ^{w}-*, 'to know'. This highlights an unexpected gap in the transitive-stative paradigm, whereby almost any control and causative verbs can be made stative, depending on the context, while the non-control ones cannot.

3 Semantic Compatibility Between Non-Control and Stative Aspect

The stative expresses a predicate which is "durative but not progressive" (Watanabe, 2003: 413). However, progressive and stative morphology may not co-occur (p. 414). Like progressive predicates, stative predicates can be complements of durative auxiliaries, such as *χuχmut* ('for a long time'). Unlike progressive predicates, they cannot be complements of auxiliaries of rate, such as *ƛiʔmut* ('quickly'). There is nothing inherent to the traditional semantics of either control or stativity that would suggest incompatibility between non-control and the stative aspect.

Under Jacobs' (2011) aspectual analysis of AGENT CONTROL, the NTR asserts event culmination. Jacobs cites observations made by Watanabe (2003) that, while the result state of a control predicate can be denied felicitously, as in (3a), denying the result state of a non-control predicate yields a contradiction, as in (3b).

(3) Control and Culmination Entailments (adapted from Watanabe, 2003: 205)

a. k̓əp-t-uɬ=čən ʔiy xʷaʔ k̓əp=as
cut-CTR-PST-1SG.IND and not cut= 3CONJ
'I (tried to) cut it but it did not get cut.'

b. #k̓əp-əxʷ-an-uɬ ʔiy xʷaʔ k̓əp=as
cut-NTR-1SG.ERG-PST and not cut=3CONJ
('I cut it but it did not get cut.')

The reportedly limited co-occurrence of the stative aspect with the non-control transitivizer could be the result of an aspectual incompatibility between the durative, atelic nature of the stative and the culmination requirement of the non-control transitivizer. However, Bar-el, Davis, and Matthewson (2005) point out that unaccusative roots in St'at'imcets and Sḵwx̱wú7mesh have culmination entailments, and Andreotti (2017) treats the culmination entailment of the non-control transitivizer as inherited from the unaccusative root, as opposed to part of the semantics of the transitivizer itself. If the non-control transitivizer inherits the aspectual properties of its complement, the combination of STV with NTR should be unproblematic.

Given the reported tendency for the NTR morpheme to have increased pitch and the unexpected marginal nature of the non-control stative, there is reason to revisit the assumption that the non-control stative is derived through /i/-infixation. It is possible that the varying pitch on the NTR suffix is analogous to the contrastive stress pattern found for the strong root control stative. If this is the case, raised pitch should be present when elicited in stative contexts and absent in non-stative ones. We hypothesize that stativity is productively marked on the NTR morpheme by contrastive pitch, not /i/-insertion.

4 Contrastive Pitch and the Non-Control Stative

The raised pitch on the NTR suffix described in Watanabe (2003) is far from categorical. A preliminary examination of elicited sentences without a specific context demonstrated that the pitch, or prominence, of the vowel in the NTR morpheme was raised at some points and not at others. This generalization also held across predicates with the same combination or root and subject suffix, yielding the same segmental structure but varying suprasegmental features. This eliminates the possibility that the raised pitch on the NTR is a lexically-specified property of the morpheme, some kind of root-controlled phenomenon, or phonologically conditioned. This results in two plausible alternatives: the alternation is either grammatical or in free variation. If the former is true, this predicts there should be contrastive minimal pairs that differ only by the F0 on the transitivizer vowel and that it should be possible to force raised pitch, or block it, by modifying the context.

Minimal pairs, distinguished exclusively by pitch, are given in (4). In these cases, the two forms have the same morphological composition and segmental

realization. The only apparent difference is the fundamental frequency of the transitivizer vowel. The forms with raised pitch were offered most often in situations where the action had been completed very recently. For example, in (4a), the raised pitch variant was elicited in a context of "just" having broken a cup. The variant without raised pitch, in (4b), was used to refer to the same action, but it was completed at a different time, such as earlier in the morning or the day before. Further, forms with raised pitch were consistently absent when elicited as part of a sequential narrative, where the action was subsequently undone.[3] This is shown in (4c), where the raised pitch variant occurs when a ball has just been dropped. However, if the ball has been dropped and someone has just picked it up, the vowel in the NTR morpheme does not have raised pitch (4d).

(4) Minimal Pairs with Contrastive Pitch

a. yəp̓-[ˊ]-əxʷ-as kʷasta
break-[STV]-NTR-3ERG cup
'He (just) broke the cup.'

b. yəp̓-əxʷ-as kʷasta
break-NTR-3ERG cup
'He broke the cup.'

c. xʷətm-[ˊ]-əxʷ-an ball
drop-[STV]-NTR-1SG-ERG ball
'I (just) dropped the ball.' (Still on the floor)

d. xʷətm-əxʷ-an ball
drop-NTR-1SG.ERG ball
'I dropped the ball.' (Subsequently picked up)

The examples above demonstrate that pitch on the vowel of the NTR morpheme represents a semantic contrast. In order to confirm that this contrast truly corresponds to stativity, we tested whether raised pitch was present on non-control predicates when paired with auxiliaries of rate, which do not occur with stative predicates.[4] We found that the transitivizer in the non-control predicate never had raised pitch when paired with an auxiliary of rate, such as *hahays* ('slowly'). The contrast is shown in (5), where the presence of a word associated with a judgment of rate does not correspond to raised pitch on the transitivizer.

[3] Our consultant described the difference between the two as "just did it" and "did it later".

[4] Though stative aspect also does not occur with progressive, it is challenging to test this as it is marked with CV- reduplication and this means that secondary stress would fall normally on the transitivizer with any mono-syllabic root.

This follows from the generalizations described for stative by Watanabe (2003), who claims that statives are not accepted with auxiliaries of rate because the stative 'expresses a durative (possibly imperfective) situation that is not ongoing' (p. 413). Therefore, it appears that the distribution of raised pitch on the NTR morpheme corresponds, semantically, to the stative.

(5) Auxiliaries of Rate with NTR[5]

a. hahays paχ-əx^{w}-as yiwp
slowly rip-NTR-3ERG cloth
'He slowly ripped the cloth.'

b. #hahays paχ-[́]-əx^{w}-as yiwp
slowly rip-[STV]-NTR-3ERG cloth
('He slowly ripped the cloth.')

c. ƛ̓i?-mut nam-əx^{w}-an puk^{w}
fast-INT write-NTR-1SG.ERG book
'I wrote the book quickly.'

d. #ƛ̓ï?-mut nam-[́]-əx^{w}-an puk^{w}
fast-INT write-[STV]-NTR-1SG.ERG book
('I wrote the book quickly.')

The evidence so far suggests that raised pitch reflects stativity on the non-control predicates. As the stative is marked on control predicates with a strong root in a suprasegmental fashion analogous to the non-control stative proposed in this paper, it is relevant to compare pitch patterns between the two. Figure 1 and Figure 2 show a non-stative and stative alternation, where the former has a [HL] pitch pattern and the latter a [HH] one. Otherwise, the two are segmentally identical, with the combination of *yał-* ('call') and *-at* (CTR). The higher pitch on the transitivizer vowel is the realization of the stative morpheme. A similar pattern is reflected for the non-control predicates in Figure 3 and Figure 4. The predicate, *niyəx^{w}an*, is segmentally identical in the two cases, formed by the combination of *niy-* ('forget'), *-əx^{w}* (NTR), and *-an* (1SG.ERG). The difference between having "just" forgot something and having forgotten something earlier is reflected by different suprasegmental patterns. Figure 3 shows the HLH pitch associated with the action completed at an earlier time, which adheres to the

[5] An issue we ran into gathering data was that due to the subtlety of this distinction both phonetically and semantically, the consultant would often repair our prompts before giving a judgement. Thus, we were unable to gather negative data directly. However, we addressed the issue by asking her to repeat the sentences to us, at which point we would observe the intonation of the returned form. In those contexts where the consultant consistently repaired our prompt, we assumed it to not be accepted.

expected trochaic pattern. In contrast, there is higher pitch on the NTR morpheme and lower pitch on the ergative subject suffix in Figure 4, which reflects a recently completed action.

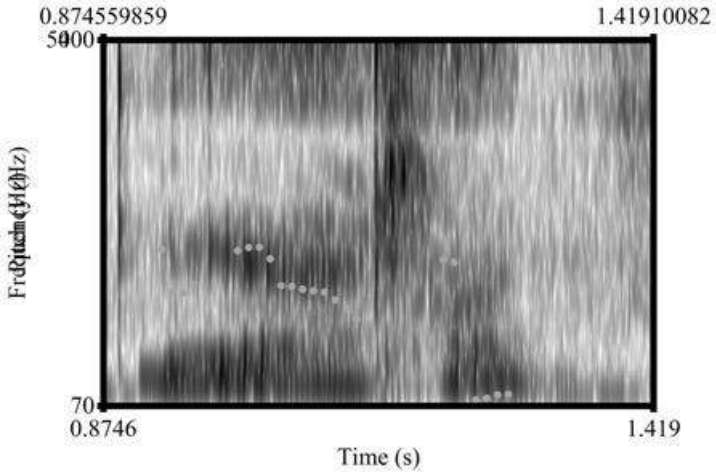

Figure 1: [yéɬʌt] from *hahays yɛɬʌt piš,* 'I slowly called Pish (cat)' [HL]

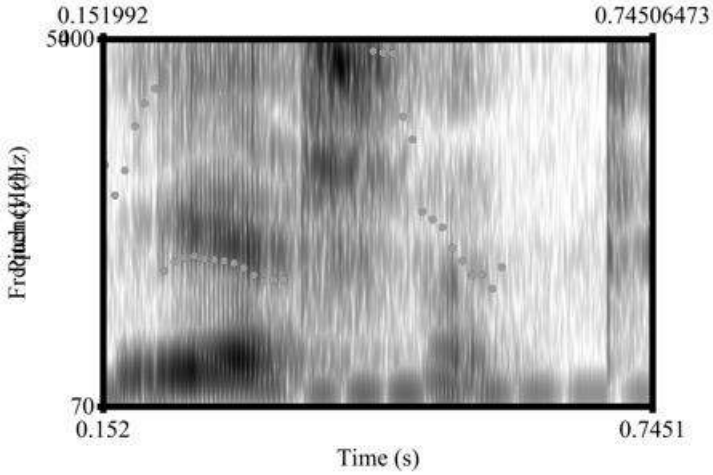

Figure 2: [yéɬʌ̀t] from *čɪč yɛɬʌt piš*, 'I am calling Pish' (cat) [HH]

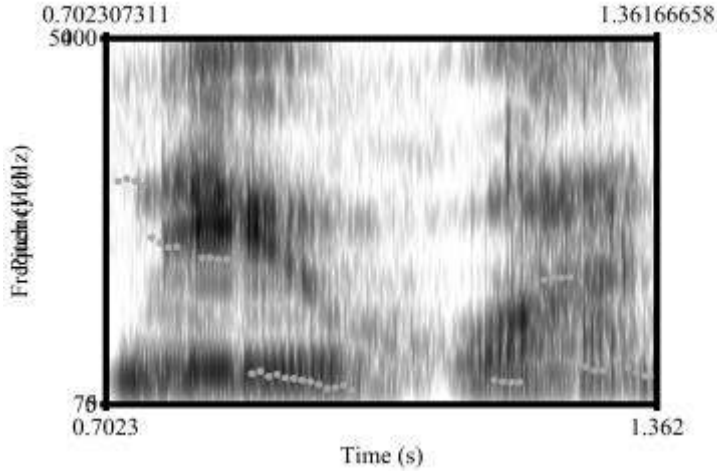

Figure 3: [níyoxʷàn] from *niyəxʷan sǰɛsoɬ*, 'I forgot yesterday' [HLH]

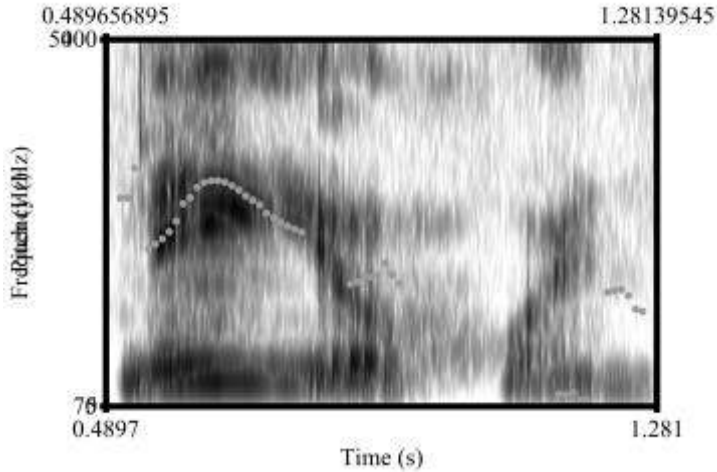

Figure 4. [níyòxʷan] from *niyəxʷan*, 'I just (now) forgot' [HHL]

Contrastive pitch marks the stative on control predicates when the root has a full vowel. The minimal pairs presented in this section provide evidence that a similar strategy is used with non-control predicates, regardless of root type. The distribution of raised pitch on the NTR suffix across different contexts also fits with stative interpretation, where suprasegmental features represent an aspectual contrast. The implications of this are that there is a productive non-control stative construction in ʔayʔaǰuθəm that is marked by contrastive pitch, rather than /i/-epenthesis as previous description has suggested. Brown and Thompson (2005: 49) describe Upriver Halkomelem as the only dialect of a Salish language to "have developed a pitch accent or tonal system", with the possible exception

of ʔayʔaǰuθəm. The important role of contrastive pitch in denoting stative aspect provides preliminary evidence that ʔayʔaǰuθəm may have developed a sensitivity to pitch. However, we leave the overall status of pitch in ʔayʔaǰuθəm as an avenue for future research.

5 Semantic Properties of the Non-Control Stative

The non-control stative is marked by contrastive pitch in ʔayʔaǰuθəm and formed productively where contextually appropriate. As discussed in **Section 3**, raised pitch is found most often when an action has been recently completed and the result state still holds, while lower pitch occurs when the result state no longer applies. Though this distinction can be created using context alone, it is more reliably forced with the use of certain adverbials. For example, stative marking is rarely offered with time adverbials that diminish the likelihood of a result state holding. This is shown in (6), where the inclusion of a word like *sǰisuł* (yesterday) generally forces a lower pitch on the NTR morpheme if it occurs in a context where the result state is pragmatically unlikely to hold.[6]

(6) Time Adverbials with NTR Stative

a. qʷaqʷ-əxʷ-an θukʷnačtən sǰisuł
bump-NTR-1SG.ERG chair yesterday
'I bumped into the chair yesterday.'

(b) ??qʷaqʷ-[ˊ]-əxʷ-an θukʷnačtən sǰisuł
bump-[STV]-NTR-1SG.ERG chair yesterday
('I bumped into the chair yesterday.')

c. qams-əxʷ-an saplin skʷiǰuł
put.away-NTR-1SG.ERG bread this.morning
'I put the bread away this morning.'

d. ??qams-[ˊ]-əxʷ-an saplin skʷiǰuł
put.away-[STV]-NTR-1SG.ERG bread this.morning
('I put the bread away this morning.')

Unlike time adverbials, which trigger non-stative aspect by default, the inclusion of the auxiliary *čəgitəm* ('almost') is generally associated with raised pitch if the context suggests that an action or event is about to happen. Again, this preference directly relates to the status of the result state. Without further

[6] This adverbial restriction is not entirely consistent, as there are some cases where high pitch is offered on the NTR vowel. We have not been able to consistently replicate these forms. It may be due to a pragmatics of the predicate or how likely the result state is to hold at utterance time.

context, the use of *čəgitəm* suggests something durative where the result state applies. An example of this is given in (8a), where the combination of *čəgitəm* and a non-control predicate produces an 'about to' reading. Without explicit context that counteracts this reading, this is translated as something about to be completed, such as planting a flower. In this scenario, a gardener has been planting a flower and is asked if they are finished. However, in contrast, (8b) has *čəgitəm* without raised pitch on the NTR morpheme. This is associated with something that has come close to happening but has not happened, such as if a cup fell into the hole dug for the flower, and the gardener notices it before burying it. This contrast is further exemplified in (8c), where the difference between stative and non-stative pitch patterns denotes a very fine difference in meaning. In (8d), with the raised pitch on the NTR morpheme, *čəgitəm* indicates that Henry is about to catch Bruno. However, if this same sentence is produced with the regular trochaic pitch pattern, it means that Henry almost caught Bruno but, for some reason, he did not succeed.

(8) *čəgitəm* with NTR and NTR Stative

a. čəgitəm=č pan-[ˊ]-əxʷ qʷasəm
almost= 1SG.IND bury-[STV]-NTR flower
'I have almost planted the flower.'

b. čəgitəm=č pan-əxʷ kʷasta
almost=1SG.IND bury-NTR cup
'I almost (accidentally) buried a cup.'

c. Henry čəgitəm ʔaq̓-[ˊ]-əxʷ-as Bruno
Henry almost catch-[STV]-NTR-3ERG Bruno
'Henry has almost caught Bruno.'

d. Henry čəgitəm ʔaq̓-əxʷ-as Bruno
Henry almost catch- NTR-3ERG Bruno
'Henry almost caught Bruno.'

The data presented in this paper suggest that the semantic function of the non-control stative, marked by raised pitch, is to denote a result state. Conversely, the non-stative NTR suffix, with regular pitch, is used to mark the culminative transition of an event. This can be visualized on a timeline of a prototypical event, such as in Figure 5.

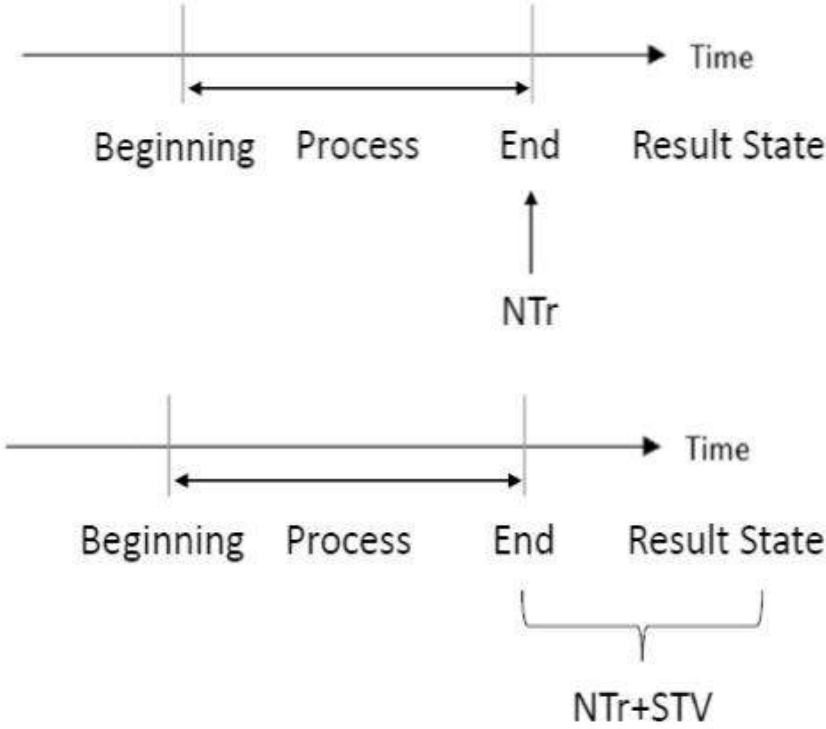

Figure 5: Event Timelines for Non-Control and Non-Control Statives

The non-control stative refers to the result state of a process, which holds until it is (potentially) subsequently reversed by another event. If the result state has not been reversed by the time the event is mentioned, the non-control stative can be used. This explicates why it is commonly translated as "just did it"; the result state has just begun and nothing has reversed it. With *čəgitəm*, the reading is that the result state came close to beginning. This is similar to the English sentence "Henry has almost caught Bruno"; the implication is that it is about to happen. Non-control without stative only denotes the transition from the process to the result state. If the result state has been reversed, or it is likely to have been reversed, stative is not used. With *čəgitəm*, the reading is that the transition came close to happening but did not happen. This corresponds to the English sentence "Henry almost caught Bruno"; the implication is that the event came close to happening but did not. While we can conclude that the non-control stative refers to the result state of a process, there are still remaining questions beyond the scope of this paper about the interaction between control and stative aspect and how to best formally represent it.

6 Conclusion

The combination of the stative aspect and the non-control transitivizer is productive in ʔayʔaǰuθəm. Its apparent absence, as reported by Watanabe (2003), is not due to semantic incompatibility, but to the fact that it has a different morphological signature. Instead of /i/-infixation, as previously described, the non-control stative is formed by raised pitch on the transitivizer. This applies almost categorically, with the only known exception being *təχʷ-*, which receives an -i- infix like the active intransitive, middle, and the control transitivizer with weak roots.[7] Otherwise, the non-control stative behaves like the combination of the stative and a strong root control predicate, where contrastive pitch marks aspect. The data presented in this paper raise three important questions for future analysis. These include exploring the role of pitch in ʔayʔaǰuθəm, the formal semantic properties of the control-stative interaction, and the reasons why the non-control predicate, which has no full vowel underlyingly, behaves unexpectedly like the control predicates with a full vowel. Overall though, counter to previous accounts, we conclude that the non-control stative is formed productively in ʔayʔaǰuθəm via contrastive pitch with any semantically appropriate root in the right discourse context.

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[7] An issue with this example as an instance of stative marking is that *təχʷ-* is a stative root. These roots form a class which are compatible with auxiliaries of duration but not rate, and can take inceptive morphology (Watanabe, 2003: 415). While some of these roots can take stative morphology, *təχʷ-* is the only one among them attested with *-i-* infixation in the non-control transitivizer.

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Language contact in the northernmost regions of the Pacific Northwest: Tlingit elements in Tahltan

Hank Nater

Abstract: Tahltan has been noticeably affected by Tlingit on the lexical level. The purpose of this study is to present to the reader that portion of Tahltan lexicon that is rooted in Tlingit, and to describe semantic and morphological properties of, and phonemic changes undergone by, Tlingit-derived vocabulary. I will also show that Tahltan←Tlingit lexical copying is not merely a corollary of trade-related contact, and that migrations, remigrations and intermarriage were the fundamental driving forces behind such vocabulary transfer.

Keywords: Tahltan, Tlingit, language contact, lexical copying, morpho-semantics of copied lexicon, socio-cultural interaction

1 Introduction

The subject matter of this article is a lexical copying link that connects Tahltan with Tlingit. Tahltan, an Athabascan language, is still spoken in northwestern British Columbia, and borders on Tlingit, a Na-Dene language that has speakers in British Columbia, Yukon, and Alaska.

In Nater 1989:41, I stated that retention of the uvular series in Tahltan is due to Tlingit influence, and that some Tahltan vocabulary, too, is of Tlingit origin, while in Nater 2016 (essentially a follow-up on Nater 1994:180, 8th to 5th lines from bottom), the Tlingit origin of Tahltan *kóŝa* 'urine odor' and Lillooet *kʷ·ṣaʔ* 'urinate (men or animals)' was contemplated. Although my earlier claims in re Tlingit influence remain valid, I have to date shown only seven instances of Tahltan←Tlingit copying in print (five in Nater 1989, two in Nater 2016). As many more such pairs have been on record for quite some time, publication of a comprehensive list of Tahltan←Tlingit copied lexicon is long overdue: in this contribution, I provide such a list. In Section 2 below, I consider the geographic proximity, trade routes, and migration patterns that made Tahltan-Tlingit linguistic interaction possible; in Section 3, I identify the Tahltan and Tlingit phoneme inventories as well as phonemic shifts that affected copied lexicon, and ascertain a one-way direction of copying; in Section 4, the data as such are presented; in Section 5, I discuss less often considered factors that have played vital roles in the transfer of Tlingit lexicon, degrees of copyability that can only be ascribed to intimate contact, and a pseudo-suffix /-a, -e/.

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2 Trade routes and contact areas

Until about the middle of the nineteenth century, mercantile interaction between Tahltan and Tlingit traders happened mainly in or through the following zones:

- via the Chilkoot Trail, an established Tlingit (*Jilk̲oot K̲wáan*) trade route prior to the Klondike Gold Rush, see https://en.wikipedia.org/wiki/Chilkoot_Trail#Indigenous_use;
- in the area comprising Teslin (*Deisleen K̲wáan*), Carcross/Tagish, Atlin (*Áa Tlein K̲wáan*), and Taku (*T'aak̲u K̲wáan*) (Emmons 1911);
- north of Wrangell (*Shtax'héen K̲wáan*) where Tlingit merchants traveled up the Stikine to meet with Tahltan traders (Emmons 1911).

Earlier, migrations and remigrations had taken place, predominantly in the Taku-Tahltan and Stikine-Tahltan regions (Emmons 1911:20–21; see further Section 5.2). The portion of the map by Hope 2000 that includes the above-mentioned locations is shown below.

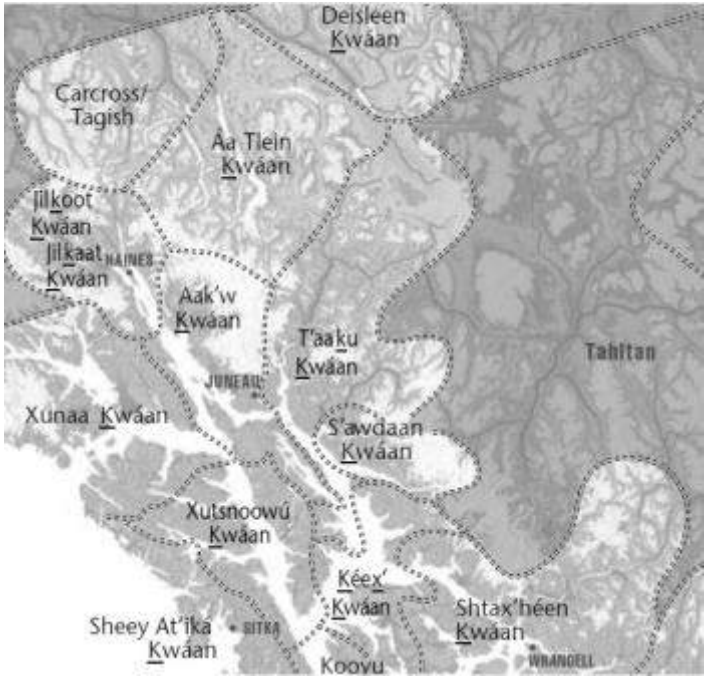

Figure 1 Tlingit territory bordering on Tahltan

On Tlingit-Tahltan contact and migrations, and the coastal origin of the inland Tlingit, De Laguna 1972 states:

> From southeastern Alaska, access to the interior beyond the mountains is possible only along such rivers as the Stikine and Taku, or from the head of Lynn Canal in the northwest over the White, Chilkoot, and Chilkat Passes. These inland routes, or "grease trails," were formerly controlled by local Tlingit sibs who monopolized the trade with the Athabaskan bands in the interior. Down these valleys in ancient days, according to Tlingit tradition, had come adventurous groups who lost their original identities and became Tlingit sibs. In reverse direction have also moved small groups of coastal Tlingit who went to find inland homes. … These Inland Tlingit live a life which is largely indistinguishable from that of their Athabaskan neighbors, based as it must be upon the hunting of moose and (formerly) caribou, trapping fur bearers to trade, and catching fish in inland lakes or at the headwaters of the rivers. The climate is continental, with great extremes in temperature, but is much drier than on the coast. It is a harsh land, of scattered food resources and consequently of relatively small, wandering bands. (De Laguna 1972:15)

For further details on Tahltan-Tlingit interaction, see Section 5.2.

3 Phoneme inventories of Tahltan and Tlingit, phonemic shifts

The data in Section 4 reveal sound changes that transpired after Tlingit words were copied into Tahltan. In order to determine the nature and origin of these changes, I collate the Tahltan and Tlingit phoneme inventories in Figures 2 and 3 below. A comparison yields the following findings: Tlingit rounded uvulars and glottalic fricatives are not matched in Tahltan, while Tlingit lacks labials, interdentals, and certain fricatives, sonorants and vowels found in Tahltan (phonemes not common to both languages are shaded). Further on, I show that many of these differences are the result of phonemic shifts within Tahltan that also influenced Tlingit lexicon copied into Tahltan.

The Tahltan phonemes can be tabulated as shown in Figure 2 below. Lenis plosives (/b/, /d/, etc.) are phonetically voiced. Voicedness of lenis plosives is especially evident in word-final position: *liyá˙b* […bn̥] 'devil', *dí▪zeλ* [...dl̥] 'this only', *ʔé˙ŝĉe˙d* […dn̥] 'I have eaten'. Fortis oral stops are voiceless and aspirated, while fortis affricates are likewise voiceless, but have an optionally slightly prolonged fricative release (e.g. *caʔ* 'beaver' = [▪$^{(s)}$ɑʔ], not *[▪^{h}ɑʔ]). I write /ë/ where /e/ alternates with /ə/ (cf. Nater 1989:29), and /ŝ/, /ẑ/ etc. = [θ~s̻], [ð~z̻], etc. (Nater 1989:39). I have recorded /▪/ only in *ta˙▪* 'town' and *gəndá˙▪* idiolectal variant of *gəmdá˙▪* 'horse'.

Tahltan consonants

b	d	ĵ	ʒ	ǯ	λ		g	ɢ	gʷ	
	t	ĉ	c	č	ƛ		k	q	kʷ	ʔ
	t’	ĉ’	c’	č’	ƛ’		k’	q’	k’ʷ	
m	n	ẑ	z	ž	l	y	γ	ʁ	w	
(•)	•	ŝ	s	š	ɬ	ỷ	x	χ	xʷ	h
	n’									

Tahltan vowels

i [i]	ə [ɪ]	e	a	o	u
iˑ		eˑ	aˑ	oˑ	uˑ

Figure 2 Tahltan phoneme inventory (Nater 1986 & 1989:27)

Again, Tlingit differs from Tahltan in that it lacks phonemes shaded in Figure 2, whereas it features glottalic fricatives and rounded uvulars shaded in Figure 3 (formerly also */ɯ̨/ = “~~ỷ~~”, see Krauss & Leer 1981:146) that are absent in Tahltan. Note that /n/, /y/, /w/ pattern as voiced fricatives in Tahltan, but as sonorants in Tlingit.

Tlingit consonants

d	ʒ	ǯ	λ	g	ɢ	gʷ	ɢʷ	
t	c	č	ƛ	k	q	kʷ	qʷ	ʔ
t’	c’	č’	ƛ’	k’	q’	k’ʷ	q’ʷ	
	s	š	ɬ	x	χ	xʷ	χʷ	h
	s’		ɬ’	x’	χ’	x’ʷ	χ’ʷ	
n		y		*ɯ̨		w		

Tlingit vowels

i [ɪ]	e	a	u
iˑ	eˑ	aˑ	uˑ

Figure 3 Tlingit phoneme inventory (based on Edwards 2009:12)

Shifts that have affected Tlingit-derived Tahltan lexicon are itemized below. Parenthesized numbers refer to entries in Section 4 that have undergone these changes. Shifts (a), (b), (c), (d), (e) are correlated with dissimilarities marked in Figures 2–3, and (a), (b), (d), (e), (h) with phonological developments in Tahltan shown in Figure 4 and mentioned in Section 5.3. Henceforth, C = consonant, V = vowel.

(a) Tlingit /…w…n…/ → Tahltan /…m…n…/ (1, 36, 78);

(b) Except in recent borrowings, (I) Tlingit /s/ series → Tahltan /ŝ/ series (14–22, 32, 38, 39, 49, 51, 54, 64, 66, 69, 79) and (II) Tlingit /š/ series → Tahltan /s/ series (24, 25, 53, 86);

(c) Tlingit glottalic fricative → Tahltan glottalic plosive: /s'/ → /ĉ'/ (→ /ŝ#/); /x'/ → /k'/ (→/k#/); /ɬ'/ → /ƛ'/ (→/ƛ#/); /χ'(ʷ)/ → /q'/ (→/q#/) (5, 9, 11, 16–20, 33, 34, 41, 47, 51, 57, 60, 61, 62, 64, 66, 69, 74, 77, 79, 83, 84, 85);

(d) (I) Tlingit /V(˙)Kʷ/ → Tahltan /o(˙)K, u(˙)K/ (9, 22, 30, 34, 43, 44, 60) and (II) Tlingit /Kʷą/ → Tahltan /Ko/ (54, 58) (/K/ = velar or uvular);

(e) Tlingit /Vn#/ is always copied as /V▪#/ (22, 34, 36, 45, 52, 55, 72, 79, 88);

(f) In copied trisyllables, stress often falls on the first vowel (CV́C(C)VCV) (1, 6, 10, 14, 20, 30, 32, 53, 55, 66, 69, 70, 78, 85, 86);

(g) Scrambling: phoneme(s) added and/or altered, sequence changed (10, 23, 26, 32, 35, 66, 77, 79, 80, 81);

(h) Occasionally (in seventeen out of sixty-three entries), Tlingit /VC#/ → Tahltan /VCa#, VCe#/ (where copied Tlingit voiceless /C/ usually undergoes voicing in Tahltan, see Section 5.3) (13, 21, 23, 29, 33, 38, 39, 40, 46, 47, 53, 54, 75, 77, 83, 86, 89).

(a), (b), (d), (e), (h) are not just linked with Tlingit→Tahltan lexical copying, but are concomitant with systemic phonological developments in Tahltan. This is a strong indication that copying was indeed done from Tlingit to Tahltan (before sound changes took effect), rather than the other way around. For instance, Tlingit certainly would not have copied Tahltan *ĉ'íˑnaˑ* as *s'iˑnáˑ* (16), *ʔéˑλa* as *éˑɬ'* (83), *k'ək* as *k'ínk'* (57), etc. Also, the Tlingit forms generally have a more archaic appearance and more transparent structure – in terms of analyzability – than their Tahltan matches (e.g. entries 20, 22, 31, 34, 35, 39, 65, 69, 78, 80, 84). Figure 4 below illustrates pre-Tahltan shifts that parallel (a), (bI–II), (dI–II), (e) (with samples copied from Nater 1989:32–38).

Shift	Proto-Athabascan	Tahltan
*/…w…n…/ → /…m…n…/	*wən ‘lake’	*me˗*
*/s/ series → /ŝ/ series	*ceˑ ‘stone’	*ĉeˑ*
*/š/ series → /s/ series	*t’eˑʔš ‘charcoal’	*t’eˑs*
*/əKʷ/ → /oK/	*ƛ̓’əχʷ ‘grass’	*ƛ̓’ox*
*/Kʷə/ → /Ko/	*qʷən’ ‘fire’	*kon’*
*/n#/ → /˗#/	*dəkən ‘stick’	*dečə́˗*

Figure 4 Phonemic shifts from proto-Athabascan to Tahltan

4 The data

Tahltan entries listed below are from Nater 1986, while Tlingit data has been copied from Edwards 2009 (except where otherwise noted). Chinook Jargon words have been copied from Gibbs 1863. Entries copied from sources other than Nater 1986 have been retranscribed into a phonemic orthography.

(1) Tahltan *ménéduˑ* ‘domestic sheep’ ← Tlingit *wanadúˑ* ‘id.’ (← **maladúˑ* ← Chinook Jargon *lamato*) || /m/ ← /w/, CV́CVCV

(2) Tahltan *dáˑnaˑ* ‘money’ ← Tlingit *dáˑnaˑ* ‘id.’ (← Chinook Jargon *dala*)

(3) Tahltan *duˑš* ‘cat’ ← Tlingit *dúˑšˑ* ‘id.’ (← Chinook Jargon *puspus/pišpiš*)

(4) Tahltan *taˑɬ* ‘flat basket’ ← Tlingit *táɬ* ‘id.’

(5) Tahltan *taˑq’áƛ̓* ‘needle’ ← Carcross Tlingit *táˑχ’áɬ’* ‘id.’, see http://www.drangle.com/~james/athabaskan/tahltan.html || /q’/← /χ’/, /ƛ̓#/ ← /ƛ̓’/ ← /ɬ’/

(6) Tahltan *tóq’ataˑɬ* ‘pants, trousers’ ← Tlingit *tuq’atáˑɬ* ‘id.’ || CV́CVCVC

(7) Tahltan *tuháˑɣe* ‘nail, spike’ ← Tlingit *tuháˑyi* ‘id.’

(8) Tahltan *t’íˑya* ‘fish hook’ ← Tlingit *t’eˑχáˑ* ‘id.’ || /y/ ← /ɣ/ ← /ʁ/? (cf. Nater 1989:32)

(9) Tahltan *t’oˑq* ‘wart’ ← Tlingit *t’áˑχ’ʷ* ‘id.’ || /oˑq#/ ← /aˑqʷ#/ ← /aˑq’ʷ#/ ← /aˑχ’ʷ#/

(10) Tahltan *t’úˑšneɣet, t’úˑšʁane(ˑ)t* ‘bottle’ ← Tlingit *t’uˑčˑineˑt* ‘id.’ || CV́CCVCV, scrambling

(11) Tahltan *t’uˑk* ‘stinging nettle’ ← Tlingit *t’úˑk’* ‘id.’ || /k#/ ← /k’#/

(12) Tahltan *náˑwi* ‘liquor’ ← Tlingit *náˑw* ‘id.’ (← Chinook Jargon *lam*) || Tahltan /…i/ ← Tlingit /-i/ ‘its (poss.)’

(13) Tahltan √*naˑgʷ*, √*naˑwe* ‘medicine’ ← Tlingit *náˑkʷ* ‘id.’ || (/…e#/ added)

(14) Tahltan *ĉəda·t'a·χ* 'kerchief' ← Tlingit *sada·t'a·y* 'id.' || irreg. /ĉ/ ← /ŝ/ ← /s/, /χ/ ← /ʁ/ ← Tlingit */ɯ/?, CV́CVCVC

(15) Tahltan *ĉa·ŝ* 'bear root' ← Tlingit *cá·c* 'id.' || /ĉ/ ← /c/, irreg. /ŝ/ ← /c/

(16) Tahltan *ĉ'í·na·* 'candle' ← Tlingit *s'i·ná·* 'lamp' || /ĉ'/ ← /s'/

(17) Tahltan *ĉ'i·q* 'tobacco' (cf. 20) ← Tlingit *s'e·q* 'smoke' || /ĉ'/ ← /s'/

(18) Tahltan *ĉ'əŝá·* 'cloth' ← Tlingit *s'isa·* 'id.'|| /ĉ'/ ← /s'/, /ŝ/ ← /s/

(19) Tahltan *ĉ'eƛ* 'rubber' ← Tlingit *s'éɬ'* 'id.' || /ĉ'/ ← /s'/, /ƛ#/ ← /ƛ'/ ← /ɬ'/

(20) Tahltan *ĉ'áχda·qe·t* 'tobacco pipe' (cf. 17) ← Tlingit *s'iqda·ke·t* 'id.' (*da·ke·t* 'container') || /ĉ'/ ← /s'/, vowel assimilation, irreg. /χ/ ← /q/ and /q/ ← /k/, CV́CCVCV

(21) Tahltan *ŝá·ga* 'eulachon' ← Tlingit *sa·k* 'id.' || /ŝ/ ← /s/, /…a#/ added, /gV#/ ← /k#/

(22) Tahltan *ŝuknéˑˑ* 'flour' ← Tlingit *sakʷné·n* 'flour, bread' (← Chinook Jargon *sapolil*) || /ŝ/ ← /s/, /uk/ ← /akʷ/

(23) Tahltan *c'eqóhɢe ~ č'ehqóx* 'skin canoe' ← Tlingit *ǯa·qúχ* 'id.' || irreg. /c', č'/ ← /ǯ/, insertion of /h/, irreg. /ɢ, x/ ← /χ/, scrambling, /…e#/ added in one allomorph

(24) Tahltan *skádi* 'crazy, insane' ← Tlingit *š kaha·dí* 'id.' || /s/ ← /š/

(25) Tahltan *sá·nah* 'valley' ← Tlingit *ša·náχ* 'id.' || /s/ ← /š/, /h/ ← /χ/

(26) Tahltan *sóga* 'being fine, doing well' ← Tlingit *sagú* 'joy' ‖ scrambling: /ó/ ⇆ /a/

(27) Tahltan *čiɣé·t* 'pillow' ← Tlingit *šaye·t* 'id.' || irreg. /č/ ← /š/, /y/ ← */ɯ/?

(28) Tahltan *čəɬ* 'cache' ← Tlingit *číɬ* 'id.'

(29) Tahltan *čá·ǯe* 'humpback salmon' ←Tlingit *čá·s'* 'id.' || shibilant assimilation (/ǯV/ ← /č#/ ← /č'/ ← /c'/, cf. Nater 1989:27–28), /…e#/ added

(30) Tahltan *čóɢena·* 'towel' ← Tlingit *ǯiɢʷé·na·* 'id.' || CV́CVCV, /oɢ/ ← /iɢʷ/, irreg. /č/ ← /ǯ/

(31) Tahltan *dá·na·šu·* 'half dollar' ← Tlingit *dá·na·šu·wú* 'id.'

(32) Tahltan *ƛ'ásake·ŝ, ƛ'ásaqe·t* 'ring' ← Tlingit *ƛ'iqkakí·s* 'id.' || CV́CVCVC, /ŝ/ ← /s/, scrambling

(33) Tahltan *ƛ'ú·ga* 'coho' ← Tlingit *ɬ'u·k* 'id.' || /ƛ'/ ← /ɬ'/, /...a#/ added, /gV#/ ← /k#/

(34) Tahltan *ƛ'u·k'é·* 'socks' ← Tlingit *ɬ'í· x'ʷán* 'id.' ("wool boot") || /ƛ'/ ← /ɬ'/, /u·k'/ ← /i·xʷ/

(35) Tahltan *ɬegáyi* 'avalanche area' ← Tlingit *λe·t qa·dí* 'avalanche' ("snow slide") || irreg. shifts (scrambling)

(36) Tahltan *gəmdá··* 'horse' ← Tlingit *gawdá·n* 'id.' (← Chinook Jargon *kiúatan*) || /m/ ← /w/

(37) Tahltan *gešú·* 'pig, pork' ← Teslin/Carcross Tlingit *gešú·*, see http://www. drangle.com/~james/athabaskan/tahltan.html (← Chinook Jargon *košó*)

(38) Tahltan *gá·ʒ̑a* 'forked tent pole' ← Tlingit *gá·s'* 'house post' || /ʒ̑V/ ← /ĉ#/ ← /ĉ'/ ← /s'/, /…a#/ added

(39) Tahltan *gá·ẑe, gá·ẑa* 'jackpine' ← Tlingit *šáčk ka∂a·sí* 'id.' ("swamp mast") (/-i/ 'its (poss.)') || irreg. /g/ ← /k/, /…e#, …a#/ added , /ẑV/ ← /ŝ/ ← /s/

(40) Tahltan *gá·ne* 'smoke vent' ← Tlingit *ga·n* 'smokehole' || /…e#/ added

(41) Tahltan √*ga·g* = /√ga·g-▪/ 'pray' ← Tlingit √*ga·x'* 'id.' || /g▪#/ ← /k#/ ← /k'/ ← /x'/

(42) Tahltan *ga·w* 'drum, bell, clock' ← Tlingit *ga·w* 'id.'

(43) Tahltan √*goƛ* 'punch' ← Tlingit √*gʷaɬ*, √*gʷa·ɬ* 'id.' || /go/ ← /gʷa/, irreg. /ƛ/ ← /ɬ/

(44) Tahltan *goxé·ʔ* 'cranberry' ← Tlingit *kaxʷé·χ* 'id.' || irreg. /g/ ← /k/, /ox/ ← /axʷ/, irreg. /e·ʔ/ ← */e·h/ ← /e·χ/

(45) Tahltan *gu··* 'gold' ← Tlingit *gú·n* 'id.' (← English *gold*)

(46) Tahltan *gú·na* 'springwater' ← Tlingit *gu·n* 'spring (of water)' || /…a#/ added

(47) Tahltan √*gú·λe* 'burl' ← Tlingit *gúnɬ'* 'id.' || /λV/ ← /λ#/ ← /ƛ'/ ← /ɬ'/, /…e#/ added

(48) Tahltan *ket'išá·* 'awl, needle' ← Teslin/Carcross Tlingit *ket'íša·* 'id.', see http://www.drangle.com/~james/athabaskan/tahltan.html

(49) Tahltan *kené·ŝ* 'cross' ← Tlingit *kané·st* 'id.' (← Russian *крест*) || /ŝ/ ← /s/ ← /st/, /n/ ←*/l/ ← /r/

(50) Tahltan *këná·ʔët* 'coat' ← Tlingit *kina·ʔát* 'id.'

(51) Tahltan *keĉ'ó·q, qeĉ'ó·q* 'northern lights' ← Tlingit *gis'ú·q* 'id.' || /ĉ'/ ← /s'/ (/k/ → /q/ assimilation)

(52) Tahltan *kexʷá··* 'silver fox' ← Tlingit *kaxʷa·n naɢas'é·* 'id.' (*kaxʷa·n*, *kexʷa·n* (Carcross) 'frost', *naɢas'é·* 'fox', see

http://www.drangle.com/~james/athabaskan /tahltan.html)

(53) Tahltan *keɬˑsese* 'red willow' ← Tlingit *keˑšíš* 'alder' (but which 'red willow' would resemble alders?) || /s/ ← /š/, /…e#/ added, CV́CVCV

(54) Tahltan *kóŝa* 'urine odor' ← Tlingit *kʷas* 'urine' (Krauss 1970:1176) || /ŝ/ ← /s/, /ko/ ← /kʷa/, /…a#/ added

(55) Tahltan *kúwagaˑ•* 'deer' ← Tlingit *ɢuwakaˑn* 'id.' || /g/ ⇆ /k/, /g/ ← /ɢ/, CV́CVCV

(56) Tahltan *kuˑx* 'rice' ← Tlingit *kúˑx* 'id.'

(57) Tahltan *k'ək* 'cured fish heads' ← Tlingit *k'ínk'* 'id.' || /k#/ ← /k'#/

(58) Tahltan *k'oƛ* 'pot' ← Tlingit *q'ʷáƛ* 'id.' || /k'o/ ← /q'ʷa/

(59) Tahltan *k'unc* 'potatoes' ← Tlingit *k'únc'* 'id.' || /c#/ ← /c'/

(60) Tahltan *k'ugáƛ* 'safety pin' ← Tlingit *χ'éˑgʷáɬ'* 'id.' || /k'/ ← /q'/ ← /χ'/, /ug/ ← /eˑgʷ/, /ƛ#/ ← /ƛ'/ ← /ɬ'/

(61) Tahltan *k'uk* 'book' ← Tlingit *x'úx'* 'id.' || /k'/ ← /x'/, /k#/ ← /x'#/

(62) Tahltan *k'uk'áˑ* 'cup' ← Tlingit *gúx'aˑ* 'id.' || /k'$_2$/ ← /x'/, irreg. /k'$_1$/ ← /g/ (assimilation)

(63) Tahltan *xət* 'house' ← Tlingit *hít* 'id.'

(64) Tahltan *xaˑŝ* 'leather' ← Tlingit *a xáˑs'i* 'its skin (of fish)' or *xaˑs* 'bison, muskox, cow, horse'

(65) Tahltan *ɢáyesdáˑnaˑ* 'small change' ← Tlingit *ɢayéˑs'* 'iron, tin', *dáˑnaˑ* 'money' (for which see entry (2))

(66) Tahltan *qəĉ'áχoˑʁeˑt* 'frying pan' ← Tlingit *kas'úgʷaˑ yeˑt* 'id.' || irreg. /q/ ← /k/, scrambling, /ĉ'/ ← /s'/, …CV́CVCV, Tlingit /y/ ← */ɯ/?

(67) Tahltan *qanúˑkʷ* 'phoebe' ← Tlingit *ɢanuˑk* 'petrel' (however, these birds represent different species that are found in different environments)

(68) Tahltan *qáˑtuˑ* 'chickadee' ← Tlingit *qaˑtuˑwú* 'id.'

(69) Tahltan *qáˑχʔóʒaˑ* 'soap' ← Tlingit *qáˑ-χ ʔús'aˑ* 'man-on soap' (see http://www. drangle.com/~james/athabaskan/tahltan.html) ← *ʔús'aˑ* 'soap' || CV́CCVCV, irreg. /ʒ/ ← */ĉ'/ ← /s'/

(70) Tahltan *qáˑwaˑɢa* 'window' ← Tlingit *χaˑwaˑɢéˑ* 'id.' || CV́CVCV, irreg. /a/ ← /eˑ/, irreg. /q/ ← /χ/

(71) Tahltan *quˑq* 'box' ← Tlingit *qúˑk* 'id.' || /q/ assimilation

(72) Tahltan *q'anaˑχá•* 'fence, enclosure' ← Tlingit *q'anáˑχán* 'id.' (← Chinook Jargon *q'əláχan*)

(73) Tahltan *q'aɬtú* 'pocket' ← Tlingit *ɢaɬtú* 'id.' || irreg. /q'/ ← /ɢ/

(74) Tahltan *q'aχáˑdi* 'door' ← Tlingit *χ'aháˑt* 'id.' || /q'/ ← /χ'/, Tahltan /…i/ ← Tlingit /-i/ 'its (poss.)'

(75) Tahltan *q'aχáˑne* 'effeminate man, "sissy"' ← Tlingit *q'atχáˑn* 'coward' || cluster alleviation, /…e#/ added

(76) Tahltan *gʷeɬ* 'bag, sack' ← Tlingit *gʷéɬ* 'id.'

(77) Tahltan *kʼʷáˑɢa* 'coho (in fresh water)' ← Tlingit *χ'áˑkʷ* 'id.' || scrambling (*kʼʷáˑɢa* ← **kʼʷaˑq* ← **q'aˑkʷ* ← *χ'áˑkʷ*), /…a#/ added

(78) Tahltan *wáχdáˑnaˑ, máχ dáˑnaˑ* 'glasses' ← Tlingit *waqdáˑnaˑ* 'id.' ("eye-money") || CVˊCCVCV, /m/ ← /w/

(79) Tahltan *ʔisôhqáˑˑ, ʔisĉ'ohqáˑˑ* 'whiteman' ← Tlingit *gus'k'iyiˑ qʷáˑn* 'id.' || scrambling

(80) Tahltan *ʔiɬšáˑwët* 'widow' ← Tlingit *ɬ s'aˑti šaˑwát* 'id.' (*s'aˑti* 'man, master', *šaˑwát* 'woman') || scrambling

(81) Tahltan *ʔetutéˑy, ʔetutéˑɣi* 'bullet' ← Tlingit *at katé* 'id.' || cluster alleviation, scrambling

(82) Tahltan *ʔeλíˑ, ʔeλáˑ* 'mother' ← Tlingit *ƛáˑ* 'id.' || irreg. /λV/ ← /ƛV/

(83) Tahltan *ʔéˑλa* 'sea, ocean' ← Tlingit *éˑɬ'* 'ocean, salt water' || /λV#/ ← /ƛ#/ ← /ƛ'/ ← /ɬ'/, /…a#/ added

(84) Tahltan *ʔeˑɬkúˑx* 'salt' ← Tlingit *éˑɬ ʔkúˑx* 'id.' ("ocean-rice", cf. 83, 56)

(85) Tahltan *ʔašǻna-gʷaˑƛ* 'night hawk' ("makes fart-like noise with its wings when completing its dive") ← Tlingit *ɢʷaˑɬ'* 'fart' || …CVˊCVCV, /ƛ#/ ← /ƛ'/ ← /ɬ'/

(86) Tahltan *ʔáˑseda* 'steelhead' ← Tlingit *aˑšát* 'id.' || CVˊCVCV, /s/ ← /š/, /…a#/ added, /dV#/ ← /t#/

(87) Tahltan *ʔúnaˑ* 'gun' ← Tlingit *úˑnaˑ* 'id.'

(88) Tahltan √*ʔuˑ* 'shoot' ← Tlingit √*ʔun* 'id.'

(89) Tahltan *déˑla, déˑle* 'pitchwood' ← Tlingit *téˑɬ* 'pitchwood' || /…a#, …e#/ added, /lV#/ ← /ɬ#/, irreg. /d/ ← /t/

There are in Tahltan a few loan translations as well. These, the numerals 6–9, consist of a fossilized prefix /naˑs-/ followed by 'one', 'two', 'three', 'four', and are calques from Tlingit. /naˑs-/ may continue older */na^{n}ˑʔ-s-/ (compare proto-Athabascan */naˑn'-/ 'across' (Krauss & Leer 1981:198) and perhaps /-s-/ 'formative' (Nater 1986)). While similar formations do not appear to exist in other Athabascan languages, Tlingit has terms for 6–8 that are analogous to the

Tahltan ones, but with the suffix /-(a)duˑšú/ (as per Krauss 2009 of verbal origin: ‘extending to’) added to ‘one’, ‘two’, ‘three’:

	‘one’	‘two’	‘three’	‘four’
Tahltan	*ɬáge*	*ɬakéˑ*	*táˑtʼe*	*ɬéˑntʼe*
Tlingit	*ƛéˑxʼ*	*déˑχ*	*násʼk*	*daˑxʼuˑn*
	‘six’	‘seven’	‘eight’	‘nine’
Tahltan	*naˑs-ɬáge*	*naˑs-ɬakéˑ*	*naˑs-táˑtʼe, naˑs-táʔe*	*naˑs-ɬéˑntʼe*
Tlingit	*ƛeˑ-duˑšú*	*daχ-aduˑšú*	*nasʼg-aduˑšú*	*guˑšúq*

Figure 5 Numbers 1–4 and 6–9 in Tahltan and Tlingit

The Tlingit term for ‘nine’ is not obviously derived from ‘four’ (but note the resemblance between *guˑšúq* and /-(a)duˑšú/); thus, Tahltan ‘nine’ is not a direct calque from Tlingit. However, Tahltan ‘nine’ is built on the same template as Tahltan 6–8, and its structure should therefore indeed be regarded as Tlingit-inspired. Note further that while Tahltan ‘one’, ‘two’, ‘three’ (as well as ‘five’) have Athabascan etymologies (see Nater 2016:113–114 and Rosenfelder 2016 (under the rubric ‘Eskimo-Aleut, Na-Dené’) for cognate forms), I have so far not been able to determine the source of *ɬéˑntʼe* ‘four’.

5 Final observations

In the following subsections, I consider morpho-semantic aspects of copied vocabulary, socio-cultural factors, and the pseudo-suffix /-a, -e/.

5.1 Semantic and morphological aspects of copied vocabulary

Most Tlingit-based Tahltan vocabulary consists of nouns (sixty-four) pertaining to tradable items (food, fishing gear, tools, clothing, man-made structures, domestic animals, etc.: entries 1–8, 10, 12–23, 27–34, 36–38, 40, 42, 44, 45, 48–50, 52, 56–66, 69–74, 76–78, 81, 84, 86, 87). Fourteen nouns refer to non-tradable things commonly seen in the Tahltan-Tlingit region (flora, fauna, natural features and phenomena): (11) ‘stinging nettle’, (25) ‘valley’, (35) ‘avalanche area’, (39) ‘jackpine’, (46) ‘spring water’, (47) ‘burl’, (51) ‘northern lights’, (53) ‘red willow’, (55) ‘deer’, (67) ‘phoebe’, (68) ‘chickadee’, (83) ‘ocean’, (85) ‘night hawk’, (89) ‘pitchwood’. Four nouns have to do with societal status: (75) ‘effeminate man’, (79) ‘whiteman’, (80) ‘widow’, (82) ‘mother’. The remaining two nouns that refer to non-tradable items are: (9) ‘wart’ and (54) ‘urine odor’. Non-nominal copies are rare: two pseudo-adjectives ((24) ‘crazy, insane’, (26) ‘being fine, doing well’) and three verb stems ((41) ‘pray’, (43) ‘punch’, (88) ‘shoot’).

The following diagram summarizes the distribution and morphological status of copied Tahltan lexicon.

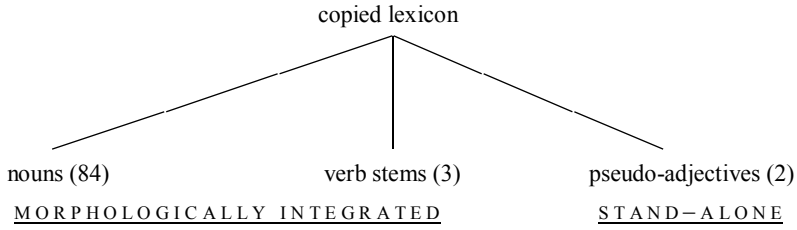

Figure 6 Copied lexicon: distribution and morphology

Tlingit-based nouns and verb stems are "morphologically integrated" insofar as most copied nouns can be combined with possessive affixes and undergo morpheme-final consonant voicing (see Nater 1989:32), while copied verb stems accept verbal prefixes (but are immune to allomorphy, cf. Nater 2006:57–59 on invariable verb stems in Tahltan):

t'oˑq 'wart' → *met'óˑɢe* 'his wart'
gʷeɬ 'sack' → *ʔesgʷéˑle* 'my sack'
ʔúnaˑ 'gun' → *ʔənʔúnaˑ* 'thy gun'

√*gaˑg* 'pray' → *dadénesgaˑg* 'I pray'
√*goƛ* 'punch' → *naníˑhgoƛ* 'I punched it'
√*ʔu•* 'shoot' → *sîˑtˑúˑ•* 'we shot'

In contrast, pseudo-adjectives cannot, unlike true adjectives and adjectival roots, be applied as an affixal qualifier. Consider the examples below, where (c2) and (d2) are not acceptable:

(a1) *ʒaˑ ʔatˑé* 'he is (*ʔatˑé*) bad (*ʒaˑ*)'
(a2) *díˑ déne-ʒaˑ* 'this (*díˑ*) bad (*ʒaˑ*) man (*déne*)'

(b1) *ʔu-čóh* 'he is (*ʔu-*) big (*-čóh*)'
(b2) *díˑ déne-čoˑ* 'this (*díˑ*) big (*-čoˑ*) man (*déne*)'

(c1) *skádi ʔatˑé* 'he is (*ʔatˑé*) insane (*skádi*)'
(c2) **díˑ déne-skádi* 'this (*díˑ*) insane (*skádi*) man (*déne*)'

(d1) *sóga ʔatˑé* 'he is *(ʔatˑé)* doing well (*sóga*)'
(d2) **díˑ déne-sóga* 'this (*díˑ*) well-doing (*sóga*) man (*déne*)'

This bias against applying native morphology to the two copied adjectives is likely linked with the nominal status of Tlingit *sagú* 'joy' and un-adjectival structure of *skádi* (Tahltan post-nominal adjectives seldom exceed /-CVCV/).

5.2 Socio-cultural considerations

Bound forms (and morphological processes in general) normally resist copying (cf. Mithun 2013, Nater 2014), and one would not expect verb stems to be exempt from this rule. However, similarities in verb templates (Leer 2008:1), together with increased bilingualism, do account for the sporadic adoption of a verb stem (again, cf. Mithun 2013). Regarding intimate Tahltan-Tlingit contact, note:

> Reviewing the events set forth in these family narratives, which, taken together, constitute all that there is of tribal history, it appears that at some early period a general westward movement prevailed among the interior people. It was not a wave of migration, as of a vanquished people fleeing before an enemy, but rather a restless wandering of bands or families seeking new homes. The routes followed were naturally along the rivers and lakes until the headwaters of the Taku and the Stikine were reached. Here favorable conditions seem to have been found and permanent camps were made. … With natural increase and the accession of new parties the westward movement was resumed down the rivers to the coast. Here they met the Tlingit, a more aggressive and virile people, among whom, through intermarriage and environment, they forgot the ways of the trail and the woods and became sea hunters and fishermen. Then in generations following when the coast and the interior peoples had come in contact, individuals drifted back to the homes of their forefathers, strangers to the mother tongue and the simple life of the Dene, bringing with them the superstitions and the traditions of the coast, together with the social organization and the elaborate ceremonials, that have for their end the glorification of family in the display of the totemic emblems. Intercourse through trade relations was likewise responsible for these changes, but in a lesser degree. (Emmons 1911:20–21)

It is these "strangers to the mother tongue" who first facilitated the transfer, most likely via their peers and offspring, of Tlingit vocabulary to Tahltan.

Tlingit cultural influence is evident in Tahltan traditions and paraphernalia (dances, ceremonial blankets, Wolf vis-à-vis Crow moieties, matrilineal descent, etc.). On the origin of Tahltan matriarchy and moieties, Emmons 1911 notes:

> The eastern divisions of the Nahane are said to be patriarchal in government, with but a loosely organized social system. It is probable that the Tahltan were originally the same; but at some later period they borrowed the social organization of their Tlingit

> neighbors of the coast, which is founded on matriarchy and is dependent on the existence of two exogamous phratries which marry one with the other and which supplement each other on all occasions of ceremony. These phratries are known as Cheskea da, 'one family raven,' and Cheona da, 'one family wolf,' and from their principal totemic emblems may be thus distinguished as Cheskea, Raven, and Cheona, Wolf. Of the former there is but one family, the Kartch-ottee; of the latter there are three families; the Tuck-clar-way-tee, the Tal-ar-ko-tin, and the Nan-yi-ee. Besides the phratral crest which is the birthright of every individual, the subdivisions or families assume other emblems, which may be displayed to the exclusion of the former. In explanation of this subdivision among the Tlingit I believe that originally the phratries consisted of two families and that with the increase in numbers, parties went forth to seek new homes and in time took upon themselves the functions of independent families and assumed new crests while always retaining that of the phratry. Strange people coming among them took their places as separate families within the group. (Emmons 1911:13–14)

In my notes, however, *cəsk'íˑye* ("Cheskea") consistently translates as 'crow', and the Tahltan moieties/phratries are *Cəsk'íˑye* 'Crow' and *Č'iyóˑne* ("Cheona") 'Wolf' (with /▪da/ 'about' (not *'one') added in Emmons' notes). Emmons' "Tal-ar-ko-tin" is *Talágoˑt'iˑn* 'an ethnic division' (my notes) (/talágaˑ(h)=ho-t'iˑn▪/ 'people (/-t'iˑn▪/) of (/-ho-/) **Talágaˑ(h)'* (cf. /ta-/ 'pertaining to (body of) water', /√la/ 'hand, branch', /▪gah/ 'along')), but I cannot identify "Tuck-clar-way-tee" (cf. *taǰ'áh* 'Dease Lake' and /…ho-t'iˑn▪/ 'people of …'?), "Kartch-ottee" (cf. /…ho-t'iˑn▪/ 'people of …'?) and "Nan-yi-ee".

5.3 The pseudo-suffix /-a, -e/

In Nater 2016:115, an enigmatic element /…a/ (with single occurrence) was identified; however, it was at the time unclear whether this /…a/ was a petrified suffix or reduplicated vowel. But it has since been established that this element – along with allomorphic /…e/ – occurs in words other than *koŝa* as well, and that it is indeed suffixal in nature. Although the exact origin and function of /…a, …e/ in entries 13, 21, 23, 29, 33, 38, 39, 40, 46, 47, 53, 54, 75, 77, 83, 86, 89 still cannot be determined with certainty, it is evident that /…a, …e/ is, except in entries 53 and 54, preceded by a consonant that either remained or became voiced after a word was copied from Tlingit and /…a/ or /…e/ was added. (A connection with proto-Athabascan */-əʔ/ 'inalienable possession' (as in 'bark', 'gristle') and/or */-ə/ (undefined) (as in 'trail', 'little') (Krauss & Leer 1981, pp. 191, 195, 200) is moot.)

Voicing associated with a following (originally suffixal) vowel is a familiar phenomenon in Tahltan (cf. Nater 1989:32), and it is therefore likely that Tahltan /…a, …e/ was added – as a pseudo-suffix – to Tlingit loan words in

order for neologisms to conform to the common CV́JV morphemic structural pattern (J = any voiced consonant) as found in e.g. *yá·ze* 'small', *ĉéĵe* 'every', *t'óžɐ* 'milk', *ŝú·λe* 'drinking straw', *béde* 'food', *dége* 'be off!', *dí·ɣi* 'tea'.

Finally, note that the allomorphs /-a/ and /-e/ are almost evenly distributed, while they are in free variation in 'jackpine' and 'pitchwood'.

with /-a/	with /-e/
(21) *ŝá·ga* 'eulachon'	(13) *√na·we* 'medicine'
(33) *λ'ú·ga* 'coho'	(23) *c'eqóhɢe* 'skin canoe'
(38) *gá·ĵa* 'forked tent pole'	(29) *čá·žɐ* 'humpback salmon'
(46) *gú·na* 'springwater'	(40) *gá·ne* 'smoke vent'
(54) *kóŝa* 'urine odor'	(47) *√gú·λe* 'burl'
(77) *k'ʷá·ɢa* 'coho'	(53) *ke□·sese* 'red willow'
(83) *ʔé·λa* 'sea, ocean'	(75) *q'aχá·ne* 'effeminate man'
(86) *ʔá·seda* 'steelhead'	
(39) *gá·ĵa*, *gá·žɐ* 'jackpine'	
(89) *dé·la*, *dé·le* 'pitchwood'	

Figure 7 Distribution of pseudo-suffixal /-a/ and /-e/ in copied lexicon

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ʔayʔaǰuθəm: A degreeless language*

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Abstract: This paper explores the status of degrees in ʔayʔaǰuθəm, a critically endangered Central Salish language spoken by four communities on the Upper Sunshine Coast in British Columbia, Canada. Inspired by recent work on degreeless languages — in particular Fijian (Pearson 2009), Motu (Beck et al. 2009), Washo (Bochnak 2015), and Warlpiri (Bowler 2016) — we argue that the ontology of ʔayʔaǰuθəm lacks degree elements of the semantic type <d>. To substantiate this claim, we present eight different diagnostics that point towards the absence of degrees in this language. In particular, we examine the availability of measure phrases, various types of comparatives, superlatives, equatives, and degree questions. Since the body of work on these constructions in Salish is still sparse, the argument presented in this paper may not only be of interest for theoretical semanticists, but also for fieldworkers who are active in this language family.

Keywords: ʔayʔaǰuθəm (Mainland Comox), comparatives, degree, degreeless language, measure phrases, subcomparatives

1 Introduction

In recent years, several researchers have proposed the existence of degreeless languages, i.e., languages which lack elements of the semantic type <d>. In particular, such an argument has been made for the Austronesian languages Motu (Beck et al. 2009) and Fijian (Pearson 2009), the language isolate Washo (Bochnak 2015), and for the Pama-Nyungan language Warlpiri (Bowler 2016). This paper explores the status of degrees in ʔayʔaǰuθəm (a.k.a. Mainland Comox), a critically endangered Central Salish language traditionally spoken by four communities on the Sunshine Coast in British Columbia. Despite substantial documentation efforts in recent years, the First Nations languages in Canada remain understudied from the perspective of degree semantics. The present investigation aims to remedy this issue by providing a first-pass assessment of degrees in one of this set of languages.

Drawing heavily from both Beck et al. (2009) and Bowler (2016), we employ a set of eight different diagnostics to determine whether ʔayʔaǰuθəm has a degree ontology or not. Relying on data elicited with two language consultants, we argue that ʔayʔaǰuθəm might be another potential candidate for the class of degreeless languages.

*This paper would not have been possible without our two consultants, Joanne Francis, Betty Wilson, and Phyllis Dominic, who were both kind enough to share their language with us. *ʔimot!* Additionally, we want to express our gratitude to Margit Bowler, Henry Davis, Christian Epp, Vera Hohaus, and Marianne Huijsmans for their invaluable input.
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This paper is structured as follows. In Section 2, we briefly review the semantic theories on gradable predicates and their relation to degrees. In Section 3, crucial ʔayʔaǰuθəm data concerning degrees and various comparative constructions are laid out. An account to explain the pattern emerging from the data is outlined in Section 4. Finally, Section 5 concludes the paper.

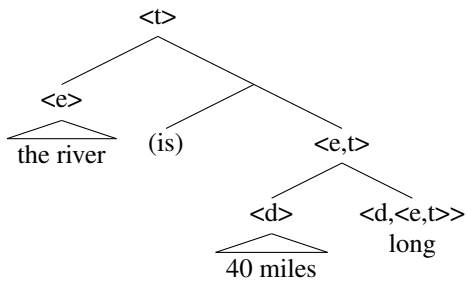
2 Theoretical background

According to the traditional degree-based analysis of gradable predicates in languages like English, gradable adjectives and adverbs contain a degree variable, which is an abstract argument of the semantic type <d> (Heim 2000; von Stechow 1984).[1] The function of this variable is to specify degrees along a scale provided by the lexicon, such as the scale of length introduced by the gradable predicate *long*. As illustrated by the lexical entry in (1), gradable predicates can consequently be understood as elements of type <d,<e,t>>, which relate degrees and individuals (Heim 1985, 2000; Kennedy and McNally 2005).

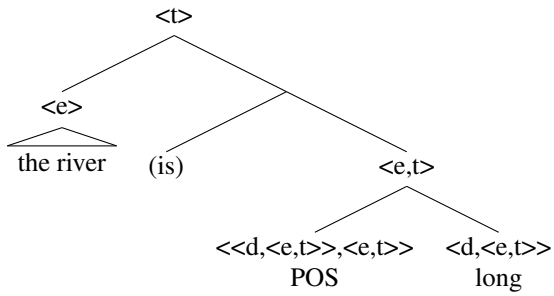
(1) $[\![\textbf{long}]\!] = \lambda d \lambda x . x$ is d-long

The degree argument can be overt or covert, as illustrated by the sentences in (2) and (3). In the former, the overt measure phrase *40 miles* fills the degree slot in the syntactic structure, while in example (3) no overt degree morphology is discernible.

(2) The river is 40 miles long.



(3) The river is long.



[1] Alternative accounts for gradable predicates have been proposed by Beck et al. (2009), Kennedy (1999), and Klein (1980, 1991), among others.

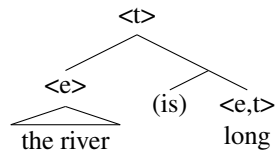
To prevent the semantic calculation in (3) from crashing, Kennedy (1999) proposes the existence of a null morpheme called Positive Form (POS), which binds the degree variable and relates it to a contextually determined standard of comparison.[2] Following Bochnak (2015) as well as Kennedy and McNally (2005), this degree morpheme is defined as in (4), where the degree d meets the standard s_G for a gradable adjective G.

(4) $[\![\textbf{POS}]\!] = \lambda G \lambda x\ .\ \exists d[d > s_G\ \&\ G(d)(x)]$

Over the last couple of years, however, several linguists have presented evidence for languages which lack degrees altogether, such as Motu (Beck et al. 2009), Fijian (Pearson 2009), Washo (Bochnak 2015), and Warlpiri (Bowler 2016). If these languages are indeed degreeless, then gradable predicates cannot combine with arguments of type <d>. Following Beck et al. (2009), Bochnak (2015), and Klein (1980), we can solve this issue by interpreting gradable predicates relative to a context c. The denotation of the gradable predicate *long* in languages like Warlpiri, for instance, could thus be defined as shown in (5).

(5) $[\![\textbf{long}_{\text{Warlpiri}}]\!]^c = \lambda x\ .\ x$ counts as long in c

(6) The river is long.



In this paper, we argue that ʔayʔaǰuθəm is a degreeless language as well. Assuming that degrees are not available in the semantic ontology of this language, sentences have to appear analogous to the form presented in (6). If this assumption is correct, then certain degree constructions are predicted not to be available for speakers of this language, as noted by Beck et al. (2009) and Bowler (2016). In the following section, we will take a closer look at these constructions.

3 Data from ʔayʔaǰuθəm

For their cross-linguistic study of comparatives, Beck et al. (2009) compiled a long list of constructions that can be used to assess the status of degrees in a language. While a complete investigation of the entire catalogue is underway, we will limit ourselves to a subset of eight degree constructions in this paper. Primarily, we will focus on the same set of diagnostics used by Bowler (2016) in her investigation on degrees in Warlpiri. The diagnostics include measure phrases, various types of comparatives, superlatives, equatives, and degree questions.

[2]For a different account relying on a covert morpheme that binds the degree variable, see Rett (2008).

3.1 Elicitation methods

As noted by Bowler (2016:14), eliciting degree constructions can be a challenging endeavor. For instance, it is not always possible to rely on conventionalized units of measurements, such as meters, feet, or kilograms, since these may not be available in every language. ʔayʔaǰuθəm is such a language that lacks lexical items that correspond to these concepts. In the same vein, consultants may also struggle with entire constructions, such as subcomparatives. To mitigate these issues, we employed a variety of different elicitation techniques during the course of our investigation, ranging from the traditional question/answer approach to storyboards (Burton and Matthewson 2015) and other visual stimuli. Inspired by Bowler (2016), we used the web-service Pixton for Fun (https://www.pixton.com/) to create most of these visual prompts. A small panel from one of our storyboards is shown in Figure 1. We also asked one of our consultants questions in her native language to elicit natural responses and to minimize potential interferences from the contact language, English. Considering the use of all these modalities, we feel confident that the data presented in this paper are reliable and represent authentic language use.

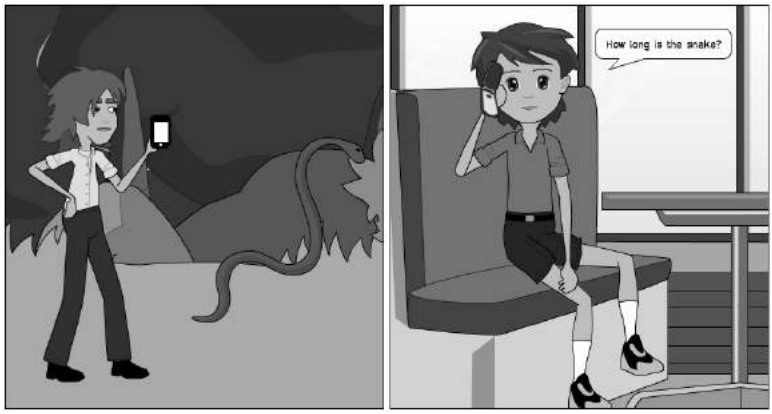


Figure 1: Stimuli used to elicit the degree question *How long is the snake?*

3.2 Measure phrases

First, we assess whether gradable predicates can be combined with measure phrases, such as *three feet tall* or *five meters wide*. Generally, the best candidates to look for are phrases that measure physical dimensions (e.g. *five feet tall*) or temporal length (e.g. *two days long*). Other domains of measurement, such as temperature, appear to be less common cross-culturally (Beck et al. 2009:17).

In ʔayʔaǰuθəm, measure phrases seem to be unavailable. As explained by our main consultant, she never learned any units of measurement, with the exception

of temporal units like days (*t̓θuk̓ʷ*) and years (*qʷumay*, literally 'snows'). While this shows that some units of measurement exist after all, they do not co-occur with gradable predicates. Instead, periphrastic constructions, as illustrated in (7), are utilized.[3,4]

(7) saʔa t̓θok̓ʷ nišxʷ ǰɛnxʷ
saʔa t̓θuk̓ʷ niš-s-xʷ ǰanxʷ
two day here-CAUS-3.OBJ fish
Prompt: 'The fish is two days old.'
Literally: '(For) two days, he has had the fish.'

In addition to such periphrastic constructions, our main consultant frequently employed two fallback strategies when prompted with measure phrases: (i) deletion and (ii) code-switching. Examples for the deletion of measure phrases can be seen in (8) and (9). In these cases, the sentences consist only of the gradable predicate, while the entire measure phrase is omitted.

(8) tihmot ǰɛʔǰɛʔ
tih-mut ǰaʔǰaʔ
big-INTF tree
Prompt: 'The tree is three meters tall.'
Literally: 'The tree is really tall.'

(9) titih ǰɛnxʷ
ti~tih ǰanxʷ
RED~big fish
Prompt: 'The fish is one meter long.'
Literally: 'The fish is really big.'

Occasionally, our main consultant would also code-switch to English to preserve a given measure phrase. Whether these English phrases occupy a potential degree slot in the syntactic structure or not is unclear. However, the fact that the code-switching generally extends over the whole predicate, as shown in

[3]We adopt the reanalysis of third person object markers, as proposed by Mellesmoen (this volume).

[4]Abbreviations used in this paper are as follows: CAUS = causative; CNJ = conjunctive; CTR = control transitive; DET = determiner; EPIST = epistemic; ERG = ergative; EXCL = exclusive; IND = indicative; INTF = intensifier; INTR = intransitive; IPFV = imperfective; LV = link vowel; MDL = middle; NEG = negation; NMLZ = nominalizer; OBL = oblique; OBJ = object; PL = plural; POL = polarity item; POSS = possessive; PST = past; Q = question marker; RED = reduplication; SG = singular. A hyphen (-) stands for an affix boundary, an equal sign (=) for a clitic boundary, and a tilde (~) for a reduplication boundary.

(10), suggests that such data might not be problematic for a degreeless account of ʔayʔaǰuθəm. We acknowledge that yet more research on this matter is necessary.[5]

(10) Tony three feet tall sčɛʔɛt
Tony three feet tall s=čaʔat
Tony three feet tall NMLZ=now
Prompt: 'Tony is three feet tall.'
Literally: 'Tony, three feet tall, now.'

3.3 Comparative constructions

Our second test targets comparative constructions, such as *Tony is taller than Laura*. Following Sapir (1944), we distinguish between two types of constructions, namely (i) explicit and (ii) implicit comparatives. While explicit comparatives rely on dedicated morphological markers (such as English *-er*), implicit comparatives are unmarked and consequently context-sensitive. Kennedy (2007) defines the two constructions as follows:

(11) a. **Explicit comparison:**
Establish an ordering between objects *x* and *y* with respect to gradable property *g* using a morphosyntactic form whose conventional meaning has the consequence that the degree to which *x* is *g* exceeds the degree to which *y* is *g*.

b. **Implicit comparison:**
Establish an ordering between objects *x* and *y* with respect to gradable property *g* using the positive form by manipulating the context in such a way that the positive form is true of *x* and false of *y*.

Based on our data, ʔayʔaǰuθəm does not have any specialized comparative morphemes. Instead, it makes use of implicit comparative constructions. Thus, this Central Salish language patterns exactly like other potentially degreeless languages, such as Fijian (Pearson 2009), Motu (Beck et al. 2009), Washo (Bochnak 2015), and Warlpiri (Bowler 2016), where explicit comparatives are also unavailable.[6]

The implicit comparatives in ʔayʔaǰuθəm can further be divided into two subcategories, namely (i) conjoined comparatives and (ii) directional comparatives.[7]

[5] Bowler (2016) speculates in her study on Warlpiri whether the use of code-switched measure phrases might be a sign of a bigger semantic change that has been triggered by the close contact to English, a language which allows degrees.

[6] The absence of dedicated comparison markers is not uncommon in Salish languages and has also been documented in St'át'imcets (Davis 2011), Straits Salish (Jelinek and Demers 2014), and Klallam (Montler 2015), among others.

[7] Depending on the context, our consultant expressed preferences for one or the other construction. How exactly these preferences arise is yet to be explored.

The former consist of two coordinated — or conjoined — independent clauses, of which one describes the object of comparison, while the other describes the standard of comparison (Stassen 2013). Generally, the predicates used in these two clauses tend to be antonymous, such as *big* vs. *small* (Bochnak 2015). The sentences in (12) and (13) illustrate the use of these conjoined comparatives in ʔayʔaǰuθəm.[8]

(12) χaχał Tony titol Laura
χaχał Tony titul Laura
tall Tony small Laura
Prompt: 'Tony is taller than Laura.'
Literally: 'Tony is tall. Laura is small.'

(13) tih mɛmo titol q̓atən
tih mimaw titul q̓atən
big cat small rat
Prompt: 'The cat is bigger than the rat.'
Literally: 'The cat is big. The rat is small.'

The second type of implicit comparatives introduces the standard of comparison via a directional expression, thus meeting the criteria of directional or locational comparatives (Hohaus 2010; Stassen 2013). Constructions belonging to this typological class construe comparisons as motion from one point to the other. In the case of ʔayʔaǰuθəm, the standard DP is introduced by the allomorphic expressions *hu* or *θu* ('to'). In these "to-comparatives", as Stassen (2013) calls them, the standard of comparison is conceptualized as the goal of the movement.[9] The examples (14) through (18) below illustrate the use of this particular comparative construction in ʔayʔaǰuθəm.

(14) χaχał Tony ho Laura
χaχał Tony hu Laura
tall Tony to Laura
Prompt: 'Tony is taller than Laura.'
Literally: 'Tony is tall to Laura.'

(15) tih mɛmo ho q̓atən
tih mimaw hu q̓atən
big cat to rat
Prompt: 'The cat is bigger than the rat.'
Literally: 'The cat is big to the rat.'

[8]This conjunctive strategy has also been observed in another Central Salish language, Klallam (Montler 2015:92).

[9]According to Montler (2015), to-comparatives can also be found in Klallam.

(16) niːǰɛʔ nɪn̓šəmot Mary ho Peter
niǰaʔ nə~n̓šə-mut Mary hu Peter
far IPFV~swim-INTF Mary to Peter
Prompt: ‘Mary swam further than Peter.’
Literally: ‘Mary swam far to Peter.’

(17) qaχ təmtumiš ƛasəm Peter ho q^{w}omqɛtasoɬ saʔɬtx^{w}
qəχ təm~tumiš ƛas-əm Peter hu q^{w}umq-i-t-as-uɬ saʔɬtx^{w}
lots PL~man hit-MDL Peter to kiss-LV-CTR-3.SG.ERG-PST girl
Prompt: ‘Peter hit more boys than he kissed girls.’
Literally: ‘Peter hit lots of boys to girls he kissed.’

(18) qaχ hɛʔgəns Peter ho Laura
qəχ hiǵən-s Peter hu Laura
lots strawberry-3.SG.POSS Peter to Laura
Prompt: ‘Peter has more strawberries than Laura.’
Literally: ‘Peter has lots of strawberries to Laura.’

While the expressions *hu* and *θu* appear frequently in comparative constructions, they are not restricted to this specific context of use. They can also be found in other, non-comparative utterances, usually acting as verbs of motion (‘to go to’) or as preposition-like verbs (‘to/into’),[10] as shown in example (19) and (20), respectively.[11] This is strong evidence that neither *hu* nor *θu* is a dedicated comparative marker.

(19) hoč Vancouver st̓^{θ}ok̓^{w}
hu=č Vancouver s=t̓^{θ}uk̓^{w}
go=1.SG.IND Vancouver NMLZ=day
‘I’m going to Vancouver today.’

(20) ƛəc̓-t-as θu ʔ=tə=qaʔya
push-CTR-3.SG.ERG into OBL=DET=water
‘He pushed it into the water.’ [Kroeber (1999:46)]

[10] Verbs which act like prepositions have also been found in other Salish languages, such as Squamish (Jacobs 2013; Kuipers 1967). Generally, the terms *relator verbs* or *preposition-like verbs* are used to refer to such items.

[11] Reisinger et al. (2017) provide evidence that the use of *hu* in the comparative construction is preposition-like and not verb-like.

3.4 Differential comparative constructions

Having assessed the status of normal comparatives, we now turn to differential comparatives, such as *Henry is two days older than Betty*. In these constructions, the degree of difference between the standard and the object of comparison is explicitly specified. Just like in Warlpiri (Bowler 2016), this kind of comparison appears to be unavailable in ʔayʔaǰuθəm. When prompted with differential comparatives, our main consultant reliably omitted the measure phrase and utilized the bare directional comparative construction. The sentences in (21), (22), and (23) illustrate this fallback strategy.

(21) χaχaɬ Peter ho Michael
χaχaɬ Peter hu Michael
tall Peter to Michael
Prompt: 'Peter is two feet taller than Michael.'
Literally: 'Peter is tall to Michael.'

(22) čuy̓ Laura ho Mary
čuy̓ Laura hu Mary
young Laura to Mary
Prompt: 'Laura is two days younger than Mary.'
Literally: 'Laura is young to Mary.'

(23) q̓at̓əm Mary ho Laura
q̓ət̓-əm Mary hu Laura
heavy-MDL Mary to Laura
Prompt: 'Mary is two fish heavier than Laura.'
Literally: 'Mary is heavy to Laura.'

When confronted with constructed differential comparatives, as in (24) and (25), our main consultant reacted rather negatively and pointed out that maybe some people might say this, but she would never use sentences like these.

(24) # saʔa t̓$^{\theta}$ok̓^{w} ƛ̓aƛ̓χay Mary ho Laura
saʔa t̓$^{\theta}$uk̓^{w} ƛ̓a~ƛ̓χ-ay Mary hu Laura
two days RED~old-person Mary to Laura
Prompt: 'Mary is two days older than Laura.'

(25) # saʔa ǰɛnx^{w} q̓at̓əm Mary ho Laura
saʔa ǰanx^{w} q̓ət̓-əm Mary hu Laura
two fish heavy-MDL Mary to Laura
Prompt: 'Mary is two fish heavier than Laura.'

3.5 Comparatives with measure phrases

The elicited data suggest that ʔayʔaǰuθəm also lacks comparatives with measure phrases, such as *Laura is taller than one meter*. Speakers instead use the positive, unmarked form of the predicate, as seen in (26), or code-switch to English to preserve the measure phrase, as shown in (27). In either case, the comparison is not encoded morphologically, but arises contextually.

(26) χaχałmot Laura
χaχał-mut Laura
tall-INTF Laura
Prompt: 'Laura is taller than one meter.'
Literally: 'Laura is very tall.'

(27) χaχał Tony one meter
χaχał Tony one meter
tall Tony one meter
Prompt: 'Tony is taller than one meter.'
Literally: 'Tony is tall, one meter.'

In addition, our main consultant also produced a periphrastic, bi-clausal construction when prompted for the sentence *Henry has more than two dogs*, as illustrated by example (28) below.

(28) saʔa ̓čɛ̓nos Henry, q^{w}ayin qəǰi qaχ
saʔa ̓čan̓u-s Henry q^{w}ayin qəǰi qəχ
two dog-3.SG.POSS Henry I.think still lots
nisx^{w}as
ni-s-x^{w}-as
be.there-CAUS-3.OBJ-3.SG.ERG
Prompt: 'Henry has more than two dogs.'
Literally: 'Henry has two dogs. I think he may still have lots.'

3.6 Subcomparative constructions

Next, we assess the status of subcomparatives, such as *The river is wider than the tree is tall*. Such constructions appear to be unavailable to speakers of ʔayʔaǰuθəm. Our main consultant instead reliably produced utterances consisting of two coordinated clauses, as illustrated by the examples given in (29) through (32) below. It is worth noting that Bowler (2016) encountered exactly the same fallback mechanism in Warlpiri.

(29) p̓ɛq̓ q̓ʷat̓əm χaχaɬs jɛʔǰɛʔ
p̓i̓q̓ q̓ʷat̓əm χaχaɬ-s jaʔǰaʔ
wide river tall-3.SG.POSS tree
Prompt: ‘The river is wider than the tree is tall.’
Literally: ‘The river is wide, and the tree is tall.’

(30) x̓aqtmot θɛwθɛtən χaχaɬ ʔɛmən
x̓aqt-mut θawθətən χaχaɬ ʔimən
long-INTF table tall door
Prompt: ‘The table is longer than the door is tall.’
Literally: ‘The table is really long, and the door is tall.’

(31) χaχaɬ Mary x̓aqt ʔoɬqay
χaχaɬ Mary x̓aqt ʔuɬqay
tall Mary long snake
Prompt: ‘Mary is taller than the snake is long.’
Literally: ‘Mary is tall, and the snake is long.’

(32) p̓ɛq̓ nənqam x̓aqt nuxʷəɬ
p̓i̓q̓ nənqam x̓aqt nuxʷəɬ
wide killer.whale long canoe
Prompt: ‘The killer whale is wider than the boat is long.’
Literally: ‘The killer whale is wide, and the boat is long.’

While speakers prefer this particular construction to compare two dimensions of distinct DPs, as schematized in (33), a different construction is used when both dimensions refer to one and the same DP, as sketched in (34).

(33) [$_{DP1}$ Mary] is [$_{DIM1}$ taller] than [$_{DP2}$ the snake] is [$_{DIM2}$ long]

(34) [$_{DP1}$ The table$_i$] is [$_{DIM1}$ longer] than [$_{DP2}$ it$_i$] is [$_{DIM2}$ wide]

If both DPs in this bi-clausal construction refer to the same entity, speakers emphasize the contrast between its properties by negating one of the predicates. An example for this construction is given in (35) below.

(35) x̓aqt θɛwθɛtən xʷaʔ p̓ɛq̓as
x̓aqt θawθətən xʷaʔ p̓i̓q̓=as
long table NEG wide=3.SG.CNJ
Prompt: ‘The table is longer than it is wide.’
Literally: ‘The table is long, but it is not wide.’

3.7 Superlative constructions

While English encodes superlatives either synthetically with the morphological marker *-est* or analytically with the sequence *the most*, ʔayʔaǰuθəm does not have a dedicated superlative construction, as shown in the examples (36) and (37) below. In this respect, it resembles several other Salish languages, such as St'át'imcets (Davis 2011), Straits Salish (Jelinek and Demers 2014), and Klallam (Montler 2015), all of which also lack specialized superlative markers.

(36) kʷɛʔɛt qaχ čɛ̓nos Henry
kʷiʔit qəχ čanu-s Henry
INTF lots dog-3.SG.POSS Henry
Prompt: 'Henry has the most dogs.'
Literally: 'Henry really has a lot of dogs.'

(37) qaχmot čɛ̓nos Henry
qəχ-mut čanu-s Henry
lots-INTF dog-3.SG.POSS Henry
Prompt: 'Henry has the most dogs.'
Literally: 'Henry has really a lot of dogs.'

Similar to Warlpiri (Bowler 2016), speakers of ʔayʔaǰuθəm tend to optionally use intensifiers in situations where a superlative reading is intended. In particular, our main consultant alternated between the independent intensifier *kʷiʔit*, which appears sentence-initially, and the intensifying suffix *-mut*, which usually attaches to the adjectival stem.[12] Both of these intensifiers are not only interchangeable, but also appear to be compatible with each other. To illustrate this, examples in (38), (39), and (40) present three different realizations our main consultant provided for the same prompt.

(38) kʷɛʔɛt ƛ̓ɛƛ̓ɛ Patrick
kʷiʔit ƛ̓i~ƛ̓i Patrick
INTF RED~fast Patrick
Prompt: 'Patrick is the fastest (cat).'
Literally: 'Patrick is really fast.'

[12] Watanabe (2003:479 ff.) provides a thorough description of the intensifier *-mut*. Information on the intensifier *kʷiʔit*, however, is sparse.

(39) χ̓ɛχ̓ɛmot Patrick
χ̓i~χ̓i-mut Patrick
RED~fast-INTF Patrick
Prompt: ‘Patrick is the fastest (cat).’
Literally: ‘Patrick is really fast.’

(40) kʷɛʔɛt χ̓ɛχ̓ɛmot Patrick
kʷiʔit χ̓i~χ̓i-mut Patrick
INTF RED~fast-INTF Patrick
Prompt: ‘Patrick is the fastest (cat).’
Literally: ‘Patrick is really fast.’

While it might seem tempting to regard these intensifiers as dedicated superlative markers, there are several reasons not to adopt such an analysis. First and foremost, *kʷiʔit* and *-mut* cannot represent specialized superlative markers, as they also appear in various other contexts of use, such as positive or comparative constructions. Secondly, the fact that both of these intensifiers are not obligatory but optional provides further evidence for this argument. As indirect evidence, there is also a tendency for languages without dedicated comparative morphology to lack specialized superlative markers (Bobaljik 2012; Stassen 1985).

3.8 Equatives

Analogous to superlatives, there is no standardized equative construction in ʔayʔaǰuθəm. Prompted with constructions like *Peter is as tall as his father*, our consultant instead used periphrastic descriptions. These often involved some general expression of similarity or resemblance, such as *θʉxʷən* ‘to be the same’ and *nam̓* ‘to be like; to resemble’, as illustrated in the examples below.

(41) χaχaɬ Peter θuxʷən mans
χaχaɬ Peter θuxʷən man-s
tall Peter be.the.same father-3.SG.POSS
Prompt: ‘Peter is as tall as his father.’
Literally: ‘Peter is tall, his father is the same.’

(42) χ̓aqt ʔoɬqay θuxʷən nuxʷəɬ
χ̓aqt ʔuɬqay θuxʷən nuxʷəɬ
long snake be.the.same boat
Prompt: ‘The snake is as long as the boat.’
Literally: ‘The snake is long, the boat is the same.’

(43) χaχał Peter nam̓ mans
χaχał Peter nam̓ man-s
tall Peter be.like father-3.SG.POSS
Prompt: ‘Peter is as tall as his father.’
Literally: ‘Peter is tall, like his father.’

(44) ƛ̓ɛƛ̓ɛ ǰiƛ̓əs Henry nam̓ Bruno
ƛ̓i~ƛ̓i ǰəƛ̓=as Henry nam̓ Bruno
RED~fast run=3.SG.CNJ Henry be.like Bruno
Prompt: ‘Henry runs as fast as Bruno.’
Literally: ‘Henry runs fast, like Bruno.’

It is worth noting that both *θux*^{w}*ən* and *nam̓* only target a general similarity between the two compared entities and not particular points on a scale.[13] This also explains why these expressions can be used outside of equative contexts, as illustrated by the sentences in (45) and (46).

(45) hočʔot nam̓umiš t$^{\theta}$ man
hu=č=ʔut nam̓-umiš t$^{\theta}$=man
go=1.SG.IND=EXCL be.like-appearance 1.SG.POSS=father
‘I will look just like my father.’

(46) ʔɛməš mɛmo nam̓ tɛqɛw
ʔim-aš mimaw nam̓ tiqiw
walk-INTR cat be.like horse
‘The cat walks like a horse.’

3.9 Degree questions

Last, our investigation revealed that ʔayʔaǰuθəm does not have a dedicated construction for degree questions, such as *How wide is the river?* Instead, when confronted with such an utterance, our consultant remodeled it either as a polar question or as an inquiry in the shape of a declarative — similar to the English construction *I wonder whether* α, where α represents a proposition.

[13] Watanabe (2003:365) notes that the root $\sqrt{nam̓}$ may be interpreted as ‘to look like’, ‘to act like’, or ‘to be similar to’. In contrast, the semantic composition of *θux*^{w}*ən* is more elusive. Our consultants unanimously translated it as ‘to be the same’.

(47) [14] kʷən čˌɛ χaχał Tony
kʷən-a čˌə χaχał Tony
POL-Q EPIST tall Tony
Prompt: ‘How tall is Tony?’
Literally: ‘Is Tony tall?’

(48) χʷoχʷoła nišxʷ Vancouver
χʷuχʷ-uɬ-a niš=axʷ Vancouver
long.time-PST-Q be.here=2.SG.CNJ Vancouver
Prompt: ‘How long have you been in Vancouver?’
Literally: ‘Have you been in Vancouver for a long time?’

(49) tam čˌɛ χaχałs Tony
tam čˌə χaχał-s Tony
what EPIST tall-3.SG.POSS Tony
Prompt: ‘How tall is Tony?’
Literally: ‘I wonder whether Tony is tall.’

(50) tam čˌɛ ƛˌaps ʔaxʷ
tam čˌə ƛˌəp-s ʔaxʷ
what EPIST deep-3.SG.POSS snow
Prompt: ‘How deep is the snow?’
Literally: ‘I wonder whether the snow is deep.’

(51) tam čˌɛ ƛˌaqts ʔoɬqay
tam čˌə ƛˌaqt-s ʔuɬqay
what EPIST long-3.SG.POSS snake
Prompt: ‘How long is the snake?’
Literally: ‘I wonder whether the snake is long.’

4 Evaluation

To sum up, our investigation provides strong evidence for the argument that ʔayʔajuθəm is a degreeless language and consequently resembles languages like Warlpiri (Bowler 2016) or Washo (Bochnak 2015). After all, as illustrated in Table 1, none of the eight degree constructions we examined in this paper appear to be available for our consultants.

[14] Watanabe (2003:91) notes that the polarity item *kʷən* should be followed by the question marker *-a*. However, in fast speech, this marker is often not discernible.

Table 1: Degree constructions in Warlpiri (Bowler 2016:8) and ʔayʔaǰuθəm

	Warlpiri	ʔayʔaǰuθəm
Measure phrases	no	no
Comparatives	no	no
Differential comparatives	no	no
Comparatives with measure phrases	no	no
Subcomparatives	no	no
Superlative	no	no
Equatives	no	no
Degree questions	no	no

To account for the absence of degree constructions in ʔayʔaǰuθəm, we adopt the degree parameter hypothesis, as proposed by Beck et al. (2009). As a result of their cross-linguistic survey of comparatives, they propose three different parameters, whose setting determines the different statuses of degrees in the languages of the world. The degree semantics parameter (DSP) is strictly semantic and accounts for lexical variation, while the degree abstraction parameter (DAP) concerns the semantics/syntax interface and focuses on the mechanisms of compositionality. Last but not least, the degree phrase parameter (DegPP) is purely syntactic and accounts for variation on the structural level. Beck et al. (2009:27-28) define these binary switches as follows:

(52) a. **Degree Semantics Parameter (DSP):**
A language {does/does not} have gradable predicates (type <d,<e,t>> and related), i.e., lexical items that introduce degree arguments.

b. **Degree Abstraction Parameter (DAP):**
A language {does/does not} have binding of degree variables in the syntax.

c. **Degree Phrase Parameter (DegPP):**
The degree argument position of a gradable predicate {may/may not} be overtly filled.

Beck et al. (2009) also note that there are certain dependencies between the three parameters. One such dependency is that the negative setting of [DSP] is inherited by the other two parameters — The setting of [−DSP] also results in a [−DAP] and [−DegPP] setting. The absence of a degree ontology in ʔayʔaǰuθəm indicates that the first degree parameter is [−DSP]. Consequently, ʔayʔaǰuθəm also lacks other degree constructions due to simultaneous negative settings of [DAP] and [DegPP], as entailed by [−DSP].

Having determined the setting of the three degree parameters in ʔayʔaǰuθəm, we are now able to compare it with other languages. Table 2 highlights that

ʔayʔaǰuθəm patterns exactly like Warlpiri.

Table 2: Degree parameters in some selected languages (based on Beck et al. (2009:28))

	DSP	DAP	DegPP
English	+	+	+
German	+	+	+
Spanish	+	+	−
Russian	+	+	−
Japanese	+	−	−
Chinese	+	−	−
Warlpiri	−	−	−
ʔayʔaǰuθəm	−	−	−

5 Conclusion and outlook

In this paper, we presented several pieces of evidence that point towards the absence of degrees, and thus also of degree-related constructions, in ʔayʔaǰuθəm. Our data conform to the predictions made by the degree parameter hypothesis, as proposed in Beck et al. (2009). Specifically, we argue that the complete lack of degree-related constructions, like explicit comparatives, subcomparatives, and superlatives, comes about because of the absence of degree arguments in the denotations of gradable predicates in the language. Considering that the subject of degree semantics in First Nations language research is still largely unexplored, we hope that this investigation will spark follow-up studies in other languages of the Pacific Northwest.

Our next step in the study of degree semantics in ʔayʔaǰuθəm is to investigate comparatives in the contexts of crisp judgment (Kennedy 2007) and to examine other implicit comparatives like *Compared to John, Mary is tall*. Both comparative types have been shown to shed further light on the syntax and semantics of comparison-related constructions (Bochnak and Bogal-Allbritten 2015; Pearson 2009). Eventually, by advancing our understanding of comparatives in ʔayʔaǰuθəm, a more thorough typological picture of degree semantics can emerge.

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Subject and object NPs in a Lillooet text collection*

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Abstract: The presence of full subject and object complements to a transitive predicate (or an intransitive one where this still implies reference to a patient) in Salish has been the subject of a considerable amount of literature. In this paper we investigate the presence of such constructions in Lillooet (St'át'imcets), with regard to the main dialects of this language, and to the possible provenance of such constructions in Salish in general.

Keywords: Lillooet (St'át'imcets), predicate, subject, object, NP (nominal phrase)

1 Introduction

In his well-known and highly insightful survey of topics in Salish linguistics, Thompson 1979:740–741 makes the following observation on Salish syntax:

> There are important problems concerned with the adjunct phrases by which predicates can be modified. Hess (1973) has explored some of these, drawing on Lushootseed, Straits, and Halkomelem materials. The type of English transitive sentence in which both agent and patient are indicated by noun phrases (e.g. Bill killed the bear) seems atypical of at least many Salish languages, and is actually impossible in Lushootseed, where only the patient can be so specified. In fact, such sentences as do occur in elicited material may represent one of the ways bilingual speakers tend to modify the tradition of their Indian languages in adaptation to the English model to please assiduous linguists. Even in languages which appear to permit such sentences, they are rare or nonexistent in spontaneous conversations and traditional texts (noted most recently by Hukari 1976[..]).

*This is an expanded version of a paper that I had planned to deliver (but was prevented from doing so due to personal circumstances) at the 4th Prairies Workshop on Language and Linguistics, University of Saskatchewan (Saskatoon), March 18, 2017. I gladly take this opportunity to express my gratitude to my Lillooet consultants and to my fellow-linguists, for their time, wisdom, and patience, which they so generously shared with me over so many years. The responsibility for the contents of this paper remains mine alone. (This also holds for where my translations of Lillooet sentences in Section 3 are less fluent than those in the original stories, because in my paper the sentences are quoted outside their original context.)
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As for the order of subject and object NPs where they occur, Kroeber 1999:40 mentions that "[t]he languages vary as to how flexible the order of participant expressions is," and notes that while Bella Coola and the Coast Salish languages prefer predicate-subject-object (PSO) order, the Coast Salish languages also allow instances of predicate-object-subject (POS), and that other languages are even more flexible in this respect.

Kroeber's observation for the languages other than Bella Coola and Coast Salish is supported by data from Lillooet (St'át'imcets) as presented in Van Eijk 1997:227–228 (the published version of my Ph.D. dissertation defended in 1985), in which, as per fn. 5 on p. 267, the ratio PSO:POS in texts is roughly 4:1. However, data made available to me after 1985 (presented in Van Eijk 1995, 2001) give eleven sentences with POS, and only one with PSO. This caused me to presume that POS represented a shift in progress to POS from PSO. On the other hand, later research, in particular Davis 1999, has shown that while POS is generally preferred in the northern (Upper) dialect of Lillooet, PSO is preferred in the southern (Lower) dialect. Interestingly, in two recent Lillooet text collections recorded from a speaker of a central dialect (Callahan et al. 2016, and Alexander et al. 2016) PSO and POS constructions are in a relatively equal balance, with 15 PSO phrases vs. 10 POS. In what follows, I repeat the data from Van Eijk 1995 and 2001 in Section 2, and the PSO and POS constructions that I collected from Callahan et al., and from Alexander et al. in Section 3, while Section 4 gives some preliminary conclusions about the possible origin of PSO and POS constructions.

2 Lillooet PSO vs. POS

As is mentioned in Section 1 above, the ratio PSO:POS in Lillooet texts analysed up to 1985 is roughly 4:1, so PSO is the more common order in the data at my disposal at that time. However, in 1995 I was asked to check the first proofs of a northern Lillooet dialect dictionary for the primary grades which was in the process of being composed by a committee of native speakers of Lillooet (Upper St'át'imc Language, Culture and Education Society 1995), and this dictionary contains 11 examples of transitive predications which show POS order and only one which shows PSO order. These twelve sentences are given below, with references to the pages where they occur, and in the practical orthography used in the primer (with the added orthographical devices of hyphens to introduce (third person) subject suffixes, and the equal sign to mark various clitics, including articles and the 'reinforcing' enclitic *a* which is required by certain articles – for a far more detailed morphological breakdown see Callahan et al. 2016). For brevity's sake I omit *nílh* or the combination *nílh=t'u7* 'and then' (also requiring factualization with the prefix *s* in the following clause) where these occur, as these have no bearing on the focus of this paper.

The examples of POS are:

(1, p. 6) wa7 qixexs-twítas i=ntsqústn=a i=wa7=nts'áw'cal
'the ones washing dishes (nts'áw'cal) are banging (qíxexs) the pots (ntsqústen)'

(2, p. 6) pápt=t'u7 wa7 wáz'an-as i=káoh=a ti=nsqáx7=a
'my dog (sqáxa7) always (papt) barks at (wáz'an) cars (kaoh)'

(3, p. 22) t'útsun'-as ti=sráp=a ti=sqáycw=a
'the man (sqaycw) is chopping (t'útsun') the tree (srap)'

(4, p. 22) wa7 nzanmán-as i=sráp=a ti=wa7=pél'p
'the one who is lost (pel'p) is going in circles around (nzánman) the trees (srap)'

(5, p. 23) nq'ixtsán'-as ti=sk'ém'ts=a ti=sk'úk'wm'it=a
'the child (sk'úk'wm'it) closed (nq'íxtsan') the door (sk'em'ts)'

(6, p. 86) ts'áts'qn'-as ti=sm'úm'tm'=a ti=nskícez7=a
'my mother (skícza7) plucked (ts'áts'qen') the grouse (sm'úm'tem')'

(7, p. 96) wa7 steqs-ás ti=nqépktn=a ti=twíw't=a
'the young boy (twiw't) is holding (steqs) the saddle-blanket (nqépkten)'

(8, p. 104) kelhn-ás ti=t'ímin=a ti=nsís7=a
'my uncle (sísqa7) took the sinew (t'ímin) of' (kélhen 'to take off')

(9, p. 114) naq'wtsán'-as i=sts'wán=a ti=míxalh=a
'the bear (míxalh) is stealing (náq'wtsan') the dried salmon (sts'wan)'

(10, p. 129) lhvnps-ás ti=tsítcw=a ti=xzúm=a kém'cwyeqs
'the big (xzum) truck (kém'cwyeqs) made the house (tsítcw) vibrate' (lhvnps 'to make vibrate')

The lone example of PSO is:

(11, p. 87) kwezen-ás kw=sBill ti=káohs=a
'Bill shined (kwézen) his car (kaoh)'

Interestingly, the dictionary also gives one sentence which allows both a POS and a PSO reading:

(12, p. 4) t'axilmín-as ti=qwílqn=a ti=staníy7=a
'the moose (staníya7) attacked (t'áxilmin) the wolverine (qwílqen);'
'the wolverine attacked the moose'

In a draft of a reworked version of the same dictionary (Frank and Whitley 2000), the second translation is crossed out by one of the editors, with a note to delete it (see Figure 1).

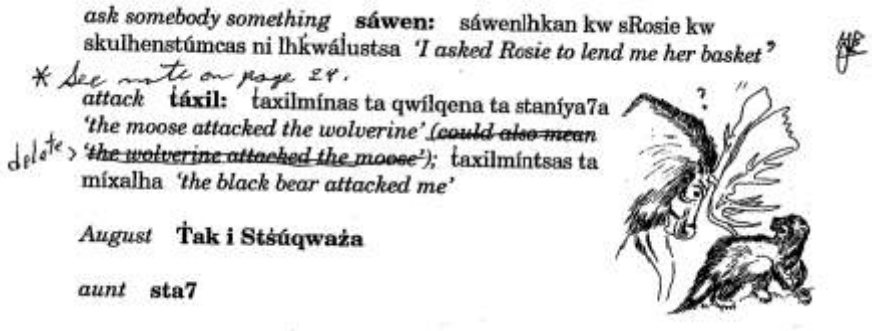

Figure 1 Example (12) in northern Lillooet dialect dictionary draft

The reworked version also contains a number of additional sentences with an object and a subject complement which are given here, with references to the pages on which they occur. As the examples show, the order, although based on only six examples, is again predominantly POS (13–16), with only two cases of PSO (17–18).

(13, p. 4) wa7 k'úl'em ta=tsepalína ta=nskícez7=a
'my mother (nskícza7) is making (k'úl'em) a baby basket (tsepalín)'

(14, p. 7) wa7 xelentsám' ku=sk'wílhal'ts ta=nsqáx7=a
'my dog (nsqáxa7) is begging for leftovers (sk'wílhal'ts)'

(15, p. 9) wa7 xet'nás ta=áopvl̲s=a ta=ts'qáx7=a
'the horse (ts'qáxa7) is taking a bite of the apple (áopvl̲s)' (xét'en 'to take a bite of s.t.')

(16, p. 42) wa7 cwíl'em ku=ts'éts'qwaz' ta=ts'ícwts'icw=a
'the fishhawk (ts'ícwts'icw) is looking for (cwíl'em) trout (ts'éts'qwaz')'

(17, p. 17) tecwp kw=sCharlie ta=káoh=a
'Charlie bought (tecwp) a car (kaoh)'

(18, p. 82) az' kw=sCharlie ta=káoh=a
'Charlie paid for (az') a car (kaoh)'

The two PSO sentences above are paralleled by sentence (11) *kwezen-ás kw=sBill ta=káohs=a* 'Bill shined his car,' where we also have PSO and also a proper noun as the subject.

The ambiguity shown by sentence (12) is also discussed by Kuipers with regard to Squamish, a language which also allows both PSO and POS, though with preference for the former (Kuipers 1967:169, section 245). Of course, this ambiguity only arises where the subject and object noun phrases could conceivably switch roles. (In a case like 'wash-father-car' it is obvious who does the washing, and this sentence could allow any order, but in a case like 'bite-cat-dog' both the dog and the cat could do the biting, and the order becomes important.) As is mentioned in Van Eijk 1997:267, fn. 5 to section 36, when I read sentences with two noun phrases that could be both subject and object back to my consultants, confusion arose as to the role of the participants.

3 PSO vs. POS: recent insights

Callahan et al. 2016 contains a number of texts provided by *Qwa7yán'ak* (Carl Alexander), now residing at Bridge River (northern Lillooet area), but originally from *Tsal'álh* (anglicized Shalalth), a community between the northern and southern Lillooet dialect areas (see the maps in Callahan at al. 2016:ix–xvi). As could be expected, Mr. Alexander's speech shows features of both the northern and southern dialect varieties, and to those discussed by Callahan et al. (2016: xxv–xxvi) we can add the fact that the ratio POS:PSO is in a roughly equitable balance (10 vs. 15) in the texts provided by Mr. Alexander. Instances of POS are given first:

(19, p. 5) tsún-as láti7 ta=kwtámtss=a ti=smúlhats=a
'the woman (smúlhats) said (tsun) to her husband (kwtamts)'[1]

(20, p. 6) qv̲s-ás t[a=]sxílhtum'=a áti7 ta=skícza7s=a
'her mother (skícza7) disliked (qv̲s) what he had done to her (daughter)' (sxilhts 'what s.o. has done to s.o.,' with regular dropping of the transitivizer before *t* in *sxílhtum'*)

[1] When given by itself and outside the context of the story, the Lillooet sentence can also mean 's/he told the husband of the woman' (where 'she' and the 'woman' cannot be coreferential, see Davis 2009). Similarly, sentences (21) and (29) can also mean 'they invited the daughter of the man and the woman,' and 'they tried to see the mother and the husband of the young woman.' In fact, in *lhq'aw'sen-ítas áku7 ta=c.wálhts=a i=ucwalmícw=a=tú7=a* 'they widened (lhq'áw'sen) the road (c.walh) of the Indians (úcwalmicw) of old (=tu7)' (Callahan et al., p. 83), we do have the 'to X the possession of Y' reading. Of course, the translations given by Callahan et al. for (19), (21), and (29) are entirely correct, as they truly represent Qwa7yán'ak's St'át'imcets account. See also fn. 7.

(21, p. 48) xliten-ítas láti7 ta=skuz7íh=a láti7 ta=sqáycw=a múta7 ta=smúlhats=a
'the man (sqaycw) and (múta7) the woman (smúlhats) called (xlíten) their daughter (skúza7)'

(22, p. 48) wegen-ás láti7 ku=xát'min'-as láti7 ta=sm'ém'lhats=a
'the girl (sm'ém'lhats) will choose (wégen) the one she wants (xát'min')'[2]

(23, p. 69) kem'em-wít ku=skwenkwín i=smelhmúlhats=a
'the women (smelhmúlhats) were digging (kém'em) wild potatoes (skwenkwín)'

(24, p. 125) kwán-as láti7 ta=sílhts'7=a sP'xus
'P'xus took (kwan) a shoe (sílhts'a7)'

(25, p. 152) qúsen-as láti7 na=míxalh=a ta=nsqatsza7lhkálh=a
'our father (sqátsza7) shot (qúsen) a bear (míxalh)'

Embedded in a longer sentence we have:

(26, p. 390) átsxen-em aylh múta7 láti7 na=répqwtens=a láti7 l=tsá=k'a cwíl'em ku=sqláw' i=sám7=a
'we also (múta7) saw (áts'xen) a claim stake (nrépqwten) where (l=tsa) the White people (sáma7) looked for (cwíl'em) gold (sqlaw')'

The instances of PSO are:

(27, p. 4) zeq'zaq'ilmín-as láti7 ta=skalúl7=a ta=sm'ém'lhats=a
'the owl (skalúla7) peeked at (zeq'záq'ilmin) the girl (sm'ém'lhats)'

(28, p. 5) kwán-as=ku7 láti7 ta=skalúl7=a ta=skúza7s=a ta=smúlhats=a
'the owl (skalúla7) took (kwan) the woman's (smúlhats) daughter (skúza7)' (*=ku7* reportative marker, 'as I was told')

[2] The future tense is implied by *nílh=t'u7* (which is not repeated here) in the original sentence.

(29, p. 5) t'iq séna7 ats'xen-ítas láti7 ta=skícza7s=a múta7 ta=kwtámtss=a ta=sm'ém'lhats=a
'the young woman's (sm'ém'lhats) mother (skícza7) and her (i.e., the mother's) husband (kwtamts) tried to come (t'iq) see (áts'xen) her'[3]

(30, p. 5) áoz=t'u7 kwas úlhcws-as láti7 ta=skalúl7=a i=slalíl'tems=a láti7 ta=sm'ém'hats=a
'the owl (skalúla7) did not (aoz) admit (ulhcws) the girl's (sm'ém'lhats) parents (slalíl'tem)'

(31, p. 6) áoz=t'u7 aylh kwas kaklhal'usmín-as=a láti7 ta=skalúl7=a ta=sm'ém'lhats=a
'the owl could not (aoz) take his eyes off (kaklhal'usmín-as=a) the girl (sm'ém'lhats)'[4]

(32, p. 6) t'ak q'weláw'em-wit láti7 i=slalíl'tems=a ta=sm'ém'lhats=a láti7 i=qwal'ílh=a
'the young woman's (sm'ém'lhats) parents (slalíl'tem) went (t'ak) gathering (q'weláw'em) pine pitch (qwal'ílh)'

(33, p. 6) kwán-as=ku7 láti7 ta=sqáycw=a i=qwal'ílh=a
'the man (sqaycw) took (kwan) the pitch (qwal'ílh)'

(34, p. 48) ets'7áts'xen-as láti7 ta=sm'ém'lhats=a i=sqáyqeycw=a
'the young woman (sm'ém'lhats) inspected (ets'7áts'xen) the men (*sqáyqyecw*, with regular metathesis in *i=sqáyqeycw=a*)'

(35, p. 82) kwán-itas i=sám7=a lhláta7 ta=t'láz'=a
'the White people (sáma7) took (kwan) the boat (t'laz') from there (lhláta7)'

(36, p. 83) k'úl'em i=smelhmúlhats=a káti7 i=skwenkwín=a múta7 i=skím'ut=a... qweláw7=a
'the women (smelhmúlhats) gathered (k'úl'em) wild potatoes (skwenkwín) and (múta7) tiger lilies (skím'ut)... and wild onions (qweláwa7)'

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[3] For a very insightful discussion of the 'against expectation' function of *séna7* (which here indicates that the parents were not allowed to see the girl) see Davis and Matthewson 2016.

[4] I follow Van Eijk 1997:51 in classing final *a* in *kaklhal'usmín-as=a* as an enclitic, while Callahan et al. 2016 class it as a suffix.

(37, p. 199) láni7 i=tsícw-as áku7 i=sám7=a qwal'uts-twítas ta=nsqátsez7=a
'it is then (láni7) when (i=) the White people (sáma7) came (tsicw) to talk to (qwal'úts) my father (sqátsza7)'

(38, p. 332) xliten-ítas i=plísmen=a ta=ncwelpék=a
'the policemen (plísmen) called for (xlíten) a helicopter (cwelpék)'[5]

(39, p. 390) q'weláw'em-wit i=núkw=a i=tsítsl=a ri7p láti7
'some picked (q'weláw'em) new (tsítsel) growth (ri7p) there (láti7)'

Embedded in longer sentences (the latter one with the cataphoric marker *nilh*) we have:

(40, p. 391) áts'xenem lati7 na=wa7=tsún-itas i=ucwalmícw=a áku7 xzúm=a stswaw'cw
'we saw (áts'xen) what the people (úcwalmicw 'person, human being, Indian') there (áku7) used to call (tsun) "Big (xzum) Creek (stswaw'cw).'"

(41, p. 391) nílh=k'a=ti7 wa7 tsún-itas i=sám7=a cá7=a tmicw
'that (ti7) is apparently (=k'a) what the White people (sáma7) call (tsun) Heaven' (ca7 'high,' tmicw 'land, earth')

Alexander et al. have two examples of POS, both on p. 7:

(42) maysen-ítas i=n7ú7sa7tens=a i=haláw'=a
'the eagles (haláw') make (máysen) their nests (n7ú7sa7ten)'[6]

(43) maysen-ítas nqwaxqteníh=a i=haláw'=a
'the eagles (haláw') made (máysen) their aeries (nqwáxqten)'[7]

[5] Later on the same page, the word for 'helicopter' is twice given as *ta=ncwelelpék=a*, and once as *ta=cwelelpék=a*.

[6] With reference to fn. 1, sentences (42) and (43) could also mean 'they made the nests (aeries) of the eagles' but not within the context of this story, and the translations given by John Lyon are the only correct ones in this context.

[7] The transcription of the word for 'aerie' (also the name for the geographical spot that is the focus of Mr. Alexander's account) is problematic in that on p. 7 the name for the location is given as *nqwáxwqten* (also sic on Callahan et al. 2016:x, with reference to the map on p. xv, and on pp. 121, 151 and 157). A check against the on-line sound files (to which Henry Davis has kindly referred me) proves that *(n)qwáxwqten* is indeed the correct transcription for the location (and then must also be for the meaning 'aerie'). The transcriptions *nqwáxwqwten* (with variants *nqwáxqwten* and *nqáxqten*, the latter admittedly

4 Preliminary conclusions

While the data in Section 2 most probably result from elicitations by and from the editors of the volume from which these examples are taken, the data in Section 3 come from running texts provided by a fluent speaker of the language. As such, Thompson's conclusion that constructions with two overt DPs mostly result from prompting by "assiduous linguists" and do not reflect original Salish grammatical patterns can no longer be maintained. As Davis 1999:22, notes, the presence of such constructions is thus a reflection of the structure of the texts, not of the grammar. (It is in this respect significant that in Callahan et al. the incidence of both POS and PSO drops rather sharply in texts 5 through 8, which deal with personal reminiscences and reflections where one of the participants is in the first person singular and the occasion for two overt third person DPs rarely arises.) This still leaves the questions of why northern Lillooet prefers POS, while the southern dialect prefers PSO, and also how old constructions with two overt DPs are in Salish.

The fact that the southern dialect area of Lillooet shows a preference for PSO may reflect the fact that the communities in this area were in frequent contact with Coast Salish communities, where PSO is preferred, while the northern area was in more frequent contact with Interior Salish communities, where POS is in stronger competition with PSO. (For trade contacts of the northern (Upper) and southern (Lower) Lillooet not only with each other, but also with respectively the Interior and Coastal groups, see Teit 1906:231–233.)

As for the origin of constructions with both a subject NP and an object NP, it is possible that such constructions go back to Proto-Salish, but in that case, it is puzzling that they do not (or did not) occur in Lushootseed (as noted by Thompson, referring to Hess). If they do now, it may be possible that they have risen under influence from English after Hess did his research on Lushootseed. After all, there are convincing examples of languages rearranging their syntax under foreign influence, even across language families: Arlotto 1972:193–195 mentions the replacement of the "X has" construction in Russian with "at X is," under influence of neighbouring Finno-Ugric or Altaic, and the rise of the izafet-construction in Turkish under Persian influence. With regard to Salish, the influence of omnipresent English seems not only plausible, but in this case perhaps even unavoidable. On the other hand, Davis 1999 makes a strong case for classing constructions with two overt DPs as deeply embedded in Lillooet syntax, and his observations certainly deserve careful consideration.

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a very probable transcription error) in Van Eijk 2013:293 will have to be corrected accordingly.

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