

Winuunsi Tm Talapaas:

A Grammar of the Molalla Language

by

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To my mother, whose love of the Willamette Valley
inspired me to explore a fascinating language.

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Chapter 1

Introduction and Methods

1.1. Introduction

This dissertation represents the first comprehensive grammar of Molalla, a Native American language of western Oregon. The language went extinct nearly fifty years ago and had been not been in daily use for a considerable period before that. Though Molalla is quite well documented, relatively little has been written about it.

1.1.1. Ethnography and History

In the mid-nineteenth century, at the time of the first intensive contact with Europeans, the Molalla lived primarily along the western flanks of the Cascade Mountains, from the Molalla River drainage in the north to the uppermost Rogue River drainage in the south. They also appear to have inhabited the upper Deschutes River drainage, east of the crest of the Cascades (Zenk & Rigsby 1998:439-440).

At least two subgroups are distinguished: the Northern Molalla, who lived along the upper courses of the Clackamas and Molalla Rivers, and the Southern Molalla, in what is now eastern Douglas County, Oregon. Zenk & Rigsby (1998) provide evidence for a third, centrally located, Upper Santiam River group. The Molalla hunted primarily deer and elk with bow and arrow, driving the game using specially bred dogs. Fish (especially salmon and steelhead trout), camas (*Camassia spp.*), and seasonal berries were also important food resources. Plank-built houses, partly dug into the ground,

served as winter shelter, while simpler bark or thatched-rush houses were used in summer (Zenk & Rigsby 1998:440-442).

The Molalla were not clearly distinguished from their neighbors in the records of European Americans until the early 1840s, with the work of Horatio Hale, carried out as part of the U.S. Exploring Expedition (published as Hale 1846).¹ Over the course of the 1840s there was a series of skirmishes with American settlers as the latter began occupying the Willamette Valley.² In 1855 the Molalla were moved to the Grand Ronde Reservation, situated in the Coast Range, on the opposite side of the Willamette Valley from the Molalla home territory. At least a few apparently settled with the Cow Creek Band of Umpqua Indians, to the west of the Southern Molalla territory (Grant 1994), or on the Klamath Reservation, to the south (Zenk & Rigsby 1998: 444).

On the Grand Ronde Reservation, over twenty distinct western Oregon Native groups were crowded together in a rather small area, a situation which apparently contributed to the early abandonment of the Native languages, including Molalla, in favor of Činuk Wawa (Chinook Jargon) and English (Zenk & Rigsby 1998: 444). Curtis (1911:195) writes that he knew of only two speakers surviving at the time his data were collected, though there must in fact have been a few more. Jacobs, in the introduction to a never-completed sketch of Molalla grammar archived with his field notes, indicates that he had thought the language extinct before his own researches in the 1920s. Two of his informants, Victoria Howard and Kate Chantèle, were quite elderly when Jacobs worked

¹ Molallas may well have been among the Native peoples encountered by Lewis and Clark on their journey down the Columbia, but they are not distinguished in the records of the expedition from other peoples of similar cultural type (Zenk & Rigsby 1998: 444).

² The broad valley of the Willamette River, which stretches from Portland in the north to south of Eugene and from the Coast Range to the Cascade Mountains, occupies much of western Oregon and is home to a large majority of the state's current population.

with them. The third, Fred Yelkes, was almost certainly the last to learn the language from his parents. His death in 1958, so far as anyone knows, marked the death of the Molalla language.

As with the names of many other Native American groups, *Molalla* is subject to much variation in spelling. Jacobs and Swadesh use the spelling “Molale”, while Berman (1996) uses “Molala”, as do Rigsby (1965, 1966), Grant (1994), and Zenk & Rigsby (1998). I have opted to use the spelling “Molalla”, both because this spelling is used locally on the Grand Ronde Reservation (Zenk & Rigsby 1998: 445) and because it accords with the modern spellings for the river and city of the same name.³ The name *Molalla* appears to be of Upper Chinookan origin (Zenk & Rigsby 1998: 445); the Northern Molalla, at least, used the term {la:ti} for themselves: *la:ti:wi* FS ‘Molalla’ (E-IV:1); *lá:tis?áuhi* FS ‘he can talk Molalla’ (Notes to X:5:8); *lá:ti lǎŋs* JY ‘Molalla land’ (B35MY:19b).

1.1.2. Genetic Affiliation

The genetic affinities of Molalla are not entirely resolved, in large part because of the lack of published material on the language. Some standard reference works (for example, Campbell 1997, Mithun 1999) list the language as an isolate.⁴ More far-reaching classifications (such as DeLancey & Golla 1997) usually list Molalla as a member of the Plateau branch of the Penutian stock; this is also where Greenberg 1987 places it. Penutian, in its most widely-discussed incarnation (see especially DeLancey &

³ The pronunciation used by residents of the area is [moˈlɑtə] or [mɪˈɑtə], though I have heard reports of older residents using the pronunciation [moˈləli].

⁴ Note that these authors are nevertheless inclined to view a relationship of Molalla to Sahaptian and Klamath as either “possible” (Mithun 1999: 459) or “very probable” (Campbell 1997: 320).

Golla 1997), includes, in addition to Plateau, the Tsimshianic languages of British Columbia; the Chinookan languages of the lowermost Columbia River; the Alsean, Siuslawan, Coosan, and Kalapuyan families and the Takelma language, all of western Oregon; and the Maiduan, Wintuan, Miwokan, Costanoan, and Yokutsan groups of northern and central California.

Along with Molalla, the Plateau branch would include the Klamath language and the Sahaptian family (Sahaptin and Nez Perce). Berman (1996) has provided good morphological and lexical evidence of a relationship among Molalla, Klamath, and Sahaptian; my own investigations have uncovered additional correspondences in the vocabulary and grammar of these languages (Pharris, in revision). The relationship of Molalla to Sahaptian appears to me to be quite close; the relationship of these to Klamath would be somewhat more distant.⁵

Some would also include the extremely poorly attested Cayuse within the Plateau grouping, particularly close to Molalla: Hale first set up the Waiilatpuan family, which included Cayuse and Molalla, in 1846. Rigsby (1965, 1966) finds the available evidence insufficient to establish such a relationship, though a number of the resemblant pairs he lists are suggestive. Unfortunately, it may be that what we have of Cayuse is simply so little (and so inconsistently recorded) that we can never be sure of its true genetic position.

⁵ These relationships were widely supported among early twentieth-century scholars working with these languages: the title on Jacobs's uncompleted Molalla grammar is *A grammatical sketch of Molale Sahaptin*, and Velten (1943: 272) states: "[N]o less apparent, though decidedly more remote [than the relationship between Sahaptin and Nez Perce], is the genealogical relationship of this N[orthern]S[ahaptin]-N[ez]P[erce] family with the Klamath and Molale groups...".

1.1.3. History of Research on Molalla

Most of what is known of Molalla is from field notes obtained in the early part of the twentieth century. All of the Molalla speakers who worked with linguists were from the Northern Molalla subgroup. On the language of the more southerly groups we have essentially no information.

1.1.3.1. Early Sources

Early materials on Molalla (mostly vocabularies) were collected by Horatio Hale in 1841 (178 items; Hale 1846:570-629), by George Gibbs in 1851 (65 different items, most of which are recorded more than once, often with slight variations), and by Edward S. Curtis some time before 1911 (160 items; Curtis 1911:195-198). The items in these three early vocabularies are given in the Appendix. Grant (1994) reports that Franz Boas obtained a few pages' worth of Molalla material in 1890, but I have so far not been able to locate it.

1.1.3.2. Gatschet

More extensive materials were gathered by Albert S. Gatschet in November and December of 1877 from informant Stevens Savage. Gatschet collected three texts, "Marriage Ceremonies", "The Myth of Coyote", and "The Molale Tribe Raided by the Cayuse Indians", as well as extensive vocabulary. This material tends to be somewhat difficult to interpret, due to Gatschet's ornate and sometimes unsteady handwriting. The transcription also leaves much to be desired: long and short vowels are not consistently distinguished, nor are /a:/ and /e:/. Velar and uvular consonants are not distinguished at all, /ŋ/ is not distinguished from /nk/, glottalization on stops is not recorded, and /ɬ/ is not recognized as a separate sound (being most often transcribed either as <'l> or as <th>). I

have not been in possession of the Gatschet materials long enough to integrate them fully into my analysis, but I will make use of them where I can, particularly when they preserve some facet of the grammar that is not in evidence elsewhere.

1.1.3.3.Frachtenberg

Leo Frachtenberg recorded further texts, vocabulary, and grammatical materials from Savage over the winter of 1910-11. These include twenty-four mythological texts, seven historical narratives, and four ethnographic descriptions. They are listed in Table 1.1; it is not clear to me whether the titles were supplied by Savage or added by Frachtenberg. The texts are accompanied by extensive vocabulary and grammatical notes. Savage appears to have been an excellent storyteller and a capable linguistic consultant. The material obtained from him forms the bulk of the currently usable material on Molalla, and it figures heavily in the account of the grammar to follow.

Table 1.1: Texts Collected by Leo Frachtenberg from Stevens Savage

No.	Title	No. Pages
Myths		
I	Stealing of Fire	5
II	Coyote is Fooled by Spirit-People	12
III	Coyote Loses His Anus	18
IV	Coyote, Grizzly Bear, and the Cottonwood Girl	10
V	Sun, Moon, and Bullfrog	8
VI	Skunk, Silver Fox, and Wolf	19
VII	Coyote Steals Wolves' Eggs and Lays Blame on Grizzlies	14
VIII	Coyote Frees the Country from Monsters	11
IX	Coyote's Amorous Adventures	14
X	Battle of the Mountains	12
XI	Mountain People	11
XII	Thunder and Panther	24
XIII	Grizzly and Black Bears	23
XIV	Coyote, Panther, and the Water People	23
XV	Wren and His Grandmother	17
XVI	Crow Steals Coyote's Eyes	19
XVII	Grizzly, Weasel, and Spiders	15
XVIII	Chicken Hawk and Black Eagle	26
XIX	Frog and Bullfrog Girls	11
XX	Panther and Wildcat; Beavers and Black Bears	31
XXI	Grizzlies and Blue-Jay	17
XXII	Superstitions	13
XXIII	Black Woodpecker and Mud Turtle	8
XXIV	Coyote Battles with Tillamooks	19
Narratives		
N-I	Steve's Fatal Meetings with Coyote	3
N-II	Steve's Fatal Meeting with a Deer	5
N-III	Molallas' Removal to Grand Ronde	9
N-IV	The Death of Steve's Father	5
N-V	Steve's Uncle Turns into a Grizzly	2
N-VI	The First Landing of White People at Astoria	5
N-VII	Introduction of Smallpox into Columbia Region	3
Ethnographic Descriptions		
E-I	Marriage Ceremony	5
E-II	Manner of Building a House	4
E-III	Mode of Obtaining Fire	2
E-IV	Burying of Dead	2

1.1.3.4. Jacobs

Melville Jacobs collected some twenty texts from “Molale Kate” Chantèle, along with additional vocabulary. Unfortunately, Chantèle could not speak English well (Jacobs n.d.); most of the material obtained from her remains untranslated and so does not figure in this grammar. Translation and analysis of these texts is a high priority for the future. However, this work is not really feasible without first compiling a thorough account of Molalla lexicon and morphosyntax, which is readily obtainable with the materials already translated.

Jacobs also collected vocabulary from Victoria Howard. Jacobs used Howard primarily as a consultant on Clackamas Chinook; she seems not to have been a particularly fluent Molalla speaker. For example, she has generalized feminine-subject forms of verbs of motion to all subjects. She also appears to translate kin-terms differently from other informants and to have been unreliable in her distinction between the two long low vowels /e:/ and /a:/.

Finally, Jacobs obtained extensive vocabulary and grammatical information from Fred Yelkes in 1927-28. Yelkes was not a good narrator (Jacobs n.d.), but he was a good translator and linguistic consultant. Jacobs’s work with Yelkes appears mainly to have dealt with checking Frachtenberg’s earlier data. Thus the examples are all either single words or short sentences, and there seems to have been no attempt to gather systematic paradigmatic data on nouns or verbs. On the positive side, Jacobs’s phonetic transcription seems to have been rather more exacting than Frachtenberg’s. All of Jacobs’s materials, including copies of Frachtenberg’s earlier notes, are housed in the Melville Jacobs Collection at the University of Washington, in Seattle.

1.1.3.5. Audio Recordings

There also exists a small corpus of recorded Molalla speech, all of it from Fred Yelkes. John P. Harrington and his assistant John Paul Marr recorded words, phrases, and texts on aluminum discs in 1942. These recordings have come to the attention of scholars only recently, and most of them have never been transferred to tape. Unfortunately, they are extremely noisy and distorted, to the point of unintelligibility. Most of the recording appears to consist of elicitation of individual vocabulary items and short sentences, but the beginning seems to be a historical narrative in Molalla, followed by a translation into English. It is hoped that modern signal processing techniques will be able to improve the quality of this recording, as it constitutes the only known audio recording of connected speech in Molalla.

Of far better sound quality is a recording by Morris Swadesh in 1953. This recording is now housed in the Archives of Traditional Music, at Indiana University, in Bloomington, Indiana. It consists of elicitations of individual vocabulary items and very brief sentences. As this is much the best extant audio recorded material in Molalla, I have utilized it extensively for the phonetic analysis in Chapter 2. It must be borne in mind, however, that by the time the Swadesh recording was made, Yelkes had not spoken Molalla with another person for perhaps thirty years. His responses are often slow and hesitant, and he produces some aberrant forms, as well as giving quite a few Činuk Wawa items.

1.1.3.6. Previous Work on Molalla

Little has been published on Molalla. Gatschet (1890; cited in Berman 1996) compares Klamath with a number of other Oregon and California languages, including

Molalla. Rigsby (1965, 1966) utilizes all the extant Molalla materials to examine the relationship of Molalla to other languages on the southern Plateau, most notably Cayuse. Grant (1994) is an unpublished account detailing much of the history of research on Molalla and presenting vocabulary culled from various sources. Berman (1996) lays out the phonology and some of the morphology and lexicon of the language in the context of examining historical connections among Molalla, Klamath, and Sahaptian. Berman (2001) provides a handful of additional potential Plateau Penutian cognates. Aside from Gatschet 1890, all published accounts of Molalla are based mainly or entirely on the materials collected by Frachtenberg and Jacobs. Apart from Berman (1996), these works all deal mainly with vocabulary and contain little grammatical analysis. I will be comparing the results of my phonological and morphological analysis with those of Berman and the others wherever relevant.

1.2. Methods

1.2.1. Sources

The Hale and Curtis vocabularies are available from published sources. Photocopies of the Gibbs vocabulary and the Gatschet materials were obtained from the National Anthropological Archives at the Smithsonian Institution. A copy of the Swadesh recording was obtained from the Archives of Traditional Music, Indiana University, Bloomington, Indiana, while Bruce Rigsby provided an audio cassette dubbing of part of the Harrington/Marr recording. The remainder of the material used, comprising the materials recorded by Jacobs along with Jacobs's copies of the materials recorded by Frachtenberg, is located in the Melville Jacobs Collection (part of

Manuscripts, Special Collections, and University Archives) at the University of Washington, Seattle.

1.2.2. Analysis and Citation of Sources

Much of the Molalla material in the Melville Jacobs Collection (including nearly all of the material from Fred Yelkes) is in the form of perhaps two thousand index-card-sized paper slips, each devoted to a particular morpheme and containing examples exemplifying that morpheme. As it proved infeasible to have such a large number of small items photocopied, I instead hand-copied the relevant forms onto loose-leaf paper.

The slip files are contained in two boxes, Box 34 and Box 35 of the Melville Jacobs Collection. Originally, my intent had been to copy the slips in their entirety; citations for these early-copied forms are structured as follows: B34 (for “Box 34”), followed by a colon, followed by the number of the sheet onto which the form was copied, followed by “a” for the obverse side of the sheet or “b” for the reverse (example: B34:5a).

Eventually it became clear that the time I had available would not allow me to complete the copying of the entire content of all of the slips. Accordingly, I began copying only the forms obtained from Mr. Yelkes and Mrs. Howard, since these were the forms that were not available elsewhere. Forms copied during this phase of the operation are cited as follows: B34MY or B35MY (“MY” standing for “Molalla/Yelkes”⁶), followed by a colon, followed by the sheet number and “a” for obverse or “b” for reverse:

⁶ Note that “MY” is merely a label for a section of my data notebook. Not all forms with an “MY” citation are necessarily from Yelkes; see next section for attribution conventions.

1. swáip^ht kási JY
 Ø-s-fay-pt-ka-s-i
 3SG.O-MASC-stick.like.obj.-into.hole-in.place-D.IPV-3.S
 'he stuck in a stake; he planted a tree' (B34MY:1a)

The remainder of the Molalla materials in the Jacobs collection were obtained in photocopied form. The Frachtenberg files are located in Box 89, Folders 5-19. Some miscellaneous grammatical notes from Frachtenberg were entered into an electronic database using SIL's *Shoebox 5.0*, along with the forms from Jacobs and Howard. The Frachtenberg forms from the *Shoebox* database are cited as follows: the Jacobs Collection box number (89), followed by a colon, followed by the folder number, followed by a colon, and finally the page number:

2. swa:qłəmhassik FS
 Ø-we:q-qłimha-s-ik
 3SG.O-dig-make.hole-D.IPV-1.S
 'I dug holes' (89:16:3)

Most of the forms from Victoria Howard are found in Box 76, Folder 37; these are cited similarly to the Frachtenberg forms: box (76), folder (37), and page, separated by colons; for example: *änku?lip* JH 'because' (76:37:21).

The bulk of the materials collected by Frachtenberg were analyzed using SIL's *LinguaLinks Workshops 5.0*. The *LinguaLinks* database contains two types of files, text files and notes files. The text files are numbered as in Table 1.1 on page 7. Citations from text files consist of the text number, followed by a colon, followed by a line number of my own assigning:

3. psk'úsłaa FS
 psk'us-ł-a
 close.eyes-FUT.IMP-2.S
 'close your eyes!' (XXI:49)

Line numbers are assigned for the most part according to Frachtenberg's punctuation, except that clearly subordinate clauses are included with their matrix clauses even when Frachtenberg sets them off with periods. Myth text XXII is divided into eighteen sections; citations from this text have a section number (preceded by §) between the text number and the line number:

4. hískissi FS
 hi-s-fki-s-i
 NTS-LM-stab-SS.CUST-3.S
 'if he is stabbed' (XXII:§7:2)

Citations from notes files consist of a file name "Notes to [text]", followed by a colon, followed by a page and a line number of my assigning, likewise separated by a colon:

5. tsfáyuḷaʔsəm FS
 n-s-fayut-ḷa-ʔs-m-Ø
 1SG.O-MASC-precipitate-down.onto-PRES-CIS-3.S
 'it snows on me' (Notes to V:3:5)

Some of the larger notes files are broken up into as many as three parts; the part number, if applicable, is indicated in parentheses immediately following the file name:

6. swátataʔsk FS
 s-fatat-ha-ʔs-k
 MASC-dance-PSF-PRES-1.S
 'I am dancing' (Notes to II (Part 1):11:4)

The *LinguaLinks* database also contains one additional file, titled "Additional Grammatical Notes" and abbreviated AGN in citation.

1.2.3. Example Format

Each example consists of four lines. The first line consists of a normalized transcription (see next section) of a word, phrase, or sentence, followed by an attribution in small capital letters. Forms obtained by Frachtenberg from Stevens Savage are

attributed FS. Forms obtained by Jacobs from Kate Chantèle, Victoria Howard, or Fred Yelkes are attributed JC, JH, or JY, respectively. In examples consisting of more than one sentence, the attribution is given after the last sentence. The second line of the example consists of a morpheme-by-morpheme breakdown using a surface phonemic representation (that is, showing the result of the application of morphophonemic rules but ignoring low-level phonetic processes). The third line gives a morpheme-by-morpheme gloss. The fourth line gives a free translation into English, followed by the citation in parentheses (see above). Translations of lines from texts are my own, as Frachtenberg gives only word-by-word glosses. Translations of other types of examples are from the original sources.

1.2.4. Conventions for Forms Cited within the Body of the Text

The conventions for citing Molalla forms within the body of the text are as follows. Forms in the original orthography used in the sources are given in <angle brackets>. Normalized transcriptions are given in *italics*. Forms showing sub-phonemic detail are given in [brackets]. Phonologized forms (showing the results of morphophonemic alternations) are given in /slashes/. Citation forms of morphemes (that is, cover forms ignoring morphophonemic rules) are given in {braces}.

1.2.5. Conventions for Normalized Transcription

The orthographic conventions used in producing normalized transcriptions are as

follows:

<u>Jacobs</u>	<u>Frachtenberg</u>	<u>Normalized</u>
C'	C!	C'
c	c	š
ə	E	ə
ɪ	î	i
l	l, l·	l
	L	ʌ
P, T, K, Q	p, t, k, q	p, t, k, q
p, t, k, q	p', t', k', q'	p ^h , t ^h , k ^h , q ^h
p	p ⁷	p ^h
u	u	u
V·	V̄	V:
,	ε	?

⁷ This symbol is usually used at the ends of words. It appears to represent an aspirated (or at least audibly released) [p].

1.2.6. Abbreviations Used in Examples

The following abbreviations are used in the examples:

1/2/3	first/second/third-person	LM	linking morpheme
ABL	ablative case	LCTN	locational adverb
ABS	absolute adjective	LOC	locative case
ACC	accusative case	MALE	malefactive
ACD	accidental	MASC	masculine subject
ADJ	adjective	mtn.	mountain
ADJZ	adjectivalizer	NCRF	non-coreferential
AMB	ambulative	NEG	negative
ALL	allative case	NOM	nominative case
ANA	anaphoric demonstrative	NSG	nonsingular
APPL	applicative	NTS	non-topical subject
ATTEN	attenuative	NZ	nominalizer
CAUS	causative	o.	older
CHAR	characteristic reduplication	O	object
CIS	cislocative	partic.	particulate matter
CONN	connective	PAUCF	paucifactive
CPLT	completive	PEJ	pejorative
CRF	coreferential	PERS	perseverative
CTPR	contemporaneous	PFV	perfective aspect
CUST	customary	PL	plural
D	distant past tense	PLUR	pluractional
DESID	desiderative	POT	potential mood
DIR	directional	PPL	participle
DMSF	demonstrative suffix	PRES	present tense
DS	different-subject	PROS	prospective
DSTB	distributive	PROX	proximal demonstrative
DU	dual	PSF	present stem formant
DUB	dubitative	PTC	particle
EMPH	emphatic	PX	possessive
FEM	feminine subject	QUES	question clitic
FUT	future tense	R	recent past tense
GEN	genitive case	REDIR	redirective
glob.	globular	RR	reflexive/reciprocal
HAB	habitual aspect	S	subject
horiz.	horizontal	s.o.	someone
HORT	hortative	SG	singular
IDF	indefinite	SIMUL	simultaneous
IMP	imperative	SPON	spontaneous
impl.	implement	SS	same-subject
INAN	inanimate	STAT	stative aspect
INCEP	inceptive	SUB	subordinator
INEFF	ineffectual	TAS	thematic adjective suffix
INFER	inferential	TEMP	temporal case
INST	instrumental case	V _s	stem-final vowel
INTRG	interrogative	VZ	verbalizer
IPV	imperfective aspect	w/	with
ITER	iterative aspect	yo.	younger
lit.	literally		

1.3. Structure of the Dissertation

The grammar is structured as follows. Chapter 2 presents the phonemes of Molalla and the phonological processes affecting them. Chapter 3 discusses the various grammatical categories of the language (verbs, nouns, pronouns, demonstratives, interrogative elements, adjectives, numerals, adverbials, and minor word types) and gives information about their forms and usage. Chapter 4 deals with the order of sentential constituents within sentences and lays out the structure of several important types of syntactic construction. Finally, Chapter 5 highlights the main points of the discussion, places Molalla within an areal linguistic context, and examines prospects for future research.

This grammar is intended to be accessible to linguists of many different theoretical persuasions. To that end, I have tried to be as straightforward and theory-neutral in my exposition as I can. The attempt here, insofar as it is possible, is to establish basic surface facts about a language that has never before been adequately characterized in the literature: to provide grist, as it were, for the theoretical mill.

Chapter 2

Phonetics and Phonology

2.1. Consonant Phonemes

2.1.1. Distribution and Properties

The consonant phonemes of Molalla are given in Table 2.1. Obstruents distinguish five places of articulation: bilabial, alveolar, velar, uvular, and glottal. The alveolar position may be further resolved into a plain apico-alveolar articulation, a grooved sibilant articulation, and a lateral articulation. Plain and ejective stops/affricates are distinguished at most points of articulation, though there is no ejective lateral affricate to contrast with the plain lateral affricate /ʎ/ and, obviously, no ejective glottal stop. A variety of fricatives are present, as well as (unusually for the region) three nasals.⁸

Table 2.1: Consonant Phonemes

	Bilabial	Alveolar			Palatal	Velar	Uvular	Glottal
		Plain	Sibilant	Lateral				
Plain Stops/ Affricates	p	t	c	ʎ		k	q	ʔ
Ejective Stops/ Affricates	p'	t'	c'			k'	q'	
Fricatives	f		s	ʃ		x		h
Nasals	m	n				ŋ		
Approximants	w			l	y			

⁸ Among Oregonian languages, a phonemic velar nasal is reported elsewhere only in Cayuse. Many of the “Cayuse” words in which it appears are probably either Molalla words, and not really Cayuse at all, or Molalla loans in Cayuse.

Each consonant phoneme is described and discussed in detail below. Following the discussion, examples are provided (where possible) illustrating the phoneme in the following environments: word-initially before a vowel, intervocalically, and word-finally after a vowel.

- p* Plain bilabial stop. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and in consonant sequences. Examples: /p̥ilint/ ‘prairie’, /we:piks/ ‘pipe’, /se:p/ ‘buzzard’.
- t* Plain apico-alveolar stop. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and in consonant sequences. Examples: /t̥a:ps/ ‘ear’, /ʔat̥ay/ ‘how?’, /plut̥/ ‘fat’.
- c* Plain apico-alveolar sibilant affricate. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and in consonant sequences. Examples: /c̥aqaq-/ ‘red’, /ma:cukins/ ‘wren’, /qac/ ‘bladder’.
- ʈ* Plain apico-alveolar lateral affricate. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and in consonant sequences. This sound is sometimes confused with *t* in the sources. Hale does not distinguish the two at all; Curtis does not list any items containing *ʈ*. Examples: /ʈ̥awint/ ‘flower’, /pi:ʈ̥a/ ‘go home’, /paʈ̥/ ‘spear pole’.
- k* Plain velar stop. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and in consonant sequences. All authors who recorded Molalla materials had some difficulty in distinguishing /k/

from /q/, especially when adjacent to other consonants. Examples: /ki:/ ‘you (sg.)’, /pe:kims/ ‘lower leg’, /pluk/ ‘daughter-in-law’.

q Plain uvular stop. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and in consonant sequences. From the Swadesh recording, it appears that *q* often weakens to [χ] between vowels when not geminated. Examples: /qaps/ ‘skin, bark, scales’, /taqe:m/ ‘hat’, /qe:q/ ‘raven’.

? Glottal stop. This phoneme occurs word-initially before vowels, word-finally after vowels, as the first member of consonant sequences, as a medial member of a consonant sequence following a resonant, and occasionally intervocalically. Across a morpheme boundary, it may combine with a preceding stop to produce an ejective. Berman (1996) automatically fills in a glottal stop at the beginning of any word that would otherwise begin with a vowel, even though glottal stops are almost never transcribed in this position in the source materials. In the present work, I have taken what I feel is a more conservative approach, positing underlying initial glottal stops only when they participate in phonological processes such as reduplication (as in {ʔu:yʔu:y} ‘dove’) or metathesis (as in /ʔi ~ ʔa ~ aʔ/ ‘say’) or where there is a likely etymological connection to a morpheme with a securely attested glottal stop (as with {ʔaw} ‘shout’ and {sʔaw} ‘speak’). Examples: /ʔu:yʔu:y/ ‘dove’, /aʔins/ ‘crow’, /plaʔ/ ‘louse’.

- p'* Ejective bilabial stop. This rare phoneme occurs word-initially before vowels, intervocalically, and as the last member of consonant sequences. It is found in only nine morphemes: {i:p'ayk} 'measure', {pslaqp'ayk} 'twist the mouth (said of spirits)', {p'a} 'eat', {p'uf} 'soft', {p'uṭp'al} 'sponge', {p'usp'as} 'pheasant', {p'u:s} 'cat' (a borrowing, at some level, from a European source), {p'utint} 'brush-land', and {p'uyʔ} 'smile'.
- t'* Ejective apico-alveolar stop. This phoneme occurs word-initially before vowels, intervocalically, and as the last member of consonant sequences. Examples: /t'u:lp/ 'ring', /fat'aʔ/ 'cold'.
- c'* Ejective apico-alveolar sibilant affricate. This rather uncommon phoneme is only found in ten morphemes: {ahanc'ayuk} 'Ahantchuyuk people', {c'ic'iʔwa} 'wild dog', {c'i:c'a} 'bird', {c'u:m} 'venereal disease', {c'ikc'ik} 'wagon', {hafc'uy} 'zigzag', {mulc'ays} 'hill, knoll', {qluqc'ays} 'thief', {qluʔmukc'ays} 'nose-ridge', and {wawac'ak} 'wild dog'. Of these, one ({ahanc'ayuk}) is an ethnonym, another ({c'i:c'a}) is probably onomatopoetic, and at least two are borrowings ({c'ikc'ik} from Činuk Wawa and {wawac'ak} from Klamath).
- k'* Ejective velar stop. This phoneme occurs word-initially before vowels, intervocalically, and as the last member of consonant sequences. In two lexical items (both sound-symbolic), it occurs as the first member of a word-initial consonant cluster, with a resonant as the second member: {k'laphin} 'blink, flicker, be lightning', {k'me:phu} 'bullfrog'. Examples: /k'ulisi/ 'fishing worm', /yu:qcik'a/ 'hemlock'.

- q'* Ejective uvular stop. This phoneme occurs word-initially before vowels, intervocalically, and as the last member of consonant sequences. Examples: /q'u:c/ 'maggots', /naq'as/ 'cinnamon bear'.
- f* Voiceless bilabial (or labial-velar) fricative.⁹ This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and in consonant sequences. Transcriptions of this sound vary widely. The most common transcription for all authors is <f>, though Curtis specifically notes that it is bilabial, and Jacobs (n.d.) describes it as "bilabial, the lips quite rounded". This implies that the phone is not [ɸ], with the lips spread and pressed together across the width of the mouth opening, but [ɱ], produced with the lips protruded and rounded. Jacobs commonly transcribes the sound as <hw>, and Frachtenberg often uses <^hw>, <^xw>, or <^xf>, indicating a fairly strong velar component. Phonologically, /f/ appears to be a voiceless counterpart to /w/, as /ɬ/ is a voiceless counterpart to /l/. A similar phone is found in the neighboring Kalapuyan languages and, if we count the voiceless *w* symbolized as /W/ in Barker 1963, also in Klamath. Examples: /faʔtakt/ 'bow', /ma:fiʔ/ 'elk', /ptaʔ/ 'son'.
- s* Voiceless apico-alveolar sibilant fricative. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and in consonant sequences. Both Jacobs and Frachtenberg fluctuate quite a lot between <s> and <c> (that is, [ʃ]) in their recordings of this sound, with Frachtenberg generally

⁹ I retain the notation /f/, partly out of habit and partly for the sake of typographic convenience, despite the fact that the Molalla sound is phonetically bilabial.

preferring <s> and Jacobs much more commonly using <c>. However, there does not seem to be a phonemic distinction here, as Jacobs notes:

Like the adjacent Chinook and Kalapuya, *s* and *c* [*s* and *š*], *t's* and *t'c* [*ch* and *čh*], *t's* and *t'c* [*c'* and *č'*] are each one thing, truly intermediate to our *s* and *c* series; for the sake of obtaining finer distinctions I often used both series, *s* and *c*, and so on; when in doubt, and this was frequent, I employed the *c* series symbols; Frachtenberg used both series of symbols, *s* and *c*, quite inconsistently, I think, and made no comment in his notes about their functional and acoustic identity, though such identity be unmistakable.

Swadesh's recordings of Yelkes corroborate Jacobs's statements. To my ear, there is a single, apico-alveolar sibilant, phonetically and articulatorily intermediate between English lamino-alveolar [*s*] and English apico-postalveolar [*š*]. The same is true for the affricates *c* and *c'*. Examples: /*ḡ*aka/ 'dog', /hu:*ḡ*ilp/ 'cloud, sky', /wa:*ḡ*/ 'sun, day'.

- ɬ* Voiceless apico-alveolar lateral fricative. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and in consonant sequences. Examples: /ɬe:s/ 'ice', /wi:*ɬ*a/ 'silver fox', /laɬ/ 'alder'
- x* Voiceless velar fricative. This is a very rare phoneme, occurring in only four lexical items (at least two of them borrowed): {k*la*:t*kw*i:*x*} 'bullsnake', {q'*a*lax} 'fence' (Chinook Jargon, probably originally Salish), {walxayu} 'seal' (Chinookan), {wi:*x*at} 'deer trail'. It does not occur word-initially. According to Berman (1996:pg.), Kate Chantèle did not use the phone [*x*] at all, substituting [*h*] instead; I have not yet analyzed the Chantèle materials in depth and so cannot confirm this statement.

- h* Voiceless glottal fricative. This phoneme mostly occurs word-initially before vowels, more rarely intervocalically, and never preconsonantly or word-finally. It combines with a preceding stop consonant to produce a surface aspirated consonant. It occurs in intervocalic consonant sequences with a preceding resonant consonant, but it does not surface after a fricative. Examples: /ha:ʔ/ ‘moon’, /na:hil/ ‘dead tree’.
- m* Bilabial nasal. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and as the first or last member of consonant sequences. Examples: /ma:s/ ‘fir tree’, /lamu:wi/ ‘bridge’, /i:m/ ‘huckleberry’.
- n* Apico-alveolar nasal. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and as the first or last member of consonant sequences. Examples: /ni:p/ ‘he/she/it’, /pe:na/ ‘daughter’, /pnan/ ‘mother’.
- ŋ* Velar nasal. This phoneme occurs intervocalically, word-finally after vowels, and as the first member of consonant sequences. It never occurs word-initially or prevocally following another consonant. The treatment of this phoneme is one of the major points of difference among the sources on Molalla. Hale (the earliest source) and Jacobs (the latest) agree in transcribing it as a simple velar nasal. Curtis, however, consistently represents it with <ⁿg> (except in /yaŋint/ ‘mountain’, where the expected *ŋ* is instead recorded as [ɣ]). Frachtenberg mostly writes <ⁿg> or <^ŋg> (especially intervocalically), but sometimes transcribes <ŋ>.

particularly before heterorganic consonants. Moreover, Jacobs clearly distinguishes /ŋ/ from /nk/ sequences (<lǎŋihǎʔsim> JY ‘spring comes’ vs. <ǎnguʔ> JY ‘what?, how?’), where Frachtenberg uses <ⁿg> for both (<laⁿgihaʔsəm> FS, <aⁿgu> FS).¹⁰ It is unclear how much of this transcriptional inconsistency is due to dialectal or idiolectal variation, differences in the abilities of the researchers, or differing transcriptional systems.¹¹ From the Swadesh recording, it is clear that Jacobs was correct in transcribing [ŋ], at least for Yelkes’s speech. Examples: /taŋint/ ‘horn, antler’, /pe:ŋ/ ‘snow’.

w Voiced labial-velar approximant. This phoneme occurs word-initially before vowels, intervocally, (very rarely) word-finally after vowels, and as the first or last member of consonant sequences. Word-finally and before consonants, it is usually transcribed as the second member of a diphthong (Jacobs <au>; Frachtenberg <a^u>), though Frachtenberg does consistently transcribe it as <w> following /i(:)/. Examples: /waski/ ‘gray squirrel’, /tawint/ ‘bobcat, wildcat’, /kawkaw/ ‘Oregon grape’.

l Voiced apico-alveolar lateral approximant. This phoneme occurs word-initially before vowels, intervocally, word-finally after vowels, and as the first or last member of consonant sequences. It is frequently produced with a certain amount of uvularization or pharyngealization (“darkening”). Examples: /l̠aɾs/ ‘earth, land, ground’, /il̠imp/ ‘heart’, /qpa:l̠/ ‘cottonwood’.

¹⁰ It is not clear to me whether /n/ regularly assimilates to the velar place of a following /k/ or not.

¹¹ Curtis (1911:vi) does not even list a symbol for [ŋ].

y Voiced palatal approximant. This phoneme occurs word-initially before vowels, intervocalically, word-finally after vowels, and as the first or last member of consonant sequences. Word-finally and before consonants, y is generally transcribed as the second member of a diphthong (Jacobs <ai ui>; Frachtenberg <aⁱ uⁱ>). Examples: /yaʔqa:nt/ ‘chief’, /waya/ ‘end’, /sʔu:nay/ ‘worms’.

2.1.2. Aspirated Stops?

Aspirated stops could be considered to constitute a class of marginal phonemes. They are frequently found in loanwords: /pe:p^hins/ ‘murderer’, from Sahaptin; /q’ist^hin/ ‘axe’, from a Salish¹² source (Cowlitz?); /cik^hin/ ‘chicken’, from English. They also sometimes appear in onomatopoeic or affective terms (/k’mɑ:p^hu/ ‘bullfrog’, /kit^hq^hu:q/ ‘cough’, /p^hup^huwa/ ‘be drunk, crazy’). The relatively small number of consistently aspirated stops seen in the regular native vocabulary (as in, e.g., *t^hamsu* ‘become lost’ or *inuk^ha* ‘hit with a round object’) can probably be analyzed as clusters of a plain stop plus *h*—that is, *t^hamsu* is likely analyzable as /thamsu/ and *inuk^ha* as /inukha/. Aspirated stops are also commonly recorded preconsonantly and word finally, but for different reasons. All stop consonants are audibly released preconsonantly and word-finally, and Jacobs, in particular, commonly transcribes this release burst as aspiration.

2.1.3. Consonant Sequences

Molalla exhibits a moderately high amount of consonant clustering, more than most languages but not as much as some of its Northwest neighbors. The consonant sequences attested in the Molalla data are listed in Table 2.2, along with examples for

¹² This term is widespread in the area (see vocabularies in Hale); the *-t^hin* ending looks to me like the Salish instrument noun suffix *-tin*, though the root is obscure.

each of the positions in which the sequence is attested. Forms in italics are transcribed directly from the sources; forms in slashes are my interpretation of the surface phonemic structure, after the application of morphophonemic rules. The sources have no special symbol for *c*; any indication of *ts* or *tš* in the sources is taken as an instance of *c*.¹³ Similarly, Jacobs has no special symbol for *ʌ*; sequences of <ɬ> in Jacobs will be taken as instances of surface *ʌ*.

Table 2.2: Attested Consonant Sequences

Sequence	Initial	Intervocalic	Final
Two-Consonant Sequences			
pt	<i>ptāf</i> FS /ptaʃ/ 'son'	<i>pāpti</i> FS /papti/ 'all over'	<i>púpt</i> FS /pupt/ 'bone'
pc		<i>swáptssik</i> FS /s-wa-pt-s-ik/ 'I put it in'	
pʌ		<i>hápʌʔsk</i> FS /hapt-ʌ-a-ʔs-k/ 'I sit on it'	
pk	<i>pká:ya</i> FS /pka:ya/ 'younger sister'	<i>lá:pka</i> FS /le:p-kaʔ/ 'two'	
pq	<i>pqās</i> FS /pqe:s/ 'maternal grandmother'	<i>sína:pqayi</i> FS /s-i-na:p-qay-i/ 'they dried it'	<i>pi:pq</i> FS /pi:pq/ 'small hawk'
ps	<i>psukaʔ</i> FS /psuk-a-ʔ/ 'rotten'	<i>mú:psas</i> FS /mu:pse:s/ 'spirit-being'	<i>hu:tsa:ps</i> FS /hu:t-s-a:ps/ 'sticks'
pɬ	<i>plitsk</i> FS /pli-c-k/ 'I slept'	<i>líptipt</i> FS /liptipt/ 'tule grass'	<i>lāʔqāpʰɬ</i> MY /laʔqapɬ/ 'board'
ph		<i>niphu</i> FS /niphu/ 'supposedly'	
pn	<i>pnáka</i> FS /pnaka/ 'younger brother'	<i>stisá:pni</i> FS /s-tis-a:p-ni/ 'plug it up!'	
pw		<i>na:pwai</i> FS /na:p-way/ 'dry'	
pl	<i>plaʔ</i> FS /plaʔ/ 'head louse'	<i>siplaiʔssik</i> FS /s-i-playʔ-s-ik/ 'I went back'	
py	<i>pyátsk</i> FS /pya-c-k/ 'I killed him'	<i>tápyuqs</i> FS /tapyuqs/ 'coals'	

¹³ This is probably the best we can do for Molalla, given the limitations of the sources. it should be noted, however, that in the neighboring Sahaptin language, surface [č] and [tš] are distinct, the latter arising from underlying /cš/ and /čš/ sequences (Rigsby & Rude 1996:671).

tp	<i>tpáslak</i> FS /tpa-sla-k/ 'I will hear it'	<i>ítpulha?</i> FS /it-pulha-ʔ/ 'hole'	
tk	<i>tká:msi</i> FS /tka:m-s-i/ 'he scolded her'	<i>switkiʔsəmk</i> FS /s-wit-ki-ʔs-m-k/ 'I pack it in'	
tq	<i>tquʔsk</i> FS /tqu-ʔs-k/ 'I name him'	<i>ná:pitqa</i> FS /na:pitq-a-ʔ/ 'six'	
tp'		<i>plúr^hp'ai</i> JY /plut-p'a-i/ 'grease-eater'	
tk'		<i>mitk'aihaʔsk</i> FS /mitk'ay-ha-ʔs-k/ 'I am surprised' (?)	
tf	<i>tfálataifq</i> FS /tfalat-ʔayfq/ 'Tualatin people'	<i>hatfinissi</i> FS /hatfiʔ-ni-s-i/ 'he crawled along'	
th		<i>swátathaʔsya:nt</i> FS /s-fatat-ha-ʔs-ya:n-t/ 'they are dancing'	
tm	<i>tma:ʔsk</i> FS /tma:-ʔs-k/ 'I camp'	<i>yá:tmais</i> FS /ya:tmays/ 'black woodpecker'	
tn	<i>tnálim</i> FS /tne:lm/ 'bark'	<i>fáyatnissi</i> FS /fayat-ni-s-i/ 'he crept up'	
tw	<i>twámssi</i> FS /twam-s-i/ 'he asked him'	<i>hú:yatwi</i> FS /hu:yat-wi-i/ 'oldest'	
tl		<i>qsítluyaʔsk</i> FS /q-s-it-luya-ʔs-k/ 'I want to take you(plural)'	
ty	<i>tyámihaʔst</i> FS /tyamy-ha-ʔs-t/ 'she is looking for it'	<i>sityalqaʔsk</i> FS /s-i-tya-lqa-ʔs-k/ 'I toss him around'	
cp	<i>tspú:fayəm</i> FS /t-s-puʔ-fa-yi-m/ 'open it for me!'	<i>tátspaʔ</i> FS /te:c-paʔ/ 'match'	<i>witsp</i> FS /wicp/ 'person'
ct	<i>tstu:ʔstqasmi</i> FS /t-s-tu:ʔstqa-s-m-i/ 'he woke me up'	<i>pá:satstak</i> FS /pa:sact-ak/ 'with pitch-wood'	<i>pyátst</i> FS /pya-c-t/ 'he killed him'
ck	<i>tskú:kautqaʔsəm</i> FS /t-s-ku:k-ʔaw-tqa-ʔs-m/ 'he is whistling at me'	<i>qtá:ʔkutska:wi</i> FS /q-ta:ʔkucka:-wi-i/ 'she would encourage them'	<i>áluyatsk</i> FS /a:luya-c-k/ 'I beat him'
cq	<i>tsqólo:s</i> FS /cqulu:s/ 'bald eagle'	<i>ítsqasint</i> FS /icqasint/ 'vagina'	
ck ^h		<i>t'u:ʔlnatsk^hin</i> FS /t'u:ʔlnack ^h in/ 'square hole for fireplace'	
cf	<i>tsfáyuuʔaʔsəm</i> FS /t-s-fayut-ʔa-ʔs-m/ 'it snows on me'		

cł	<i>tsloqó:gitsəm</i> FS /t-s-luq-uw-ki-c-m/ ‘he tied me’	<i>statslimha?sk</i> FS /s-tat-slim-ha-?s-k/ ‘I cut marks on his body’	
cm		<i>hisi:wnitsmis</i> FS /hi-s-i:w-ni-c-m-is/ ‘when someone approaches’	
cn	<i>tsna:sáus</i> FS /cna?saws/ ‘bowel’		
cw	<i>tswaiqa?st</i> FS /cwayq-ha-?s-t/ ‘she makes fun of him’	<i>itswants</i> FS /?i-c-wan-s/ ‘if they(dual) tell him’	
cl	<i>tsla:pslámqayi</i> FS /t-s-la:p-sla-m-qay-i/ ‘they will take from me’	<i>pátslai</i> FS /pat-sla-i/ ‘he will go down’	
łp	<i>łpantsásint</i> FS /łpansa-sint/ ‘earrings’	<i>stáłpata?sk</i> FS /s-tat-l-pat-ha-?s-k/ ‘I cut in’	
łt		<i>wáłti</i> FS /wałti/ ‘below’	
łł		<i>sú:łła</i> FS /s-hu:t-l-l-a/ ‘heat up rocks!’	
łk		<i>kíłkaplaya?</i> FS /kiłka-play?-a-?/ ‘leaning back’	
łq	<i>łqámlai</i> FS /łqamlay/ ‘knife’	<i>máłqa?sk</i> FS /małqa-?s-k/ ‘I please him’	
kp	<i>kpi:łasmi</i> FS /k-pi:ła-s-m-i/ ‘she came home’	<i>mú:kpiptist</i> FS /mu:k-pipti-s-t/ ‘it gets dark’	<i>kí:yukp^h</i> FS /kiyw-k-p/ ‘rain’
kt	<i>ktiltsi</i> FS /k-til-s-i/ ‘she went off’	<i>nakti:yai</i> FS /nakti:ya-i/ ‘(he is) lazy’	<i>ła?łikt</i> FS /ła?łikt/ ‘tree branch’
kc		<i>si:luktsisk</i> FS /s-yi-luk-c-is-k/ ‘if I don’t give it to him’	<i>łuyálukts</i> FS /łuya-luk-c-s/ ‘if he doesn’t like it’
kq		<i>fikqan</i> FS /fik-q-in/ ‘you should spear’	
kc’		<i>ts’ikts’ik</i> FS /c’ikc’ik/ ‘wagon’	
kf		<i>snikfipatsəm</i> FS /s-nik-fi-pat-c-m-k/ ‘I pulled him down’	
ks	<i>ksínha?st</i> FS /k-sin-ha-?s-t/ ‘she goes in’	<i>lá:luksi</i> FS /la-luk-s-i/ ‘he did not see’	<i>pnáyaks</i> FS /pnayaks/ ‘older sister’
kł	<i>klitta</i> JH /k-lit-a/ ‘get off!’	<i>hāwāklamk</i> FS /hawe:k-l-yamk/ ‘let us run races’	<i>šúkl</i> JY /sukł/ ‘cradle board’

kh		<i>fik^haʔsk</i> FS /fik-ha-ʔs-k/ ‘I am spearing’	
km	<i>kmángintsimk</i> FS /kmaŋ-n-c-m-k/ ‘I came to marry him’	<i>qlaulukmaq</i> FS /q-law-luk-m-aq/ ‘he can’t see us’	
kn	<i>knissi</i> FS /k-ni-s-i/ ‘she went’	<i>sniktukniʔsk</i> FS /s-nik-tuk-ni-ʔs-k/ ‘I tear off a piece’	
kw	<i>kwálaʔyassi</i> FS /k-walaʔya-s-i/ ‘she arrived’	<i>fikwi:</i> FS /fik-wi-i/ ‘he spears it’	
kl	<i>kláihaʔst</i> FS /klayʔ-ha-ʔs-t/ it (fire) is going out’	<i>fiklukslá:qin</i> FS /fik-luk-sla-qy-in/ ‘you(plural) will not spear’	
ky	<i>kyi:kismi</i> FS /k-yiky-s-m-i/ ‘she was coming ashore’	<i>fákyamisint</i> FS /fak-yam-i-sint/ ‘complexion’	
qp	<i>qpáihaʔsk</i> FS /q-pay-ha-ʔs-k/ ‘I kill them’	<i>poqpoqwai</i> FS /puq-puq-way/ ‘gray’	<i>puq^hp^h</i> JY /puq-p/ ‘dust’
qt	<i>qtápsik</i> FS /q-tap-s-ik/ ‘I heard it from them’	<i>lá:qti</i> FS /la:qti/ ‘outside’	<i>tá:qt</i> FS /te:q-t/ ‘upwards’
qc		<i>tsáqtsaqwai</i> FS /caq-caq-way/ ‘red’	
qʌ		<i>ʌóqʌóqwai</i> FS /ʌuq-ʌuq-way/ ‘slushy’	
qk	<i>qkukaʔst</i> FS /q-ku:k-ha-ʔs-t/ ‘she sucks them’		
qcʼ		<i>q^hlúq^htʼsaiš</i> JY /qluqcʼays/ ‘thief’	
qpʼ	<i>qpʔáwik</i> FS /q-pʼa-wi-ik/ ‘I always eat them’	<i>pslaqpʔaiqaʔst</i> FS /pslaqpʼayq-ha-ʔs-t/ ‘(a spirit) twists (one’s mouth)’	
qs	<i>qsihaskislak</i> FS /q-s-i-ha-s-ky-sla-ik/ ‘I will gather them’	<i>lo:qsak</i> FS /lu:qs-ak/ ‘with dirt’	<i>hanlaqs</i> FS /hanlaqs/ ‘forearm’
qʈ	<i>qlá:qi</i> FS /qla:q-i/ ‘white’	<i>pó:qlint</i> FS /pu:qʈ-int/ ‘bride-price’	<i>pó:qʈ</i> FS /pu:qʈ/ ‘ball’
qh	<i>qháltaqtimsi</i> FS /q-haʈ-taqtim-s-i/ ‘he walked up to them’	<i>lóqhaigi</i> FS /luq-ha-yk-i/ ‘being sick’	
qm	<i>qmístnimilqa</i> FS /q-mis-tnim-ilqa/ ‘keep watch!’	<i>háiloqmik</i> FS /hayluqm-i-ik/ ‘let me warm my hands’	
qn	<i>qnaitskiʔst</i> FS /qnaycki-ʔs-t/ ‘it is no more’	<i>láqnan</i> FS /laqnan/ ‘ten’	

qw	<i>qwá:lai?</i> FS /qwa?lay/ ‘rattlesnake’	<i>hisaqwi</i> FS /hi-s-yaq-wi-i/ ‘someone does it’	
ql	<i>qláussik</i> FS /q-law-s-ik/ ‘I saw them’	<i>iqliqa?st</i> FS /i-qli:q-ha-?s-t/ ‘she raises him’	
qy	<i>qyútqyuta?</i> FS /qyut-qyut-a-?/ ‘smooth’	<i>hispiqya:tuk</i> FS /his-pi-qya-?tuk-k/ ‘I was almost killed’	
?p		<i>pi?pikka</i> FS /pi?-pik-ka/ ‘five each’	
?t		<i>ta?təm</i> FS /ta?tm/ ‘yesterday, tomorrow’	<i>pya?t</i> FS /pya-?-t/ ‘he killed him’
?k		<i>la?kúnwi</i> FS /la?kunwi/ ‘face’	<i>p’a:?k</i> FS /p’a-?k/ ‘to eat’
?q		<i>qa?qatai</i> FS /qa?-qatay/ ‘back and forth’	<i>ti:?q</i> FS /ti?q/ ‘to grow old’
?f		<i>ma:ʔfi</i> FS /ma:fiʔ/ ‘elk’	<i>tyálak’aʔf</i> FS /tyalak’aʔf/ ‘black eagle’
?s		<i>la?sa</i> FS /la-?s-a/ ‘you see it’	<i>mä?ʔs</i> FS /m-ʔa-ʔs-s/ ‘when he told you’
?ʔ		<i>fa?ʔakt</i> FS /fa?ʔakt/ ‘bow’	<i>ha:ʔʔ</i> FS /ha:ʔʔ/ ‘moon’
?h		<i>ho?hó:wi</i> FS /hu?-hu:-wi-i/ ‘old (distributive)’	
?m		<i>li?mäni</i> FS /li:ʔme:ni/ ‘rubber boa’ (<i>Charina bottae</i>)	
?n		<i>ku:ʔna?</i> FS /ku:ʔn-a-ʔ/ ‘small’	
?w		<i>la?wi</i> FS /la?wi/ ‘head’	
?l		<i>la?laiks</i> FS /la?layks/ ‘middle-sized’	
?y		<i>wálaʔyassi</i> FS /walaʔya-s-i/ ‘he arrived’	
k’m	<i>k’măp^hu</i> FS /k’mə:p ^h u/ ‘bullfrog’		
k’l	<i>k’lăp^hinhă?št</i> JY /k’lap ^h in-ha-ʔs-t/ ‘it is blinking, flickering, lightning’		

fp		<i>si:fpú:fatsk</i> FS /s-i:f-pu?-fa-c-k/ 'I broke it open'	
ft		<i>si:ftaqa?sk</i> FS /s-i:f-taq-ha-?s-k/ 'I wrap it up'	
fk	<i>fkátfkáta</i> FS /fkat-fkat-a-?/ 'dark'	<i>láfkis</i> FS /lafkis/ 'small woodpecker'	
fq		<i>hafqupilha?sk</i> FS /ha-f-qu:pil-ha-?s-k/ 'I hug him'	<i>kilapi:fq</i> FS /kilapi:fq/ 'great hunter'
ft'		<i>sift'áminha?sk</i> JY /s-i:f-t'amin-ha-?s-k/ 'I nod'	
fc'		<i>háfts'u:iwai</i> FS /hafc'uy-way/ 'zigzag'	
ft		<i>si:fta?sk</i> FS /s-i:f-t-ha-?s-k/ 'I chop it'	
fn		<i>kiti:fnissi</i> FS /kit-if-ni-s-i/ 'he shot'	
fw		<i>sk'áfway?</i> FS /sk'af-way/ 'light'	
fy	<i>fya:nha?st</i> FS /fye:-n-ha-?s-t/ '(fire) is smoking'	<i>ifya:k'ays</i> FS /i-fye:-ik-?ay-s/ 'smoke hole'	
sp	<i>spáitsk</i> FS /s-pay-c-k/ 'I finished it'	<i>hispissi</i> FS /hi-s-py-s-i/ 'he was killed'	<i>q'ä:sp</i> FS /q'e:s-p/ 'grass'
st	<i>stanl</i> JH /stanl/ 'oak tree'	<i>kístak</i> FS /ki-sta-k/ 'I am'	<i>kíst</i> FS /ki-s-t/ 'he is'
sc		<i>psk'ustsi</i> FS /psk'us-s-i/ he closed his eyes'	
sʔ		<i>háskáqayəm</i> FS /ha-s-?e:-qaym/ 'let's fight!'	
sk	<i>skímt</i> FS /skimt/ 'skin'	<i>háskiha?sk</i> FS /hasky-ha-?s-k/ 'I am waiting'	<i>ásk</i> FS /a:sk/ 'salmonberry'
sq	<i>sqássi</i> FS /s-qa-s-i/ 'he made it'	<i>písqai</i> FS /pisqay/ 'night'	
sʔ	<i>sʔäŋ</i> FS /sʔay/ 'mussel'	<i>hásʔawtqa?sk</i> FS /ha-s-ʔaw-tqa-?s-k/ 'I speak to myself'	
sp'		<i>pʔú:spʔäs</i> FS /p'u:sp'as/ 'pheasant'	
st'	<i>st'ó:wai</i> FS /st'u:-way/ 'cooked'	<i>si:st'u:ʔsk</i> FS /s-i-st'u:-ʔs-k/ 'I cause it to cook'	

sk'	<i>sk'átsi</i> FS /sk'a:ci/ 'eel'		
sq'		<i>q'ásq'aswai</i> FS /q'as-q'as-way/ 'brass'	
sf	<i>sfáita?sk</i> FS /s-fat-ha-ʔs-k/ 'I peel it'	<i>ma:sfa:li</i> FS /ma:s-fa:li/ 'dressed elk hide'	
sł	<i>słoqó:ki?sk</i> FS /s-luq-uw-ki-ʔs-k/ 'I tie a knot'	<i>híslasłak</i> FS /hi-s-ła-sł-ik/ 'someone will get hold of me'	
sm	<i>smi:nts</i> FS /smi:ns/ 'snowy owl'	<i>nísmín</i> FS /ni-s-m-in/ 'you were coming'	
sn	<i>snikła?sk</i> FS /s-nik-ł-ha-ʔs-k/ 'I break it up'	<i>wá:snat</i> FS /wa:snat/ 'noon'	
sw	<i>swa:ki?sk</i> FS /s-we:k-ki-ʔs-k/ 'I put it away'	<i>kíswan</i> FS /ki-s-wan/ 'they(dual) are'	
sl	<i>slá:p^ha?sk</i> FS /s-ła:p-ha-ʔs-k/ 'I take it away from him'	<i>kíslan</i> FS /ki-sł-in/ 'you will be'	
sy	<i>syálam</i> FS /s-yałam/ 'old man'	<i>sqassyá:ni</i> FS /s-qa-s-ya:n-i/ 'they did it'	
łp	<i>łpánimha?sk</i> FS /łpanim-ha-ʔs-k/ 'I am listening'	<i>syáłpupt</i> FS /syal-pupt/ 'knee'	<i>alp^h</i> FS /alp/ 'blood'
łt		<i>háłtaqtimsi</i> FS /hałt-taqtim-s-i/ 'he walked up to him'	
łc		<i>ă:łtsi</i> FS /e:ł-s-i/ 'he was grunting'	<i>píłts</i> FS /piłts/ 'nose'
łk		<i>pálki</i> FS /pałki/ 'pine squirrel'	<i>p'ăłk</i> FS /p'a-ł-k/ 'I must eat'
łq	<i>łqó:pis</i> FS /łqu:pis/ 'buckskin string'	<i>haigulqa?sk</i> FS /haykułqa-ʔs-k/ 'I remember'	<i>małq</i> FS /małq/ 'female'
łp'		<i>pʔulpʔalqunqwai?</i> FS /p'ulp'ał-qunq-way/ 'spongy'	
łk'	<i>łk'ă?map</i> FS /łk'a?map/ 'moss'		
łm		<i>qá:łmangint</i> FS /qa:łmanint/ 'black bear'	
łn		<i>háłni?sk</i> FS /hałt-ni-ʔs-k/ 'I am walking'	
łw		<i>pálwa:s</i> FS /pałwa:s/ 'hawk'	

mp	<i>mpáislai</i> FS /m-pay-sla-i/ ‘he will kill you’	<i>númpi</i> FS /nu-mpi/ ‘about that’	<i>ílimp</i> FS /ilimp/ ‘heart’
mt	<i>mtápsik</i> FS /m-tap-s-ik/ ‘I heard it from you’	<i>tímtim</i> FS /timtm/ ‘fir tree’	<i>šú:mt</i> FS /su:mt/ ‘coho salmon’
mc		<i>tó:tqtimtsəmk</i> FS /tu:-tqtim-c-m-k/ ‘I came to him’	
mk		<i>ámkal</i> FS /amkal/ ‘huckleberries’	<i>limk</i> FS /limk/ ‘below’
mq		<i>nímqayi</i> FS /ni-m-qay-i/ ‘they come’	
m?			<i>wá:sam?</i> FS /wa:sam?/ ‘summer’
mp’	<i>mp’älukslai</i> FS /m-p’a-luk-sla-i/ ‘he will not eat you’	<i>wamp?a?sk</i> FS /wam-p’a-?s-k/ ‘I eat breakfast’	
mq’		<i>imq’assi</i> FS /imq’a-s-i/ ‘she was laughing at him’	
mf	<i>mfátatkiłaslai</i> FS /m-fatat-kił-sla-i/ ‘she will dance with you’	<i>taqámfa?sk</i> FS /taqam-fa-?s-k/ ‘I take off my hat’	
ms		<i>nā:msi</i> FS /ne:m-s-i/ ‘he couldn’t do it’	<i>fáita:ms</i> FS /wayte:ms/ ‘spear’
mł	<i>mła?sk</i> FS /m-le:-?s-k/ ‘I appoint you’	<i>tmúlimla</i> FS /tmulm-l-a/ ‘think!’	<i>qaml</i> FS /qaml/ ‘male’
mh	<i>mhältwálimki?st</i> FS /m-halt-we:limki-?s-t/ ‘he walks in a circle around you’	<i>stú:simha?sk</i> FS /s-tu:simha-?s-k/ ‘I paint him’	
mn	<i>mnātuslak</i> FS /m-nałtu-sla-ik/ ‘I’ll blow you out of my nose’	<i>lasyamni</i> FS /la-s-yamn-i/ ‘they saw him’	
mw		<i>qítwamwi</i> FS /q-i-twam-wi-i/ ‘he asked them’	
ml	<i>mlúyassik</i> FS /m-luya-s-ik/ ‘I wanted you’	<i>lusímluswai</i> FS /lus-mlus-way/ ‘round’	
my	<i>myálamha?sk</i> FS /m-yalam-a-?s-k/ ‘I’m marrying you’	<i>mistímyassi</i> FS /mis-timya-s-i/ ‘he looked around’	
np	<i>npatiwaismi</i> FS /n-paty-way-s-m-i/ ‘he outjumped me’	<i>má:npa?</i> FS /ma:npa/ ‘fawn’	<i>háltinp</i> FS /halt-n-p/ ‘wind’
nt	<i>ntápsmin</i> FS /n-tap-s-m-in/ ‘you heard it from me’	<i>hindisi</i> FS /hinti-s-i/ ‘she dug roots’	<i>háitunt</i> FS /hayłunt/ ‘upriver’

nc		<i>híntsəm</i> FS /hinsm/ ‘pigeon’	<i>ants</i> FS /ans/ ‘how much?’
nʔ		<i>štukupinʔáwiššik</i> JY /s-tik-upin-ʔawy-s-ik/ ‘I poured it over it’	<i>nanʔ</i> FS /nanʔ/ ‘every’
nt ^h		<i>hałnant^háyassi</i> FS /hałnant ^h aya-s-i/ ‘he ran out of arrows’	
npʔ		<i>matlinpʔaʔsk</i> JY /małin-pʔa-ʔs-k/ ‘I eat supper’	
ntʔ		<i>hālnāntʔáišši</i> JY /hałnantʔay-s-i/ ‘he walked himself to exhaustion’	
ncʔ		<i>ahāntsʔayukaiʔq</i> FS /ahancʔayuk-ʔayʔq/ ‘Ahantchuyuk people’	
nf	<i>nfáyaʔʔqaʔsmi</i> FS /n-fayat-lqa-ʔs-m-a/ ‘you sneak up on me’	<i>tʔanfaut</i> FS /tʔanfawt/ ‘young man’	
nł		<i>mistínlaʔsk</i> FS /mis-tinla-ʔs-k/ ‘I look down’	
nh	<i>nhātwālimkismi</i> FS /n-hałt-we:limki-s-m-a/ ‘you walk around me’	<i>hāttinhaʔsk</i> FS /hałt-tin-ha-ʔs-k/ ‘I walk out’	
nm		<i>pínmams</i> FS /pinmams/ ‘relative through dead person’	
nw	<i>nwáptasəm</i> FS /n-wapt-ha-ʔs-m/ ‘she puts me in’	<i>ánwi</i> FS /an-wi-i/ ‘how many?’	
nl	<i>nláussəm</i> FS /n-law-s-m/ ‘he saw me’	<i>lá:tinlukslan</i> FS /la:tn-luk-sla-in/ ‘you will not come out’	
ny	<i>nyáqsla:mi</i> FS /n-yaq-sla-m-i/ ‘she will do it to me’	<i>hínyami</i> FS /hinyami/ ‘altogether’	
ŋp		<i>taŋpú:faʔst</i> FS /taŋ-puʔ-fa-ʔs-t/ ‘it opens’	
ŋt			<i>snúq^hluŋt^h</i> JY /snuqluŋt/ ‘Butte Creek’
ŋc		<i>i:ʔqlingtsi</i> FS /iʔqlin-ci-i/ ‘poor’	
ŋk		<i>łp^haŋkaʔ</i> JY /łpaŋkaʔ/ ‘Klamath’	<i>tʔāŋk^h</i> JY /tʔaŋk/ ‘bed’
ŋq		<i>naŋqai</i> JY /naŋqay/ ‘all’	<i>qá:ŋq</i> FS /qa:ŋq/ ‘worm’

ɲf		<i>šʔúŋhwałqʰs</i> JY /sʔuŋfałqs/ ‘crayfish’	
ɲs		<i>túŋsǎʔstʰ</i> JY /tuŋsa-ʔs-t/ ‘he is singing’	<i>lǎŋs</i> FS /laŋs/ ‘earth’
ɲh		<i>sǎŋhayʔ</i> JY /saŋhay/ ‘sturgeon’	
ɲn		<i>núŋgnis</i> FS /nuŋnis/ ‘big (distributive)’	
ɲw		<i>kú:sangwi</i> FS /ku:s-aŋ-wi-i/ ‘small’	
ɲy		<i>qsáŋya:skin</i> FS /qsan̄ya:skn/ ‘hummingbird’	
wp		<i>mláupatisuklaʔst</i> FS /m-law-paty-s ukla-ʔs-t/ ‘he is going to find you’	<i>sʔaup</i> FS /sʔaw-p/ ‘word’
wt		<i>tsi:wtilhaʔsəm</i> FS /t-s-i:w-til-ha-ʔs-m/ ‘he makes me go’	<i>aut</i> FS /awt/ ‘where?’
wc			<i>sʰáuts</i> FS /sʔaw-c-s/ ‘when he speaks’
wʌ		<i>wáyiwʌaʔsk</i> FS /way-iwʌa-ʔs-k/ ‘I swim downstream’	
wk		<i>qsí:wkinnasmi</i> FS /q-s-i:w-ky-na-s-m-i/ ‘it was following them’	
wq		<i>auqan</i> FS /ʔaw-q-in/ ‘you can shout’	
wʔ			<i>auʔ</i> FS /ʔawʔ/ ‘where?’
wkʰ		<i>si:wkʰaʔsk</i> FS /s-i:w-kʰa-ʔs-k/ ‘I hit him’	
ws		<i>si:wsíntuk</i> FS /s-i:w-sin-ʔtuk-k/ ‘I sent him in’	<i>ła:us</i> FS /ła:ws/ ‘willow’
wł		<i>qáulaʔsk</i> FS /qaw-ł-ha-ʔs-k/ ‘I break it with teeth’	<i>šaul</i> JY /sawł/ ‘pole’
wh		<i>sʔáuhaʔsk</i> FS /sʔaw-ha-ʔs-k/ ‘I’m talking’	
wm		<i>nláumaq</i> FS /n-law-m-aq/ ‘he can see me’	

wn		<i>i:wni</i> FS /ʔi:-wn-i/ ‘they(dual) would say’	
wl		<i>qi:wludwissi</i> FS /q-i:w-luʔ-awy-s-i/ ‘he outran them’	
wy		<i>wáuwya</i> FS /wawy-a/ ‘leave him!’	
lp		<i>hátilpaʔsk</i> FS /hatilpa-ʔs-k/ ‘I get loose’	<i>hú:silp^h</i> FS /hu:silp/ ‘cloud’
lt		<i>kaltaikt</i> FS /kaltaykt/ ‘straight’	
lc		<i>ktiltsi</i> FS /k-til-s-i/ ‘she left’	<i>lu:lts</i> FS /lu:ls/ ‘egg’
lk		<i>wálgit</i> FS /wal-ki-ʔ-t/ ‘he fell down’	
lq		<i>lálqussi</i> FS /lalqu-s-i/ ‘she got tired’	<i>similq</i> FS /similq/ ‘mouth’
lt’		<i>t’u:lt’ú:lwai</i> JY /t’u:l-t’u:l-way/ ‘crooked’	
lc’		<i>múltš’aiš</i> JY /mulc’ays/ ‘hill’	
lq’		<i>šnikilq’äʔšk</i> JY /s-nik-lq’a-ʔs-k/ ‘I tear it off’	
lf		<i>háfqúpilfaʔsk</i> FS /ha-i:f-qu:pil-fa-ʔs-k/ ‘I take it off’	<i>wáipalf</i> FS /waypalf/ ‘trout’
ls		<i>ho:tilsimtqaʔsk</i> FS /hu:til-simtqa-ʔs-k/ ‘I yawn’	
lt		<i>tílla</i> FS /til-l-a/ ‘go!’	
lx		<i>wálxayu</i> FS /walxayu/ ‘seal’	
lh		<i>qó:pilhaʔsk</i> FS /qu:pil-ha-ʔs-k/ ‘I put something around my neck’	
lm		<i>i:lmiššik^h</i> JY /i:lmi-s-ik/ ‘I learned it’	
ln		<i>i:pilnaʔst</i> FS /i:pilna-ʔs-t/ ‘she issues it out’	
lw		<i>tílwa</i> FS /til-wa/ ‘let’s go’	

ly		<i>kasú:lya</i> FS /kasu:li-a/ 'wolf (accusative)'	
yp		<i>hafáipuls</i> FS /hafaypuls/ 'long dentalia shell'	<i>q'a:ip^h</i> FS /q'ay-p/ 'dirt'
yt		<i>háidala:usqáyi</i> FS /haytalaws-qay-i/ 'they call on their spirit-power'	<i>pait</i> FS /payt/ 'perhaps'
yc		<i>qpáitsisk</i> FS /q-pay-c-is-k/ 'if I kill them'	
yʌ		<i>wáĩkatsi</i> FS /way-ʌa-c-t/ 'it dropped on him'	
yk		<i>haika</i> FS /hayk-a-ʔ/ 'steep'	<i>kú:nangwaik</i> FS /kuʔn-aŋ-wayk/ 'small (INSTR)'
yq		<i>kiqáiqak</i> FS /ki-qay-q-ik/ 'we can stay'	
yʔ		<i>tú:haiʔai</i> FS /tu:ʔhayʔ-ay/ 'cattle (ALL)'	<i>laiʔ</i> FS /layʔ/ 'half'
yp'		<i>sʔú:naip'ai</i> FS /sʔu:nay-p'a-i/ 'worm-eater'	
yk'		<i>maik'a</i> FS /mayk'a/ 'colt'	
yq'		<i>q'aiq'aiya</i> FS /q'ay-q'ay-a-ʔ/ 'yellow'	
yf		<i>swaifinpatsi</i> FS /s-way-fin-pat-s-i/ 'he shoved it in'	
ys		<i>sukwáisukwai</i> FS /sukway-sukway/ 'brown'	<i>palá:is</i> FS /paʎa:ys/ 'hail'
yɿ		<i>láuwaila</i> FS /laway-i-a/ 'let it go'	
yh		<i>fáihahʔsk</i> FS /fay-ha-ʔs-k/ 'I eat it all up'	
ym		<i>háimistíssi</i> FS /haymisti-s-i/ 'he looked behind him'	
yn		<i>sáini</i> FS /sayni/ 'straw'	
yw		<i>áiwi</i> FS /ay-wi-i/ 'other'	
yl		<i>táilaks</i> FS /taylaks/ 'foot'	

Three-Consonant Sequences			
ptp		<i>hāptpāʔft</i> FS /hapt-paʔft/ 'sitting-place'	
ptk		<i>hāptki</i> FS /hapt-ki/ 'sit down!'	
ptq		<i>kitāhuptqaʔsk</i> FS /kit-taʔup-tqa-ʔs-k/ 'I shot an arrow into him'	
ptw		<i>swāptwik</i> FS /s-wa-pt-wi-ik/ 'I always put it in'	
pty		<i>lāptyaslak</i> FS /la-ptya-sla-ik/ 'I will find him'	
pcp		<i>wāptspaʔ</i> FS /wa-pt-s-paʔ/ 'envelope'	
pkt	<i>pktāngisla:wi</i> FS /p-k-taŋisla-wi-i/ 'it is a bad sign'		
pkw		<i>wiʔyaʔmāpkwi</i> FS /wi:ʔ-yaʔm-apkwi/ 'old men'	
pqt		<i>qtāpqtāpasint</i> FS /qtap-qtap-a-sint/ (a kind of tree)	
pqʔ		<i>pīpqʔa</i> FS /pipqʔ-a/ 'grouse (accusative)'	<i>pīpqʔ</i> FS /pipqʔ/ 'grouse'
psp		<i>pspu:fayiqi</i> FS /p-s-puʔ-fa-yi-qy-i/ 'they always open the door for you'	
pst	<i>pstātuthaʔsk</i> FS /pstātut-ha-ʔs-k/ 'I look at him'	<i>swāpstikinhaʔsk</i> FS /s-fa-pstikin-ha-ʔs-k/ 'I wring it out'	
psk	<i>pskáints</i> FS /pskayns/ 'beard'		
psq		<i>hāpsqutst</i> FS /hāpsqut-ts-t/ 'it is done'	
pst'	<i>pst'āssik</i> FS /pst'as-ik/ '(I am) blind'		
psk'	<i>psk'usaʔsk</i> FS /psk'us-ha-ʔs-k/ 'I shut my eyes'	<i>sipsk'usaʔsk</i> FS /s-i-psk'us-ha-ʔs-k/ 'I make him shut his eyes'	
psm		<i>ntāpsmin</i> FS /n-tap-s-m-in/ 'you heard it from me'	
psn	<i>psnāsints</i> FS /psnasins/ 'beaver'		
psw	<i>pswāptaʔsk</i> FS /p-s-wa-pt-ha-ʔs-k/ 'I put you in'	<i>hāpswáihaʔsya:nt</i> FS /hāpsway-ha-ʔs-ya:n-t/ 'they are gambling'	

psl	<i>psló:qaʔsk</i> FS /pslu:q-ha-ʔs-k/ ‘I cry for mourning’	<i>qtápslak</i> FS /q-tap-sla-ik/ ‘I will hear it from them’	
plq		<i>háplqu:ʔst</i> FS /ha-plqu-ʔs-t/ ‘it breaks itself’	
tpt		<i>sítptaʔsəmk</i> FS /s-it-pta-ʔs-m-k/ ‘I brought [bring?] it down’	
tpq		<i>statpqässi</i> FS /s-tat-pqa-s-i/ ‘he cut it open’	
tpl		<i>kitplaihaʔsk</i> FS /kit-playʔ-ha-ʔs-k/ ‘I shoot back’	
tkm		<i>tspu:fatkmi:yin</i> FS /t-s-puʔ-fa-ʔtk-m-i:yi-in/ ‘you opened the door for me’ (perh. an instance of /ʔtkm/)	
tkš		<i>sítksissi</i> FS /s-it-tksi-s-i/ ‘he took it back’	
tkw		<i>klátkwi:γ</i> FS /klatkwi:x/ ‘bullsnake’	
tky		<i>hatkyaʔsk</i> FS /hatkya-ʔs-k/ ‘I join it’	
tqp		<i>tya:tqpatissik</i> FS /tya:tq-paty-s-ik/ ‘I caught up to him again’	
tqt		<i>tó:tqtimhaʔsk</i> FS /tu:-tqtim-ha-ʔs-k/ ‘I go towards him’	<i>pitqt</i> FS /pitqt/ ‘nearby’
tqc		<i>mityátqtsik</i> FS /m-i-tya:tq-c-ik/ ‘If I catch up to you’	
tqs		<i>tyá:tqsi</i> FS /tya:tq-s-i/ ‘he overtook him’	<i>səätqs</i> FS /sʔatqs/ ‘bat’
tqł		<i>tätqłitsk</i> FS /tatqłi-c-k/ ‘I caught fire’	
tqy		<i>qyútqyutaʔ</i> FS /qyut-qyut-a-ʔ/ ‘smooth’	
tfk		<i>fkätfkäta</i> FS /fkät-fkät-a-ʔ/ ‘dusk’	
cpq		<i>witspqunk</i> FS /wicp-qunʔk/ ‘person-like’	
λck			<i>hätätłtskʰ</i> JH /ha-tat-ł-c-k/ ‘I cut myself’
λcy		<i>sú:łtsya:ni</i> FS /s-hu:t-ł-s-ya:n-i/ ‘they built a fire’	

kpt		<i>stíkptaʔsk</i> FS /s-tik-pta-ʔs-k/ 'I pour it in'	
kpq		<i>sníkpaʔsk</i> FS /s-nik-pqa-ʔs-k/ 'I tear it off'	
kpq'		<i>nik^hp^hq'áikwayʔ</i> JY /nik-pq'ayk-way/ 'puckered'	
ktk		<i>snítkin.iʔsk</i> FS /s-nik-tkini-ʔs-k/ 'I stretch it out'	
ktq		<i>sitíktqaʔsk</i> FS /s-it-ik-tqa-ʔs-k/ 'I lift it up'	
ktq'		<i>haníktq'ásaʔst</i> FS /haníktq'as-ha-ʔs-t/ '(grizzly) squeals'	
ky		<i>tyú:ktyu:k</i> FS /tyu:ktyu:k/ 'osprey'	
kcq		<i>sníktsqaʔsk</i> FS /s-nik-cqa-ʔs-k/ 'I split it in two'	
kʌk		<i>nítkuʔst</i> FS /nik-ʌku-ʔs-t/ 'she picks it off'	
kʌq		<i>ní:ktlqussya:ní</i> FS /nik-ʌqu-s-ya:n-i/ 'they pulled it out'	
kst		<i>túkstak</i> FS /tuk-sta-k/ 'I shoot'	
ksʌ		<i>níkʌiti</i> FS /nikst-hit-a-ʔ/ 'hanging down'	
ksɿ		<i>níkʌliniʔst</i> FS /nikʌlini-ʔs-t/ 'he is half-drunk'	
ksm		<i>sitinluksmi</i> FS /s-it-n-luk-s-m-i/ 'he didn't bring him'	
ksw		<i>hāwākswan</i> FS /hawe:k-s fa-in/ '(you) not racing'	
ksl		<i>fíkslak</i> FS /fik-sla-k/ 'I will spear'	
ksy		<i>máksya:ní</i> FS /mak-s-ya:n-i/ 'they were sweating'	
kɿc		<i>hānik'tawa:kɿsi</i> FS /haniktawa:kɿ-s-i/ 'he called him a relative'	
kɿw	<i>k^htwá:sʔas</i> JY /kɿwe:s-as/ 'he and Bluejay'	<i>twínpá:luktwa</i> FS /twinpa:-luk-ɿ-wa/ 'let's (dual) not tell him'	
qtk		<i>tá:laqtinniʔsk</i> FS /ta:-laq-tkini-ʔs-k/ 'I stretch out my hands'	

qck			<i>swäktatqtsk</i> FS /s-we:k-taq-c-k/ ‘I put it up’
qct			<i>qlaqtst</i> FS /qla:q-c-t/ ‘day broke’
qcl		<i>isintatuqtslai</i> FS /isintatuqs-sla-i/ ‘he will tell the story’	
qcy		<i>fäqtsyammi</i> FS /faqs-s-yamn-i/ ‘they were mad at me’	
qap		<i>apapapawai</i> FS /apap-apap-way/ ‘wide’	
qsp	<i>q^hspiuk^hš JY</i> /qspiwks/ ‘nighthawk’	<i>fäkitaqspaš</i> FS /faki-taq-s-paš/ ‘pitchfork’	<i>isinta:tuqsp</i> FS /isintatuqs-p/ ‘story’
qst	<i>qstänulqa:wi</i> FS /q-s-tanw-lqa-wi-i/ ‘he would watch for them’	<i>hastó:qstassuni</i> FS /ha-s-tu:-qsta-s-un-i/ ‘they(dual) parted ways’	<i>psaqst</i> FS /p-s-yaq-s-t/ ‘he had sex with you’
qsc		<i>isinta:tuqstsik</i> FS /isintatuqs-s-ik/ ‘I told a story’	
qsk	<i>qskú:ka?sk</i> FS /q-s-ku:k-ha-?s-k/ ‘I suck them’		
qsq		<i>isinta:tuqsqayi</i> FS /isintatuqs-qay-i/ ‘they would tell stories’	
qsm		<i>táqsmi</i> FS /taq-s-m-i/ ‘it was climbing’	
qsn	<i>qsnikfipátqak</i> FS /q-s-nik-fi-pat-q-ik/ ‘I can pull them in’		
qsw	<i>qswä:kit</i> FS /q-s-we:k-ki-?t/ ‘he put them down’	<i>isinta:tuqswik</i> FS /isintatuqs-wi-ik/ ‘I tell stories’	
qsl	<i>qsla:ps</i> FS /q-s-la:p-s-s/ ‘if he takes it from them’	<i>qli:qslak</i> FS /qli:q-sla-ik/ ‘I will grow’	
qsy	<i>qsyámmissi</i> FS /q-s-tyamy-s-i/ ‘he was looking for someone’	<i>qli:qsya:ni</i> FS /qli:q-s-ya:n-i/ ‘they were growing up’	
qlq		<i>po:qlqunqwai</i> FS /pu:ql-qunq-way/ ‘round’	
qln		<i>swa:qlni?sk</i> FS /s-wa:q-qlni-?s-k/ ‘I am digging out’	
qlf		<i>hálóqlfa?sk</i> FS /ha-luq-l-fa-?s-k/ ‘I untie myself’	
qlw		<i>qspó:qlwi</i> FS /q-s-pu:ql-wi-i/ ‘he would buy someone’	

ʔps			<i>pu:ʔps</i> FS /pu:ʔps/ ‘pimple’
ʔpn		<i>šitáʔp^hniʔšk^h</i> JY /s-itaʔp-ni-ʔs-k/ ‘I tracked [track] him’	
ʔtk		<i>pyaʔtka:nt</i> FS /pya-ʔtk-an-t/ ‘they killed him’	
ʔtq		<i>sí:wstwaʔtqa</i> FS /si:w-st waʔ-tqa-ʔ/ ‘hanging down’	
ʔcp		<i>fi:ʔtspaʔ</i> FS /fi:ʔt-s-paʔ/ ‘coat’	
ʔkc		<i>t’úʔktsauwis</i> FS /t’uʔkcawi-s/ ‘Mt. Davis’	
ʔks		<i>ku:ʔksangwai</i> FS /kuʔ-ks-aŋ-way/ ‘small (distributive)’	
ʔkw		<i>qwiʔkwaʔt</i> FS /kwiʔkwaʔt/ ‘woodrat’	
ʔqp		<i>tí:ʔqpitissi</i> FS /ti:ʔq-pity-s-i/ ‘he came back to life’	
ʔqt		<i>ti:ʔqtukent</i> FS /ti:ʔq-tuk-an-t/ ‘they became’	
ʔqc		<i>ti:ʔqtsa</i> FS /ti:ʔq-c-a/ ‘you have become’	<i>tí:ʔqts</i> FS /ti:ʔq-c-s/ ‘when it becomes’
ʔqs		<i>tí:ʔqsi</i> FS /ti:ʔq-s-i/ ‘it became’	<i>su:ʔqs</i> FS /su:ʔq-s/ ‘claw’
ʔqł		<i>šo:ʔqluni</i> FS /su:ʔq-l-un-a/ ‘scratch! (dual)’	
ʔqw		<i>ti:ʔqwi</i> FS /ti:ʔq-wi-i/ ‘he would become’	
ʔql		<i>iti:ʔqlukslan</i> FS /i-ti:ʔq-luk-sla-in/ ‘you will not make it rise’	
ʔft		<i>ko:ʔfta</i> FS /ku:ʔft-a/ ‘in the graveyard’	<i>paʔft</i> FS /paʔft/ ‘tracks’
ʔfn		<i>pskáisəʔfni</i> FS /pskaysʔaʔfni/ ‘full beard’	
ʔfy		<i>māʔfyaʔqamł</i> FS /ma:fiʔ-a-ʔ qamł/ ‘bull elk’	
ʔst			<i>iʔst</i> FS /ʔi-ʔs-t/ ‘he says’

ʔsk		<i>ifäʔskuk</i> FS /ifaʔsku-ik/ ‘(I am) ugly’	<i>laʔsk</i> FS /la-ʔs-k/ ‘I see’
ʔsq		<i>pä:ʔsqa</i> FS /pe:ʔsq-a-ʔ/ ‘hiding’	
ʔsm		<i>niʔsmis</i> FS /ni-ʔs-m-is/ ‘as he is coming’	
ʔsn		<i>isaʔsnaʔsk</i> FS /ʔi-saʔsna-ʔs-k/ ‘I keep on saying’	
ʔsw		<i>mäʔswa</i> FS /m-ʔa-ʔs-wa/ ‘we(dual) are telling you’	
ʔsl		<i>hisaʔslan</i> FS /hi-s-aʔ-sla-in/ ‘someone will say about you’	
ʔsy		<i>fīqyiʔsya:nt</i> FS /fik-qyi-ʔs-ya:n-t/ ‘they almost spear it’	
ʔln		<i>tʼu:ʔlnatskʰin</i> FS /tʼu:ʔlnackʰin/ ‘square hole for fireplace’	
ʔmt		<i>kinaʔmta</i> FS /kinaʔmt-a/ ‘you (plural emphatic)’	<i>nī:paʔmt</i> FS /ni:paʔmt/ ‘they (plural emphatic)’
ʔms		<i>kinaʔmsa</i> FS /kinaʔms-a/ ‘we (plural emphatic)’	<i>nī:paʔms</i> FS /ni:paʔms/ ‘they (dual emphatic)’
ʔmn		<i>ta:ʔmnas</i> FS /ta:ʔmn-as/ ‘he and Rabbit’	
ʔnt		<i>tqaʔnt</i> FS /tqaʔnt/ ‘rock’	
ʔnc		<i>maʔntsai</i> FS /maʔnsay/ ‘beetle’	<i>ku:ʔnts</i> FS /ku:ʔns/ ‘dentalia shell’
ʔnk		<i>naʔnkānik</i> FS /naʔnkanik/ ‘never mind’	
ʔntʰ		<i>haʔnaʔntʰáyatsik</i> FS /haʔnaʔntʰaya-c-ik/ ‘if I run out of arrows’	
ʔnf		<i>taʔnfak</i> FS /taʔnf-a-ik/ ‘(I am) having teeth’	<i>taʔnf</i> FS /taʔnf/ ‘tooth’
ʔnh		<i>kluʔnhaʔst</i> FS /k-luʔ-n-ha-ʔs-t/ ‘she runs’	
ʔnw		<i>hisi:wluʔnwi</i> FS /hi-s-i:w-luʔ-n-wi-i/ ‘someone runs’	

ʔŋt		<i>yuʔŋti</i> FS /yuʔŋti/ 'in the doorway'	
ʔwy		<i>laʔwyak</i> FS /laʔwi-a-ik/ '(I am) having a head'	
fpq		<i>si:fpqaʔsk</i> FS /s-i:f-pqa-ʔs-k/ 'I split it open'	
ftk		<i>si:ftkinniʔsk</i> FS /s-i:f-tkini-ʔs-k/ 'I stretch it out'	
ftq		<i>i:ftqŋgisint</i> FS /i:f-tqin-ki-sint/ 'cover'	
ftk'		<i>si:ftk'ais</i> FS /s-i:ftk-ʔay-s/ 'smallpox'	
fks			<i>sāfks</i> FS /safks/ 'tree limb'
fqt		<i>si:fqtāpiʔsk</i> FS /s-i:f-qtapi-ʔs-k/ 'I break it with an axe'	
fql		<i>i:fqlingtsi</i> FS /ifqlŋ-ci-i/ 'poor'	
fsp		<i>faiʔsu:fspaʔ</i> FS /fay-cu:f-s-paʔ/ 'fork'	
flq		<i>iflqaʔpʰs</i> JH /iflqaʔps/ 'basket'	
spt		<i>misptām:a</i> FS /mis-ptā-m-a-ʔ/ 'looking down'	
sps		<i>hispsúksi</i> FS /hi-s-psuk-s-i/ 'someone was stinking'	<i>ta:sps</i> FS /ta:sp-s/ 'comb'
spt		<i>sisptiʔsk</i> FS /sis-pti-ʔs-k/ 'I am sleepy'	
spl		<i>misplaisi</i> FS /mis-playʔ-s-i/ 'he looked back'	
spy		<i>hispyaʔt</i> FS /hi-s-pya-ʔ-t/ 'she was killed'	
stp		<i>histpáissik</i> FS /hi-s-tpayʔ-s-ik/ 'I was sent'	
stk		<i>hāstkú:lukslən</i> FS /ha-s-tku:-luk-sla-in/ 'you will not fight'	
stq		<i>histquslan</i> FS /hi-s-tqu-sla-in/ 'you will be named'	
stp ^h		<i>pʔastp^ha</i> FS /pʰa-stp ^h a/ 'you must eat'	
stn		<i>mistmímhaʔsk</i> FS /mis-tnim-ha-ʔs-k/ 'I watch him'	

stw		<i>hástwinpa:slak</i> FS /ha-s-twinpa:-sla-ik/ ‘I will tell myself’	
sty		<i>histyá:tqtsk</i> FS /hi-s-tya:tq-c-k/ ‘I was overtaken’	
scy		<i>sqástsyani</i> FS /sqa:s-s-ya:n-i/ ‘they cried’	
sɬw		<i>psk’úsɬwank</i> FS /psk’us-l-wan-k/ ‘let’s shut our eyes’	
skp		<i>tú:skpaɬ</i> FS /tu:sk-paɬ/ ‘roasting stick’	
skn		<i>q’sánya:skna</i> FS /qsanya:skna/	
skl		<i>kliskliswai</i> FS /klis-klis-way/ ‘bright’	
sky		<i>haskyássi</i> FS /ha-s-kya-s-i/ ‘they gathered’	
sqp		<i>wisqpitissi</i> FS /lwisq-pity-s-i/ ‘he came to’	
sqt		<i>sti:sqtapi?sk</i> FS /s-ti:s-qtapi-?s-k/ ‘I break it with a knife’	
sqs		<i>wisqsi</i> FS /lwisq-s-i/ ‘he noticed her’	<i>qásqs</i> FS /qasqs/ ‘chipmunk’
sqw		<i>qílwisqwi</i> FS /q-i-lwisq-wi-i/ ‘he would sense them’	
sql	<i>sqló:ka?sk</i> FS /s-qlu:k-ha-?s-k/ ‘I cook it on rocks’		
sfk		<i>hískissi</i> FS /hi-s-fki-s-i/ ‘when he is stabbed’	
slp		<i>stislpáqa?sk</i> FS /s-tis-lpaq-ha-?s-k/ ‘I slap him’	
ltp		<i>háltpulha?sk</i> FS /halt-pulha-?s-k/ ‘I walk through’	
ltk		<i>háltkina?sya:nt</i> FS /halt-ky-na-?s-ya:n-t/ ‘(several) are walking’	<i>wiltk</i> FS /wiltk/ ‘Mt. St. Helens’
ltq		<i>swiltqaqi</i> FS /s-wilt-tqa-qy-i/ ‘they would urinate on it’	
ltn		<i>kitultni?st</i> FS /kitultni-?s-t/ ‘it is boiling’	
ltw		<i>háltwálayassi</i> FS /halt-wala?ya-s-i/ ‘he arrived walking’	

łtl		<i>hăłtlá:tinhaʔsk</i> FS /hałt-la:tn-ha-ʔs-k/ 'I walk out'	
łck			<i>stăłatsk</i> FS /s-tat-lał-c-k/ 'I cut it up'
łcl		<i>qlı:qatıslak</i> FS /qli:q-ał-sla-ik/ 'I will grow up'	
łkt			<i>lı:łkt</i> FS /li:łkt/ 'edge'
łks		<i>swalksaʔsk</i> FS /s-walksa-ʔs-k/ 'I fold it'	
łkl		<i>tpăłklasint</i> FS /tpăłkl-a-sint/ 'dangerous thing'	
łky		<i>păłkya</i> FS /păłki-a/ 'pine squirrel (accusative)'	
łqs		<i>súŋ^hwa:lqsa</i> FS /sʔunfałqs-a/ 'crayfish (accusative)'	<i>šʔúŋhwăłq^hs</i> JY /sʔunfałqs/ 'crayfish'
łql		<i>sipılqlukaʔsk</i> FS /s-i-pılq-luk-ha-ʔs-k/ 'I spoil it'	
łqy		<i>swăłqyapa</i> FS /s-wăłqyap-a-ʔ/ 'carrying under the arms'	
mpk		<i>săqampkin</i> FS /se:qampkin/ 'widow(er)'	<i>nimpk</i> FS /ni-mpk/ 'this (INSTR)'
mpq		<i>tămpqat</i> FS /taŋ-pqa-ʔ-t/ 'it cracked'	
mps		<i>limpsá:s</i> FS /limpse:s/ 'spirit'	
mtq		<i>sımtqa</i> FS /sımtqa/ 'open your mouth!/'	
mtn		<i>kımtnan</i> FS /kım-t-nan/ 'you(plural) also'	
mct			<i>mhi:wtó:tqımtst</i> FS /m-i:w-tu:-tqıtm-c-t/ 'he came to you'
mck			<i>patıátqımtsk</i> FS /pati-taqıtm-c-k/ 'I jump[ed] towards him'
mcm		<i>tó:tqımtsmi</i> FS /tu:-tqıtm-c-m-a/ 'you came to me'	
mql			<i>múšlamq^hl</i> JY /mus-lamqł/ 'deer hoof'
mʔs		<i>təmʔsuslak</i> FS /t ^h amʔsu-sla-ik/ 'I will get lost'	
mst		<i>námstama</i> FS /namstama/ 'for the first time'	<i>ná:amst</i> FS /naʔamst/ 'all night'
msă		<i>lôqumsăassi</i> FS /luq-mst-ă-a-s-i/ 'he spat on it'	
msk		<i>yá:yamska</i> FS /ya:y-amska/ 'bachelor'	

mst'		<i>la:mst'áuya</i> FS /la:mst'awy-a/ 'leave him alone!'	
msm		<i>nitwámsmi</i> FS /n-i-twam-s-m-i/ 'when he asks me'	
msn		<i>kimsnan</i> FS /kims-nan/ 'we(dual) also'	
msl		<i>tmúlimslak</i> FS /tmulm-sla-ik/ 'I will think'	
msy		<i>twamsyá:ni</i> FS /twam-s-ya:n-i/ 'they asked him'	
młq		<i>tmúlimłqask</i> FS /tmulm-łqa-łs-k/ 'I am thinking about him'	
npl		<i>tqánplunks</i> FS /tqanplunks/ 'house-pit'	
ntk		<i>kunkilqałsya:nt</i> FS /kunt-ky-lqa-łs-ya:n-t/ 'they are lying around'	<i>nangantk</i> FS /naŋantk/ 'that long'
ntq		<i>hápinfintqałsk</i> FS /ha-pin-fin-tqa-łs-k/ 'I throw myself on him'	
ntn		<i>stisptyantniłsk</i> FS /s-tis-ptyan-tni-łs-k/ 'I push it while I am walking'	
nty		<i>tapántya:nt</i> FS /tape:n-t-ya:n-t/ 'they bought it'	
nep		<i>tapántspałftimt</i> FS /tape:n-s-pałft=timt/ '[at the] market'	
nct		<i>stó:kitantstak</i> FS /s-tu:-ky-tan-stak/ 'I threw them out'	<i>lá:tintst</i> FS /la:tn-c-t/ 'it went out'
nck		<i>ántskat</i> FS /ansk-at/ 'from how far?'	<i>ńingantsk</i> FS /niŋansk/ 'since then'
ncm		<i>híntsmá</i> FS /hinsm-a/ 'pigeon (accusative)'	
ncn		<i>píntsnan</i> FS /pin-s-nan/ 'him/her too'	
ncw		<i>tapántswa</i> FS /tape:n-c-wa/ 'we(dual) bought it'	
ncl		<i>lá:tintslan</i> FS /la:tn-sla-in/ 'you will go out'	
ncy		<i>á:híntsyá:ni</i> FS /ahin-s-ya:n-i/ 'they agreed'	
nłq		<i>si:xwinłqatsk</i> FS /s-i:f-fin-lqa-c-k/ 'I threw it at him'	
nłn		<i>háyanłni</i> FS /hayanłni/ 'in a hurry'	

nɬw		<i>kpaistáuinLwank</i> FS /q-pay-s taw-n-t-wan-k/ ‘let us(dual) go and kill them’	
nʔw		<i>tänʔwaqs</i> FS /tanʔwaqs/ ‘ashes’	
ŋck		<i>taŋtskingitst</i> FS /taŋ-ckinki-c-t/ ‘it is lost’	<i>si:wɪkastangtsk</i> FS /s-i:w-tla-s taŋ-c-k/ ‘I followed right away’
ŋkt			<i>tuŋkʰtʰ</i> JY /tuŋkt/ ‘small lizard’
ŋks		<i>sqénkslak</i> FS /s-tqan̄k-sla-ik/ ‘I’ll bury it’	<i>hášwindankʰs</i> JY /haswindan̄k-s/ ‘cane’
ŋkn		<i>qən:anknan</i> FS /qan-an̄k-nan/ ‘ours also (?)’	
ŋkw		<i>ankwi</i> FS /an̄k-wi-i/ ‘what kind?’	
ŋkl		<i>tó:hinklunhaʔsk</i> FS /tu:-hin̄klun-ha-ʔs-k/ ‘I go to lie down alongside of her’	
ŋqt		<i>tāŋqtápiʔst</i> FS /taŋ-qtapi-ʔs-t/ ‘it breaks’	
ŋk’y		<i>yún̄k’yu:ɬ</i> JY /yunk’yu:ɬ/ ‘testicles’	
ŋft		<i>han̄fta:n</i> FS /han̄ft-a-in/ ‘(you are) having a nest’	<i>han̄ft</i> FS /han̄ft/ ‘nest’
ŋsm		<i>lāŋsmat</i> FS /laŋs-m-at/ ‘hither, from the land’	
ŋsl		<i>sɪkastangslak</i> FS /s-it-tla-s taŋ-sla-ik/ ‘I will take him along right away’	
ŋsw		<i>húlāŋswi</i> JY /hu:-laŋs-wi-i/ ‘of long ago’	
ŋlk		<i>wāŋgłki</i> FS /wan̄ł-ki-ʔ/ ‘strung up’	
ŋłw		<i>tāŋłwi</i> FS /taŋ-ł-wi-i/ ‘it always comes off’	
wtq		<i>áutqaʔsk</i> FS /ʔaw-tqa-ʔs-k/ ‘I call for him’	
wtn		<i>sʔautni:ʔsk</i> FS /sʔaw-tni-ʔs-k/ ‘I talk while moving’	
wqt		<i>qáuqtapiʔsk</i> FS /qaw-qtapi-ʔs-k/ ‘I break it with my teeth’	
wqł		<i>qauqlá:masint</i> FS /qaw-qła:m-a-sint/ ‘fruit, nuts’	
wqy		<i>qláuqyat</i> FS /q-law-qya-ʔ-t/ ‘he almost saw them’	

wʔt		yáuʔtak FS /yawʔta-ik/ ‘(I am) active’	
wʔi		tauʔlaʔsk FS /tawʔla-ʔs-k/ ‘I rob him’	
wsp		láuspak FS /laws-p-ak/ ‘spirit-power (INSTR)’	lausp ^h FS /laws-p/ ‘spirit-power’
wst		mláustak FS /m-law-sta-k/ ‘I saw you’	qláust FS /q-law-s-t/ ‘he saw them’
wsc		taláustsi FS /talaws-s-i/ ‘he gave him spirit-power’	
wsʔ		sí:wsʔiti FS /si:wst-lit-a-ʔ/ ‘made to hang down’	
wsk		sqá:uskaʔsk FS /s-qa:wsk-a-ʔs-k/ ‘I wrap up a dead body’	
wsq		háidala:usqáyi FS /haytalaws-qay-i/ ‘they call on their spirit-power’	
wsf		sə́úsfaí FS /sʔaw-s-fa-i/ ‘mute’	
wsm		áusmi FS /ʔaw-s-m-i/ ‘she called to him’	
wsu		qláuswank FS /q-law-s-wan-k/ ‘we(dual) saw them’	
wsł		sʔáuslai JH /sʔaw-sla-i/ ‘he talked [will talk?]’	
wsy		áussya:ni FS /ʔaw-s-ya:n-i/ ‘they were hollering’	
wnp			sáunp ^h FS /sawnp/ ‘creek’
wnq		sqáunqik FS /s-qa-wn-q-ik/ ‘we(dual) can do it’	
wln		hatqáulnismi FS /hatqawl-ni-s-m-i/ ‘it was rolling’	
lpk		tó:lpkissi FS /tu:-lpki-s-i/ ‘he met him’	
lps			t’u:lp ^s FS /t’u:lp-s/ ‘ring’
lph		t’ú:lphássik ^h JY /t’u:lp-ha-s-ik/ ‘I put on the ring’	
ltq		ʔáltqaʔsk FS /ʔal-tqa-ʔs-k/ ‘I laugh at him’	

ltw		<i>sí:piltwanhaʔsk</i> FS /s-i:piltwaʔn-ha-ʔs-k/ 'I trade it'	
lct		<i>tilstak</i> FS /til-sta-k/ 'I was gone'	<i>tilst</i> FS /til-c-t/ 'it went'
lck			<i>tpaiʔtítaltsk</i> FS /tpayʔ-tital-c-k/ 'I sent him back'
lcm		<i>tiltsmi</i> FS /til-s-m-i/ 'he came'	
lcl		<i>ktiltslən</i> FS /k-til-sla-in/ 'you will go'	
lcy		<i>tiltsya:ni</i> FS /til-s-ya:n-i/ 'they left'	
lqs		<i>silqsilq</i> FS /silqsilq/ 'porcupine'	
lqł		<i>tápilqłtaʔsk</i> FS /tapilq-ła-ʔs-k/ 'I ask for damages'	
lqn		<i>púlqniʔsk</i> FS /pulqni-ʔs-k/ 'I put shoes on'	
lql		<i>kilqláhi</i> FS /kilqlah-i/ 'a brave man'	
lqy		<i>hato:lqyaʔsk</i> FS /ha-tu:lqya-ʔs-k/ 'I scratch myself'	
lfp'		<i>waipalfp'ai</i> FS /waypalf-p'a-i/ 'trout-eating'	
lłw		<i>tilhwa</i> FS /til-l-wa/ 'let us(dual) go'	
ytk		<i>qaitkuʔsk</i> FS /q-ay-tku-ʔs-k/ 'I shoot them'	
ytn		<i>fáitnimhaʔsk</i> FS /fay-tnim-ha-ʔs-k/ 'I hold my spear ready to throw it'	
yct			<i>páitst</i> FS /pay-c-t/ 'she finished it'
yck		<i>qnáitskiqui</i> FS /qnaycki-qy-i/ 'they disappeared'	<i>qpaitsk</i> FS /q-pay-c-k/ 'I have killed them'
ycm		<i>npaitsmis</i> FS /n-pay-c-m-is/ 'if he kills me'	
ykp		<i>paikpataʔsk</i> FS /payk-pat-ha-ʔs-k/ 'I step in'	
ykt		<i>paiktinhaʔsk</i> FS /payk-tin-ha-ʔs-k/ 'I step out'	<i>fáikt</i> FS /faykt/ 'at one end'
ykc		<i>táiktsəmk</i> FS /tayk-c-m-k/ 'I came across'	
yks		<i>táiksi</i> FS /tayk-s-i/ 'he went across'	<i>háiks</i> FS /hayks/ 'and then'

ykt		<i>paiklitaʔsk</i> FS /payk-hit-ha-ʔs-k/ 'I step down'	
ykm		<i>npáihakmi</i> FS /n-pay-ha-yk-m-i/ 'having killed me'	
ykn		<i>lúyaikniqi</i> FS /luya-yk-ni-qy-i/ 'because they want it'	
ykw		<i>táikwa:nəm</i> FS /tayk-wan-m/ 'come over! (dual)'	
yky		<i>paikyiʔsk</i> FS /payk-yi-ʔs-k/ 'I step ashore'	
yqt		<i>páiq^htapiʔst</i> FS /payk-qtapi-ʔs-t/ 'he broke [breaks] it by stepping on it'	
yqs		<i>láiqsa</i> FS /layqs-a/ 'mosquito (accusative)'	<i>láiqs</i> FS /layqs/ 'mosquito'
yqy		<i>sipláiqyimmi:wik</i> FS /s-i-playʔ-qyi-mi-wi-ik/ 'I always come near turning back' (perh. /yʔqy/)	
yʔp		<i>tpayʔpatihaʔsk</i> FS /tpayʔ-paty-ha-ʔs-k/ 'I send him back'	
yʔt		<i>láwa:iʔtuk</i> FS /laway-ʔtuk-k/ 'I left him'	
yʔc		<i>tpaiʔtsa</i> FS /tpayʔ-c-a/ 'you sent him'	
yʔk		<i>tmaiʔkisint</i> FS /tmayʔk-a-sint/ 'letter'	
yʔs		<i>tpaiʔssi</i> FS /tpayʔ-s-i/ 'he sent him'	<i>tǎ:lqäplaiʔš</i> JY /te:-lqa-playʔ-s/ 'mole'
yfq			<i>aifq</i> FS /ayfq/ 'people'
yst			<i>qp^háist</i> FS /q-pay-s-t/ 'it kills them'
ysc		<i>paqaistsi</i> FS /paqay-sci-i/ 'from one side'	
ysf		<i>qpáisfak</i> FS /q-pay-s-fa-ik/ '(I am) not killing'	
ysm		<i>npatiwaismi</i> FS /n-pati-way-s-m-i/ 'he outjumped me'	
ysl		<i>mbáislak</i> FS /m-pay-sla-ik/ 'I'll kill you'	
yʔf		<i>háifikkassumi</i> FS /hayʔfika-s-un-i/ 'they(dual) lay in wait for him'	

yln		<i>wayikhailniʔsk</i> FS /way-ik-hayni-ʔs-k/ ‘I swim upstream’	
ymn		<i>qtáimnat</i> FS /q-taymna-ʔ-t/ ‘he stopped them’	
ync			<i>pskáints</i> FS /pskayns/ ‘beard’
ynw		<i>táinwai</i> FS /tayn-way/ ‘strong’	
ylm		<i>tá:ilmisint</i> FS /ta:ylmisint/ ‘stockings’	
Four-Consonant Sequences			
pstq		<i>kú:pstqaʔsk</i> FS /ku:pstqa-ʔs-k/ ‘I pick out’	
tqck			<i>histyá:tqtsk</i> FS /hi-s-tya:tq-c-k/ ‘I was overtaken’
tqsn		<i>kitqsníʔsk</i> FS /kitqsní-ʔs-k/ ‘I have diarrhea’	
tqsy		<i>tya:tqsya:ni</i> FS /tya:tq-s-ya:n-i/ ‘they were gaining on him’	
kpst		<i>snikpstqaʔsk</i> FS /s-nik-pstaqa-ʔs-k/ ‘I twist his mouth’	
kstk		<i>snikstkiʔsk</i> FS /s-nik-st-ki-ʔs-k/ ‘I hang it up’	
ksty		<i>snikstyamhaʔsk</i> FS /s-nik-st-yam-ha-ʔs-k/ ‘I boil it’	
qptq		<i>slóqptqassi</i> FS /s-luq-ptqa-s-i/ ‘he tied it on’	
qstk		<i>slóqstkiʔsk</i> FS /s-luq-st-ki-ʔs-k/ ‘I hang him’	
qscy		<i>isinta:tuqstsya:nts</i> FS /isintatuqs-s-ya:n-s/ ‘if they tell stories’	
ʔpsw		<i>pa:ʔpswai</i> FS /paʔ-ps-way/ ‘good (distributive)’	
ʔtkn		<i>tpaʔtkna</i> FS /tpa-ʔtk-n-a/ you (plural) heard it’	
ʔtkw		<i>tpaʔtkwan</i> FS /tpa-ʔtk-wan/ ‘they (dual) heard it’	
ʔqty		<i>ti:ʔqtyani</i> FS /ti:ʔq-t-ya:n-a/ ‘you (plural) have become’	

ʔqct			<i>ti:ʔqtst</i> FS /ti:ʔq-c-t/ ‘it has come to be’
ʔqck			<i>ti:ʔqtsk</i> FS /ti:ʔq-c-k/ ‘I have become’
ʔqsl		<i>ti:ʔqslak</i> FS /ti:ʔq-sla-ik/ ‘I will grow old’	
ʔqsy		<i>i:ti:ʔqsyamk</i> FS /i-ti:ʔq-s-yamk/ ‘we were making it become’	
ʔfsʔ		(?) <i>səaʔfsəaʔfwai</i> FS /sʔaʔf-sʔaʔf-way/ ‘soft’	
ʔstq		<i>sto:ʔstqaʔsk</i> FS /s-tu:ʔstqa-ʔs-k/ ‘I wake him up’	
ʔstw		<i>tqó:psaʔstwiʔsk</i> FS /tqu:p-saʔstwi-ʔs-k/ ‘I taste different things to see how they taste’	
ʔsqp		<i>päʔsqbiptissi</i> FS /pe:ʔsq-pipti-s-i/ ‘she kept hiding herself’	
ʔsqs		<i>pä:ʔsqsi</i> FS /pe:ʔsq-s-i/ ‘he hid himself’	
ʔsqw		(?) <i>päsquwik</i> FS /pe:ʔsq-wi-ik/ ‘I always hid myself’	
fpty		<i>i:fptyasint</i> FS /i:f-ptya-sint/ ‘collar’	
fplq		<i>si:fplqu:ʔsk</i> FS /s-i:f-plqu-ʔs-k/ ‘I break it’	
sptq		<i>stisptqálkaʔsk</i> FS /s-tis-ptqálka-ʔs-k/ ‘I plaster mud on wall’	
spty		<i>stisptyanhaʔsk</i> FS /s-tis-ptya-n-ha-ʔs-k/ ‘I push him’	
spsn		<i>tispsni:ʔsəm</i> FS /tis-psni-ʔs-m/ ‘(wind) blows’	
sqsn		<i>stisqsnish</i> FS /s-tis-qsnish-ʔs-k/ ‘I rub it off’	
sqsl		<i>häsílu:isqslak</i> FS /ha-s-lwisq-sla-ik/ ‘I will feel it’	
sqsy		<i>wisqsyá:ni</i> FS /lwisq-s-ya:n-i/ ‘they noticed him’	
łptq		<i>tkálptqat</i> FS /tkalp-tqa-ʔ-t/ ‘it stuck on’	

łtpl		<i>háłtplaissi</i> FS /halt-playʔ-s-i/ 'he walked back'	
łtkš		<i>háłtksiʔsk</i> FS /halt-tksi-ʔs-k/ 'I walk home'	
łqst		<i>kitwa:łqstuʔsk</i> FS /kitwa:łqstu-ʔs-k/ 'I am shining'	
mpsp		<i>himpšpaʔ</i> FS /himp-s-paʔ/ 'mortar'	
mtqw		<i>támtqwai</i> FS /tamtq-way/ 'mush'	
mʔsk		<i>kyámʔskusint</i> FS /kyamʔskusint/ 'candy'	
mstp		<i>loqúmstpataʔsk</i> FS /luqumst-pat-ha-ʔs-k/ 'I spit down'	
mstq		<i>loqúmstqassi</i> FS /luqumst-tqa-s-i/ 'she spat on him'	
mstn		<i>loqúmstniʔsk</i> FS /luqumst-ni-ʔs-k/ 'I spit'	
nctp ^h		<i>łuntstp^ha</i> FS /luʔ-n-stp ^h a/ 'you must run' (ʔnctp ^h ?)	
ŋpty		<i>tánptyanhaʔsk</i> FS /taŋ-ptyan-ha-ʔs-k/ 'I lose'	
ŋplq		<i>taŋplqu:ʔst</i> FS /taŋ-plqu-ʔs-t/ 'it breaks'	
ŋksl		<i>sqénkslak</i> FS /s-tqaŋk-sla-ik/ 'I will bury it'	
ŋłct			<i>tánłtst</i> FS /taŋ-l-c-t/ 'it has come off'
ŋłcl		<i>tánłtslai</i> FS /taŋ-l-sla-i/ 'it will come off'	
wpty		<i>śi:wptyenhaʔsk</i> FS /s-i:w-ptya-n-ha-ʔs-k/ 'I knock him down'	
wpsk'		(?) <i>śi:wpskúsaʔsk</i> FS /s-i:w-psk'us-ha-ʔs-k/ 'I close his eye'	
wqłn		<i>śi:wqłni</i> FS /s-i:w-qłni-ʔ/ 'following behind him'	
wstq		<i>śi:wstqa</i> FS /si:wst-tqa-ʔ/ 'hanging down'	
wscm		<i>taláustsmi</i> FS /talaws-s-m-i/ 'he gave me spirit-power'	

włcl		<i>hisnāwłtslan</i> FS /hi-s-nawł-sla-n/ ‘you will be disbelieved’	
lctp ^h		<i>tilstp^ha</i> FS /til-stp ^h a/ ‘you must go’	
yptk		<i>swáiptkaʔsk</i> FS /s-faypt-ka-ʔs-k/ ‘I plant it’	
ypty		<i>swáipyəʔaʔsk</i> FS /s-fay-ptya-tla-ʔs-k/ ‘I shove it away with a pole’	
ypsqa		<i>haipsqaʔsk</i> FS /haypsqa-ʔs-k/ ‘I hide (my knowledge of something)’	
ytqt		<i>wáitqtimhaʔsk</i> FS /way-tqtim-ha-ʔs-k/ ‘I swim towards him’	
ykpl		<i>paikplaihaʔsk</i> FS /payk-playʔ-ha-ʔs-k/ ‘I step back’	
yktw		<i>táiktwi</i> FS /tayktwi/ ‘anywhere’	
ykck			<i>sníkitaiktsk</i> FS /s-nik-itayk-c-k/ ‘I pull[ed] it out’
yksp		<i>tatáikspaʔ</i> FS /tatayk-s-paʔ/ ‘match’	
yksm		<i>ktáiksmi</i> FS /k-tayk-s-m-i/ ‘she was coming across’	
yksw		<i>laʔlaikswi</i> FS /laʔlayks-wi-i/ ‘middle-sized’	
yksy		<i>táiksyamni</i> FS /tayk-s-yamn-i/ ‘they came across’	
ykłc		<i>hispáikłtsi</i> FS /hi-s-payk-l-c-i/ ‘if it were stepped on’	
yʔtk		<i>yaiʔtka</i> FS /yay-ʔtk-a/ ‘men (accusative)’	<i>yaiʔtk</i> FS /yay-ʔtk/ ‘men’
yʔtq		<i>pu:iʔtqaʔsk</i> FS /p’u:yʔ-tqa-ʔs-k/ ‘I smile at him’	
yʔck			<i>tpaiʔtsk</i> FS /tpayʔ-c-k/ ‘I sent him’
yʔks		<i>tmaiʔksam</i> FS /tmayʔk-s-am/ ‘letter (GEN)’	<i>tmaiʔks</i> FS /tmayʔk-s/ ‘letter’
yʔst			<i>tpaiʔst</i> FS /tpayʔ-s-t/ ‘he sent him’
yʔsl		<i>nitpaiʔsla:mi</i> FS /n-i-tpayʔ-sla-m-i/ ‘he will send me’	

ynɛp		<i>sa:ɪntspaʔ</i> FS /sa:ɪnspaʔ/ ‘mat’	
Five-Consonant Sequences			
ʔɲksp		<i>šmāʔɲkʰspatʃ</i> JY /smaʔɲk-s-paʔ/ ‘pen, pencil’	
mtqck			<i>si:fiʔamtqtsk</i> FS /s-i:f-tamtq-c-k/ ‘I smash[ed] it up’
ncqsw		<i>tu:ntsqsɰäktʃluyai</i> FS /tu:nsqswakʃ-s luya-i/ ‘interpreter’	
ɲʌqst		<i>tāɲʌqstut</i> FS /taɲ-ʌqstu-ʔ-t/ ‘he went blind’	
yʌkck			<i>pāiktʃsk</i> FS /payk-ʌ-c-k/ ‘I step[ped] on it’
yʔksp		<i>tmaiʔkspaʔ</i> FS /tmaiʔk-s-paʔ/ ‘ink’	

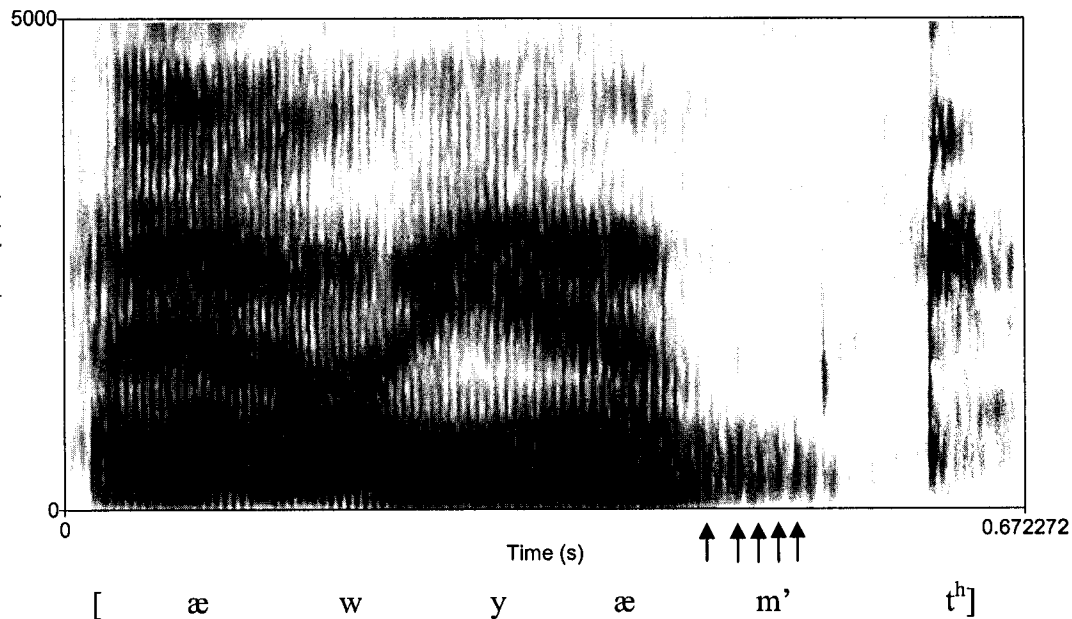
2.1.4. Glottalized Resonants?

The consonant sequences listed above include a great number which combine a resonant consonant (/m n ɲ w l y/) with a preceding or following glottal stop. Contrastively glottalized resonant phonemes are found in Sahaptian, to the east of Molalla;¹⁴ in Klamath, to the south; and in the Salish languages, to the north. Thus, it seems quite reasonable to hypothesize that many or all of the Rʔ and ʔR “sequences” above actually represent phonemically glottalized resonants. Figure 2.1 shows a broadband spectrogram of the form /ʔawʔ=yaʔmt/ ‘where?’ from the Swadesh recording. Note the slow glottal pulses during the closure for the *m*, indicative of the creaky voicing characteristic of certain types of glottalized nasal consonants (Ladefoged & Maddieson 1996:106-110). While I consider it quite likely that Molalla had a series of distinctively

¹⁴ Sahaptin, spoken immediately to the east of Molalla, lacks glottalized resonants, but they are present in the other Sahaptian language, Nez Perce, and are likely reconstructable for Proto-Sahaptian.

glottalized resonant consonants, for the purposes of the present work I will conservatively retain the notation used in the original sources.

Figure 2.1: Broadband Spectrogram of /ʔawʔ=yaʔmt/ ‘where?’, Showing Slow Glottal Pulses (Arrows) During Closure for /m/



2.2. Phonological Processes

2.2.1. Stop Voicing

The plain stop consonants are frequently phonetically voiced when they appear after a nasal, /l/, or /y/ and before a vowel. The same process occasionally occurs intervocally as well. Figure 2.2 shows the item /wal-ki-s-i/ ‘s/he fell down’ from the Swadesh recording. Note the voicing during the stop closure for the /k/. Though it is rarely recorded in the sources, my acoustic examination of the Swadesh recording has additionally revealed prevoicing in some initial stops. Compare Figure 2.3 and Figure 2.4, which show the two tokens of the item *puwi* ‘belly’. In Figure 2.3, voicing is coincident with the stop release; but in Figure 2.4, significant prevoicing is evident

(marked by the arrow). Phonologically, the plain stop consonants are probably best analyzed as contrastively unaspirated and unglottalized but indifferent as to voicing.

Figure 2.2: Broadband Spectrogram of /walkisi/ ‘s/he fell down’, Showing Voicing During Closure for /k/

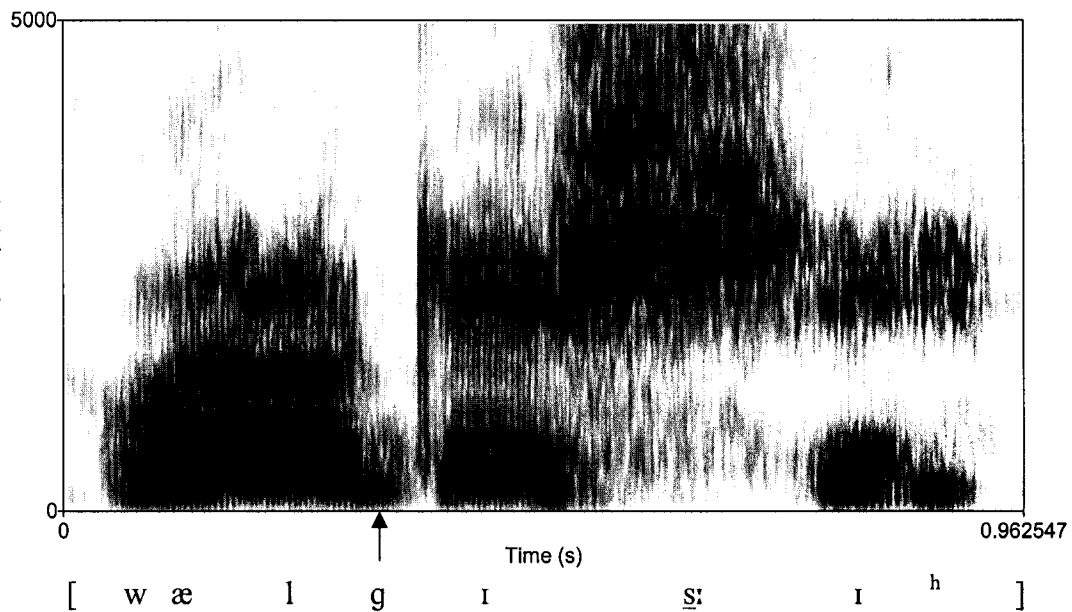


Figure 2.3: Broadband Spectrogram of /puwi/ ‘belly’

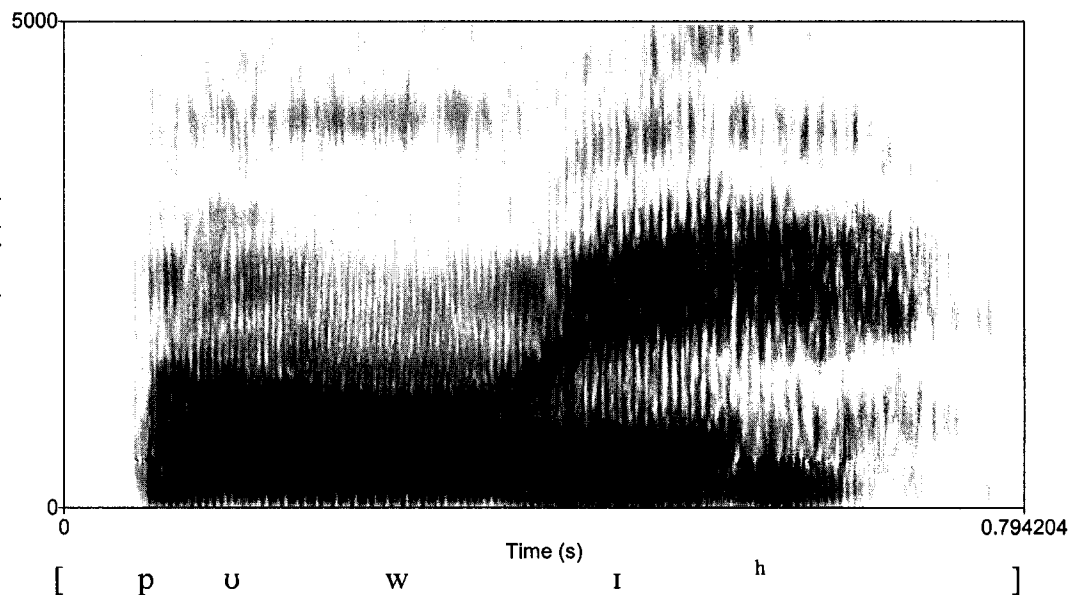
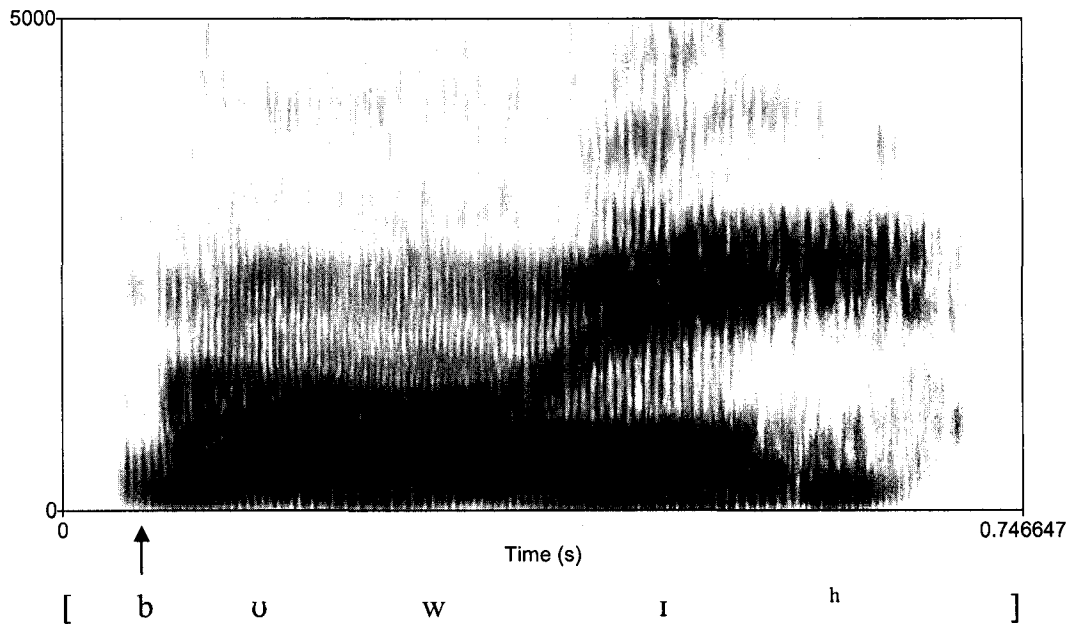


Figure 2.4: Broadband Spectrogram of Second Token of /puwi/ ‘belly’, Showing Voicing (Arrow) During Closure for Initial /p/



2.2.2. Consonant Gemination

Single non-ejective consonants tend to geminate between vowels. This tendency is strongest when the preceding vowel is stressed and when the following syllable is light (containing a short vowel and/or followed by no more than one consonant). The fricative /s/ also tends to geminate intervocalically and when it follows a consonant and precedes a vowel. Both these processes have parallels in the neighboring Klamath language (Barker 1964:22, 30).

2.2.3. Voicing of /f/ and /t/

In materials recorded by Jacobs, the bilabial fricative /f/ and the lateral fricative /t/ are regularly replaced by their voiced approximant counterparts [w] and [l] when they occur prevocally following an /s/ at the beginning of a word; that is:

7. /f t/ -> [w l] / #s_V.

See 8 and 9.

8. šluqúmlusinkiʔšk^h JY
 Ø-s-luq-mlus-n-ki-ʔs-k
 3SG.O-MASC-tying-go.around-along-in.place-PRES-1.S
 ‘It tie it, the rope, around it and draw it tight’ (B35MY:20b)
9. swáip^ht^hkássi JY
 Ø-s-faypt-ka-s-i
 3SG.O-MASC-plant-in.place-D.IPV-3.S
 ‘he stuck in a stake; he planted a tree’ (B34MY:1a)

This process is also evident in the Frachtenberg materials, but applies somewhat less categorically. Most roots beginning with /f/ shift to [w] when an /s/ precedes:

10. swáiptkaʔsk FS
 Ø-s-faypt-ka-ʔs-k
 3SG.O-MASC-plant-in.place-PRES-1.S
 ‘I plant it’ (Notes to XI:2:13)
11. swátataʔsk FS
 s-fatat-ha-ʔs-k
 MASC-dance-PSF-PRES-1.S
 ‘I am dancing’ (Notes to II (Part 1):11:4)

The following two roots appear not to do so, though it is difficult to be completely sure, as each is recorded only once in the relevant environment:

12. sfátaʔsk FS
 Ø-s-fe:t-ha-ʔs-k
 3SG.O-MASC-peel-PSF-PRES-1.S
 ‘I peel it’ (Notes to XVIII:4:8)
13. tsfáyuʔaʔsəm FS
 n-s-fayut-ʔa-ʔs-m-Ø
 1SG.O-MASC-precipitate-down.onto-PRES-CIS-3.S
 ‘it snows on me’ (Notes to V:3:5)

The morpheme {ħuq-} ‘tie’ is the only morpheme beginning with /ħ/ that appears immediately after /s/ at the beginning of a word. While in Jacobs’s materials this morpheme consistently shows the change from /ħ/ to [l], Frachtenberg records this change only sporadically (compare 14 and 15).

14. sló:qptqaʔsk FS
 Ø-s-ħuq-ptqa-ʔs-k
 3SG.O-MASC-tie-attach-PRES-1.S
 ‘I tie it (up)’ (Notes to VI:13:15)

15. slóqptqassi FS
 Ø-s-ħuq-ptqa-s-i
 3SG.O-MASC-tie-attach-D.IPV-3.S
 ‘he tied it on’ (VI:86)

Note, also, that the only two times the underlying initial sequence /qf/ appears in the corpus, it is transcribed [qw]:

16. qwaiʔtsk FS
 q-fay-c-k
 NSG.O-devour-R.PFV-1.S
 ‘I just ate them all up’ (IV:10)
17. qwíqi:q FS
 q-fik-aq-Ø
 NSG.O-spear-POT-3.S
 ‘he would spear you(pl.)’ (XII:219)

Recall that the phoneme /f/ is really a voiceless *w*. I suspect that in these two instances, Frachtenberg correctly perceived the voicelessness on the *w* but misattributed it to the voice-onset delay of the preceding stop. This effect would be enhanced with a dorsal stop, since dorsal stops have longer voice-onset times than other stops (Cho & Ladefoged 1999).

2.2.4. Sequences of Identical Consonants Across Morpheme Boundaries

In most instances, when a sequence of two identical consonants occurs across a morpheme boundary, the two are simplified to a single consonant:

18. qsf:wlapátissi FS
 q-s-i:w-lap-paty-s-i
 NSG.O-MASC-CAUS-go.in-back-D.IPV-3.S
 ‘he put them back in’ (VIII:93)
19. hí:witksismis FS
 hi-wit-tksi-s-m-is-Ø
 NTS-pack-homeward-CUST-CIS-DS-3.S
 ‘when someone would pack it home’ (N-V:12)
20. swa:ql̥mhassik FS
 Ø-we:q-ql̥mha-s-ik
 3SG.O-dig-make.hole-D.IPV-1.S
 ‘I dug holes’ (89:16:3)

The stop portion of the recent perfective suffix /-c/ will merge with a preceding /t/:

21. hápsqutst FS
 hapsqut-c-t
 be.finished-R.PFV-3.S
 ‘it is done’ (Notes to IV:10:4)

A /k/ will often merge with a /q/, the result being somewhat unpredictable:¹⁵

22. sníqifaʔsk FS
 Ø-s-nik-qi-fa-ʔs-k
 3SG.O-MASC-pull-peel-off-PRES-1.S
 ‘I peel off (e.g. bark off tree)’ (Notes to E-II:1:5)
23. sniktap:iʔsk FS
 Ø-s-nik-qtapi-ʔs-k
 3SG.O-MASC-pull-break-PRES-1.S
 ‘I break it by putting [pulling?] it down towards me’ (Notes to XVIII:4:10)

¹⁵ That is, the result on the page may be either a <k> or a <q>, and I have not yet found any obvious pattern to the distribution. To truly understand what is going on would require access to articulatory and acoustic information that we simply do not have.

Sometimes the merged consonant will be marked as geminated, but it is difficult to say whether the extra length represents the individual contributions of the underlyingly separate consonants or whether these are instances of regular gemination (see 24 and 25).

24. swit:ikiʔsk FS
 Ø-s-wit-tyki-ʔs-k
 3SG.O-MASC-pack-across-PRES-1.S
 ‘I pack it across’ (Notes to VII:6:10)
25. sí:finniʔsk FS
 Ø-s-i:f-fin-ni-ʔs-k
 3SG.O-MASC-glob.obj.-move.horiz.-away-PRES-1.S
 ‘I throw it (chunk)’ (Notes to III (Part I):6:2)

2.2.5. Dissimilation in Sequences of Apical Fricatives

An interesting set of exceptions to the processes outlined above occur where an /s/ meets an /s/ across a verb stem boundary (see Section 3.1.1 for discussion of what constitutes a stem). If a vowel or semivowel follows, the second /s/ will dissimilate to [c] (ssV -> scV). Compare 26 with 27-29.

26. sqá:sask FS
 [sqe:s-ha_{STEM}]-ʔs-k
 cry-PSF-PRES-1.S
 ‘I cry’ (89:15:51)
27. sqá:stsik FS
 [sqe:s_{STEM}]-s-ik
 cry-D.IPV-1.S
 ‘I cried some time ago.’ (89:15:51)
28. isíntatuqsaʔsk FS
 [isinta:tuqs-ha_{STEM}]-ʔs-k
 tell.story-PSF-PRES-1.S
 ‘I am telling him a story.’ (Notes to I (Part I):1:11)

29. isínta:tuqstsya:nts FS
 [isínta:tuqs_{STEM}]-s-ya:n-s-Ø
 tell.story-CUST-PL.S-DS-3.S
 ‘if they tell stories’ (XXII:§16:4)

On the other hand, when the two /s/’s are followed by a non-semivowel consonant, the two will merge into a single [c]—or, equivalently (given the level of precision attainable based on the available materials), the first /s/ will dissimilate to [t]. Compare 27 with 30 and 31.

30. sqá:tslak FS
 [sqe:s_{STEM}]-sla-ik
 cry-FUT-1.S
 ‘I am going to cry’ (89:15:51)

31. sqá:tstak FS
 [sqe:s_{STEM}]-sta-k
 cry-ITER-1.S
 ‘I cry right along’ (89:15:51)

It appears that these processes only operate across a stem boundary (that is, when the first /s/ is within the stem and the second /s/ is outside it). Where an /s/ follows an /s/ and both are stem-internal (as in 32) or stem-external (as in 33), the two /s/’s simply merge:

32. sqásaʔsnaʔt FS
 [sqe:s-saʔsna_{STEM}]-ʔ-t
 cry-PERS-D.PFV-3.S
 ‘he continued to cry’ (AGN:1:6)
33. luʔnhäʔs FS
 [luʔ-n-ha_{STEM}]-ʔs-s-Ø
 run-along-PSF-CTPR-DS-3.S
 ‘when he was running’ (Notes to I (Part 3):3:8)

Similar processes take place when /h/ follows /s/ or another /h/ across a stem boundary, though in these cases there are no examples with a following consonant:

34. psk'úsʌa FS
[psk'us_{STEM}]-t-a
close.eyes-FUT.IMP-2.S
'close your eyes!' (XXI:49)
35. šú:ʌʌ¹⁶ FS
Ø-s-[hu:t-_{STEM}]-t-a
3SG.O-MASC-build.fire-on.top-FUT.IMP-2.S
'heat up rocks [for a sweat-bath]!' (XIII:147)

2.2.6. Affrication of /s/ after /l/, /ʎ/, and /n/

When an /s/ follows an /l/, /ʎ/, or /n/, it is usually recorded as an affricate; see 36-

38. Presumably this is an effect of gestural timing: if the velum is raised (after /n/) or if the tongue reaches the sides of the mouth (after /l/ or /ʎ/) before the tongue tip is lowered to create the grooved stricture for the /s/, a brief, transient stop will necessarily result.

36. tpáʎkiltsi FS
tpáʎl-s-i
be.afraid-D.IPV-3.S
'he was afraid' (III:114)
37. sníʎʎʎtsi FS
Ø-s-nik-ʎʎ-s-i
3SG.O-MASC-pull-reduce.to.pieces-D.IPV-3.S
'he broke it up' (XI:32)
38. pínʎs FS
pin-s
3SG-ACC
'him/her' (X:23)

2.2.7. Hardening of Nasals

The nasals /m/ and /n/ surface as the corresponding oral stops [p] and [t] when they occur word-initially preceding /s/:

¹⁶ I am assuming that the double affricate is intended to indicate re-articulation, rather than a single affricate with a lengthened stop portion.

39. p^hšātimšātway JY
msat-msat-way
brown-CHAR-INAN.ADJ
'brown yellow (color of a bruise)' (B34MY:10a)
40. psíʔassi FS
m-s-it-tla-s-i
2SG.O-MASC-transport-away-D.IPV-3.S
'he took you along' (Notes to II (Part 1):7:1)
41. tsíʔasmi FS
n-s-it-tla-s-m-i
1SG.O-MASC-transport-away-D.IPV-CIS-3.S
'he took me along' (Notes to II (Part 1):6:26)

The same process occurs with some morphemes that have initial /t/ (see 42 and 43, but compare 44).

42. ptángislaʔst FS
m-taŋisla-ʔs-t
2SG.O-be.bad.omen-PRES-3.S
'it is a bad sign for you' (N-II:45)
43. ptapānik FS
m-tape:n-i-ik
2SG.O-buy-PRES.IMP-1.S
'let me buy it from you' (I:10)
44. mtíswaʔqastak FS
m-tiswaʔqa-sta-k
2SG.O-dream-R.IPV-1.S
'I dreamed of you' (Notes to I (Part 3):18:16)

This process may be relatively recent historically: Gibbs (collected 1851) gives <m'sah-tim-sa-ta> 'black', based on the same root as 39, and Curtis (published 1911) lists <mīs-káhl-tīt> 'chin' (later /pskahtit/).

2.2.8. Vowel Epenthesis Before Resonants

In an underlying sequence of three consonants, of which the middle one is a nasal or /l/, an anaptyctic vowel (transcribed consistently as [ɪ] by Jacobs but variously as [ɪ], [ə], or [a] by Frachtenberg) is inserted after the first consonant and before the nasal or /l/:¹⁷

45. *twánilqaʔst* JY
 twan-lqa-ʔs-t
 walk-around-PRES-3.S
 ‘he’s walking around’ (B35MY:5a)

46. *tpaŋkɪlhaʔsk* FS
 tpaŋkl-ha-ʔs-k
 be.afraid-PSF-PRES-1.S
 ‘I am afraid’ (Notes to III (Part 2):5:4)

The same process also applies when a nasal or /l/ occurs between another consonant and a word boundary:

47. *mú:khǎʔšim* JY
 mu:k-ha-ʔs-m-Ø
 get.dark-PSF-PRES-CIS-3.S
 ‘it is getting dark’ (B34MY:13a)

48. *hílləm* FS
 hilm
 house
 ‘house, village’ (Notes to I (Part 3):2:8)
 (cf. *hílmä* FS /hilm-a/ ‘house (LOC)’)

If the preceding consonant is a dorsal stop that is itself preceded by /u/, the epenthetic vowel will also be *u*:

¹⁷ Neither pre-resonant epenthesis nor semivowel vocalization (Section 2.2.9) takes place when the preceding consonant is a glottal stop: *yu:ʔɪti* FS ‘on the threshold’ (XXI:136), not **yu:ʔɪti* or **yu:ʔuɪti*. This may be taken as a phonological argument in favor of analyzing recorded “sequences” of glottal stop plus resonant as representing unitary glottalized resonant segments.

49. ksíndukum FS
 k-sin-ʔtuk-m-Ø
 FEM-go.in-D.PFV-CIS-3.S
 ‘she came in’ (XII:14)

2.2.9. Vocalization of Semivowels

Semivowels standing between consonants do not trigger vowel epenthesis as other resonants do. Instead, /w/ vocalizes to short *u* and /y/ to short *i*:

50. látutsk FS
 latw-c-k
 escape-R.PFV-1.S
 ‘I run off’ (Notes to III (Part 2):5:1)
51. wáw_ihaʔsk FS
 Ø-wawy-ha-ʔs-k
 3SG.O-leave-PSF-PRES-1.S
 ‘I leave him’ (Notes to II (Part 2):14:20)

2.2.10. Deletion of /t/

An underlying /t/ is regularly deleted between /s/ and another consonant at the beginning of a word:

52. sqánk^haʔsk FS
 Ø-s-tqan^hk-ha-ʔs-k
 3SG.O-MASC-bury-PSF-PRES-1.S
 ‘I bury it’ (Notes to XIII:4:13)
53. snápwi FS
 Ø-s-tne:p-wi-i
 3SG.O-MASC-prepare.wood-HAB-3.S
 ‘he would make firewood’ (VI:2)
54. syámihaʔsk FS
 Ø-s-tyamy-ha-ʔs-k
 3SG.O-MASC-look.for-PSF-PRES-1.S
 ‘I am looking for it’ (Notes to IX:8:1)

2.2.11. Deletion of /y/

Underlying /y/ is usually deleted following the coronal fricatives /s/ and /ʃ/ (see example 55).

55. sít FS
 Ø-s-yi-ʔ-t
 3SG.O-MASC-give-D.PFV-3.S
 ‘he gave it to him’ (VI:196)

After /s/, the application of this process is not quite universal: compare *salpupt* FS

(XIII:105), *syálpupt* FS (Notes to XIII:5:10) ‘knee’. A major counterexample is that the /y/ of the plural-subject morphemes {-ya:n} and {-yamk} is never deleted:

56. nissyá:ni FS
 ni-s-ya:n-i
 go-D.IPV-PL.S-3.S
 ‘they were going’ (XVII:25)

Following /ʃ/, the deletion of /y/ is exceptionless:

57. pí:ʎaʎamk FS
 pi:ʎa-ʃ-yamk
 go.home-FUT.IMP-1PL.S
 ‘let’s go home’ (VII:97)

2.2.12. Deletion of /n/

An underlying /n/ deletes (or alternatively assimilates to the following consonant) at the beginning of a word before /m/ (58 and 59) and sporadically before /l/ (compare 60 and 61).

58. máʎqaʔsəm FS
 n-maʎqa-ʔs-m-Ø
 1SG.O-please-PRES-CIS-3.S
 ‘it pleases me’ (Notes to IV:9:17)

59. mítspəm FS
n-micpi-Ø-m
 1SG.O-believe-PRES.IMP-CIS
 ‘believe me!’ (Notes to II (Part 2):13:21)

60. láuwilaslamqayi FS
n-lawila-sla-m-qay-i
 1SG.O-love-FUT-CIS-PL.S-3.S
 ‘they will love me’ (VI:89)

61. nláumaq FS
n-law-m-aq-Ø
 1SG.O-see-CIS-POT-3.S
 ‘he can see me’ (Notes to IV:9:9)

2.2.13. Deletion of /h/

Underlying /h/ is deleted after all fricatives:

62. kitpú:faʔsk FS
 Ø-kit-pu:f-ha-ʔs-k
 3SG.O-shoot-fail.to.pierce-PSF-PRES-1.S
 ‘I keep shooting without piercing’ (Notes to XVIII:4:2)

63. his:ánwaʔsk FS
 hi-s-hanwa-ʔs-k
 NTS-LM-dislike-PRES-1.S
 ‘they don’t like me’ (Notes to VII:8:8)

64. snikłalaʔsk FS
 Ø-s-nik-łal-ha-ʔs-k
 3SG.O-MASC-pull-reduce.to.pieces-PSF-PRES-1.S
 ‘I tear it up, apart, asunder’ (Notes to VI:16:23)

2.2.14. Epenthetic [h]

Where a morpheme beginning with a vowel follows a morpheme ending in a resonant which in turn follows either a vowel or a word juncture, Savage commonly inserts an epenthetic [h] between the two morphemes:

65. R-V → R[h]V / V_, #_

Note the lack of [h] at the beginning of 66 vs. its appearance following the 2sg object prefix {m-} in 67:

66. i:wlukínasmi FS
 Ø-i:w-luʔ-ky-na-s-m-i
 3SG.O-CAUS-run-plur.move-along-D.IPV-CIS-3.S
 ‘she made them come rolling’ (XIV:169)

67. mhi:wlapaʔst FS
 m-i:w-lap-ha-ʔs-t
 2SG.O-CAUS-get.in-PSF-PRES-3.S
 ‘she makes you go in’ (Notes to XV:3:12)

Note also that the epenthetic [h] appears following the VR sequence in 68, but not following the CR sequence in 69. This is evidence that the morpheme following the root is underlyingly /-a/ and not /-ha/, as underlying /latw-ha-ʔ-t/ would be expected to yield a surface form *latuha(ʔ)t, with the /w/ vocalizing between consonants.

68. tílhät FS
 til-a-ʔ-t
 begin-V_s-D.PFV-3.S
 ‘he began’ (I:36)

69. látw_at FS
 latw-a-ʔ-t
 escape-V_s-D.PFV-3.S
 ‘she escaped’ (XXI:156)

2.2.15. Initial Cluster Simplification

Certain underlying two-consonant sequences containing resonants are simplified to a single consonant when they begin a word, provided that the two consonants involved belong to the same morpheme. In 70 and 71, which are both reduplicated forms, the underlying word-initial consonant sequence is simplified, but the word-internal sequence is preserved:

70. núk^hinhúk^ha FS
 nhuk-nhuk-a-ʔ
 dark-CHAR-V_S-ABS
 ‘dark colored’ (Notes to II (Part 1):21:27)

71. lusímluswai FS
 mlus-mlus-way
 round-CHAR-INAN.ADJ
 ‘ball’ (Notes to I (Part 2):12:4)

Simplification likewise takes place in 72 and 74, where the underlying sequences are word-initial, but it does not occur in 73 and 75, where the same sequences are word-internal.

72. yá:winhaʔssyant FS
 nya:w-n-ha-ʔs-ya:n-t
 die-away-PSF-PRES-PL.S-3.S
 ‘They are dying.’ (VIII:31)

73. hisinyá:winhaʔst FS
 hi-s-nya:w-n-ha-ʔs-t
 NTS-LM-die-away-PSF-PRES-PL.S-3.S
 ‘Somebody is dying.’ (Notes to XXII:2:6)

74. wísqaʔsk FS
 Ø-lwisq-ha-ʔs-k
 3SG.O-sense-PSF-PRES-1.S
 ‘I notice it.’ (Notes to XIX:2:4)

75. qilwisqaʔsk FS
 q-i-lwisq-ha-ʔs-k
 NSG.O-LM-sense-PSF-PRES-1.S
 ‘I feel them.’ (Notes to XXIII:1:3)

Note that if they belong to *different* morphemes, both underlying consonants will surface.

Compare 70, 71, and 72 with 76, 77, and 78, respectively.

76. nhältwälimkismi FS
n-hält-we:limki-s-m-a
1SG.O-walk-in.a.circle-ITER-CIS-2.S
'You walk around me.' (Notes to I (Part 2):8:9)
77. mlúyassik FS
m-luya-s-ik
2SG.O-want-D.IPV-1.S
'I wanted you.' (Notes to II (Part 1):5:15)
78. nyáqsla:mi FS
n-yaq-sla-m-i
1SG.O-do-FUT-CIS-3.S
'She will do it to me.' (XIII:33)

2.3. Vowel Phonemes

2.3.1. Vowel Phonemes and Their Properties

The vowel phonemes of Molalla are given in Table 2.3. Discussions of individual vowel phonemes follow.

Table 2.3: Molalla Vowel Phonemes

	Short		Long	
	Front	Back	Front	Back
Non-Low	i	u	i:	u:
Low	a		e:	a:

- i* Non-low front unrounded short vowel. Generally transcribed as <ɪ> by Frachtenberg and as <ɪ> by Jacobs, though realizations on the Swadesh recording impressionistically range as high and front as [i]. Frachtenberg frequently confuses /i/ and /a/, especially in final syllables, where there was apparently a tendency for both to reduce to [ə].
- a* Low unrounded short vowel. Both Frachtenberg and Jacobs mostly transcribe this sound with <a> or <ä>, though Frachtenberg fairly frequently uses <E> (that is,

[ə]), especially in final syllables and/or before nasals. Final /a/ following a nasal is frequently transcribed <î> in the Frachtenberg materials. Typical realizations vary from low front [æ] through low-mid central [ɐ] to low back [ɑ]. Realizations ranging as high and front as [e] are transcribed before nasals and/or after /y/. A low-mid back, somewhat rounded realization [ɔ] principally occurs adjacent to bilabial consonants.

- u* Non-low back rounded short vowel. Jacobs consistently transcribes this vowel using <ʊ>; Frachtenberg typically uses <u> but also commonly writes <o>. Impressionistically, tokens on the Swadesh recording range between [ʊ] and [o].

- i:* Non-low front unrounded long vowel. Typically realized as [i:], though the written sources record realizations as low as [e:] adjacent to uvular consonants.

- e:* Low front unrounded long vowel. Typically realized as [æ:]. Frachtenberg appears to have had trouble distinguishing this vowel from /a:/ and distinguishing both from short /a/; he commonly transcribes either frontness or length, but rarely both. Jacobs appears to have been better at distinguishing both quality and quantity.

- a:* Low back unrounded long vowel. Typically realized as [a:] or [ɑ:]. Realizations ranging as high and back as [ɔ:] are heard and transcribed adjacent to labial consonants.

- u:* Non-low back rounded long vowel. Jacobs consistently transcribes this sound as <u>. Frachtenberg most commonly uses <ū> but also quite frequently <ō>.

Judging from the Swadesh recording, this sound is usually a bit fronter than a canonical [u:], more like [ʊ:].

Table 2.4 lists the mean F_1 and F_2 for each Molalla vowel phoneme, calculated over all analyzed tokens on the Swadesh recording. Measurements were taken at the approximate midpoint of the vowel, determined visually.

Table 2.4: Mean Formant Values for Molalla Vowels

Vowel	N	Mean F_1 (Hz)	Mean F_2 (Hz)
i	278	436	2025
a	322	627	1393
u	99	459	991
i:	18	386	2295
e:	53	683	1640
a:	54	650	1141
u:	33	414	877

2.3.2. Long vs. Short Vowels

Long vowels in Molalla are typically almost twice as long as short vowels for a given context. On the Swadesh recording (which consists mostly of short words uttered in isolation), short vowels typically range between 80 and 150 ms, while long vowels range from around 150 to over 300 ms. Table 2.5 shows vowel durations for minimal (or near-minimal) pairs involving long and short vowels taken from the Swadesh recording.¹⁸ Individual vowels tend to be shorter as the number of syllables in a word increases.

¹⁸ Each item is recorded twice. “Duration₁” and “Duration₂” refer to the durations of the vowels in the first and second tokens, respectively.

Table 2.5: Vowel Duration Differences in (Near-)Minimal Pairs

Item	Gloss	Duration ₁ (ms)	Duration ₂ (ms)
qe:sqs	spider	234	247
qasqs	chipmunk	149	134
te:wint	net	224	220
tawint	bobcat	147	126
pi:s	sinew	335	323
pis	camas	170	145
tu:qs	mud	282	283
tuqtuqt	lizard	130	158

There appears to be no distinction between long and short vowels word-finally or finally with only a glottal stop following. Vowels in these contexts typically run from about 100 to 200 ms. They are generally transcribed as short. Final vowels tend to fade out into voicelessness. When a glottal stop follows a vowel at the end of a word, a brief, voiceless echo vowel of the same quality is heard after the glottal stop.

2.3.3. Number of Vowel Phonemes

There has been some disagreement regarding the number of vowel phonemes in Molalla. Jacobs and Frachtenberg both distinguish <a> from <ä>, both short and long, in their transcriptions; but there is much confusion between them, especially for the short vowels. Rigsby (1965) and Grant (1994) take the sources to indicate a four-quality system /i e a u/. Berman (1996), on the other hand, recognizes only three vowel qualities /i a u/.

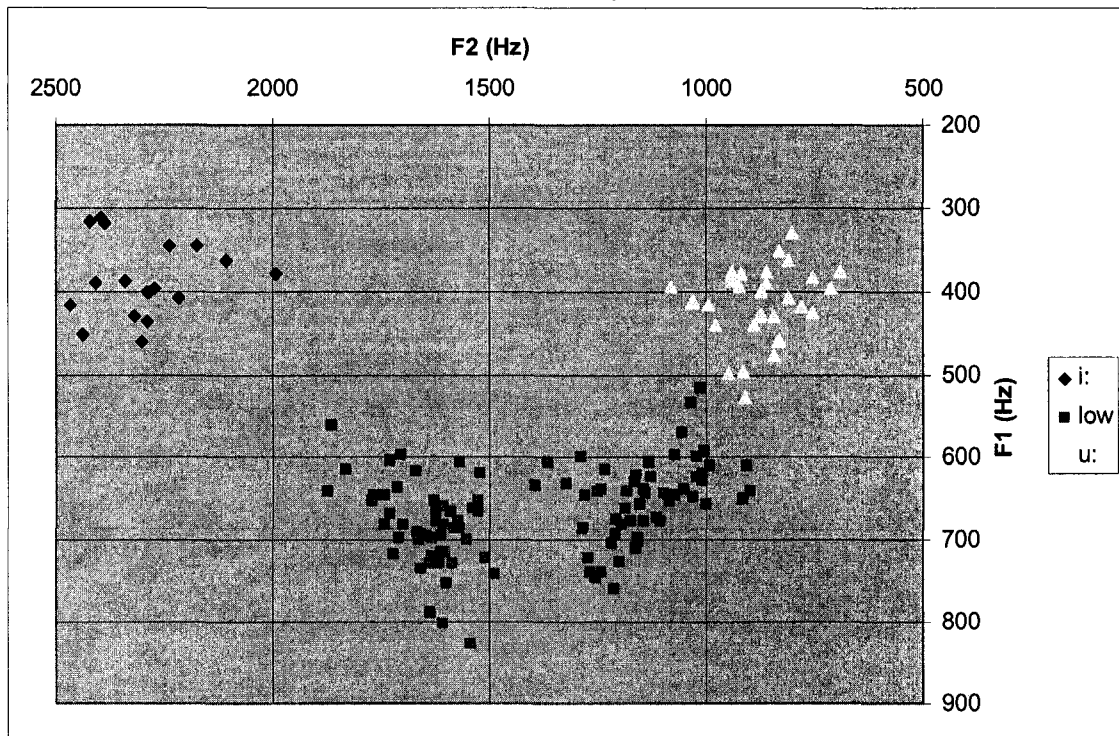
In order to help resolve the issue, I subjected the Swadesh recording to acoustic analysis. With a small number of exceptions, Yelkes says all elicited terms twice; a few lexical items come up twice in the list and therefore appear four times in the recording. All target words in the vocabulary elicitation were analyzed, except for a few Chinook

Jargon terms that had not been included on earlier Molalla wordlists and a handful of forms where Yelkes stumbled in his speech. In all, formant structures for 859 individual vowel tokens¹⁹ were obtained using the “Formant Report” query in Praat version 4.1.3. Measurements were taken at the approximate midpoint of the vowel (determined visually).²⁰ Due to the inconsistencies in the transcriptions, low vowels were analyzed as a single category. Despite some inconsistency in the written source materials, it was generally not difficult to differentiate long from short vowels on the recording (long vowels having about twice the duration of short vowels in a given context—see the previous section). Thus, long and short vowels were analyzed separately. The results are given in Figure 2.5 and Figure 2.6.

¹⁹ The tokens were broken down as follows: 278 short *i*, 18 long *i*; 322 short low vowels, 107 long low vowels, 99 short *u*, 35 long *u*.

²⁰ In a few instances, a particular formant track would display a marked deviation from the formant value typical of the vowel token under investigation. When such a deviation occurred at or around the midpoint of the vowel, a nearby portion of the vowel, displaying more typical formant values, was selected for analysis instead.

Figure 2.5: F₁ vs. F₂ for Molalla Long Vowels from Swadesh 1953



The results for the long low vowels (Figure 2.5) clearly show two distinct clusters: a front cluster with a center of gravity around 700 Hz F₁, 1600 Hz F₂, and a back cluster centered around 650 Hz F₁, 1100 Hz F₂. Aside from three tokens, there is an almost total gap in F₂ between 1300 and 1500 Hz.²¹ Furthermore, no single lexical item has tokens in both clusters; each lexical item belongs wholly to either the front or the back cluster. While the recording contains no absolutely minimal pairs distinguishing the front from the back vowel, they do occur in similar contexts, as shown in Table 2.6.

²¹ The three exceptions are two of the four tokens of /ya:y/ 'man', in which the vowel was evidently pulled forward by the flanking palatal approximants, and one token of /tika(:)y/ 'bucket'. The word *tika(:)y* occurs only once in the recording, and that one instance is pronounced rather slowly and hesitantly, so I am not even sure it is supposed to contain a long vowel.

Table 2.6: /e:/ vs. /a:/

Front	Back
kłwe:s ‘blue jay’	wa:s ‘sun’
łe:s ‘ice’	ła:p ‘boat’
te:s ‘hand’	ta:ps ‘ear’
le:pka? ‘two’	ła:p ‘boat’
te:lsasa? ‘river’	qa:ls ‘navel’
ce:qp ‘liver’	qła:qway? ‘white’
te:s ‘hand’	ma:s ‘fir tree’
te:mifak ‘(I am) naked’	ta:mint ‘rabbit’ ²²

All of this suggests that the Molalla vowel system contained four distinct long vowels, two high and two low. Admittedly, the data available are limited and less than perfectly controlled, each lexical item being represented on the recording only by two tokens, given in quick succession. Thus, I cannot guarantee, for instance, that /qa:ls/ ‘navel’, could not be equally validly produced with a front vowel. Nevertheless, given the perfect match between vowel and lexical item, the noncontinuous distribution of phonetic properties, and the fact that the two low vowels do not appear to be conditioned by their consonantal or vocalic context, it seems more likely to me that the distinction between them was a phonological one.

Figure 2.6 shows formant data for all short vowel tokens in all positions and contexts. Figure 2.7 shows a pared-down data set containing only those tokens occurring in initial syllables followed by obstruents; this is intended to help separate out the effects of stress and of coarticulation with nasals, /w/, /l/, or /y/. Note that in each of these figures, the points representing the short low vowels form a single large cloud; neither figure shows the clean segregation of clusters seen for the long low vowels. There are

²² The final [-t] in this item appears to be a mistake (possibly influenced by the nominalizer {-int}), as the older sources all indicate /ta:(?)mn/ ‘rabbit’.

many [æ]-like tokens and many [ɑ]-like tokens, but also a large number of central, [a]- or [ɐ]-like tokens. The 1300-1500 Hz interval on the F2 axis, so nearly empty in Figure 2.5, contains no fewer than 31 tokens, even for the reduced data set represented in Figure 2.7.

Figure 2.6: F₁ vs. F₂ for Molalla Short Vowels from Swadesh 1953

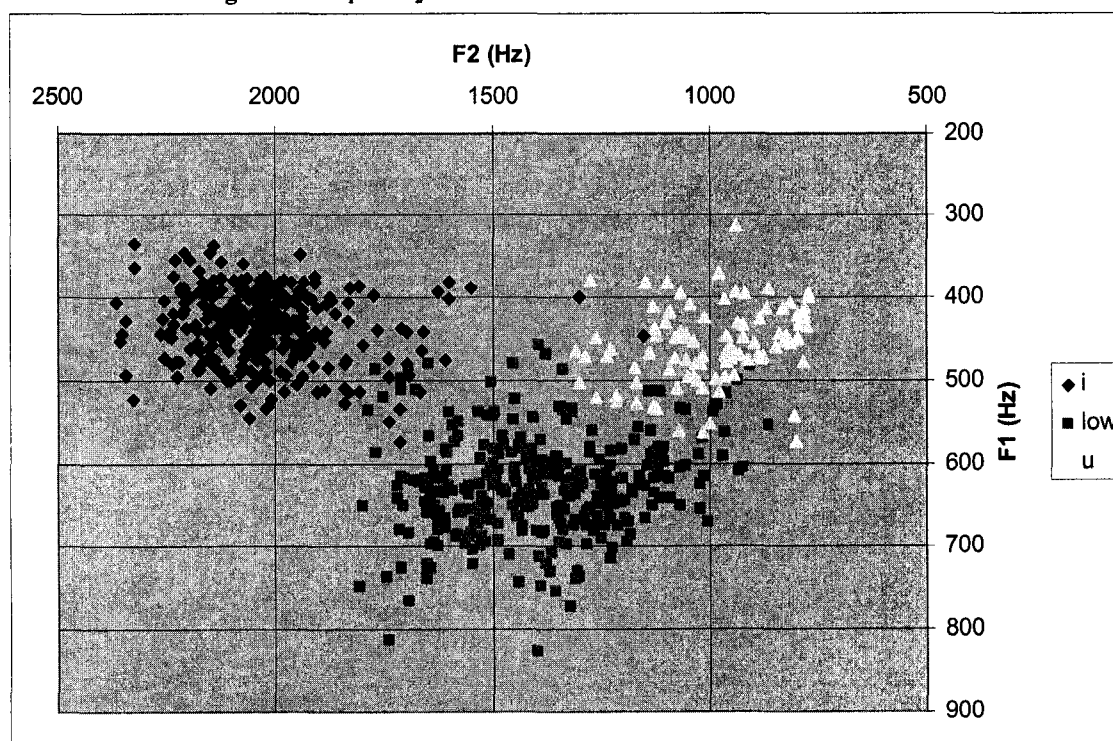
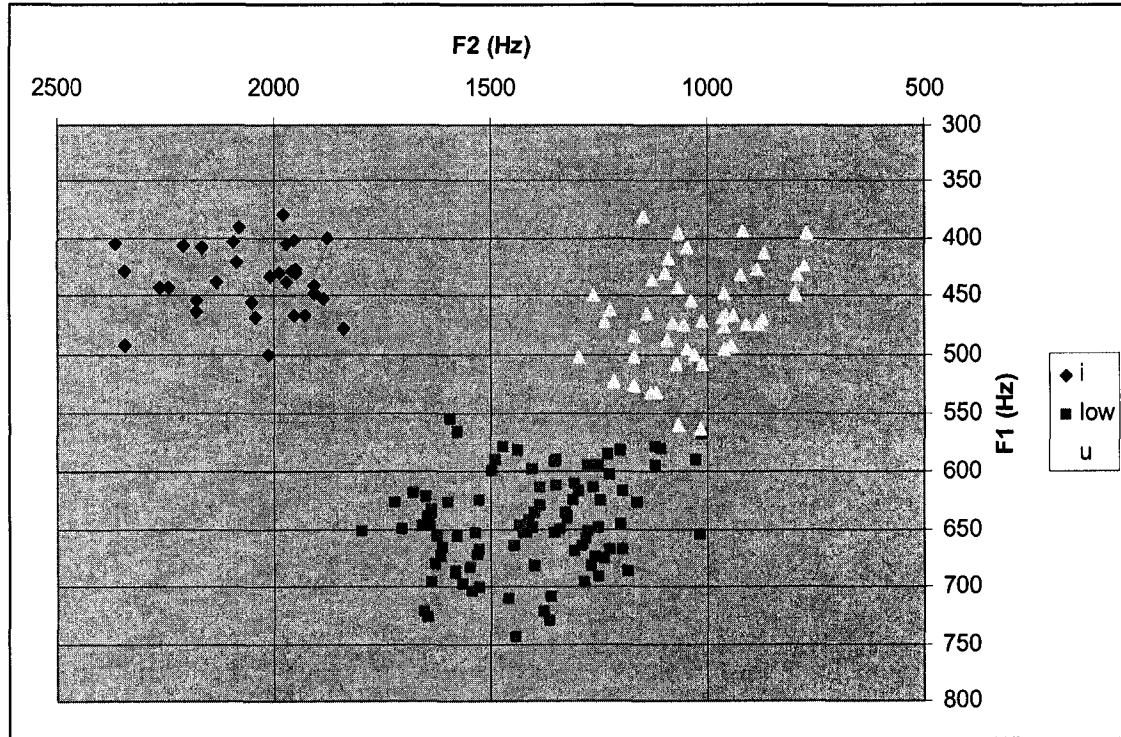


Figure 2.7: F₁ vs. F₂ for Molalla Short Vowels from Swadesh 1953
(Vowels in Initial Syllables Followed by Obstruents Only)



What is more, there is one lexical item, ‘red’, for which different tokens clearly fall within the backer or fronter parts of the range seen in Figure 2.7:

Table 2.7: Vowel Quality
in Two Tokens of *caqcaqway?* ‘red’

Token	F ₂
c[ɐ]qcaqway? ₁	1431
caqc[ɐ]qway? ₁	1466
c[æ]qcaqway? ₂	1646
caqc[æ]qway? ₂	1638

This may be an indication that there was at least some free variation involving the different short low vowel realizations.

Though these results support the contention that Molalla had a surface vowel system comprised of three short vowels /i a u/ and four long vowels /i: e: a: u:/, there is

evidence within Molalla for an original front-back distinction in the short vowels. This is in the form of certain derivational processes which entail the lengthening of short vowels. Some instances of short /a/ correspond to long /e:/ in the lengthened form, while others correspond to long /a:/. Examples of /a/ alternating with /e:/ include /qte:p/, the intensive form (see Section 3.1.1.7.2) of {qtapi} ‘break’, and /ce:q-p/ ‘liver’, which appears to be derived from {caq} ‘red’. Short /a/ alternates with /a:/ in /pa:t-ti/ ‘under’, from {pat} ‘go into a hole or water’, and in /ta:ps/ ‘ear’, derived from /tap/, an allomorph of {tpa} ‘hear’. From this it would seem probable that {qtapi} and {caq} derive from earlier */qtepi/ and */ceq/, while {pat} and /tap/ go back to original */pat/ and */tap/.

A system of four short vowels /i e a o/ and four long vowels /i: e: a: o:/ is seen in Klamath (Barker 1964:31). It seems likely that Molalla originally had a similar system²³ but that the two short low vowels had merged, or perhaps were in the process of merging, by the time the language died out. The Sahaptin language, which bordered Molalla to the east, is thought to have undergone a similar merger of front and back low vowels (Aoki 1962, Rigsby & Silverstein 1969), though in the case of Sahaptin, the merger affected long as well as short vowels.

2.4. Stress

It is difficult to say anything conclusive about the stress system in Molalla. Stress is inconsistently marked (or left unmarked) by both Frachtenberg and Jacobs. Sometimes otherwise identical forms appear with different stresses marked (compare 79-81, 82-85);

²³ This is not to say that analogous vowels are always found in likely cognate morphemes: compare, for example, the morphemes for ‘two’: Molalla {lɛ:p}, Klamath {lɑ:b}.

not uncommonly, multiple stresses are indicated on a single word (as in 81 and 84), probably indicating a fairly robust secondary stress or stresses.

- 79. tpátkilwi FS
 tpakl-wi-i
 be.afraid-HAB-3.S
 ‘he was afraid’ (VII:13)

- 80. tpakílwi FS (VII:14)

- 81. tpátkílwi FS (XXII:§3:11)

- 82. k’ú:ya:wi FS
 k’u:ya:wi
 mtn.lion
 ‘Cougar’ (XII:57)

- 83. k’u:yá:wi FS (XII:22)

- 84. k’ú:yá:wi FS (XIV:143)

- 85. k’u:ya:wi FS (XIV:74)

The single most common position for the stress is word-initial; initial stress is seen in almost all adverbs and nouns, as well as many verbs in which only short vowels appear. Few to no words are consistently marked with final stress.²⁴ Long vowels attract stress; where long vowels are present in a word, the rightmost is typically stressed, unless it is in the final syllable. It is not uncommon for more than one long vowel within a word to be marked with stress. This is reminiscent of Klamath (Barker 1963:pg.), in which all long vowels carry some degree of stress.

²⁴ The only exception of which I am aware is /paá:ys/ ‘hail’; it is conceivable that this word is underlyingly trisyllabic (/paá:.is/ or /paá:yis/), in which case the stress on the /a:/ would be regular.

Initial stress and long-vowel stress are sufficient to account for most of the stress patterns seen in the language. A reasonable first approximation of the stress-assignment rule is given in 86:

86. 1) Stress the rightmost long vowel, provided it is not in the final syllable.
- 2) If there is no long vowel in a nonfinal syllable, stress the leftmost vowel.

There are still many stress markings that are unaccounted for by these criteria. For example, a number of roots consistently bear stress even when preceded by another vowel; these roots may be lexically specified as stressed, overwriting the default initial stress pattern. Furthermore, diphthongs and syllables ending in resonants show some propensity to pull stress to the right of the expected position, as in examples 87 and 88.

87. misik'áissi FS
 mis-ik-ʔay-s-i
 look-REDIR-up/out-D.IPV-3.S
 'she looked up' (XXIII:26)
 (expected: *mísik'aysi*)

88. hättılqaslak²⁵ FS
 hätt-lqa-sla-ik
 walk-around-FUT-1.S
 'I will take a walk' (Notes to II (Part 1):17:5)
 (expected: *hättılqaslak*)

²⁵ Note that in this example, the vowel bearing the stress is actually epenthetic (see Section 2.2.8).

Chapter 3

Morphology

Molalla is a highly complex language morphologically. Verbs inflect to agree with object and subject; subject inflection involves agreement for person, number (singular, dual, and plural), and, for many verbs, gender. There is a system of seven tense-aspect suffixes in the indicative mood, plus three additional moods. Verbs also inflect to show subordination, with an intrasentential switch reference system. The system is almost purely agglutinative; even subject person and number are coded by identifiably separate morphemes in most instances.

The morphology can be very intricate within the verb stem as well. Distributionally, verbal morphemes may be classified into free stems and anterior, medial, and posterior stem elements. The anterior elements include causative prefixes and various types of classifying and other bound morphemes. The posterior elements include directional elements as well as applicative and modal morphemes.

Nominal morphology is less complex than verbal morphology but still extensive. Nouns do not normally inflect for number but do inflect for seven cases, some of which have differing forms for animate and inanimate nouns. Possession is indicated via a series of possessive enclitics. Personal pronouns and demonstratives inflect for case as well as number. Adjectives inflect for case and, in the nominative, also for number and person. Numerals inflect as adjectives do, as well as carrying some special morphology of their own. Minor categories include conjunctions, postpositions, and particles.

In what follows, I will speak of inflectional morphology and derivational morphology, without necessarily assigning all morphological elements to one category or the other. Furthermore, for expository convenience, I will from time to time make use of a metaphor of word “building” which proceeds from the core of the word to the periphery (as when I speak of prefixes or suffixes being “added to” or “combined with” some base). Such metaphors are rhetorically useful and are of long standing in the field of linguistic description. They should not be taken as endorsing any particular theoretical stance regarding the actual underlying cognitive processes at work in word formation.

3.1. Verbs

3.1.1. Derivational Morphology and the Verb Stem

3.1.1.1. Structure of the Verb Stem

There is an important distinction to be made in Molalla between stem-internal and stem-external morphology. For the purposes of this discussion, a verbal *stem* is defined as a semantically and formally “complete” predicate, to which tense-aspect or mood suffixes and agreement morphology may be added. Ideally, it includes all derivational morphology and excludes any inflectional morphology.²⁶

Within the stem of a Molalla verb, it is often not helpful to speak in terms of derivational “affixes” as opposed to “roots”. Take, for instance, the stem /hałt-ni/ ‘walk’. The morpheme {hałt-} ‘walking’ never stands alone as a verb stem unto itself, while the morpheme {ni} ‘go’ is ubiquitous as an independent stem, so we might want to call {hałt-} a “prefix” and {ni} the “root” of this stem.

²⁶ Not that the distinction is always so neat in practice. The cislocative (Section 3.1.2.1), for instance, might be considered a derivational category, yet formally the cislocative suffix {-m} clearly falls within the inflectional morphology. Conversely, the present stem formant {-ha} (Section 3.1.1.5.8) is closely tied to tense-aspect inflection, yet distributionally it appears to be stem-internal.

However, consider the stem /haɫt-lqa/ ‘walk around, go for a walk’. The {-lqa} morpheme does not occur as an independent stem, but it does attach to morphemes that can occur as independent stems, such as {ʔaw} ‘shout’. By these criteria, then, {-lqa} is a suffix; but in that case, /haɫt-lqa/ is a verb stem with a prefix and a suffix but no root. Such verb stems are commonplace in Molalla, and they are a widespread feature in the southern Plateau and Great Basin regions (Jacobsen 1980; DeLancey 1989, 1996).

Furthermore, Molalla also exhibits morphemes like {-ky-} ‘move or be situated (of plural objects)’. Such morphemes are positioned, like roots, between prefixes and suffixes; but they cannot occur as independent verb stems. In fact, they never occur without *both* a preceding element (denoting either some detail of how the movement was accomplished or some feature of the entities involved) and a following element (specifying the place in which they are located or the direction in which they are traveling).

Thus, it is difficult to classify Molalla stem-internal verbal morphemes unambiguously as roots, prefixes, or suffixes on distributional criteria. What is more, similar problems arise when we try to classify them on functional criteria. Ideally, the “root” would carry the main semantic content of the stem, and the various derivational affixes would merely modify, restrict, or extend that core semantic content.

The problem here is that such an approach forces us to rely on the English glosses to determine what is ‘core’ and what is ‘periphery’. Take a relatively straightforward example like /qaw-qtapi/ ‘break with the teeth’, which according to the English translation would seem to involve a main verb {-qtapi} ‘break’ and a modifying prefix {qaw-} ‘with the teeth’. But what of /qaw-kiɫa/ ‘eat together with someone’? Now

{qaw-} ‘eat’ seems to supply the main semantic content, while {-kila} ‘with someone’ is the modifier.

Most of the time, the English translation of a Molalla verb involves an English verb that picks out some particular aspect of the action, plus one or more adjunct phrases (adverbs, instruments, prepositional phrases, and so on) that describe the other aspects, since that is how English works. But how do we know that that is how Molalla works? Returning to /haŋt-lqa/, how do we know that the meaning intended is really ‘walk around’, and not ‘go around by walking’? How do we know that /qaw-qtapi/ isn’t really ‘bite in two’ or, conversely, that /qaw-kila/ isn’t really ‘interact by acting with the teeth’? The truth is that, even if these questions would have been resolvable with the aid of native speakers of Molalla (a debatable question), they are surely not resolvable now, in the absence of any speakers.

All in all, the hunt for roots and affixes does not seem to be a very fruitful avenue for the investigation of Molalla stem-internal verb morphology, aside from a few small classes of morphemes like causatives (Section 3.1.1.3.11) and noncontrol prefixes (Section 3.1.1.3.8). It would seem that the most objective way to describe a stem like /pin-ky-lqa/ ‘throw around, throw everywhere, strew’ would be to say that it involves:

- (1) action on a round or compact object (coded by {pin-}, a morpheme which can occur at the beginning of a verb stem but not at the end);
- (2) action on plural objects (coded by {-ky-}, a morpheme which must occur in the middle of a verb stem, never at the beginning or the end); and
- (3) undirected motion or motion toward several locations (coded by {-lqa}, a morpheme which can appear at the end of a stem but never at the beginning;

and leave it at that. Thus, for the purposes of this discussion the various verbal morphemes will be classified distributionally, based on whether they appear at the

beginning, in the middle, or at the end of a stem, or whether they can constitute a complete verb stem by themselves.

3.1.1.2. Free Stems

Free stems are those verbal morphemes that have the capacity to form a complete stem on their own. Formally and semantically, they are highly variable, ranging from short, simple verbs like {ni} ‘go’, {qa} ‘do, make’, {yi} ‘give’, and {ʔe:l} ‘grunt’ to longer, more complex items such as {hayluqm} ‘warm oneself by the fire’, {lawquḷqa} ‘recognize’, and {pamsime:n} ‘dream of dead people’. Many of the longer examples are surely historically derived forms that I have not been able to analyze synchronically.

Although they are by definition capable of standing alone as a verb stem, many if not all free stems can also combine with other types of stem elements to form complex stems:

89. spu:tsk FS
 Ø-s-pu:ʔ-c-k
 3SG.O-MASC-close-R.PFV-1.S
 ‘I shut it’ (Notes to III (Part 1):6:19)

90. spu:ʔhikaʔsk FS
 Ø-s-pu:ʔ-ḷy-ka-ʔs-k
 3SG.O-MASC-close-block-in.place-PRES-1.S
 ‘I lock him out’ (Notes to XIII:7:18)

91. q’áussi FS
 q-ʔaw-s-i
 NSG.O-shout-D.IPV-3.S
 ‘he shouted for them’ (IX:83)

92. augilqassya:nt FS
 ʔaw-ky-lqa-ʔs-ya:n-t
 shout-PLUR-around-PRES-PL.S-3.S
 ‘they are shouting around’ (Notes to II (Part 2):2:15)

93. kú:kautqaʔsk FS
 Ø-ku:k-ʔaw-tqa-ʔs-k
 3SG.O-whistling-shout-APPL-PRES-1.S
 ‘I whistle for him’ (Notes to XIV:4:7)
94. tnáp^hwi FS
 tne:p-wi-i
 prepare.wood-HAB-3.S
 ‘she makes wood’ (Notes to VI:2:12)
95. snáptuníssi FS
 s-tne:p-tw-ni-s-i
 MASC-prepare.wood-go.to.do-away-D.IPV-3.S
 ‘he went to cut wood’ (VI:9)

A particularly common occurrence is the use of an independent verb of motion in place of a directional morpheme; this usage is discussed further in Section 3.1.1.5.5.

3.1.1.3. Anterior Stem Elements

Anterior stem elements are those verbal morphemes which may begin a verb stem but may not end one. They may be divided into a number of classes, described further below; however, the boundaries between these classes are often fuzzy, and certain morphemes can show semantic or formal characteristics of more than one class. Such is the case with {fay-} ‘act with or on a stick-like object’, which may be used either as a shape classifier or as an instrumental classifier.

3.1.1.3.1. Bound Motional Elements

The bound motional elements (BMEs) comprise a large class of verbal morphemes denoting various types of motion. They are “bound” in the sense that they require a following morpheme to form a complete verb stem, but they are quite contentful and un-affix like in their semantics. The best-attested members are listed in Table 3.1.

Table 3.1: Bound Motional Elements

Morpheme	Gloss
{fayat-}	‘sneak, slide’
{fye:-}	‘smoke (of fire)’
{haft-}	‘walk’
{hape:wit-}	‘run’
{hasini-}	‘jump’
{hatfi?-}	‘wiggle, crawl’
{hatqawl-}	‘roll’
{i-}	‘go’
{it-}	‘carry, transport’
{ita?p-}	‘track, trail’
{itkin-}	‘pack (many objects)’
{i:w-}	‘chase, follow’
{kakawl-}	‘roll’
{kay-}	‘go (plural?)’
{kilaw-}	‘go camping’
{kmaŋ-}	‘go to woo husband’
{laqat-}	‘pack (long object)’
{lu?-}	‘run’
{laŋfy-}	‘scram’
{mis-}	‘look’
{nat-}	‘pack wood’
{nya:w-}	‘die’
{pati-}	‘jump’
{paye:-}	‘crawl’
{payk-}	‘step’
{psukuw-}	‘spark (of fire)’
{puku-}	‘go home with wife’
{punyu:-}	‘fetch meat’
{qlaŋu-}	‘travel along river’
{saplaw-}	‘trot’
{t’at-}	‘float’
{taku-}	‘follow, accompany’

{taw-}	'return'
{taw-}	'go to do'
{te:t-}	'move'
{tu:lu-}	'crawl (like an insect), run (like a bird)'
{twan-}	'wade'
{tya-}	'fly'
{wal-}	'fall'
{way-}	'swim'
{way-}	'fall (long object)'
{wit-}	'pack (on the back)'

The stems of many verbs of motion are composed of a BME and a directional element (Section 3.1.1.5.4); the directional element specifies the path of the motion, while the BME characterizes the type of motion performed:

96. hatáqaʔsk FS
 halt-taq-ha-ʔs-k
 walk-upwards-PSF-PRES-1.S
 'I walk up' (Notes to II (Part 2):20:20)
97. lutqtimhaʔsk FS
 luʔ-tqtim-ha-ʔs-k
 run-approach-PSF-PRES-1.S
 'I am running to him' (Notes to I (Part 2):17:20)
98. payá:hitaʔsk FS
 paye:-lit-ha-ʔs-k
 crawl-down-PSF-PRES-1.S
 'I crawl down' (Notes to VII:4:19)
99. twánilqassi FS
 twan-lqa-s-i
 wade-around-D.IPV-3.S
 'he was wading around' (XVI:105)

100. tyaáwihaʔsk FS
 tya-ʔawy-ha-ʔs-k
 fly-over-PSF-PRES-1.S
 'I fly over it' (Notes to VI:8:11)

The BME {i-} 'go' is attested only with {-playʔ} 'back'. It is unusual for a verb of motion in that it takes the masculine-subject agreement prefix {s-}:

101. síplaiʔa FS
 s-i-playʔ-ʔ-a
 MASC-go-back-FUT.IMP-2.S
 'go back!' (IX:163)

Despite its semantics, {nya:w} 'die' has some formal properties of a verb of motion, particularly that of combining with {ni} 'go, along, away':

102. yá:wkinassi FS
 nya:w-ky-na-s-i
 die-PLUR-away-D.IPV-3.S
 'they all began to die' (N-VII:25)

3.1.1.3.2. Meteorological Elements

The meteorological elements are a small class of weather-related verbal morphemes. They are listed in Table 3.2. Like bound motional elements, meteorologicals combine with directionals (Section 3.1.1.5.4).

Table 3.2: Meteorological Elements

Morpheme	Gloss
{fayut-}	'precipitate'
{he:ʔt-}	'blow (of wind)'
{hu:su-}	'be foggy'
{kiyw-}	'rain'
{swayit-}	'hail'
{taʔti-}	'shine (of the sun)'

103. fáyutsinhaʔsəm FS
fayut-sin-ha-ʔs-m-Ø
 precipitate-in-PSF-PRES-CIS-3.S
 ‘it rains in’ (Notes to E-II:3:8)
104. kí:yulaʔsəm FS
ki:yw-ʌa-ʔs-m-Ø
 rain-down.onto-PRES-CIS-3.S
 ‘it rains on me’ (Notes to V:3:3)

3.1.1.3.3. Positional Elements

The positional classifiers indicate the adoption or maintenance of a certain position. The location is provided by a directional suffix (Section 3.1.1.5.4).

Table 3.3: Positional Classifiers

Morpheme	Gloss
{fatat-}	‘dance’
{faypt-}	‘plant a stick-like object upright’
{hapt-}	‘sit’
{kunt-}	‘lie facedown’
{qu:pil-}	‘wear around the neck’
{tkalp-}	‘adhere’
{wa-}	‘put’
{waŋt-}	‘string up’
{we:k-}	‘put, place, set, bury’
{wita:-}	‘stand’

105. häfqúpilfaʔsk FS
 ha-i:f-qu:pil-fa-ʔs-k
 RR-flexible.obj.-wear.around.neck-off-PRES-1.S
 ‘I take it off’ (Notes to VI:14:6)
106. swākaitisk FS
 Ø-s-we:k-ʔay-c-k
 3SG.O-MASC-put-up-R.PFV-1.S
 ‘I put it up (high)’ (Notes to XI:2:17)

The positional elements frequently combine with {ki} ‘be, stay, be in a place’ as a kind of default locational specifier. At least {fatat-} ‘dance’ and {wita:-} ‘stand’ can have their subcategorizational requirement for a locational or directional element specified by the present stem formant {-ha}.²⁷ This leads to an interesting situation in which, when no other directional element is present, these morphemes appear with {-ha} in the present indicative but {ki} in all other tenses and in nonfinite constructions:

107. swátataʔsk FS
 s-fatat-ha-ʔs-k
 MASC-dance-PSF-PRES-1.S
 ‘I am dancing’ (Notes to II (Part 1):11:4)
108. swátatki FS
 s-fatat-ki-ʔ
 MASC-dance-in.place-PRES.IMP
 ‘dance!’ (Notes to II (Part 1):11:9)
109. swátatkislak FS
 s-fatat-ki-sla-ik
 MASC-dance-in.place-FUT-1.S
 ‘I will dance’ (Notes to II (Part 1):11:6)
110. swátatkisint FS
 s-fatat-ki-sint
 MASC-dance-in.place-NZ
 ‘dance (noun)’ (Notes to II (Part 2):2:3)

The morpheme {hapt-} ‘sit’ sometimes occurs in the present tense with an element {-ut-} whose function is obscure:

111. haptutaʔsk FS
 hapt-ut-ha-ʔs-k
 sit-ʔ-PSF-PRES-1.S
 ‘I am sitting’ (Notes to Story IV)

²⁷ In theory, as a vowel-final morpheme, {wita:-} ‘stand’ should never appear with the present stem formant {-ha} at all (see Section 3.1.1.5.8). It is possible that {wita:-} actually ends in /h/ or /ʔ/, but if so, the final consonant never surfaces.

3.1.1.3.4. Activity Classifiers

The best-attested activity classifiers are listed in Table 3.4.

Table 3.4: Activity Classifiers

Morpheme	Gloss
{caq-}	'skinning'
{hu:til-}	'yawning'
{i:f-}	'back-and-forth motion'
{ip-}	'fetching'
{kit-}	'shooting'
{ku:k-}	'whistling'
{kuns-}	'stealing'
{luq-}	'spitting'
{luq-}	'tying'
{nik-}	'pulling'
{pslaq-}	'speaking'
{psne:t-}	'defecating'
{puql-}	'diving'
{qaw-}	'biting, eating'
{spin-}	'dancing'
{tat-}	'cutting'
{tu:-}	'traveling'
{we:q-}	'digging'

Activity classifiers are used in three main ways. First, they may modify another verb, as

{hu:til-} 'yawning' acts to narrow the meaning of {simtqa} 'open the mouth':

112. ho:tilsimtqaʔsk FS
hu:til-simtqa-ʔs-k
 yawning-open.mouth-PRES-1.S
 'I yawn' (Notes to XXI:1:18)

113. poqəlwá:intsi FS
puql-way-n-s-i
 diving-swim-along-D.IPV-3.S
 'he dove down' (XIV:141)

114. kú:ktungsaʔsk FS
ku:k-tuŋsa-ʔs-k
 whistling-sing-PRES-1.S
 'I whistle a song' (Notes to XIV:4:8)

Second, activity classifiers may be used like instrumental classifiers, to indicate how a particular action is accomplished:

115. slóqstkiʔsk FS
 Ø-s-luq-st-ki-ʔs-k
 3SG.O-MASC-tying-hang-in.place-PRES-1.S
 'I hang him' (Notes to XI:1:15)
116. qáuqtapiʔsk FS
 Ø-qaw-qtapi-ʔs-k
 3SG.O-biting-break-PRES-1.S
 'I break it with my teeth' (Notes to VI:17:22)
117. statsmú:taʔsk FS
 Ø-s-tat-smu:t-ha-ʔs-k
 3SG.O-MASC-cutting-dismember-PSF-PRES-1.S
 'I cut it to pieces' (Notes to VI:17:5)

Third, they are used to qualify predicates like {luya} 'want' or {i:ya} 'stop, finish':

118. spíni:yaʔsk FS
spin-i:ya-ʔs-k
 dancing-stop-PRES-1.S
 'I quit dancing' (Notes to II (Part 1):12:14)
119. qáuwiyaʔsk FS
qaw-i:ya-ʔs-k
 eating-finish-PRES-1.S
 'I get through eating' (Notes to XX:3:17)

3.1.1.3.5. Shape Classifiers

The shape classifiers (listed in Table 3.5) highlight some characteristic of the absolutive argument (that is, the transitive patient or intransitive subject) of the verb.

Examples follow below.

Table 3.5: Shape Classifiers

Morpheme	Gloss
{fa-}	'soft object, clothing'
{fa-}	'hay, grass'
{fay-}	'stick-like object'
{i:f-}	'water, especially sloshing, sprinkling'
{i:f-}	'globular, floppy, or flexible object, blanket, limp body'
{ikit-}	'long object moving lengthwise'
{it-}	'hole'
{it-}	'multiple floppy objects, blankets (?)'
{pin-}	'compact object, round object, body when jumping'
{si:w-}	'pendulous, dangling object, breast, piece of skin, dust'
{tik-}	'liquid or particulate matter'
{tis-}	'water in a bucket, tall container'
{tu:-}	'long object parallel to ground, moving crosswise'
{twe:-}	'shaman'
{way-}	'penis'
{way-}	'water in a pan, shallow container'

120. swápsquʔsk FS
 Ø-s-fa-psqu-ʔs-k
 3SG.O-MASC-soft.obj.-wash-PRES-1.S
 'I clean clothes' (Notes to I (Part 3):21:2)
121. swaifinpatlak FS
 Ø-s-fay-fin-pat-sla-ik
 3SG.O-MASC-sticklike.obj.-shove-in.hole-FUT-1.S
 'I will shove it in' (Notes to XV:7:1)

122. sí:fupíntqaʔsk FS
 Ø-s-i:f-upin-tqa-ʔs-k
 3SG.O-MASC-water-pour-APPL-PRES-1.S
 'I pour lots of water over it (with bucket)' (Notes to XIII:7:10)
123. si:wšlitaʔsk FS
 Ø-si:w-st-hit-ha-ʔs-k
 3SG.O-pendulous.obj.-hang-down-PSF-PRES-1.S
 'I hang it down' (Notes to N-II:1:9)
124. stik:ipataʔsk FS
 Ø-s-tik-ky-pat-ha-ʔs-k
 3SG.O-MASC-liquid/partic.-PLUR-in.hole-PSF-PRES-1.S
 'I pour water into bucket (lots of times in same vessel)' (Notes to XIII:7:8)
125. šwáilqás:ik^h JY
 Ø-s-way-lqa-s-ik
 3SG.O-MASC-penis-around-D.IPV-1.S
 'I went around showing my penis' (B34MY:1a)

Note that a human body under volitional control is classified as a compact or round object, while a human body not under volitional control is classified as a floppy or globular object:

126. hapinffínaihaʔsk FS
 ha-pin-fin-ʔay-ha-ʔs-k
 RR-round.obj.-throw-up.above-PSF-PRES-1.S
 'I jump up' (Notes to V)
127. si:fíngislak FS
 Ø-s-i:f-fin-ki-sla-ik
 3SG.O-MASC-glob.obj.-throw-on.ground-FUT-1.S
 "I'll throw her down" (IV:62)

Verb stems containing shape classifiers can often be used either intransitively (to describe the location of the object classified by the shape classifier) or transitively (to describe an action that puts the object in such a location). The intransitive versions bear

no subject gender marking (see Section 3.1.2.6.1), while the transitive versions take {s-} for masculine subjects and zero for feminine.

128. i:xwíngissi FS
 i:f-fin-ki-s-i
 glob.obj.-lie-on.ground-3.S
 'he was lying (dead)' (VI:81)
129. si:fíngissi FS
 Ø-s-i:f-fin-ki-s-i
 3SG.O-MASC-glob.obj.-throw-on.ground-D.IPV-3.S
 'he threw him' (VII:153)
130. i:fíngit FS
 Ø-i:f-fin-ki-?-t
 3SG.O-glob.obj.-throw-on.ground-D.PFV-3.S
 'she threw her' (VII:137)

This type of gender marking is also seen on causative verbs (Section 3.1.1.3.11); these facts can be reconciled under the hypothesis that verb stems containing shape classifiers form zero-marked causatives.

3.1.1.3.6. Instrumental Classifiers

Instrumental classifiers identify (some salient feature of) the instrument by which an action is accomplished. Common examples are listed in Table 3.6; examples follow below.

Table 3.6: Instrumental Classifiers

Morpheme	Gloss
{fa-}	‘with the (side of the) hand (?)’
{fay-}	‘with a stick-like object’
{fya:-}	‘by heat’
{i:f-}	‘with a long implement wielded radially, axe’
{i:w-}	‘with a long implement, club, switch’
{ki:-}	‘with the foot’
{pamt-}	‘with the hand closed or cupped’
{pun-}	‘with the breath, by blowing’
{ta:-}	‘with the hand, fingers, working’
{tis-}	‘with the hand flat, with the palm, pushing’
{tis-}	‘by the wind’
{ti:s-}	‘with a knife (?)’
{tisti-}	‘with the fist’
{tu:-}	‘with water (?)’
{tu:-}	‘with dirt (?)’
{twa-}	‘with a stick’
{we:-}	‘with the body’

131. swáqtapiʔsk FS
 Ø-s-fa-qtapi-ʔs-k
 3SG.O-MASC-w/hand-break-PRES-1.S
 ‘I break it with hand’ (Notes to VI:17:23)
132. sí:fłalaʔsk FS
 Ø-s-i:f-łal-ha-ʔs-k
 3SG.O-MASC-long.impl.-reduce.to.pieces-PSF-PRES-1.S
 ‘I chop wood (a lot)’ (Notes to VI:1:10)
133. síwilpú:saʔsk FS
 Ø-s-i:w-lpu:s-ha-ʔs-k
 3SG.O-MASC-long.impl.-beat-PSF-PRES-1.S
 ‘I switch (spank) him’ (Notes to V:2:11)

134. tá:kiʔaʔsk FS
 Ø-ta:-kiʔa-ʔs-k
 3SG.O-w/hand-w/s.o.-PRES-1.S
 ‘I help him’ (Notes to XXI:4:13)

135. stístík^hatsk FS
 Ø-s-tísti-kha-c-k
 3SG.O-w/fist-hit-R.PFV-1.S
 ‘I hit him’ (Notes to IV:11:3)

3.1.1.3.7. Temporal Classifiers

The temporal classifiers consist of two prefixes, {wam-} ‘in the morning’ and {maʔin-} ‘in the evening’, that indicate the time of day at which an action is performed. The {wam-} prefix is a cranberry morpheme, occurring only in the stem for ‘eat breakfast’; its function is hypothesized by parallelism with {maʔin-}, which also occurs in /maʔin-ka/ ‘camp’ (‘stay the night’):

136. wampʔaʔsk FS
 wam-pʔa-ʔs-k
 morning-eat-PRES-1.S
 ‘[I eat] breakfast’ (Notes to XII:7:3)

137. móʔin-pʔaʔsk FS
 maʔin-pʔa-ʔs-k
 evening-eat-PRES-1.S
 ‘[I eat] supper’ (Notes to XII:7:2)

138. maʔínkaʔsk FS
 maʔin-ka-ʔs-k
 evening-stay-PRES-1.S
 ‘I camp’ (Notes to VI:7:19)

3.1.1.3.8. Noncontrol Prefixes

The two noncontrol prefixes are spontaneous {taŋ-} and accidental {wat-}. The spontaneous prefix takes the place of an instrumental or activity prefix in a predicate that

would normally require one and indicates unspecified causation or lack of outside causation. It is probably connected etymologically with the auxiliary verb {tan} ‘do quickly, hasten to do’ (see Section 4.7):

139. tangiwá:lhaʔst FS
tan-iwe:l-ha-ʔs-t
 SPON-shake-PSF-PRES-3.S
 ‘it shakes (itself)’ (Notes to XV:4:1)
140. tángupnatst FS
tan-upna-c-t
 SPON-pour-R.PFV-3.S
 ‘it spilled’ (Notes to III (Part 1):8:3)
141. tanktápit FS
tan-qtapi-ʔ-t
 SPON-break-D.PFV-3.S
 ‘it broke in two’ (Notes to XII:8:13)

The accidental prefix often carries implications of falling or dropping. Unlike the spontaneous prefix, the accidental can apply to animate subjects:

142. wáthaptkitsk FS
wat-hapt-ki-c-k
 ACD-sit-on.ground-R.PFV-1.S
 ‘I drop[ped] down and sit [sat] down’ (Notes to I (Part 3):4:1)
143. wátpulhatsk FS
wat-pulha-c-k
 ACD-through.hole-R.PFV-1.S
 ‘I dropped down (clear through, without stopping)’ (Notes to I (Part 3):3:24)
144. waʔókłwaʔst FS
wat-luq-l-fa-ʔs-t
 ACD-tying-separate-off-PRES-3.S
 ‘it came loose’ (Notes to IX:4:7)

3.1.1.3.9. Desiderative

The desiderative is a prefix {sis-} which appears with only four verb roots, two of which are “cranberry” morphemes (morphemes which appear in no other context) apparently pertaining to sexual intercourse:

145. síspʔässi FS
 sís-p’a-s-i
 DESID-eat-D.IPV-3.S
 ‘he felt hungry’ (VI:167)
146. sístahaʔsk FS
 sís-tah-ha-ʔs-k²⁸
 DESID-have.sex-PSF-PRES-1.S
 ‘I feel like cohabiting’ (Notes to III (Part 2):12:15)
147. šišnáihāʔst JY
 sís-nay-ha-ʔs-t
 DESID-have.sex-PSF-PRES-3.S
 ‘he had [has] penis erectus’ (B35MY:7a)
148. síspʔiʔsk FS
 sís-pʔi-ʔs-k
 DESID-sleep-PRES-1.S
 ‘I feel like sleeping’ (Notes to IV:9:2)

The vast majority of desiderative constructions in Molalla are formed with the auxiliary {luya} ‘want’ (see Section 4.7).

3.1.1.3.10. Linking Prefixes

Certain predicates require that a semantically empty prefix intervene between the verbal stem and certain prefixes. Verbs of motion take a prefix {i:w-}, homophonous with the motional causative (see next section), when the stem is preceded by an {it-}

²⁸ The root here is always attested as *ta*. I have reconstituted it as /tah/ because it behaves like a consonant-final stem and because /h/ is deleted on the surface before all consonants.

causative (see next section), an overt object prefix (see Section 3.1.2.8), an activity or instrumental classifier (Sections 3.1.1.3.4 and 3.1.1.3.6) or a non-topical subject prefix (Section 3.1.2.7):

149. *sítí:wlukilqaʔsk* FS
 Ø-s-it-i:w-luʔ-ky-lqa-ʔs-k
 3SG.O-MASC-CAUS-LM-run-PLUR-around-PRES-1.S
 ‘I pack it around on trot’ (Notes to XIV:1:13)
150. *q’í:wto:tqtímsi* FS
 q-i:w-tu:-tqtim-s-i
 NSG.O-LM-traveling-approach-D.IPV-3.S
 ‘he came up to them’ (N-III:56)
151. *tsniki:wlunhaʔsəm* FS
 n-s-nik-i:w-luʔ-n-ha-ʔs-m-Ø
 1SG.O-MASC-pull-LM-run-along-PSF-PRES-CIS-3.S
 ‘he holds me by my wrist and takes me along’ (Notes to XVI:3:3)
152. *hísi:wáwi:tuk* FS
 hi-s-i:w-wawy-tuk-k
 NTS-LM-LM-leave-D.PFV-1.S
 ‘I was left’ (Notes to I (Part 3):9:22)

The verb {*kunsaʔ*} ‘steal’ takes a prefix {*is-*} (which looks rather like a frozen non-topical subject prefix—see Section 3.1.2.7) with an overt object prefix, while {*tuk*} ‘shoot’ both takes a prefix {*ay-*} and metathesizes to /*tku/* when used with an overt object prefix:

153. *mískunsaʔlatst* FS
 m-is-kunsaʔ-la-c-t
 2SG.O-LM-steal-MALE-R.PFV-3.S
 ‘he stole it from you’ (XII:149)
154. *qaitku:ʔsk* FS
 q-ay-tku-ʔs-k
 NSG.O-LM-shoot-PRES-1.S
 ‘I shoot them’ (Notes to XII:9:19)

3.1.1.3.11. Causatives

There are three causative prefixes in Molalla: the general causative {i-} and two motional causatives, {it-} and {i:w-}. The {it-} causative appears to be a specialized usage of {it-} ‘carry, transport’ and implies that the causee is accompanying the causer:

155. i:ti:wlukipatsi FS
Ø-it-i:w-lu?-ky-pat-s-i
3SG.O-CAUS-LM-roll-PLUR-in.boat-D.IPV-3.S
‘she made them roll into the boat [where she was]’ (XIV:190)
156. šítwala?yassimani FS
Ø-s-it-wala?ya-s-mman-i
3SG.O-MASC-CAUS-arrive-D.IPV-DU.S+CIS-3.S
‘they arrived with her’ (XII:207)

The {i:w-} causative is apparently derived from {i:w-} ‘chase, follow’ and implies that the causee is moving away from the causer:

157. psí:wlapa?sk FS
m-s-i:w-lap-ha-?s-k
2SG.O-MASC-CAUS-get.in-PSF-PRES-1.S
‘I make you go in’ (Notes to XV:3:11)
158. qsí:wí:nu:nuluksi FS
q-s-i:w-winu:n-luk-s-i
NSG.O-MASC-CAUS-travel-NEG-D.IPV-3.S
‘he did not allow them to travel’ (N-IV:21)

The general causative is recursive. It can occur within the verb stem or outside it, to the left of the reflexive/reciprocal prefix:

159. sí:p’assik FS
Ø-s-i-p’a-s-ik
3SG.O-MASC-CAUS-eat-D.IPV-1.S
‘I made him eat it’ (Notes to IV:10:19)

160. *ikí:yukiʔst* FS
 Ø-i-kiyw-ki-ʔs-t
 3SG.O-CAUS-rain-steadily-PRES-3.S
 ‘she makes rain’ (Notes to II (Part 2):10:9)
161. *qsi:häsʔaʔsk* FS
 q-s-i-ha-s-ʔe:-ʔs-k
 NSG.O-MASC-CAUS-RR-LM-take.hold-PRES-1.S
 ‘I make them fight’ (Notes to XV:2:15)

3.1.1.4. Medial Stem Elements

The medial stem elements (listed in Table 3.7) consist largely of semantically rather vague motional or positional roots. They are united distributionally in that they all require a preceding shape, activity, or instrumental classifier and a following directional.

Table 3.7: Medial Stem Elements

Morpheme	Gloss
{-a:p-}	‘plug’
{-fi-}	‘move horizontally, drag’
{-fin-}	‘throw, lie, shove’
{-k-}	‘shove a long object parallel to its axis (?)’
{-kin-}	‘go’
{-ky-}	pluractional; ‘be in a position, move (of plural objects)’
{-ly-}	‘stop, block’
{-ptya-}	‘move suddenly’
{-qi-}	‘peel’
{-qul-}	‘act with or make a small hole’
{-st-}	‘hang’
{-taʔup-}	‘be stuck in’
{-taq-}	‘wrap’
{-tnim-}	‘be ready, watchful’
{-tqin-}	‘cover’
{-tuk-}	‘excise’
{-tw-}	‘go to do’
{-ust-}	‘sprinkle (water)’

162. kitfintsinhaʔsk FS
 kit-fin-sin-ha-ʔs-k
 shooting-throw-in-PSF-PRES-1.S
 ‘I shoot inside (from outside)’ (Notes to XII:9:13)
163. ta:hinaʔsk FS
 ta:-ly-na-ʔs-k
 w/hand-stop-along-PRES-1.S
 ‘I catch it’ (Notes to III (Part 1):15:9)
164. sí:fkulniʔsk FS
 Ø-s-i:f-qul-ni-ʔs-k
 3SG.O-MASC-back.and.forth-small.hole-steadily-PRES-1.S
 ‘I keep on pecking at it’ (Notes to III (Part 1):11:11)

165. há:ftakfaʔsk FS
 ha-i:f-taq-fa-ʔs-k
 RR-flexible.obj.-wrap-off-PRES-1.S
 'I unwrap (myself)' (Notes to VI:14:12)

The medial stem element {-fi-} 'move horizontally, throw, drag' has the following allomorphy: /-if-/ before {ni} 'go, along' and /-fi-/ elsewhere:

166. snikífnisimmani FS
 Ø-s-nik-if-ni-s-mman-i
 3SG.O-MASC-pull-drag-along-D.IPV-DU.S+CIS-3.S
 'the two of them were dragging it along' (XXI:119)
167. snikfipatsəmk FS
 Ø-s-nik-fi-pat-c-m-k
 3SG.O-MASC-pull-drag-down-R.PFV-CIS-1.S
 'I pulled him down' (Notes to IX:7:11)
168. snik^hwitaqaʔsk FS
 Ø-s-nik-fi-taq-ha-ʔs-k
 3SG.O-MASC-pull-drag-upward-PSF-PRES-1.S
 'I pull it up' (Notes to III (Part 1):13:10)

The medial stem element {-tw-} 'go to do' appears to be etymologically the same as the auxiliary verb {taw-} 'go to do':

169. lautúnissi FS
 Ø-law-tw-ni-s-i
 3SG.O-see-go.to.do-away-D.IPF-3.S
 'he went to see him' (XX:349)
170. p'astáuintsi FS
 p'a-s taw-n-s-i
 eat-NZ go.to.do-away-D.IPV-3.S
 'she went to eat' (XII:53)

The medial stem element class also contains at least two cranberry morphemes whose functions are obscure: {-uw-}, which appears only with {luq-} 'tie', and {-mst-}, which only occurs with {luq-} 'spit':

171. sloqu:kiʔsk FS
 Ø-luq-uw-ki-ʔs-k
 3SG.O-tie-?-in.place-PRES-1.S
 ‘I tie it’ (Notes to III (Part 2):7:19)

172. loqúmsʔitaʔsk FS
 luq-mst-lit-ha-ʔs-k
 spit-?-down-PSF-PRES-1.S
 ‘I spit down’ (Notes to XII:2:10)

3.1.1.4.1. Redirective

Certain combinations of a bound motional element (BME; see Section 3.1.1.3.1) and a directional (Section 3.1.1.5.4) require the presence of the *redirective* morpheme, a medial stem element {-ik-} that appears after the BME and before the directional.

**Table 3.8: Bound Motional Element/Directional Pairs
 Requiring the Redirective Morpheme {-ik-}**

BME	Directional
{it-} ‘carry, transport’	{-tin} ‘out’
	/-tqa/ ‘up’ ²⁹
	{-ʔay} ‘out of hole or water’
	/-yi/ ‘ashore’ ³⁰
{i:w-} ‘follow, chase’	{-tin} ‘out’
{luʔ-} ‘run’	{-tin} ‘out’
	/-yi/ ‘ashore’
{mis-} ‘look’	{-tin} ‘out’
	/-tqa/ ‘up’
	{-ʔay} ‘out of hole or water’
{nik-} ‘pull’	{-ʔay} ‘out of hole or water’
{te:t-} ‘move’	{-tin} ‘out’
	/-tqa/ ‘up’

²⁹ The form /-tqa/ is a bound allomorph of {taq} ‘climb, move upward’.

³⁰ This form is a bound allomorph of {yiky} ‘go ashore’.

{tya-} ‘fly’	{-tin} ‘out’
	/-tqa/ ‘up’
	{-ʔay} ‘out of hole or water’
{t’at-} ‘float’	{-hayʔni} ‘upriver’
	{pat} ‘down, into hole or water’
	/-yi/ ‘ashore’
	{-ʔay} ‘out of hole or water’
{way-} ‘swim’	{-hayʔni} ‘upriver’
	{-tin} ‘out’
	/-tqa/ ‘up’
	{taqtim} ‘approach, toward’
	/-yi/ ‘ashore’
	{-ʔay} ‘out of hole or water’
{wit- } ‘pack on back’	{-tin} ‘out’
	/-tqa/ ‘up’
	{-ʔawy} ‘over’
	{-ʔay} ‘out of hole or water’

In some instances, the redirective seems to indicate that the motion proceeds in a direction other than that which is expected or natural, like swimming upriver, or “floating” down into the water (that is, sinking) In other cases, it seems to be more broadly connected with upward or outward motion. Examples are given below:

173. hanikik’aihaʔsk FS
 ha-nik-ik-ʔay-ha-ʔs-k
 RR-pull-REDIR-out.of.hole-PRES-1.S
 ‘I pull it out from my mouth’ (Notes to XVI:2:8)
174. lúhuktinhaʔsk FS
 luʔ-ik-tin-ha-ʔs-k
 run-REDIR-out-PSF-PRES-1.S
 ‘I run out(side)’ (Notes to I (Part 2):17:24)

175. sitiktqaʔsk FS
 Ø-s-it-ik-tqa-ʔs-k
 3SG.O-MASC-transport-REDIR-upward-PRES-1.S
 ‘I lift it up’ (Notes to XXIV:1:10)

176. tʔatikpataʔsk FS
 tʔat-ik-pat-ha-ʔs-k
 float-REDIR-into.water-PSF-PRES-1.S
 ‘I sink’ (Notes to XIV:8:7)

At least one form indicates that the redirective morpheme precedes the pluractional morpheme {-ky-}:

177. tʔatikipatsi FS
 tʔat-ik-ky-pat-s-i
 float-REDIR-PLUR-into.water-D.IPV-3.S
 ‘they were drowning’ (XIV:252)

3.1.1.5. Posterior Stem Elements

Posterior stem elements are those verbal morphemes that may appear at the end of a verb stem (or in the middle) but not at the beginning. They fall into four broad categories: directionals, modals, applicatives, and several types of verbs whose semantics demand that they appear with a shape, activity, or instrumental classifier.

3.1.1.5.1. Verbs of Dividing

Many verbs involving breakage or division require an activity or instrumental classifier (Sections 3.1.1.3.4 and 3.1.1.3.6), which clarifies how the action takes place. These are listed in Table 3.9. For an explanation of the intensive forms, see Section 3.1.1.7.2.

**Table 3.9: Verbs of Dividing
Requiring Instrumental or Activity Classifiers**

Morpheme	Gloss
{-aptu:k}	'tear up'
{-cqa}	'split'
{-ilwasini}	'make a gap'
{-imhu}	'crack (wood)'
{-imu:t}	'smash'
{-l}	'divide, separate'
/-lal/	'chop up, reduce to pieces' (intensive of {-l})
{-λku}	'pick off'
{-λqu}	'pluck out' (same as prev.?)
{-pqa}	'separate, open'
/-pqaq/	'split many, divide up' (intensive of {-pqa})
{-psqu}	'wash, remove outer layer'
{-pu:t}	'remove a chunk'
{-qtapi}	'break (once, in one place)'
/-qte:p/	'break into many pieces' (intensive of {-qtapi})
{-smuti}	'remove a piece'
/-smu:t/	'cut several times, dismember' (intensive of {-smuti})

178. kitilwassinissi FS
kit-ilwasini-s-i
shooting-make.gap-D.IPV-3.S
'he made a gap with his shot' (X:54)

179. ní:ktlqussya:ni FS
Ø-nik-λqu-s-ya:n-i
3SG.O-pull-pluck.out-D.IPV-PL.S-3.S
'they pulled it out' (IX:95)

180. snikpú:taʔsk FS
Ø-s-nik-pu:t-ha-ʔs-k
3SG.O-MASC-pull-remove.chunk-PSF-PRES-1.S
'I tear it out (e.g. meat)' (Notes to XVIII:4:7)

181. statpqássi FS
 Ø-s-tat-pqa-s-i
 3SG.O-MASC-cut-open-D.IPV-3.S
 'he cut it open' (IV:48)
182. páiqotápiʔst FS
 Ø-payk-qṭapi-ʔs-t
 3SG.O-step-break-PRES-3.S
 'I break [he breaks] it with foot' (Notes to VI:2:4)

3.1.1.5.2. Verbs of Motion

Table 3.10 lists verbs of (induced) motion that do not occur without a shape or activity classifier. Examples follow.

**Table 3.10: Motional Verbs
 Requiring Classificatory Prefixes**

Morpheme	Gloss
{-cmu:y}	'shove in'
{-itayk}	'extract'
{-iwe:l}	'shake'
{-pstaq}	'fasten'
{-ptqa}	'put together'
{-ptya}	'wrap around'
{-tu:pi}	'scoop out'
{-tutki}	'set down (liquid)'
{-upin}	'spill, pour'

183. snikiwá:lhaʔsk FS
 Ø-s-nik-iwe:l-ha-ʔs-k
 3SG.O-MASC-pull-shake-PSF-PRES-1.S
 'I shake him around' (Notes to XVIII:2:12)
184. qaupṭqaʔsk FS
 qaw-ptqa-ʔs-k
 biting-attach-PRES-1.S
 'I close my mouth' (Notes to XXI:1:19)

185. stistu:piʔsk FS
 Ø-s-tis-tu:pi-ʔs-k
 3SG.O-MASC-flat.hand-scoop.out-PRES-1.S
 ‘I scoop out’ (Notes to XVIII:2:1)

The morpheme {-upin} ‘spill, pour’ has a vowel-final allomorph /-upna/ when it occurs stem-finally; compare 186 and 187.

186. ší:fupintqat FS
 Ø-s-[i:f-upin-tqa_{STEM}]-ʔ-t
 3SG.O-MASC-water-pour-APPL-D.PFV-3.S
 ‘he poured it on’ (XIII:156)

187. stíkup^hnaʔsk FS
 Ø-s-[i:f-upna_{STEM}]-ʔs-k
 3SG.O-MASC-water-pour-PRES-1.S
 ‘I pour out water’ (Notes to VIII:6:13)

3.1.1.5.3. Verbs of Violent Action

Certain verbs involving violent action do not occur without a shape, instrumental, or activity classifier (or a spontaneous prefix). These are listed in Table 3.11. Examples are given below.

Table 3.11: Verbs of Violent Action

Morpheme	Gloss
{-kha}	‘hit’
{-lpu:s}	‘beat’
{-lpaq}	‘slap’
{-lqstu}	‘damage the eye’
{-ʔuk}	‘smash’
{-pstaqa}	‘twist the mouth’ (said of spirits)
{-tkusint}	‘jerk’

188. stisłpáqaʔsk FS
 Ø-s-tis-łpaq-ha-ʔs-k
 3SG.O-MASC-flat.hand-slap-PSF-PRES-1.S
 'I slap him' (Notes to XV:4:13)
189. táñłqstutuk FS
 tañ-łqstu-ʔtuk-k
 SPON-damage.eye-D.PFV-1.S
 'I got blind altogether' (Notes to XIX:3:1)
190. spínłókpatšk FS
 Ø-s-pin-łuk-pat-c-k
 3SG.O-MASC-round.obj.-smash-in.hole-R.PFV-1.S
 'I smash[ed] in (his head)' Notes to VI:9:2)

3.1.1.5.4. Directionals

Molalla has a large number of bound posterior stem elements indicating direction or location. The best-attested of these are listed in Table 3.12. Examples are given below.

Table 3.12: Bound Directionals

Morpheme	Gloss
{-fa}	‘off from around, off the body, opening’
{-ha}	‘around, enclosing, on the body’
{-hayni}	‘upriver’
{-iwla}	‘downriver’
{-kiḷa}	‘with someone, helping’
{-la:paqa}	‘alongside someone’
{-lp}	‘away from someone’
{-lpki}	‘meeting (someone in motion)’
{-lqa}	‘around, here and there, in general’
{-l}	‘on top’
{-lawy}	‘down onto’
{-la}	‘down onto’
{-nta}	‘here and there on the body’
{-paty}	‘down’
{-playʔ}	‘back’
{-qḷni}	‘behind (someone in motion)’
{-timya}	‘around’
{-tin}	‘out’
{-titil}	‘homewards’
{-tksi}	‘homewards’
{-way}	‘over a long distance, in competition’
{-yam}	‘on the face’
{-yam}	‘on the fire, on coals’
{-yaq}	‘in a row’
{-ʔawy}	‘over’
{-ʔay}	‘up and out, out of water or hole, up to a higher place and remaining there’

191. si:ʔftaqaʔsk FS
 Ø-s-i:f-taq-ha-ʔs-k
 3SG.O-MASC-flexible.obj.-wrap-around-PRES-1.S
 ‘I wrap it around’ (Notes to XXII:2:20)

192. misilpkissya:ni FS
 Ø-mis-lpki-s-ya:n-i
 3SG.O-look-toward(moving)-D.IPV-PL.S-3.S
 ‘they looked toward them coming’ (XII:193)
193. paiklaʔsk FS
 Ø-payk-l-ha-ʔs-k
 3SG.O-step-on.top-PSF-PRES-1.S
 ‘I step on it’ (Notes to III (Part 2):13:22)
194. statshimintatsk FS
 Ø-s-tat-slim-nta-c-k
 3SG.O-MASC-cut-make.marks-here.and.there.on.body-R.PFV-1.S
 ‘I cut marks on him’ (Notes to E-I:4:6)
195. spungyu:tksiʔsk FS
 Ø-s-pungyu:-tksi-ʔs-k
 3SG.O-MASC-fetch.meat-homewards-PRES-1.S
 ‘I go home with meat’ (Notes to XV:5:6)

3.1.1.5.5. Free Stems Used As Directionals

In addition to the bound directional elements discussed in the previous section, free stems can also be pressed into service as directionals. Their interpretation may be slightly different as directionals from when they are used as independent stems, and some of them can impart a modal sense as well as a directional one. See Table 3.13.

Table 3.13: Usage of Free Stems as Directional and Modal Elements

Morpheme	Independent Gloss	Directional Sense(s)	Modal Sense(s)
{ki}	'be (animate), stay, dwell'	'in one place, on the ground, in the house, within easy reach'	'stopping, maintaining position'
{lit}	'descend'	'downwards'	
{la:tn}	'exit'	'out'	
{ni}	'go'	'away, along, straight forward'	'steadily, while in motion'
{pat}	'go into hole, water, boat'	'into hole, water; downwards'	
{paty}	'pass'	'past someone, aside'	
{pity}	'return'	'back'	'restoration of previous state'
{sin}	'enter'	'in'	
{taq}	'climb'	'upwards'	
{tayk}	'cross'	'across'	
{til}	'depart'	'away'	'beginning, inception'
{taqtim}	'approach'	'toward (someone stationary)'	
{wala?ya}	'arrive'	'at destination'	
{we:limki}	'go in a circle'	'in a circle'	
{yiky}	'go ashore'	'ashore'	

Compare the independent usages in 196-199 with the directional and modal usages in 201-204.

196. litikum FS
lit-tuk-um-Ø
 descend-D.PFV-CIS-3.S
 'he came down' (XX:221)
197. pátisya:ni FS
 Ø-paty-s-ya:n-i
 3SG.O-pass-D.IPV-3.S
 'they were passing him' (XIX:55)
198. pítiha?sk FS
pity-ha-?s-k
 go.back-PSF-PRES-1.S
 'I am going home' (Notes to IV:1:15)

199. ktíłtsi FS
k-til-s-i
FEM-depart-D.IPV-3.S
'she went off' (XXI:82)
200. kyí:kismi FS
k-yiky-s-m-i
FEM-go.ashore-D.IPV-CIS-3.S
'she was coming ashore' (XIII:138)
201. paiklitaʔsk FS
payk-lit-ha-ʔs-k
step-down-PSF-PRES-1.S
'I step down (Notes to XXII:5:14)
202. hăltpátihaʔsk FS
Ø-halt-paty-ha-ʔs-k
3SG.O-walk-past-PSF-PRES-1.S
'I walk by him' (Notes to XIX:3:7)
203. tí:qpitislaqi FS
ti:ʔq-pity-sla-qy-i
come.to.life-again-FUT-PL.S-3.S
'they will come back to life' (VIII:91)
204. wi:tá:tilhaʔsk FS
wita:-til-ha-ʔs-k
stand-INCEP-PSF-PRES-1.S
'I stand up, arise' (Notes to IV:2:17)
205. payáyikihaʔsk FS
paye:-yiky-ha-ʔs-k
crawl-ashore-PSF-PRES-1.S
'I crawl ashore' (Notes to IX:3:22)

3.1.1.5.6. Allomorphy in Directionals

Many free stems have special allomorphs or suppletive forms when they combine with certain bound motional elements and medial stem elements. There is a small core class of common BMEs (and one medial stem element) that preferentially take these

special forms: {fye:-} ‘smoke’, {it-} ‘carry’, {i:w-} ‘follow’, {lu?-} ‘run’, {mis-} ‘look’, {nik-} ‘pull’, {te:t-} ‘move’, {tya-} ‘fly’, {t’at-} ‘float’, {way-} ‘swim’, {wa?-} ‘do distributively’, {wit-} ‘pack on the back’, and {-ptya-} ‘move suddenly’. However, the precise set of elements that trigger the special combining forms is different for each directional morpheme. The details are given in Table 3.14.

Table 3.14: Combining Forms of Directional Stems

Morpheme	Allomorph/ Suppletive Form	When Following...
{lit} ‘descend, down’	/-tinla/	{it-} ‘carry’, {lu?-} ‘run’, {mis-} ‘look’, {te:t-} ‘move’, {tis-} ‘push’, {tya-} ‘fly’
{ni} ‘go, along, away’	/-n/	{fye:-} ‘smoke’, {halt-} ‘be wind’, {it-} ‘carry’, {i:w-} ‘follow’, {kiyw-} ‘rain’, {kman-} ‘woo husband’, {lu?-} ‘run’, {mis-} ‘look’, {nik-} ‘pull’, {nya:w-} ‘die’, {-ptya-} ‘move suddenly’, {puku-} ‘go home with wife’, {qlan-} ‘go along shore’, {taku-} ‘follow, accompany’, {te:t-} ‘move’, {taw-} ‘go to do’, {twan-} ‘wade’, {tya-} ‘fly’, {t’at-} ‘float’, {uq-} ‘drink’, {way-} ‘swim’, {wa?-} ‘do distributively’, {we:q-} ‘dig’, {wit-} ‘pack on back’
{pat} ‘go into hole or water, down’	/-pt/	{wa-} ‘put’
	/-pta/	{it-} ‘carry’, {lu?-} ‘run’, {mis-} ‘look’, {-ptya-} ‘move suddenly’, {tik-} ‘act on liquid or particulate matter’, {tya-} ‘fly’
{sin} ‘enter, in’	/-sinha/	{it-} ‘carry’, {mis-} ‘look’; several others ambiguous
{taq} ‘climb, upward’	/-tqa/	{-ik-} redirective
{tayk} ‘cross, across’	/-tyki/ ³¹	{-fin-} ‘lie, throw, put’ (variable), {halt-} ‘walk’, {it-} ‘carry’, {lu?-} ‘run’, {mis-} ‘look’, {-ptya-} ‘move suddenly’, {t’at-} ‘float’, {way-} ‘swim’, {way-} ‘act with/on the penis’, {we:k-} ‘put’, {wit-} ‘pack on back’
{til} ‘depart, away’, inceptive	/-tla/	{fye:-} ‘smoke’, {it-} ‘carry’, {itkin-} ‘pack (multiple)’, {i:w-} ‘follow’, {lu?-} ‘run’, {ʔun-} ‘burn’, {pa-} ‘make’, {-ptya-} ‘move suddenly’, {te:t-} ‘move’, {tya-} ‘fly’, {t’at-} ‘float’, {way-} ‘swim’, {wa?-} ‘do distributively’, {wit-} ‘pack on back’
{yiky} ‘go ashore’	/-yi/	{-ik-} redirective, {payk-} ‘step’

³¹ The /y/ is postulated based on its presence in /tayk/; on the surface, the /y/ vocalizes to yield [tiki].

Examples:

206. lutínlaʔsəmk FS
luʔ-tinla-ʔs-m-k
run-down-PRES-CIS-1.S
'I come down swift' (Notes to XXI:4:17)
207. sníkinhaʔsk FS
Ø-s-nik-n-ha-ʔs-k
3SG.O-MASC-pull-along-PSF-PRES-1.S
'I pull it' (Notes to III (Part 1):13:4)
208. swáptssik FS
Ø-s-wa-pt-s-ik
3SG.O-MASC-put-in.hole-D.IPV-1.S
'I put it in' (Notes to II (Part 2):15:16)
209. míšptassi FS
mis-pta-s-i
look-down-D.IPV-3.S
'he looked down' (XIV:5)
210. sítsinhasmi FS
Ø-s-it-sinha-s-m-i
3SG.O-MASC-carry-in-D.IPV-CIS-3.S
'he brought it in' (XIV:204)
211. swítiktqaʔsk FS
Ø-s-wit-ik-tqa-ʔs-k
3SG.O-MASC-pack-REDIR-upward-PRES-1.S
'I pack it up' (Notes to VII:1:15)
212. waitíkissi FS
way-tyki-s-i
swim-across-D.IPV-3.S
'he swam across' (VII:84)
213. tyáʔat FS
tya-tla-ʔ-t
fly-away-D.PFV-3.S
'he flew off' (XVIII:116)

214. paikyíʔsk FS
 payk-yí-ʔs-k
 step-ashore-PRES-1.S
 ‘I step ashore’ (Notes to IX:3:21)

The morpheme {pity} ‘return, back, again’ displays particularly complicated

allomorphy:

215. sínpitissi FS
 sin-pity-s-i
 enter-back-D.IPV-3.S
 ‘he went back in’ (XX:339)
216. qswápatissi FS
 q-s-wa-paty-s-i
 NSG.O-MASC-put-back-D.IPV-3.S
 ‘he put them back’ (XVI:71)
217. tyáʔaptissi FS
 tya-tla-ptyi-s-i
 fly-away-back-D.IPV-3.S
 ‘he flew back’ (XVIII:120)
218. láptyaslak FS
 Ø-la-ptya-sla-ik
 3SG.O-see-again-FUT-1.S
 ‘I will find him’ (Notes to I (Part 3):12:21)

The patterns are shown in Table 3.15.

Table 3.15: Allomorphy of {pity} ‘(go) back, again’

Allomorph	Preceding Environment
/pity/	/kit/
	/sin/
	/lit/
	/mis-n/
	/ti:ʔq/
	/playʔ/
	/pu:ʔ/
	/tayk/
	/taq/
	/lwisq/
	/lap/
/paty/	/la:tn/
	/law/
	/pat/
	/sinkay
	/tpayʔ/
	/tya:tq/
	/wa/
	/ki/
/ptyi/	/lpki/
	/luʔ/
	/te:/
	/ni/
	/qa/
	/te:mi/
	/tla/
	/yi/
	/hatkya/
/ptya/	/kya/
	/la/
	/tqa/
	/walaʔya/
	/walaʔya/

The distribution of the CCCV allomorphs /ptyi/ and /ptya/ vs. the CVCC allomorphs /pity/ and /paty/ is straightforward: the CCCV allomorphs are used after vowels (though {luʔ-} ‘run’ and {wa-} ‘put’ do constitute exceptions). The distribution of the /a/-vowel allomorphs vs. the /i/-vowel allomorphs is more interesting. The /a/-vowel allomorphs appear to be harmonizing to the preceding vowel: notice that the vowel preceding the /a/-vowel allomorphs is always /a/, short or long.

The /i/-vowel allomorphs, on the other hand, follow /i(:)/, /u(:)/, /e:/, or *short* /a/, but never long /a:/. Recall from Section 2.3.3 the evidence that modern Molalla /a/ represents the merger of two historically separate vowels */e/ and */a/. It is certainly tempting to hypothesize that the /a/ vowels that trigger backing harmony represent original */a/, while those that do not represent original */e/,³² though unfortunately I have no independent evidence of this distribution. Certainly, no consistent difference is drawn in the sources, for instance, between the vowels of {-playʔ} ‘back’ and {tpayʔ} ‘send’.

There is another /i/ ~ /a/ alternation to be found among the directionals: directionals which follow the pluractional morpheme {-ky-} show surface /a/ for underlying /i/. Note the following examples, which contain {ki} ‘be, on the ground’, {til} ‘depart, away’, {sin} ‘enter, in’, and {lit} ‘descend, down’, respectively:

219. sikitgikaʔsk FS
 Ø-s-ikit-ky-ka-ʔs-k
 3SG.O-MASC-long.obj.-PLUR-on.ground-PRES-1.S
 ‘I pile (long) (on one place)’ (Notes to IV:3:11)

³² This would make {pity} similar in principle to certain harmonic morphemes in Klamath, whose vowels surface as /e/ if the following vowel is /i/, /e/, or /o/, but as /a/ if the following vowel is /a/. These alternations are symbolized in Barker 1964 by the morphophonemic symbol ||^e||.

220. lo:kitalqayi FS
 luʔ-ky-tal-Ø-qay-i
 run-PLUR-away-HAB-PL.S-3.S
 ‘they would run off’ (N-V:14)
221. sitkisantsuni FS
 Ø-s-it-ky-san-s-wn-i
 3SG.O-MASC-carry-PLUR-in-D.IPV-DU.S-3.S
 ‘they took it in’ (XXI:67)
222. stó:kiłatsi FS
 Ø-s-tu:-ky-lat-s-i
 3SG.O-MASC-long.obj.horizontal-PLUR-down-D.IPV-3.S
 ‘he was throwing it down’ (XX:233)

I do not have a compelling explanation for this pattern (there other morphemes with vocalized /y/, for instance, which do not trigger this alternation). However, note from Table 3.15 that one of the morphemes that triggers harmony in {pity} is {kya} ‘gather, together’, which could well be connected etymologically with the pluractional {-ky-}.

3.1.1.5.7. Modals

In addition to the free stems with modal interpretation, Molalla has quite a large class of dedicated modal morphemes. These are listed in Table 3.16. Examples are given below.

Table 3.16: Modal Morphemes

Morpheme	Gloss
{-aɫ}	durative; ‘over an extended period’
{-iq}	ineffectual; ‘partially affecting, in practice’
{-ʌan}	adventive; ‘arriving’
{-:luk}	negative
{-qni}	paucifactive; ‘a few times’
{-qyi}	penefactive; ‘almost’
{-saʔsna}	perseverative; ‘continuing’
{-sika}	cessative; ‘quitting, stopping’
{-sinya}	completive; ‘finishing’
{-spiya}	
{-tin}	ambulative; ‘while moving’
{-yni}	attenuative; ‘a little bit, for a little while’

223. státiqaʔsk FS
 Ø-s-tat-iq-ha-ʔs-k
 3SG.O-MASC-cut-INEFF-PSF-PRES-1.S
 ‘I am cutting with some dull knife and do not succeed in doing any damage’
 (Notes to XV:4:12)
224. hásiniqnístak FS
 hasini-qni-sta-k
 jump-PAUCF-ITER-1.S
 ‘I jump continually (three or four jumps)’ (89:16:5)
225. ísaʔsnaʔsk FS
 Ø-ʔi-saʔsna-ʔs-k
 3SG.O-say-PERS-PRES-1.S
 ‘I keep on saying’ (Notes to XIII:9:18)
226. yámisinyaʔsk FS
 yamiʔ-sinya-ʔs-k
 overtop-CPLT-PRES-1.S
 ‘I got [get] up on top of the hill’ (Notes to XII:10:15)

Any or all of the perseverative ({-saʔsna}), cessative ({-sika}), and completives ({-sinya}, {-spiya}), all of which begin with /s/, could potentially be *s*-type auxiliary verbs (see Section 4.7) instead.³³

Some of the modal morphemes display allomorphy. The penefactive {-qyi} has an allomorph /-qy/ after vowels. Compare 227 and 228; in 228, the present stem formant {-ha} appears because the stem otherwise ends in a vocalized semivowel, which counts as a consonant for the purposes of present stem formation (see next section).

227. fiqyiʔsk FS
 Ø-fik-qyi-ʔs-k
 3SG.O-spear-PENE-PRES-1.S
 ‘I pretty near spear it’ (Notes to III (Part 1):15:3)
228. láqihaʔsk FS
 Ø-la-qy-ha-ʔs-k
 3SG.O-see-PENE-PSF-PRES-1.S
 ‘I pretty nearly see it’ (Notes to Story III (Part 1):15:13)

The attenuative modal {-yni} has allomorphs /-yni/ after vowels and /-yin/ after consonants:

229. pʔainiʔsk FS
 pʔa-yni-ʔs-k
 eat-ATTEN-PRES-1.S
 ‘I eat a while’ (Notes to XIV:2:13)
230. hailuqumyinaʔsk FS
 hayluqm-yin-ha-ʔs-k
 warm.self-ATTEN-PSF-PRES-1.S
 ‘I warm myself quickly’ (Notes to XIV:5:7)

³³ That is, what I postulate here as a morpheme-initial /s/ could in fact be the nominalizer {-s} attached to the verb stem. The remainder of the “modal” morpheme (say, /aʔsna/ in the case of the perseverative) would then be an auxiliary verb.

The ambulative {-tin}, conversely (some might say, perversely) displays exactly the opposite allomorphy, with a CVC allomorph /-tin/ after vowels and a CCV allomorph /-tni/ after consonants:

231. pʔátintsi FS
 p'a-tin-s-i
 eat-AMB-D.IPV-3.S
 'he was eating and traveling' (Notes to VI:19:2)
232. stisptyantniʔsk FS
 Ø-s-tis-ptya-n-tni-ʔs-k
 3SG.O-MASC-flat.hand-move.suddenly-along-AMB-PRES-1.S
 'I push it while I am walking' (Notes to XIV:3:17)

The negative suffix {-:luk} is included here because of its modal-like semantics and because, in my database, there are no forms containing both a modal (on the strict sense) and a negative suffix.³⁴ The {-:luk} suffix is always the very last morpheme in the verb stem, barring the present stem formant (next section) and stem final vowel (Section 3.1.1.6). Some modal suffixes (such as the durative and the ineffectual) can, like directionals, complete a verb stem by fulfilling the subcategorization requirements of non-final stem elements; note, for instance, that {halt-} 'walk', which normally requires a directional element, can occur with the durative suffix alone:

233. hältʔaʔlaʔsk FS
 hält-al-ha-ʔs-k
 walk-DUR-PSF-PRES-1.S
 'I am walking' (Notes to III (Part 2):15:4)

The negative, however, always selects for a semantically complete stem.

³⁴ Since there would not seem to be any semantic incompatibility between a negative and the modal meanings listed in Table 3.16, it is quite possible that the failure of modals and the negative to appear in the same forms is simply accidental.

3.1.1.5.8. Applicatives

The Molalla applicative suffixes are listed in Table 3.17. Of these, {-tqa} and {-tqa} are by far the most common and appear to have the most generalized functions.

Table 3.17: Applicatives

Morpheme	Gloss
{-awy}	‘to someone, with someone, bringing along with oneself’
{-iya}	malefactive (?)
{-la}	malefactive; ‘to someone’s detriment’
{-tqa}	‘at or to someone, (thinking) about someone, on something’
{-tqa}	‘at, on, or to someone or something, against something’

Applicatives may take the place of directionals, or they follow them. See the examples:

234. witsinháwitsəm FS
 Ø-wit-sinha-awy-c-m-Ø
 3SG.O-pack-in-with.oneself-R.PFV-CIS-3.S
 ‘she brings [brought] in (meat) with her’ (Notes to VII:2:17)
235. ninyáwiyatkəm FS
 n-i-nya:w-iya-?tk-m-Ø
 1SG.O-LM-die-MALE?-D.PFV-CIS-3.S
 ‘he died on me’ (Notes to E-IV:1:1)
236. p’áask FS
 Ø-p’a-la-?s-k
 3SG.O-eat-MALE-PRES-1.S
 ‘I am eating off his grub’ (Notes to III (Part 2):3:2)
237. nitmúlimtqa?simmanə FS
 n-i-tmulm-tqa-?s-mman-a
 1SG.O-LM-think-APPL-PRES-DU.S+CIS-2.S
 ‘you two are thinking about me’ (Notes to III (Part 1):4:17)
238. áutqa?sk FS
 Ø-?aw-tqa-?s-k
 3SG.O-shout-APPL-PRES-1.S
 ‘I am hollering for him’ (Notes to II (Part 1))

3.1.1.5.9. Present Stem Formant

The present-tense forms and the contemporaneous subordinate forms (see Sections 3.1.2.2 and 3.1.2.4) are built on a special present stem. For stems ending in vowels, the present stem is the same as the stem for other tenses:

239. ni:ʔssyammant FS
ni-ʔs-yama:n-t
go-PRES-PL.S+CIS-3.S
'they are coming' (Notes to I (Part 1):15:19)
240. pʔaʔsk FS
p'a-ʔs-k
eat-PRES-1.S
'I eat' (Notes to XIV:2:16)

For stems ending in consonants (including vocalized semivowels), the present stem is formed with the present stem formant {-ha}:

241. tilhaʔsə FS
til-ha-ʔs-a
begin-PSF-PRES-2.S
'you begin' (Notes to III (Part 1):19:17)
242. látuhaʔsk FS
latw-ha-ʔs-k
escape-PSF-PRES-1.S
'I run off' (Notes to III (Part 2):3:3)
243. tyámihaʔst FS
Ø-tyamy-ha-ʔs-t
3SG.O-look.for-PSF-PRES-3.S
'she looks around' (Notes to VIII:4:9)

With at least some predicates that normally require directionals or other posterior stem elements, the present stem formant can take the place of the posterior stem element, leading to alternations like those seen in 244 and 245, where {-ha} appears in the present

tense but {ki} ‘be’ (here probably meaning something like ‘steadily’) must be used as a default directional in the other tenses:

244. nipstátuthaʔsəm FS
 n-i-pstatut-ha-ʔs-m-Ø
 1SG.O-LM-watch-PSF-PRES-CIS-3.S
 ‘he looks at me’ (Notes to I (Part 2):11:20)

245. nípstatu:tkísmi FS
 n-i-pstatut-ki-s-m-i
 1SG.O-LM-watch-steadily-D.IPV-CIS-3.S
 ‘he looked at me’ (Notes to I (Part 2):11:7)

3.1.1.6. Stem-Final Vowel

Certain morphological forms in Molalla require the stem to end in a vowel. These include the third-person singular non-cislocative distant past perfective (see Section 3.1.2.2), the second-person nonsingular present imperatives (Section 3.1.2.3.2), the first- and third-person singular present imperatives (also in Section 3.1.2.3.2), the first- and third-person singular future imperatives (Section 3.1.2.3.3), the absolute adjective (Section 3.6.2), and the verbal noun in {-sint} (Section 3.2.4.1). This vowel will be referred to as the *stem-final vowel*, abbreviated V_S.

Most stems simply add /-a/ as their final vowel, as in, for instance, *tsáqtsaqa* FS /caq-caq-a-ʔ/ ‘red’ (Notes to I (Part 3):9:11). However, a significant number add /-i/ instead. Many of these stems end in a nasal or /y/ (see Table 3.18), so it is possible that at least some of these vowels are underlyingly /a/ but are raised enough by the flanking consonant to sound like /i/ in an unstressed position. Some of the morphemes involved, though, actually have attested allomorphs with a final /i/. While this vowel does not normally surface in the contexts in question, it can apparently be retained if a stem-final vowel is required.

For instance, the independent verbal stem {tayk} ‘cross, across’ has two major allomorphs, /tayk/ and /tyki/. The two allomorphs are morphologically conditioned by the morpheme to their left (see examples); normally, only the medial /a/ or the final /i/ surfaces. However, the word for ‘he jumped over (a river)’ is recorded as *pátitaigit* FS /pati-tayki-ʔ-t/ (Notes to VI:11:3), rather than the expected */pati-tayk-a-ʔ-t/. It seems logical to conclude that {tayk} was originally a disyllabic morpheme **tayki* and that differential vowel deletion has resulted in the modern distribution of /tayk/ and /tyki/, but that the original disyllabic form has persisted in a few restricted environments (that is, those outlined at the beginning of this section). Nevertheless, it may be better synchronically to analyze the final /i/ in *pátitaigit* as a lexically-specified linking vowel, since in all environments other than those listed above, /tayk/ acts as a perfectly ordinary consonant-final stem. A selection of other stems with /i/ as a stem-final vowel is given in Table 3.18:

Table 3.18: Verbal Morphemes with /i/ as Stem-Final Vowel

Morpheme	Without /-i/	With /-i/
{hu:t} ‘build fire’	šútsk FS /s-hu:t-c-k/ ‘I built a fire’ (Notes to I (Part 3):6:5)	šú:ti:qən FS /s-hu:t-i:-qy-in/ ‘make a fire! (pl.)’ (89:15:45)
{wawy} ‘leave’	wáuwiháʔsk FS /wawy-ha-ʔs-k/ ‘I leave him’ (Notes to II (Part 1):21:28)	wáuyit FS /wawy-i-ʔ-t/ ‘he left’ (VI:101)
{plaqn} ‘be warm’	pláqinhaʔsk FS /plaqn-ha-ʔs-k/ ‘I am warm’ (Notes to I (Part 2):12:22)	pláqni FS /plaqn-i-ʔ/ ‘hot’ (Notes to V:3:8)
{twam} ‘ask’	twámsi FS /twam-s-i/ ‘he asked him’ (VI:143)	twammisint FS /twam-i-sint/ ‘question’ (Notes to XX:3:10)

There is another short vowel in the language, namely /u/, but this used as a stem-final vowel only by a bare handful of morphemes, all of them ending in /u(:)k/. For {qlu:k} ‘cook in ashes’, for example, we have the absolute adjective *qló:ku* FS /qlu:k-u-ʔ/ (Notes to XIII:4:15), while for {tuk} ‘shoot’, we have the first-person singular present imperative *túkku:k* FS /tuk-u-k/ (XVIII:149).³⁵ By far the most common stems taking /u/ as a stem-final vowel are those ending in the negative suffix {-luk}; here we also have the stem-final /u/ in the present negative inanimate copula *wi:lukut* FS /wi-:luk-u-t/ (VII:64).

3.1.1.7. Stem-Internal Processes and Alternations

3.1.1.7.1. Reduplication in Verbal Morphemes

A handful of verbal morphemes (five in all) exhibit distributive reduplication, which copies the first consonant and first vowel of the base. In verbs, “distributive” reduplication generally refers to distribution of action in space or time, rather than distribution over participants. The reduplicated forms of {tayk} ‘cross’ and {pity} ‘return’ are /ta-tyki/ ‘back and forth’ and /pi-ptyi/ ‘over and over’, respectively. These appear to be based on their etymological bases */tayki/ and */pityi/;³⁶ in these two verbs, as well as in {pulha} ‘be a hole, go through a hole’, the first vowel of the base is lost in the reduplicated form:

³⁵ The third-person singular distant past perfective for this verb is the irregular *túk:wat* FS ‘he shot’ (XVIII:153).

³⁶ The evidence for these reconstructed older forms rests largely on synchronic allomorphy: /tayk/ ~ /tyki/ for {tayk}, /pity/ ~ /ptyi/ for {pity}.

246. si:wtat:iki?sk FS
 Ø-s-i:w-ta-tyki-?s-k
 3SG.O-MASC-chase-DSTB-across-PRES-1.S
 ‘I chase him (around the house inside)’ (Notes to XII:8:8)
247. haimistíptissi FS
 haymisti-pi-ptyi-s-i
 look.back-DSTB-back-D.IPV-3.S
 ‘he would look back every so often’ (XV:146)
248. ítupúlhawai FS
 it-pu-plha-way
 hole-DSTB-be.hole-INAN.ADJ
 ‘full of holes’ (III:119)

With {ptya} ‘go around’ and {qsta} ‘go off in another direction’, the vowel of the base is retained:

249. sí:fpaptya?sk FS
 Ø-s-i:f-pa-ptya-?s-k
 3SG.O-MASC-flexible.obj.-DSTB-go.around-PRES-1.S
 ‘I wrap it around’ (Notes to XXII:2:17)
250. hastó:qaqsta:tkant FS
 ha-s-tu:-qa-qsta-?tk-an-t
 RR-LM-traveling-DSTB-go.in.different.direction-D.PFV-PL.S-3.S
 ‘they went off in different directions’ (XVII:21)

3.1.1.7.2. Intensive Forms

Four verbs of dividing have special intensive forms (see Table 3.19).

Table 3.19: Intensive Forms

Plain Morpheme	Plain Gloss	Intensive Form	Intensive Gloss
{-t}	‘divide, separate’	/-ta/	‘chop up, reduce to pieces’
{-pqa}	‘separate, open’	/-pqaq/	‘split many, divide up’
{-qtapi}	‘break (in one place)’	/-qte:p/	‘break into many pieces’
{-smuti}	‘remove a piece’	/-smu:t/	‘cut several times, dismember’

Formally, these intensive forms fall into two categories. The verb roots {t} and {pqa} reduplicate the final consonant to yield /taʔ/ and /pqaʔ/, respectively, while {qtapi} and {smuti} drop the final /i/ and lengthen the medial vowel: /qte:p/, /smu:t/.

251. stáʔaʔsk FS
 Ø-s-tat-t-ha-ʔs-k
 3SG.O-MASC-cut-separate-PSF-PRES-1.S
 ‘I cut it (with knife)’ (Notes to IV:5:16)
252. státʔatʔatsk FS
 Ø-s-tat-ta-ha-c-k
 3SG.O-MASC-cut-reduce.to.pieces-R.PFV-1.S
 ‘I cut it to pieces’ (Notes to VI:17:4)
253. statismútitsk FS
 Ø-s-tat-smuti-c-k
 3SG.O-MASC-cut-remove-R.PFV-1.S
 ‘I cut it off’ (Notes to III (Part 2):11:3)
254. statismú:taʔsk FS
 Ø-s-tat-smu:t-ha-ʔs-k
 3SG.O-MASC-cut-dismember-PSF-PRES-1.S
 ‘I cut it to pieces (with knife)’ (Notes to VI:17:5)

3.1.1.7.3. Metathesis/Ablaut

Some common verb roots undergo metathesis of consonant and vowel under certain circumstances; some of these also change the quality of the vowel. The CCV roots {tpa} ‘hear’ and {pya} ‘kill’ metathesize to CVC /tap/ and /pay/ when used with an overt object prefix:³⁷

255. tpaʔsk FS
 Ø-tpa-ʔs-k
 3SG.O-hear-PRES-1.S
 ‘I hear it’ (Notes to I (Part 1):6:18)

³⁷ The synchronically regular process is to insert a linking prefix /i-/ between an object prefix and a verb stem beginning with a consonant cluster (see Section 3.1.2.8), rather than metathesizing the second consonant and the vowel.

256. qtápaʔsk FS
 q-tap-ha-ʔs-k
 NSG.O-hear-PSF-PRES-1.S
 ‘I hear you (pl.)’ (XIII:202)

257. pyaána FS
 Ø-pya-t-ya:n-a
 3SG.O-kill-FUT.IMP-PL.S-2.S
 ‘kill her!’ (E-IV:16)

258. npáimaq FS
 n-pay-m-aq-Ø
 1SG.O-kill-CIS-POT-3.S
 ‘he ought to have killed me’ (Notes to IX:4:20)

The verb {yi} ‘give’ metathesizes to /ay/ with an overt object prefix, but only in the feminine form:

259. yiʔst FS
 Ø-yi-ʔs-t
 3SG.O-give-PRES-3.S
 ‘she gives him’ (Notes to XXI:5:12)

260. mháyəqak FS
 m-ay-q-ik
 2SG.O-give-POT-1.S
 ‘I (female) can give you’ (XXI:177)

261. pšíslāk FS
 m-s-yi-sla-ik
 2SG.O-MASC-give-FUT-1.S
 ‘I (male) will give it to you’ (VI:194)

The CVC roots {tuk} ‘shoot’ and {fik} ‘spear, stab’ metathesize to /tku/ and /fki/ when they appear with a reflexive/reciprocal or non-topical subject prefix (see Section 3.1.2.7). There is no obvious phonological reason for this to happen; indeed, it leads to greater consonant clustering than would occur with the non-metathesized forms:

262. tu:kaʔsk FS
 Ø-tuk-ha-ʔs-k
 3SG.O-shoot-PSF-PRES-1.S
 ‘I shoot him’ (Notes to XII:9:18)
263. hästkúlamk FS
 ha-s-tku-t-yamk
 RR-LM-shoot-FUT.IMP-1PL.S
 ‘let’s fight!’ (N-III:65)
264. fikaʔsk FS
 Ø-fik-ha-ʔs-k
 3SG.O-spear-PSF-PRES-1.S
 ‘I spear salmon’ (Notes to IX:6:15)
265. hískissi FS
 hi-s-fki-s-i
 NTS-LM-stab-SS.CUST-3.S
 ‘if he is stabbed’ (XXII:§7:2)

The verb {ʔi} ‘say, tell’ has three forms: /ʔi/ word-initially, /ʔa/ after an object prefix,

and /aʔ/ with a reflexive/reciprocal or non-topical subject prefix:

266. ístak FS
 Ø-ʔi-sta-k
 3SG.O-say-R.IPV-1.S
 ‘I said (this morning)’ (Notes to I (Part 1):18:8)
267. q’ála FS
 q-ʔa-t-a
 NSG.O-say-FUT.IMP-2.S
 ‘tell them!’ (XVIII:263)
268. hisäʔslai FS
 hi-s-aʔ-sla-i
 NTS-LM-say-FUT-3.S
 ‘it will be said’ (X:115)

3.1.1.7.4. Suppletive Roots

Three very common roots undergo suppletion in certain situations. The verb {qa}

‘do, make’ alternates with {yaq} when an overt object prefix or voice prefix is present:

269. qaʔsa FS
Ø-qa-ʔs-a
3SG.O-do-PRES-2.S
‘you (female) are doing it’ (XXIII:91)

270. sqáʔa FS
Ø-s-qa-ʔ-a
3SG.O-MASC-do-FUT.IMP-2.S
‘do it!’ (IX:166)

271. hísaqslai FS
hi-s-yaq-sla-i
NTS-LM-make-FUT-3.S
‘it will be made’ (X:99)

272. nyáqsla:mi FS
n-yaq-sla-m-i
1SG.O-do-FUT-CIS-3.S
‘she will do it to me’ (XIII:33)

The verb {la} ‘see, find’ alternates with {law} in the presence of an object prefix, but only with the meaning ‘see’.³⁸

273. laʔsk FS
Ø-la-ʔs-k
3SG.O-see-PRES-1.S
‘I see him’ (Notes to I (Part 3):1:24)

³⁸ This does not appear to be a metathetic root (Section 3.1.1.7.3), for two reasons. First, {la} can appear with object prefixes, albeit in a semantically restricted capacity. Second, an underlying morpheme */lwa/ would be expected to surface word-initially as [wa], not [la] (cf. /lwisq/ ‘be conscious, feel’, which surfaces word-initially as [wisq]). Another possibility is that {law} is historically derived from {la} through the addition of a (semantically obscure) morpheme {-w}. However, I suspect that the two roots are historically independent, with {la} being etymologically connected with Klamath *sle* ‘see’ and {law} related to Nez Perce *silé:w-* /*sléw-* ‘look, appear’, and that they have come to be synonymous in Molalla in part because of their phonetic similarity; see Berman (1996:19).

274. mláuhask FS
 m-law-ha-ʔs-k
 2SG.O-see-PSF-PRES-1.S
 ‘I see you’ (III:212)

With the meaning ‘find’, {la} is used with object prefixes:

275. mláptyasuklaʔssya:nt FS
 m-la-ptya-s ukla-ʔs-ya:n-t
 2SG.O-see-again-NZ be.going.to-PRES-PL.S-3.S
 ‘they are going to find you’ (Notes to I (Part 3):14:8)

The verb ‘to give’, {yi}, has a suppletive non-topical subject form /hi-ni/:

276. hínissik FS
 hi-ni-s-ik
 NTS-give-D.IPV-1.S
 ‘it was given to me’ (XIV:2:20)

3.1.2. Verbal Inflectional Morphology

3.1.2.1. Cislocative

The cislocative is a suffix {-m} that indicates that the action described by the verb proceeds in the direction of the speaker.³⁹ As such, it is found on all first-person object verb forms, as well as on verbs of motion that are directed toward the speaker’s location:

277. npaislá:mi FS
 n-pay-sla-m-i
 1SG.O-kill-FUT-CIS-3.S
 ‘she will kill me’ (XIII:40)
278. qpáilukasəm FS
 q-pay-luk-ha-ʔs-m-Ø
 NSG.O-kill-NEG-PSF-PRES-CIS-3.S
 ‘it doesn’t kill us’ (XVIII:101)

³⁹ Technically, “cislocative” is a misnomer, since the suffix indicates *direction*, not location; a term like “cislative” (‘carrying over to the near side’) would really be more accurate. “Venitive”, the term used in Berman 1996, would work as well (though “ventive” would be etymologically more correct). In any case, the term “cislocative” is well established in discussions of languages with this sort of morphological apparatus, and I will not endeavor here to change it.

279. ɦi:i:i:tpityəm! FS
 ɦit-pity-a-m
 go.down-back-PRES.IMP-CIS
 ‘come back down here!’ (VI:71)

In a narrative in which the speaker is not involved (such as a myth text), the cislocative may be re-centered on an important participant:

280. haiks nísmi həqǎ:s nu:kálma FS
 hayks ni-s-m-i haqe:s nu-w-ʔ=kalma
 then go-D.IPV-CIS-3.S grizzly ANA-DMSF-ABS=at+CIS
 ‘Then Grizzly came along there.’ (XI:17)

Formally, the cislocative suffix interacts with the tense/aspect and number markers in complex and sometimes unpredictable ways. In the present and past indicative, the future imperative, and the subordination system, the cislocative actually merges with the dual subject suffix {-wan} and hops inside the plural subject suffix {-ya:n} to produce /-mman/ and /-yam(a:n)/, respectively. Due to this sort of unpredictable behavior, in the following sections, the cislocative forms for the various tenses, aspects, and moods will be listed separately in the tables.

3.1.2.2. Tense-Aspect Suffixes

Molalla distinguishes four tenses: present, future, recent past, and distant past. The recent past and distant past, furthermore, distinguish perfective and imperfective aspect. There is also a habitual aspect, whose temporal reference may be either present or past. Altogether, then, the Molalla tense-aspect system consists of the following seven suffixes:

Table 3.20: The Molalla Tense-Aspect System

	Imperfective	Perfective	Habitual
Future	{-sla}		
Present	{-ʔs}		{-wi}
Recent Past	{-sta}	{-c}	
Distant Past	{-s}	{-ʔtuk}	

Habitual {-wi} is most likely connected with the present inanimate copula /wi/ and the thematic adjective suffix {-wi}. The future-tense suffix appears to derive from the subordinating suffix {-s} plus a reduced form of {luya} ‘want’.⁴⁰

“Imperfective” and “perfective” are used here in their original senses, denoting non-completed and completed action, respectively. Thus, the perfective aspect refers to actions completed as of the time of reference, while the imperfective refers to ongoing actions. The distant past imperfective, in particular, is sometimes translated with a sense of ‘begin to’.

281. háiks písintidíntsi FS
 hayks pis Ø-s-hinti-tin-s-i
 then camas 3SG.O-MASC-dig.roots-AMB-D.IPV-3.S
 ‘Then he began digging camas as he went along.’ (III:48)

Occasionally, a pair of clauses are encountered which described the beginning and the end of the same act, with the beginning expressed in the imperfective and the end expressed in the perfective:

⁴⁰ Even synchronically, Frachtenberg records the following alternation: *hæsqínishuyak* FS ‘I am a wrestler’ (literally, ‘I like/want to wrestle’), *hæsqínishlaunik* FS ‘we two are wrestlers’, *hæsqínishlaqik* FS ‘we are wrestlers’ (Notes to IV:6:10,11,13).

282. haiks tšáqilqwakássi.
 hayks Ø-caqilq-Ø waʔ-ka-s-i
 then 3SG.O-skin-SUB DSTB-in.place-D.IPV-3.S
 haiks na:nqai tšáqilqat. FS
 hayks nanqay Ø-caqilq-a-ʔ-t
 then all 3SG.O-skin-V_S-D.PFV-3.S
 ‘Then he began to skin them. Then he skinned them all’ (XIV:76-77)

The recent past is commonly translated in elicitation as pertaining to actions occurring within the last day or so, but in texts it tends to be used more as an immediate past. It is often most felicitously translated by an English perfect; there appears to be a similar emphasis on the effect of the past action on the present situation:

283. á:nuk ti:q̣tyá:ni táuhu:. FS
 ʔa-ʔa:nuk ti:ʔq-ṭ-ya:n-a taʔhu
 DSTB-what become-R.PFV-PL.S-2.S now
 “‘Now you have turned into different things.’” (XV:221)

Table 3.21 lists the subject inflections used in the present tense; the inflections incorporating the cislocative suffix {-m} are given in the lower half of the table. The present-tense inflections are always preceded by a vowel; if a verb stem would otherwise end in a consonant (including a vocalized semivowel), the present stem formant {-ha} is added (see Section 3.1.1.5.8).

Table 3.21: Present Subject Inflection

	Singular	Dual	Plural
1 st	-ʔs-k	-ʔs-wa(n-k)	-ʔs-yamk
2 nd	-ʔs-a	-ʔs-wn-a	-ʔs-ya:n-a
3 rd	-ʔs-t	-ʔs-wan	-ʔs-ya:n-t
Cislocative			
	Singular	Dual	Plural
1 st	-ʔs-m-k	-ʔs-mma(n-k)	-ʔs-yama:n-k
2 nd	-ʔs-m-a	-ʔs-mman-a	-ʔs-yamn-a
3 rd	ʔs-m	-ʔs-mman	-ʔs-yama:n-t

The tense/aspect and subject inflections for the recent past imperfective are given in Table 3.22.

Table 3.22: Recent Past Imperfective Subject Inflection

	Singular	Dual	Plural
1 st	-sta-k	-s-wa(n-k)	-s-yamk
2 nd	-s-a	-s-wn-a	-s-ya:n-a
3 rd	-s-t	-s-wan	-s-ya:n-t
Cislocative			
	Singular	Dual	Plural
1 st	-s-m-k	-s-mma(n-k)	-s-yama:n-k
2 nd	-s-m-a	-s-mman-a	-s-yamn-a
3 rd	s-m	-s-mman	-s-yama:n-t

Note that the 1sg non-cislocative form has a unique allomorph /-sta/ of the tense/aspect suffix. All other person/number combinations use the allomorph /-s/. Thus, most of the forms are identical to the present-tense forms above, except for the lack of the glottal stop of the present.⁴¹ In addition, however, the recent past imperfective endings never occur with the present stem formant {-ha}.

The present-tense endings are never used with the animate copula {ki}.⁴² Instead, the present tense of {ki} is expressed using the recent past imperfective endings:

284. pluʔnik kistak.
 pluʔn-ik ki-sta-k
 wet-1.S be-STAT-1.S
 'I am wet' (Notes to VI:4:5)

⁴¹ As the glottal stop of the present tense often goes unrecorded in the sources, this causes much confusion on the part of the analyst.

⁴² This statement applies to {ki} used as an independent stem. Complex verbs incorporating {ki} as a locational or directional element inflect normally for present tense.

This usage of the recent past imperfective suffix will be glossed as the *stative* aspect (abbreviated STAT in the examples). At other times, the recent past imperfective morphology is used to encode a habitual or customary meaning. This usage is glossed *iterative* (abbreviated ITER):

285. ína i:hwíngistak, háilohaigi i:xwíngistak.
 ina Ø-i:f-fin-ki-sta-k hayluhayki
 1SG 3SG.O-floppy.obj.-throw-on.ground-ITER-1.S always
 Ø-i:f-fin-ki-sta-k
 3SG.O-floppy.obj.-throw-on.ground-ITER-1.S
 “I throw her, I always throw her.” (VII:111)

Table 3.23 gives the subject inflections used in the recent past perfective. Note that the recent past perfective suffix {-c} has an allomorph /-t/ when it precedes the plural-subject suffixes:

Table 3.23: Recent Past Perfective Subject Inflection

	Singular	Dual	Plural
1 st	-c-k	-c-wa(n-k)	-t-yamk
2 nd	-c-a	-c-wn-a	-t-ya:n-a
3 rd	-c-t	-c-wan	-t-ya:n-t
Cislocative			
	Singular	Dual	Plural
1 st	-c-m-k	-c-mma(n-k)	-t-yama:n-k
2 nd	-c-m-a	-c-mman-a	-t-yamn-a
3 rd	c-m	-c-mman	-t-yama:n-t

The subject inflections used in the distant past imperfective are listed in Table 3.24. Note that unlike the tenses and aspects discussed so far, the distant past imperfective takes KNY-series subject endings (see Section 3.1.2.6.3).

Table 3.24: Distant Past Imperfective Subject Inflection

	Singular	Dual	Plural
1 st	-s-ik	-s-wn-ik	-s-ya:n-ik
2 nd	-s-in	-s-wn-in	-s-ya:n-in
3 rd	-s-i	-s-wn-i	-s-ya:n-i
Cislocative			
	Singular	Dual	Plural
1 st	-s-m-ik	-s-mman-ik	-s-yamn-ik
2 nd	-s-m-in	-s-mman-in	-s-yamn-in
3 rd	-s-m-i	-s-mman-i	-s-yamn-i

The distant past perfective subject inflections are given in Table 3.25. The tense/aspect and subject morphology in the distant past perfective are quite complex, varying according to whether the verb stem ends in a consonant or a vowel as well as on the cislocative/non-cislocative dimension. The 1sg non-cislocative ending /-(ʔ)tuk/ is presumably underlyingly /-(ʔ)tuk-k/. It is possible that the 3sg non-cislocative ending is etymologically /-ʔtk-t/, but that is pure speculation. Note that consonant-final stems must add a stem-final vowel (Section 3.1.1.6) in the 3sg non-cislocative.

Table 3.25: Distant Past Perfective Subject Inflection

	Postconsonantal				Postvocalic		
	Singular	Dual	Plural		Singular	Dual	Plural
1 st	-tuk	-tuk-wa(n-k)	-tuk-an-k		-ʔtuk	-ʔtk-wa(n-k)	-ʔtk-an-k
2 nd	-tuk-a	-tuk-wn-a	-tuk-n-a		-ʔtk-a	-ʔtk-wn-a	-ʔtk-an-a
3 rd	-V _S -ʔ-t	-tuk-wan	-tuk-an-t		-ʔ-t	-ʔtk-wan	-ʔtk-an-t
Cislocative							
	Singular	Dual	Plural		Singular	Dual	Plural
1 st	-tuk-um-k	-tuk-mman-k	<i>unatt.</i>		-ʔtk-m-k	-ʔtk-mman-k	-ʔtk-m-an-k
2 nd	-tuk-m-a	-tuk-mman-a	-tuk-um-n-a		-ʔtk-m-a	-ʔtk-mman-a	-ʔtk-m-n-a
3 rd	-tuk-um	-tuk-mman	-tuk-um-an-t		-ʔtk-m	-ʔtk-mman	-ʔtk-m-an-t

The future-tense subject inflections are given in Table 3.26. Note that the plural inflections differ from those examined so far in that the plural suffix is {-qay}, rather than {-ya:n}. The behavior of the cislocative suffix also differs; rather than merging with the dual and plural suffixes, it appears after the dual and before the plural. The tense suffix {-sla} has a lengthened vowel in the plural non-cislocative and the singular cislocative forms.

Table 3.26: Future-Tense Subject Inflection

	Singular	Dual	Plural
1st	-sla-k	-sla-wn-ik	-sla:-qy-ik
2nd	-sla-n	-sla-wn-in	-sla:-qy-in
3rd	-sla-y	-sla-wn-i	-sla:-qy-i
Cislocative			
	Singular	Dual	Plural
1st	-sla:-m-ik	-sla-wan-m-ik	-sla-m-qay-ik
2nd	-sla:-m-in	-sla-wan-m-in	-sla-m-qay-in
3rd	-sla:-m-i	-sla-wan-m-i	-sla-m-qay-i

The subject inflections for the habitual aspect are given in Table 3.27. Overall, the habitual inflections are rather adjective-like; compare Table 3.27 with Table 3.58 and Table 3.59. The habitual suffix {-wi} is overt only in the singular; this suffix lengthens a preceding stem vowel. In the cislocative singular, the cislocative suffix actually occurs before the aspect suffix. Here and in the postconsonantal forms of the cislocative plural, the cislocative suffix has an allomorph /-mi/.

Table 3.27: Habitual-Aspect Subject Inflection

	Postconsonantal				Postvocalic		
	Singular	Dual	Plural		Singular	Dual	Plural
1 st	-wi-k	-wan-ik	-qay-ik		-:wi-k	-wn-ik	-qy-ik
2 nd	-wi-n	-wan-in	-qay-in		-:wi-n	-wn-in	-qy-in
3 rd	-wi	-wan-i	-qay-i		-:wi	-wn-i	-qy-i
Cislocative							
	Singular	Dual	Plural		Singular	Dual	Plural
1 st	-mi-:wi-k	<i>unatt.</i>	<i>unatt.</i>		-mi-:wi-k	-wan-m-ik	-m-qay-ik
2 nd	-mi-:wi-n	-wan-m-in	-mi-qy-in		-mi-:wi-n	-wan-m-in	-m-qay-in
3 rd	-mi-:wi	-wan-m-i	-mi-qy-i		-mi-:wi	-wan-m-i	-m-qay-i

3.1.2.3. Mood Suffixes

The tense/aspect morphology discussed up to this point may be considered to belong to the indicative mood, which deals with actual events (or, in the future tense, predictions of actual events). Three other moods, the potential, present imperative, and future imperative, deal with unrealized events. Formally, the four moods are mutually exclusive; any given verb may express only one. The potential, present imperative, and future imperative moods are discussed further below.

3.1.2.3.1. Potential

The potential mood⁴³ has two main functions: discussing the capacity to perform an action (much like English “can”) and expressing unrealized (and unrealizable) situations:

286. ʔixwa auqan qláu-witsin wítspa. FS
 ʔif-a-ʔ ʔaw-q-in q-law-c-in wicp-a
 loud-V_S-ABS shout-POT-2.S IDF.O-see-SS.PROS person-ACC
 “‘You can holler loud if you see anyone.’” (XVIII:7)

⁴³ The term “potential” is taken from Berman (1996:4).

287. átai nip^hu hasʌáqik? FS
 ?atay=niphu ha-s-ʌe:-q-ik
 how=supposedly RR-LM-take.hold-POT-1.S
 ‘How in the world could I fight?’ (Notes to XV:3:1)

288. ina ʌqo: saʔk^ha tí:qqak. FS
 ina=lqu saka ti:ʔq-q-ik
 1SG=DESID dog become-POT-1.S
 ‘I wish I were a dog.’ (89:16:23)

Formally, the potential is characterized by a suffix {-aq}, with allomorphs /-aq/, /-iq/, and /-q/. The interactions of this suffix with the person, number, and cislocative suffixes are quite complex; the forms are given in Table 3.28. First- and second-person subjects are marked with the postvocalic allomorphs of the KNY-series personal endings (see Section 3.1.2.6.3);⁴⁴ third-person subjects are zero-marked.

Table 3.28: Potential-Mood Subject Inflection

	Postconsonantal				Postvocalic		
	Singular	Dual	Plural		Singular	Dual	Plural
1 st	-q-ik	-wan-q-ik	-qay-q-ik		-q-ik	-wn-q-ik	-qay-q-ik
2 nd	-q-in	-wan-q-in	-qay-q-in		-q-in	-wn-q-in	-qay-q-in
3 rd	-aq ⁴⁵	-wan-aq	-qay-iq		-q	-wn-iq	-qy-iq
Cislocative							
	Singular	Dual	Plural		Singular	Dual	Plural
1 st	<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>		-m-q-ik	-wan-m-aq-ik	-m-qay-q-ik
2 nd	-m-aq-in	wan-m-aq-in	-ma-qay-q-in		-m-q-in	-wan-m-aq-in	-m-qay-q-in
3 rd	-m-aq	-wan-m-aq	-ma-qy-iq		-m-aq	-wan-m-aq	-m-qay-iq

⁴⁴ The vowel of the personal ending in all of these forms is in fact usually recorded as *a*. However, since it is sometimes recorded as *i*, I find it simpler to attribute the lowering from *i* to *a* to the adjacent uvular stop than to posit an entirely new set of personal endings /-ak/, /-an/.

⁴⁵ The 3sg ending is /-uq/ following the negative suffix {-luk}.

3.1.2.3.2. Present Imperative

The present imperative mood is used to issue commands that are to be carried out more or less immediately. The person and number inflections are given in Table 3.29.

Table 3.29: Present Imperative Subject Inflection

	Consonant-Final				Vowel-Final		
	Sg.	Du.	Pl.		Sg.	Du.	Pl.
1 st	-V _S -k	-wa(n-k)	-qaym		-k	-wa(n-k)	-qaym
2 nd	-a	-V _S -:-wn	-V _S -:-qy-in		-ʔ	-:-wn	-:-qy-in
3 rd	-V _S -:s	-wan-a:s	-qay-i:s		-:s	-:-wn-i:s	-qy-i:s
Cislocative							
	Sg.	Du.	Pl.		Sg.	Du.	Pl.
1 st	<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>		<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>
2 nd	-a-m ⁴⁶	-wan-m	-qay-m		-m	-wan-m	-qay-m
3 rd	<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>		-m-i:s	<i>unatt.</i>	-m-qay-i:s

With stems that would otherwise end in a consonant, the first- and third-person singular non-cislocative and the second-person dual and plural non-cislocative forms require the addition of a stem-final vowel (see Section 3.1.1.6). The first-person plural ending is formally identical to the second-person plural cislocative. The first-person dual forms have long and short versions (/wan-k/ and /-wa/, respectively), which appear to be in free variation. The third-person present imperative is characterized by a suffix of the form /-(a ~ i):s/.

3.1.2.3.3. Future Imperative

The future imperative mood is used to give a command that is to be performed at some later time or after some intervening event has come to pass:

⁴⁶This ending takes the form /-um/ after the negative suffix {-luk}.

289. taʔtəm háigilasʔamk. FS
 taʔtm haykilas-ʔ-yamk
 tomorrow play.games-FUT.IMP-1PL.S
 “Let us play tomorrow.” (XXIV:156)
290. núhink ya:wintsisk pyafána. FS
 nu:hɪŋk nya:w-n-c-is-k Ø-pya-ʔ-ya:n-a
 finally die-away-PROS-DS-1.S 3SG.O-kill-FUT.IMP-PL.S-2.S
 “When I die, kill her.” (E-IV:16)

It is characterized by a suffix {-ʔ}. The person and number inflections for the future imperative are given in Table 3.30.

Table 3.30: Future Imperative Subject Inflection

	Singular	Dual	Plural
1 st	(-V _S)-ʔ-k	-ʔ-wa(n-k)	-ʔ-yamk
2 nd	-ʔ-a	-ʔ-wn-a	-ʔ-ya:n-a
3 rd	(-V _S)-ʔ	-ʔ-wan	-ʔ-ya:n-t
Cislocative			
	Singular	Dual	Plural
1 st	<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>
2 nd	-ʔ-m-a	-ʔ-mman-a	-ʔ-yamn-a
3 rd	<i>unatt.</i>	<i>unatt.</i>	-ʔ-yama:n-t

With stems that would otherwise end in a consonant, a stem-final vowel (see Section 3.1.1.6) is required for the first- and third-person singular. The actual plural surface forms show coalescence of the mood suffix with the plural number suffix (*-lamk*, *-la:na*, *-ʔa:nt*, *-lamna*, *-lama:nt*), due to the regular deletion of /y/ following /ʔ/ (see Section 2.2.11).

3.1.2.4. Subordinating Morphology

Molalla possesses an intrasentential switch reference system. That is, the morphological realization of verbs in subordinate clauses in Molalla differs according to

whether the subject of the subordinate clause is the same as or different from the subject of the matrix clause. Marking of subordinate clauses also varies depending upon the absolute and relative timing of the events described in the two clauses.

If the event described in the matrix clause occurs simultaneously with or subsequent to some already-realized event described in the subordinate clause, *contemporaneous* subordinate marking is used:

291. sqá:stsiik laigik. FS
 sqe:s-s-ik Ø-la-yk-ik
 cry-D.IPV-1.S 3SG.O-see-SS.CTPR-1.S
 ‘I cried when I saw him.’ (Notes to I (Part 3):15:6)
292. talapa:s ʔáʔtsi símqassi atšú:inhäʔs. FS
 talapa:s ʔal-s-i Ø-s-imqa-s-i
 coyote laugh-D.IPV-3.S 3SG.O-MASC-laugh.at-D.IPV-3.S
- acu:in-ha-ʔs-s-Ø
 sneeze-PSF-CTPR-DS-3.S
 ‘Coyote laughed at him because he was sneezing.’ (II:45)

The same-subject contemporaneous suffix {-yk} must be preceded by the present stem formant {-ha} when the stem would otherwise end in a consonant:

293. haiks lá:phaigi issi hapú:ha, hapú:ha! FS
 hayks la:p-ha-yk-i Ø-ʔi-s-i ha-pu:ʔ-ha-ʔ
 then get.in-PSF-SS.CTPR-3.S 3SG.O-say-D.IPV-3.S RR-close-around-PRES.IMP
- ha-pu:ʔ-ha-ʔ
 RR-close-around-PRES.IMP
 ‘Then, when he had gotten in, he said, “Close up, close up!” (III:13)

If the event described by the matrix clause occurs customarily or habitually whenever the event described by the subordinate clause occurs, *customary* subordinate marking is used:

294. qpaiqayi wítspa kláuwissyá:ni. FS
 q-pay-Ø-qay-i wicp-a q-law-s-ya:n-i
 NSG.O-kill-HAB-PL.S-3.S person-ACC NSG.O-see-SS.CUST-PL.S-3.S
 ‘They would kill people whenever they saw them.’ (XI:13)

295. haiks páqai kállá spu:ʔqayi fayutsints. FS
 hayks paqay=kala Ø-s-pu:ʔ-Ø-qay-i
 then one.side=at 3SG.O-MASC-close-HAB-PL.S-3.S
 fayut-sin-s-s-Ø
 precipitate-in-CUST-DS-3.S
 ‘Then they would close it on one side when the rain came in.’ (E-II:28)

If the event described by the matrix clause is to occur simultaneously with or subsequent to some predicted or hypothetical event described by the subordinate clause, *prospective* subordinate marking is used:

296. nannəm kitifnitsik mótká qpáiqik. FS
 nan-im kit-if-ni-ç-ik mat-ka? q-pay-q-ik
 one-times shooting-throw-away-SS.PROS-1.S three-ABS NSG.O-kill-POT-1.S
 “‘If I shoot once, I can kill three.’” (XXIV:100)

297. qtapántsmisin hink läŋs, haiks má:hintsläqik. FS
 q-tape:n-ç-m-is-in=hink läŋs hayks m-ʔahin-sla-qy-ik
 NSG.O-buy-PROS-CIS-DS-2.S=EMPH land then 2SG.O-answer-FUT-PL.S-1.S
 “‘Only if you buy our land, then we will answer you.’” (N-III:30)

Table 3.31 shows the contemporaneous, customary, and prospective subordinate clause-marking morphology for same-subject and different-subject subordinate verbs.

Table 3.31: Subordinating Morphology

	Same-Subject	Different-Subject
Contemporaneous	(-ha)-yk	(-ha)-ʔs...-is
Customary	-s	-s...-is
Prospective	-c	-c...-is

Note that, for both same-subject and different-subject constructions, the customary suffix is formally the same as the distant-past imperfective suffix, while the prospective is like the recent-past perfective (see Section 3.1.2.2). The different-subject contemporaneous forms use a suffix identical to the present tense, while the same-subject contemporaneous

utilizes a unique suffix {-yk}. All contemporaneous subordinate forms, whether based on {-ʔs} or on {-yk}, are built on present stems (see Section 3.1.1.5.8). Further discussion about the usage of subordinating morphology may be found in Section 4.8. Aside from the subordinating morphology on the verb, other syntactic properties of the subordinate clause, including constituent order and case-marking patterns, are the same as they would be in a matrix clause.

3.1.2.4.1. Same-Subject

Table 3.32, Table 3.33, and Table 3.34 lay out the forms used in same-subject subordinate marking. All same-subject subordinate verbs use the postconsonantal allomorphs of the KNY-series personal endings (see Section 3.1.2.6.3). The contemporaneous forms are unusual in several ways. The cislocative plural forms exhibit a rare allomorph /-ma/ of the cislocative suffix, while the non-cislocative plural forms have a unique bridging morpheme {-ni} between the contemporaneous suffix {-yk} and the plural suffix. Many of the same-subject customary forms are not attested, but those that are are identical to the distant-past imperfective forms. As with the recent-past perfective, the prospective suffix {-c} has an allomorph /-t/ before the plural-subject suffix.

Table 3.32: Same-Subject Contemporaneous Inflection

	Singular	Dual	Plural
1 st	-yk-ik	-yk-wn-ik	-yk-ni-qy-ik
2 nd	-yk-in	-yk-wn-in	-yk-ni-qy-in
3 rd	-yk-i	-yk-wn-i	-yk-ni-qy-i
Cislocative			
	Singular	Dual	Plural
1 st	-yk-m-ik	<i>unatt.</i>	<i>unatt.</i>
2 nd	-yk-m-in	-yk-mman-in	-yk-ma-qy-in
3 rd	-yk-m-i	-yk-mman-i	-yk-ma-qy-i

Table 3.33: Same-Subject Customary Inflection

	Singular	Dual	Plural
1 st	-s-ik	<i>unatt.</i>	<i>unatt.</i>
2 nd	<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>
3 rd	-s-i	<i>unatt.</i>	-s-ya:n-i
Cislocative			
	Singular	Dual	Plural
1 st	<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>
2 nd	<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>
3 rd	-s-m-i	<i>unatt.</i>	<i>unatt.</i>

Table 3.34: Same-Subject Prospective Inflection

	Singular	Dual	Plural
1 st	-c-ik	-c-wn-ik	-t-ya:n-ik
2 nd	-c-in	-c-wn-in	-t-ya:n-in
3 rd	-c-i	<i>unatt.</i>	<i>unatt.</i>
Cislocative			
	Singular	Dual	Plural
1 st	<i>unatt.</i>	-c-mman-ik	-t-yamn-ik
2 nd	<i>unatt.</i>	-c-mman-in	-t-yamn-in
3 rd	-c-m-i	<i>unatt.</i>	-t-yamn-i

3.1.2.4.2. Different-Subject

The subject inflections for different-subject subordinate verbs are given in Table 3.35. Different-subject subordinate verbs exhibit a unique subject-agreement pattern: first-person /-k/, second-person /-in/, third-person zero. Note that in the third-person non-cislocative forms, the /i/ of the different-subject suffix {-is} is lost. In the third-person singular non-cislocative, the resulting suffix /-s/ merges with the contemporaneous, customary, or prospective suffix to yield the surface forms /-ʔs/, /-s/, /-c/. As with the same-subject forms (see previous section), the prospective suffix {-c} surfaces as /-t/ before the plural-subject suffix.

Table 3.35: Different-Subject Subordinate Inflection

	Singular	Dual	Plural
1 st	-is-k	-wn-is-k	-ya:n-is-k
2 nd	-is-in	-wn-is-in	-ya:n-is-in
3 rd	-s ⁴⁷	-wan-s	-ya:n-s
Cislocative			
	Singular	Dual	Plural
1 st	-m-is-k	-mman-is-k	-yamn-is-k
2 nd	-m-is-in	-mman-is-in	-yamn-is-in
3 rd	-m-is	-mman-s	-yama:n-s

3.1.2.5. Benefactive

The benefactive suffix {-yiyi} is formally unusual in that it can occur either at the end of the verb stem or after the tense-aspect suffix. There does not seem to be any semantic difference arising from the different placements. In fact, Savage commonly switches back and forth between them in a single paradigm, as in the following set of

⁴⁷ This final /s/ merges with the aspect suffix.

forms (Notes to III (Part 1):10:14-19), in which the first and fifth of the six forms have a stem-internal benefactive, and the rest a stem-external one:

298. spu:fayissik
 Ø-s-[pu:ʔ-fa-yi_{STEM}]-s-ik
 3SG.O-MASC-close-open-BEN-D.IPV-1.S
 ‘I opened the door for him’
- tspu:fatkmi:yin
 n-s-[pu:ʔ-fa_{STEM}]-ʔtk-m-i:yi-in
 1SG.O-MASC-close-open-D.PFV-CIS-BEN-2.S
 ‘you opened the door for me’
- spu:fatkí:yiwan
 Ø-s-[pu:ʔ-fa_{STEM}]-ʔtk-i:yi-wan-k
 3SG.O-MASC-close-open-D.PFV-DU.S-1.S
 ‘we two opened the door for him’
- [t]spú:fatki:yíwanmin
 [n]-s-[pu:ʔ-fa_{STEM}]-ʔtk-i:yi-wan-m-in
 1SG.O-MASC-close-open-D.PFV-BEN-DU.S-CIS-2.S
 ‘you two opened the door for me’
- spu:fayitkank
 Ø-s-[pu:ʔ-fa-yi_{STEM}]-ʔtk-an-k
 3SG.O-MASC-close-open-BEN-D.PFV-PL.S-1.S
 ‘we opened the door for him’
- tspu:fatkí:yimmant
 n-s-[pu:ʔ-fa_{STEM}]-ʔtk-i:yi-m-an-t
 1SG.O-MASC-close-open-D.PFV-BEN-CIS-PL.S-3.S
 ‘they opened the door for me’

When the benefactive occurs as part of the verb stem, it is always as the very last member.⁴⁸ There are two stem-internal allomorphs: /-yiyi/ after a consonant and /-yi/ after a vowel:

⁴⁸ Though there are no examples with a negative suffix, which also comes at the end of the verb stem (the present stem formant and stem-final vowel notwithstanding).

299. sítinyiyi:tuk FS
 Ø-s-[it-n-yi_{STEM}]-ʔtuk-k
 3SG.O-MASC-carry-along-BEN-D.PFV-1.S
 ‘I took (it) to him’ (Notes to III (Part 2):11:21)
300. spu:fayitkank FS
 Ø-s-[pu:ʔ-fa-yi_{STEM}]-ʔtk-an-k
 3SG.O-MASC-close-open-BEN-D.PFV-PL.S-1.S
 ‘we opened the door for him’ (Notes to III (Part 1):10:18)

For most tenses and aspects, tense-aspect, number, and person inflection are normal for a vowel-final verb stem. The habitual aspect, which always occurs with a stem-internal benefactive, has some special forms in the benefactive (see Table 3.36).

Table 3.36: Habitual-Aspect Benefactive Inflection

	Singular	Dual	Plural
1 st	-:wi-k	-wan-ik	-qy-ik
2 nd	<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>
3 rd	<i>unatt.</i>	<i>unatt.</i>	-qy-i
Cislocative			
	Singular	Dual	Plural
1 st	<i>unatt.</i>	-wan-m-in	<i>unatt.</i>
2 nd	<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>
3 rd	-mi-:wi	<i>unatt.</i>	-ma-qy-i

In those forms in which the benefactive suffix appears stem-externally, after the tense-aspect morphology, the benefactive takes the allomorphs /-yi/ postvocally and /-i:yi/ postconsonantly. Also, special number and person inflections are used. Though it is difficult to be sure, given the limited number of forms available, it appears that the present, recent imperfective, recent perfective, distant-past imperfective, and distant-past perfective use the same set of benefactive endings, at least for the most part. These are given in Table 3.37. Only three of the future endings are recorded: first-person singular

non-cislocative /-sla-yi-k/, third-person singular cislocative /-sla-yi-m/, and third-person plural cislocative /-sla-yi-ma-qy-i/. As mentioned above, the habitual aspect does not have a stem-external benefactive form.

Table 3.37: Stem-External Benefactive Inflection

	Singular	Dual	Plural
1st	-i:yi-k	-i:yi-wan-k	-i:yi-qy-ik
2nd	-i:yi-n	-i:yi-wan-in	-i:yi-qy-in
3rd	-i:yi	-i:yi-wan	<i>unatt.</i>
Cislocative			
	Singular	Dual	Plural
1st	<i>unatt.</i>	<i>unatt.</i>	-i:yi-m-an-k ⁴⁹
2nd	-m-i:yi-n	-i:yi-wan-m-in	<i>unatt.</i>
3rd	-m-i:yi	<i>unatt.</i>	-m-i:yi-qy-i

The only benefactive imperatives attested are the second-person cislocatives: singular /-(yi)yi-m/, dual /-(yi)yi-wan-m/, plural /-(yi)yi-qay-m/. Based on the allomorphy of the benefactive suffix, these appear to be stem-internal benefactives. No other mood forms of benefactive verbs survive, nor do any subordinate benefactive verbs. Given the unusual allomorphy of the benefactive suffix and its unique ability to appear either stem-internally or stem-externally, the benefactive is quite a fascinating morpheme. Thus, it is all the more regrettable that no complete benefactive paradigm is recorded for any Molalla verb.

⁴⁹ This form is attested for the distant-past perfective only. It may apply only to that tense and aspect, as the expected ending for the other tense-aspect combinations would be */-m-i:yi-qy-ik/, given the forms of the third-person plural cislocative and the first- and second-person non-cislocative.

3.1.2.6. Subject Agreement

3.1.2.6.1. Gender

Many, though by no means all, Molalla verbs inflect to agree with the gender of the subject.⁵⁰ Most verbs of motion (perhaps all, though relevant forms are lacking for many verbs) take a feminine agreement prefix {k-}, contrasting with zero for the masculine:

301. klá:tinhaʔst FS
 k-la:tn-ha-ʔs-t
 FEM-go.out-PSF-PRES-3.S
 ‘she goes out’ (Notes to II (Part 2):5:7)

302. lá:tinhaʔsk FS
 la:tn-ha-ʔs-k
 go.out-PSF-PRES-1.S
 ‘I go out [male speaking]’ (Notes to II (Part 2):5:5)

The verb {taŋisla} ‘be, make a bad omen’ appears to work similarly:

303. ktáŋisla:wi FS
 k-taŋisla:-wi-i
 FEM-be.bad.omen-HAB-3.S
 ‘she would make a bad sign’ (XXII:§18:3)

Feminine agreement is generally used for female humans and female myth characters, though it is also used for spirits and certain animals (mole, rubber boa,⁵¹ owl), particularly if they are thought of as bad omens:

⁵⁰ Berman (1996:6) estimates that about half of all Molalla verbs inflect overtly for gender.

⁵¹ The rubber boa (*Charina bottae*) is a docile, rubbery-looking boid snake native to western North America.

304. ktángislaʔs hú:xwin nus tpáʔkilwi lá:ti:wi hó:lanks. FS
 k-taŋisla-ʔs-s-Ø hu:fn nus tpáʔkl-wi-i
 FEM-be.bad.omen-CTPR-DS-3.S owl very.much be.afraid-HAB-3.S
 la:ti-wi-i hu:lans
 Molalla-TAS-3.S long.ago
 ‘Long ago, the Molalla were very afraid of the owl making a bad omen.’
 (XXII:§17:3)

Perhaps a fifth of all underived verbs and a far higher proportion of derived verb stems take a masculine-subject prefix {s-} opposed with zero for the feminine.

Underived verbs that display this kind of gender marking fall into three main categories:

the first includes verbs describing household chores ({hinti} ‘dig roots’, {hu:t} ‘build fire’, {qlu:k} ‘cook in ashes’, {tne:p} ‘prepare wood’):

305. síndiʔsk FS
 s-hinti-ʔs-k
 MASC-dig.roots-PRES-1.S
 ‘I am digging (roots)’ (Notes to III (Part 1):16:14)

306. híndisi FS
 hinti-s-i
 dig.roots-D.IPV-3.S
 ‘she was digging roots’ (XII:127)

The second category contains verbs describing acts that are performed differently by men and women, whether for cultural or physiological reasons ({fatat-} ‘dance’, {faʔpapti} ‘become remarriageable’):

307. fáatkí:wi FS
 fatat-ki-:wi-i
 dance-in.place-HAB-3.S
 ‘she dances’ (Notes to II (Part 1):11:8)

308. swáatkí:wik FS
 s-fatat-ki-:wi-ik
 MASC-dance-in.place-HAB-1.S
 ‘I always dance’ (Notes to II (Part 1):11:7)

The remainder are a semantically heterogeneous residue of mostly transitive verbs ({qa} ‘do, make’, {pay} ‘finish’, {yi} ‘give’, {la:tw} ‘curse’, {iftikha} ‘stumble’, {paḥimki} ‘build a platform’:

309. páitst FS
 Ø-pay-c-t
 3SG.O-finish-R.PFV-3.S
 ‘she finished it’ (Notes to II (Part 1):14:8)

310. spáihaʔsk FS
 Ø-s-pay-ha-ʔs-k
 3SG.O-MASC-finish-PSF-PRES-1.S
 ‘I finish it’ (Notes to VIII:9:3)

Some of the latter group may be etymologically derived forms that I have simply not been able to analyze synchronically.

Derived verbs that inflect for masculine gender include verbs containing instrumental (Section 3.1.1.3.6) and shape classifiers (Section 3.1.1.3.5) and all causatives (Section 3.1.1.3.11):

311. i:itf:wlukipatsi FS
 Ø-it-i:w-luʔ-ky-pat-s-i
 3SG.O-CAUS-LM-run-PLUR-in.hole-D.IPV-3.S
 ‘she made them roll in’ (XIV:190)

312. sítf:wlukilqaʔsk FS
 Ø-s-it-i:w-luʔ-ky-lqa-ʔs-k
 3SG.O-MASC-CAUS-LM-run-PLUR-around-PRES-1.S
 ‘I pack it around on trot’ (Notes to XIV:1:13)

Transitive verbs containing shape classifiers (which are really verbs of induced motion, and hence a kind of causative) take the masculine prefix; intransitives do not:

313. si:fkilataʔsk FS
 Ø-s-i:f-ky-lat-ha-ʔs-k
 3SG.O-MASC-glob.obj.-PLUR-down-PSF-PRES-1.S
 ‘I throw it down (several)’ (Notes to XX:4:7)

314. ifkikassya:ni FS
i:f-ky-ka-s-ya:n-i
glob.obj.-PLUR-in.place-D.IPV-PL.S-3.S
'they lay there' (XX:259)

Some stems beginning with /k/, including {ku:k} 'suck', {ku:k-} 'whistling', and {kit-} 'shooting', take masculine {s-} only when an overt object prefix is present:

315. ku:kaʔsk FS
ku:k-ha-ʔs-k
suck-PSF-PRES-1.S
'I suck (female too)' (Notes to XIII:8:11)

316. qkukaʔst FS
q-ku:k-ha-ʔs-t
NSG.O-suck-PSF-PRES-3.S
'she sucks them' (Notes to XIV:1:7)

317. qskukaʔsk FS
q-s-ku:k-ha-ʔs-k
NSG.O-MASC-suck-PSF-PRES-1.S
'I suck them' (Notes to XIV:1:6)

The verb {ʔal} 'laugh' adds both a linking prefix /i-/ and the masculine prefix {s-} when used with an overt object prefix:

318. ʔaltqaʔsk FS
Ø-ʔal-tqa-ʔs-k
3SG.O-laugh-APPL-PRES-1.S
'I laugh (at him)' (Notes to VI:15:5)
319. tsiʔaltqaʔsəm FS
n-s-i-ʔal-tqa-ʔs-m-Ø
1SG.O-MASC-LM-laugh-APPL-PRES-CIS-3.S
'he laughs at me' (Notes to II (Part 1):19:2)

Masculine agreement is used with male humans and myth characters, along with at least ravens among animals and certain meteorological phenomena:

320. páŋ spayat. FS
 pe:ŋ Ø-s-pay-a-ʔ-t
 snow 3SG.O-MASC-finish-V_S-D.PFV-3.S
 'It stopped snowing.' (Notes to I (Part 2):9:7)

It is unknown whether other inanimate noun phrases also trigger masculine agreement, as inanimates, as a rule, do not appear as the subjects of transitive verbs.

3.1.2.6.2. Number

Molalla verbs (and adjectives) inflect for three numbers: singular, dual, and plural. The singular is always unmarked. The dual agreement suffix is {-wan}, which has two allomorphs, /-wn/ (realized on the surface as [un] when it follows a consonant) and /-wan/. The distribution of the two allomorphs is partly predictable (in most situations, /-wan/ preconsonantly and /-wn/ prevocally), but it is also partly construction-specific (for example, the /-wan/ allomorph is always used following a consonant-final stem in the habitual aspect or the potential mood; see the tables in Sections 3.1.2.2-3.1.2.4 and 3.6.1.1). In some verbal forms, the dual suffix {-wan} merges with the cislocative suffix {-m} (see Section 3.1.2.1) to yield /-mman/. The sequence {-wan-k}, consisting of the dual-subject suffix {-wan} plus the KAT-series 1st-person suffix {-k}, is commonly shortened to /-wa/.

There are two plural-subject suffixes, {-ya:n} and {-qay}, in complementary distribution. The {-qay} suffix is used on most adjectives and in the future tense, the habitual aspect, the potential mood, the present imperative, and the contemporaneous

same-subject subordinate verb. It has two allomorphs, /-qay/ and /-qy/,⁵² whose distributions are again partly predictable (usually /-qay/ postconsonantly and /-qy/ postvocally) and partly construction-specific (in particular, the /-qay/ allomorph always appears in the present cislocative imperative). The {-ya:n} suffix is used on all other verbal forms and on derived adjectives formed with the suffix {-si}. It merges with the cislocative suffix to yield /-yamn/ prevocally and /-yama:n/ preconsonantly. The first-person plural non-cislocative is represented by a suppletive suffix {-yamk}.

3.1.2.6.3. Person

The Molalla personal agreement suffixes are given in Table 3.38: Subject Person Inflections. They are organized in two series, here termed KAT and KNY. The KNY-series endings each have two allomorphs, depending on whether they follow a vowel or a consonant. The two series are mutually exclusive and are used in different constructions. The KAT-series endings are used on verbs in the present tense, the recent-past perfective and imperfective, the distant-past perfective, and the future imperative. In the future imperative and following the cislocative suffix {-m} and the dual-subject suffix {-wan}, the third-person ending {-t} has a zero allomorph.

The KNY-series endings are used in the distant-past imperfective, the future tense, the habitual aspect, the potential mood, same-subject subordinate verbs, and on adjectives. They also probably underlie the endings seen on different-subject subordinate

⁵² In fact, the /y/ of the /-qy/ allomorph is never recorded as such (which is perhaps not surprising in an unstressed syllable preceding a homorganic vowel—note that the {-qay} plural suffix is always followed by /-ik/, /-in/, or /-i/), but its presence is implied by the fact that in those environments where a /-qy/ allomorph is expected, Jacobs records the /q/ as aspirated. Recall from Section 2.1.2 that all stops are audibly released preconsonantly and that Jacobs commonly records this release noise as aspiration. What is more, the /i/ of the personal ending is never lowered by the /q/ of the number ending (unlike in the potential mood—see Section 3.1.2.3.1), which is easily explainable if the /i/ is being “insulated” from the /q/ by an intervening /y/.

verbs.⁵³ In the potential mood and the different-subject subordinate verbs, the third person is zero-marked. The forms that I have grouped here under the present imperative (Section 3.1.2.3.2) are rather heterogeneous morphologically; they probably represent several originally separate formations.

Table 3.38: Subject Person Inflections

	KAT-Series	KNY-Series	
		Postvocalic	Postconsonantal
1 st	-k	-k	-ik
2 nd	-a	-n	-in
3 rd	-t	-y ⁵⁴	-i

3.1.2.7. Voice Prefixes

There are three morphemes in the Molalla voice system: the reflexive/reciprocal {ha-} and the non-topical subject prefixes {hi-} and {sa-}. The semantic distinction, if any, between {hi-} and {sa-} is obscure; {hi-} forms are much more common than {sa-} forms. For all three voice prefixes, if a predicate normally takes the masculine-subject prefix {s-}, it loses this prefix when a voice prefix is added:

321. sniktukniʔsk FS
 Ø-s-nik-tuk-ni-ʔs-k
 3SG.O-MASC-pull-remove-away-PRES-1.S
 ‘I tear off a piece (I tear it off entirely)’ (Notes to VI:17:10)

⁵³ At some point, the different-subject subordinate verbs appear to have lost the vowels in their final syllables. This explains why, only in the third person, which has no overt subject suffix, the different-subject suffix {-is} is reduced to /-s/. It also explains why the first-person agreement suffix is /-k/, rather than */-ik/. The vowel in the final syllable of the second-person forms would have been regularly restored by pre-resonant vowel epenthesis before the /n/ of the ending (see Section 2.2.8).

⁵⁴ This suffix has a zero realization after /i/.

322. haníktukniʔsk FS
 ha-nik-tuk-ni-ʔs-k
 RR-pull-remove-away-PRES-1.S
 ‘I take off (my shoulder)’ (Notes to XVI:1:18)

Conversely, if the predicate does not ordinarily take masculine-subject {s-}, an /s/ is inserted between the voice prefix and the verb stem:

323. pátiłast FS
 Ø-patił-a-s-t
 3SG.O-kick-R.IPV-3.S
 ‘he was kicking him’ (Notes to III (Part 2):13:5)

324. haspátił-aʔsk FS
 ha-s-patił-a-ʔs-k
 RR-LM-kick-PRES-1.S
 ‘I am kicking myself’ (Notes to III (Part 2):13:2)

This /s/ is not a gender-agreement prefix, as it is present regardless of the gender of the subject. Its function, assuming it is even a morpheme, is obscure:

325. pkaʔya pin twámsi tšú hās-qínissuni FS
 pka:ya=pin Ø-twam-s-i cu ha-s-qini-s-wn-a
 yo.sister=3SG.CRF.PX 3SG.O-ask-D.IPV-3.S at.all RR-LM-wrestle-ITER-DU.S-2.S
 ‘He asked his sister, “Do you two ever wrestle?”’ (VII:107)

3.1.2.7.1. Usage and Morphosyntax of the Reflexive/Reciprocal

The usage and semantics of the reflexive/reciprocal prefix {ha-} are unproblematic. The {ha-} prefix indicates that the subject of the sentence is acting on itself, or that individual subcomponents of the subject are acting on each other:

326. hastwínpa:slan FS
 ha-s-twinpa:-sla-in
 RR-LM-report-FUT-2.S
 ‘you will tell yourself’ (Notes to I (Part 1):20:18)

327. hätyálqassuni FS
 ha-i-tya-lqa-s-wn-i
 RR-CAUS-fly-around-D.IPV-DU.S-3.S
 ‘they were tossing each other around’ (VII:136)

There is no formal distinction in Molalla between reflexive and reciprocal predicates.

The reflexive/reciprocal prefix is only found on transitive predicates.

3.1.2.7.2. Usage and Morphosyntax of the Non-Topical Subject

The non-topical subject construction⁵⁵ has a range of usages (see Table 3.39), all of them indicating that the subject of the clause is not the character of greatest interest. This lack of specific interest may be discourse-wide, or it may hold just for the moment. Non-topical subjects fall into two broad categories: *intrinsically* non-topical subjects and *situationally* non-topical subjects.

Table 3.39: Usage of the Non-Topical Subject Construction

Category	Subcategory	Intrans.	Pct.	Trans.	Pct.	Total	Pct. ⁵⁶
Intrinsic	Generic	47	32.6	97	67.4	144	46.9
	Minor	4	9.5	38	90.5	42	13.7
	Distant	31	81.6	7	18.4	38	12.4
	Unknown	5	22.7	17	77.3	22	7.2
	Hypothetical	4	22.2	14	77.8	18	5.9
	Dead	3	100	0	0	3	1.0
	Overall Intrinsic	94	35.2	173	64.8	267	87.0
Situational	Hidden	1	6.3	15	93.8	16	5.2
	Established	0	0	24	100	24	7.8
	Overall Situational	1	2.5	39	97.5	40	13.0
Overall		95	30.9	212	69.1	307	100.0

⁵⁵ “Topic” is used here in the sense of discourse prominence, rather than in the syntactic sense of a topic-comment clausal structure.

⁵⁶ This column gives the percentage out of the total of 307 examples belonging to each (sub)category.

Intrinsically non-topical subjects fall into six subtypes. The most common subtype consists of *generic* subjects who do customary sorts of acts. These constructions are particularly common in the ethnographic descriptions:

328. lá:ti:wi hó:lanks hisaqwákat. FS
 la:ti-wi-i hu:laŋs hi-s-yaq waʔ-ka-ʔ-t
 Molalla-TAS-3.S long.ago NTS-LM-do DSTB-in.place-D.PFV-3.S
 ‘The Molalla used to do it a long time ago.’ (E-III:1)

A second major subcategory deals with *minor* characters. These subjects are specific and referential, and often even definite, but they are simply not major players in the narrative. They are often messengers or sources of information for major characters:

329. haiks hisiwíłwi hisastáuinwi yáqa:nta táuhu:. FS
 hayks hi-s-i:w-til-wi-i hi-s-aʔ-s taw-n-wi-i
 then NTS-LM-LM-depart-HAB-3.S NTS-LM-tell-NZ go.to.do-away-HAB-3.S

 yaʔqa:nt-a taʔhu
 chief-ACC now
 ‘Then now he left and went to tell the chief.’ (XXIV:42)

These characters are generally not even given names; if they are referred to at all, it is simply as “the man”, “the boy”, “that one”, and so on.

The third largest subcategory of intrinsically non-topical subjects is made up of characters who are in some way physically, temporally, or psychologically *distant*. A major theme in Northwest mythology is the transformation of the myth-time world into one suitable for humans to inhabit. Often near the end of a myth, a character (usually Coyote in the Molalla corpus) will proclaim that the people (that is, the Native Americans) are drawing near and declare certain changes that are to take place in order to make the world ready for them. Because they are still remote from the present situation,

and not really part of the immediate narrative, the “people” are usually cast as non-topical subjects:

330. táuhu áíwi witsp hisí:walayasuklasəm. FS
 taʔhu ay-w-i wicp hi-s-i:w-walaʔya-s
 now other-DMSF-SG.NOM people NTS-LM-LM-arrive-NZ
 ukla-ʔs-m-Ø
 be.going.to-PRES-CIS-3.S
 ‘Now other people are going to arrive here.’ (VIII:130)

The fourth type of intrinsically non-topical subject is used when the identity of the subject is unknown to the speaker, while the fifth type consists of hypothetical subjects:

331. haiks í:wi pnät-in witsp hi:sí:wniʔsəm! FS
 hayks Ø-ʔi:-wi-i pne:t=in wicp
 then 3SG.O-say-HAB-3.S o.brother=1SG.PX person
 hi-s-i:w-ni-ʔs-m-Ø
 NTS-LM-LM-go-PRES-CIS-3.S
 ‘Then he said, “My older brother, a person is coming!”’ (XXIII:11)

332. ...tá:unislamik pi:ʔ hispíluktsik. FS
 tawni-sla-m-ik piʔ hi-s-py-luk-c-ik
 return-FUT-CIS-1.S not NTS-LM-kill-NEG-SS.PROS-1.S
 ‘...“I will come back if I’m not killed.”’ (lit., ‘if someone doesn’t kill me’)
 (XVIII:85)

The sixth and least common subcategory consists of dead subjects. In one of the myth texts, there is a string of clauses in which Wildcat, actually quite a major character in the overall narrative, is cast as a non-topical subject, apparently because he happens to be (temporarily) dead:

333. táuhu: híspúksi táuwint. FS
 taʔhu hi-s-psuk-s-i tawint
 now NTS-LM-stink-D.IPV-3.S wildcat
 ‘Now Wildcat was stinking.’ (XX:290)

Opposed to the various types of intrinsic non-topical subjects are the *situational* usages of the non-topical subject construction. Here there are two subtypes. The first involves *hidden* information. In this situation, the speaker knows the identity of the subject but chooses, at least for the moment, not to disclose that information to the hearer:

334. pisa:sintəm hi:sqúntsátúk:ə.
 pisa:-sint=im hi-s-kunsaʔ-tuk-a
 defecate-NZ=2SG.PX NTS-LM-steal-D.PFV-2.S
- tálapa:s issi áwi hisquntšatuk?
 talapa:s Ø-ʔi-s-i ʔa-w-i hi-s-kunsaʔ-tuk-k
 coyote 3SG.O-say-D.IPV-3.S who-DMSF-3SG.NOM NTS-LM-steal-D.PFV-1.S
- issuni áints mísquntsat písá:sintəm. FS
 Ø-ʔi-s-wn-i aʔins m-is-kuns-a-ʔ-t
 3SG.O-say-D.IPV-DU.S-3.S crow 2SG.O-LM-steal-V_S-D.PFV-3.S
- pisa:-sint=im
 defecate-NZ=2SG.PX
 “Your anus was stolen.” Coyote said, “Who stole it from me?” They said,
 “Crow stole your anus from you.” (III:67-69)

In the other type, the subject is already an *established* character, and it is perfectly obvious from the context who the subject must be:

335. häqä:s issi häsqinisluyasyaʔmk.

haqe:s Ø-ʔi-s-i ha-s-qini-s luya-ʔs-yamk
grizzly 3SG.O-say-D.IPV-3.S RR-LM-wrestle-NZ want-PRES-1PL.S

hípäni issi í: tšohú:ya häsqiní:wank.

hipe:ni Ø-ʔi-s-i i: cuhu:=ya
mtn.man 3SG.O-say-D.IPV-3.S yes HORT.PTC

ha-s-qini:-wan-k
RR-LM-wrestle-PRES.IMP-DU.S-1.S

haiks häsqínissuni.

hayks ha-s-qini-s-wn-i
then RR-LM-wrestle-D.IPV-DU.S-3.S

häqäsa hí:xwíngit. FS

haqe:s-a hi-i:f-fin-ki-ʔ-t
grizzly-ACC NTS-glob.obj.-throw-on.ground-D.PFV-3.S
'Grizzly said, "We want to wrestle." The mountain man said, "Yes, let's wrestle, then." Then the two of them began to wrestle. Grizzly was thrown.' (XI:59-62)

Indeed, it sometimes happens that a non-topical subject construction is used in one clause, only to have the same information re-expressed using normal, topical-subject morphology in the very next clause:

336. häsʔássuni haiks.

ha-s-ʔe:-s-wn-i hayks
RR-LM-take.hold-D.IPV-DU.S-3.S then

hó:wanapat wí:ʔaa sáspyat.

hu:wanapat wi:ʔa-a sa-s-py-a-ʔ-t
after.a.while silver.fox-ACC NTS-LM-kill-Vs-D.PFV-3.S

kátat pyat. FS

ke:taʔt Ø-pya-ʔ-t
weasel 3SG.O-kill-D.PFV-3.S
'Then the two of them [Weasel and Silver Fox] were fighting. After a while, Silver Fox was killed. Weasel killed him.' (XVII:41-43)

It appears that the use of the non-topical subject construction does not depend on the subject being hypothetical, or merely a minor character, or of uncertain identity, but on

the fact that, at the moment of use, some aspect of the situation other than the identity of the subject (usually the effect on the patient) is of tantamount importance to the speaker.

In the scant existing literature on Molalla (principally Berman 1996), the non-topical subject (henceforth NTS) has been termed a “passive”. The principal reason for this is that the presence of an NTS prefix causes the suffixal agreement slots, which normally encode features of the agent, to agree instead with features of the patient. This is a hallmark of a morphological passive:

337. *hísilaslak* FS
 hi-s-ila-sla-ik
 NTS-LM-see-FUT-1.S
 ‘I will be seen’ (Notes to II (Part 2):21:3)

338. *híspituknə* FS
 hi-s-py-tuk-n-a
 NTS-LM-kill-D.PFV-PL.S-2.S
 ‘you (pl.) were killed’ (N-VII:19)

Also, as discussed in the previous section, the non-topical subject is often used, like a passive, to background the agent of a clause and/or to highlight the effect on the patient. However, in other ways, the morphosyntax of the NTS construction is quite unlike that of a passive.

The first way in which the NTS construction is unlike a passive is that the NTS construction can apply to intransitive clauses as well as to transitive ones. Indeed, about 30 percent of all NTS clauses in the corpus are intransitive. And unlike the “impersonal” passive constructions in languages like German, Molalla intransitive NTS clauses often involve real, referential arguments, sometimes overt:

339. *áwitat hískissi*. FS
 ?a-w-i=tat hi-s-ki-s-i
 who-DMSF-3.S=DUB NTS-LM-stay-D.IPV-3.S
 ‘Somebody was staying there.’ (Notes to I (Part 1):5:7)

A second difference between the NTS construction and a passive involves case marking.

As discussed in Section 3.2.2, the subject/agent of a Molalla clause normally appears in the nominative (unmarked) case, while the object/patient appears in the accusative:

340. ʔássi haiks pállä:sa kasú:li. FS
 Ø-ʔe:-s-i hayks pale:s-a kasu:li_
 3SG.O-take.hold-D.IPV-3.S then skunk-ACC wolf
 ‘Then Wolf took hold of Skunk.’ (VI:124)

In a classic passive construction (like those found in Indo-European languages), we would expect the patient to appear in the nominative case and the agent, if it were expressible at all, to appear in some oblique case or as the object of an adposition.

Instead, we find that the patient of an NTS clause appears in the accusative case, just as it would in a normal clause:

341. pí:ant hisi:lá:lukslak táuhu ints. FS
 píʔ ʔant hi-s-ila-:luk-sla-ik taʔhu in-s
 not when NTS-LM-see-NEG-FUT-1.S now 1SG-ACC
 “No one will ever see me now.” (X:119)

This indicates that the Molalla NTS construction is *non-promotional*: that is, that the semantic patient is not “promoted” to subject status when it appears in an NTS clause.

What is more, it is quite grammatical to express the agent of an NTS clause overtly, and when such an overt agent does appear, it appears in the nominative case!

342. ints hístiswaʔqʔaslak na:nga witsp. FS
 in-s hi-s-tiswaʔqa-sla-ik naŋa-ʔ wicp_
 1SG-ACC NTS-LM-dream.of-FUT-1.S one-ABS person
 “One person will see me in a dream.” (I:89)

This indicates that the NTS construction is not only non-promotional, but non-*demotional*, in that the original subject retains that role in the NTS clause.

Because the nominative case is unmarked in Molalla, it could be argued that the NTS agent is merely a *chômeur*, an unmarked, syntactically inert adjunct noun phrase. However, Molalla morphosyntax provides other diagnostics of subjecthood, and the evidence from these is consistent with the interpretation that the agent of an NTS clause is a true subject.

Recall from Section 3.1.2.4 that the verbs of subordinate clauses in Molalla show different morphology depending on whether the subject of the subordinate clause is the same as or different from the subject of the matrix clause. This switch reference system generally treats the agents of NTS clauses (or the single arguments of intransitive NTS clauses) as subjects. Note, for example, that the English equivalent to 343, using the English (promotional) passive, would be “As he was coming, he was shouted at”, with the same subject in both clauses. In Molalla, however, the verb in the subordinate clause is marked as having a *different* subject from the one the matrix clause:

343. ní:smis hisá:usmi. FS
 ni-ʔs-m-is-Ø hi-s-ʔaw-s-m-i
 go-CTPR-CIS-DS-3.S NTS-LM-shout.at-D.IPV-CIS-3.S
 ‘As he was coming, somebody shouted at him.’ (XIII:281)

Conversely, the subordinate-clause verb in 344 is marked as having the *same* subject as the matrix verb, even though the overt subject agreement marking on the two verbs is different (first-person on the subordinate verb and third-person on the matrix verb):

344. ínts hístiswaʔqatsi:k syálpai hispíslai. FS
 in-s hi-s-tiswaʔqa-ç-ik salp-a-i
 1SG-ACC NTS-LM-dream.of-SS.PROS-1.S beads-have-3.s

 hi-s-ki-sla-i
 NTS-LM-be-FUT-3.S
 “‘If someone dreams of me, he will be rich.’” (XIV:286)

Nevertheless, there are attested Molalla sentences in which the patient of an NTS clause is treated like a subject for the purposes of switch-reference marking. Note the same-subject marking in 345, even though the subject of the matrix clause is the same as the *patient* of the subordinate NTS clause:

345. haiks kláiwass näq'äs hi:xwingi:gi. FS
 hayks klaywa-s-i naq'as
 then get.angry-D.IPV-3.S cinnamon.bear
- hi-i:f-fin-ki-yk-i
 NTS-glob.obj.-throw-on.ground-SS.CTPR-3.S
 'Then Cinnamon Bear got mad when he [C.B.] was thrown.' (XV:176)

In order to help elucidate the precise pattern at work here, I carried out a thorough examination of all the matrix and subordinate NTS clauses in the Frachtenberg corpus. The results of this examination are given in Table 3.40:

Table 3.40: NTS and Switch Reference

	Matrix	Subord.	Pat. = Subject	Agt. = Subject	Actual DS	Actual SS	
1	AT(i>j)	PT(i>j)	DS	SS			*
2	AT(i>j)	PT(j>i)	SS	DS	X?		
3	AT(i>j)	PT(i>k)	DS	SS			*
4	AT(i>j)	PT(j>k)	DS	DS			*
5	AT(i>j)	PT(k>i)	SS	DS			
6	AT(i>j)	PT(k>j)	DS	DS			*
7	AT(i>j)	PI(i)	SS	SS			*
8	AT(i>j)	PI(j)	DS	DS	XXX		
9	AI(i)	PT(i>j)	DS	SS			*
10	AI(i)	PT(j>i)	SS	DS		XXXXXXX?	
11	AI(i)	PI(i)	SS	SS			*
12	PT(i>j)	AT(i>j)	DS	SS			*
13	PT(i>j)	AT(j>i)	SS	DS	X??		
14	PT(i>j)	AT(i>k)	DS	SS			*
15	PT(i>j)	AT(j>k)	SS	DS	XXX?		
16	PT(i>j)	AT(k>i)	DS	DS			*
17	PT(i>j)	AT(k>j)	DS	DS			*
18	PT(i>j)	AI(i)	DS	SS			*
19	PT(i>j)	AI(j)	SS	DS	XXX		
20	PI(i)	AT(i>j)	SS	SS			*
21	PI(i)	AT(j>i)	DS	DS	XXX		
22	PI(i)	AI(i)	SS	SS			*
23	PT(i>j)	PT(i>j)	SS	SS	XX	XXXXXXXX	
24	PT(i>j)	PT(j>i)	DS	DS			*
25	PT(i>j)	PT(i>k)	DS	SS		X	
26	PT(i>j)	PT(j>k)	DS	DS			*
27	PT(i>j)	PT(k>i)	DS	DS			*
28	PT(i>j)	PT(k>j)	SS	DS			
29	PT(i>j)	PI(i)	DS	SS		XXXXX	
30	PT(i>j)	PI(j)	SS	DS			*
31	PI(i)	PT(i>j)	DS	SS	X	XXXXXXXX	
32	PI(i)	PT(j>i)	SS	DS			*
33	PI(i)	PI(i)	SS	SS		XXXX?	

The table is to be read as follows. Each line represents the combination of one type of matrix clause (described in the second column) with one type of subordinate clause (described in the third column). The letter “A” designates an “active” clause, while a “P” designates a “passive clause” (that is, what I am calling an NTS clause). “T” and “I” stand for “transitive” and “intransitive”, respectively. The letters in the parentheses (*i*, *j*, and *k*) stand for individual arguments, while the arrow describes who is acting on whom. On a given line, the argument signified by a given letter is the same in the matrix and in the subordinate clause. Thus, line 2 of Table 3.40 describes a sentence with an active, transitive matrix clause in which argument *i* acts on argument *j* and a “passive”, transitive subordinate clause in which argument *j* in turn acts on argument *i*.

The fourth column of the table (labeled “Pat. = Subject”) indicates the kind of switch reference marking we would expect to see on the subordinate verb if the language were treating the patient of a “passive” clause as the subject. Here, “DS” stands for different-subject subordinate morphology, while “SS” stands for same-subject. The fifth column (“Agt. = Subject”), conversely, indicates the expected subordinating morphology if the agent is treated as the subject of a “passive” clause.⁵⁷

Examining line 2 again, argument *i* is the agent of the matrix clause, and argument *j* the patient. Meanwhile, argument *j* is the agent of the subordinate clause, while *i* is the patient. The subordinate clause, recall, is a “passive” clause. If the patient of a “passive” clause is the subject, as in English, we would expect to see same-subject marking on the subordinate verb, since argument *i*, as the agent of the active matrix clause and the patient of the “passive” subordinate clause, would be the subject of both

⁵⁷ I am assuming here that the sole argument of any intransitive predicate must be treated as the subject.

clauses. However, if the agent of “passive” clause instead retains its subject status, we would expect different-subject marking, since argument *i* would be the subject of the matrix clause, but argument *j* would be the subject of the subordinate clause.

The shaded boxes are those clause combinations for which both hypotheses of subjecthood predict the same outcome; these are not relevant to the question at hand. The sixth column of the table (“Actual DS”) displays the number of actual different-subject-marked subordinate verbs encountered for each clause combination. Each “X” denotes a secure instance, while each “?” stands for an instance which is in some way semantically ambiguous (for instance, it is not clear whether one of the verbs involved is transitive or intransitive, or exactly what participants are being referred to). The seventh column (“Actual SS”), similarly displays the number of same-subject-marked subordinate verbs encountered for each clause-type combination.

Solid black outlines around cells show instances where the hypothesis that the agent of a “passive” is the subject holds, while double outlines indicate when the hypothesis that the patient is the subject is supported. From this it can be seen that when the patient of a “passive”, transitive subordinate clause is the same as the subject of an active, intransitive matrix clause (corresponding to the situation on line 10), it is treated as a subject for the purposes of switch reference marking. But it is also clear that this situation is an anomaly. In every other instance, the switch reference system treats the agents of “passive” clauses as subjects.

Line 31 contains an anomalous example in which different-subject marking is encountered where same-subject marking is expected (and where similar sentences actually do show same-subject marking). The sentence in question is reproduced in 346:

346. hisinyá:wints tamwi hink hisí:wni:wi ko:ʔfti sáúwa:k táuints hánint. FS
 hi-s-nya:w-n-s-s-Ø tam-wi-i=hɪŋk hi-s-i:w-ni-:wi-i
 NTS-LM-die-away-CUST-DS-3.S many-TAS-3.S=EMPH NTS-LM-LM-go-HAB-3.S
 ku:ʔft-i sa-we:k-Ø taw-n-s-s-Ø hanint
 grave-ALL NTS-bury-SUB go.to.do-away-CUST-DS-3.S corpse
 ‘When someone died, they would only go to the graveyard in a group when they
 went to bury the body.’ (XXII:§1:8)

Note that the sentence actually consists of three clauses. This added complexity may have had some effect on the performance of the speaker.

There is, though, another factor which may have contributed to the anomalous pattern. Note that line 23 contains two instances of sentences showing different-subject marking, even though *both* hypotheses about clausal subjecthood predict same-subject marking. The cell containing these two examples is set off by a dashed border. The first is given in 347:

347. histiswáʔqats hink hisílaslaiʔ. FS
 hi-s-tiswáʔqa-c-s-Ø=hɪŋk hi-s-ila-sla-i
 NTS-LM-dream.of-PROS-DS-3.S=EMPH NTS-LM-see-FUT-3.S
 “‘Only if someone dreams of him will they see him.’” (XII:247)

It is important to recognize that in this particular situation, the difference between same-subject and different-subject marking comes down to a single, unstressed, final vowel (same-subject /histiswáʔqaci/, different-subject /histiswáʔqac/. It is entirely possible that the clause in question was in fact intended to have same-subject marking, but that the speaker misspoke slightly, that the researcher misheard, or that the form was misrecorded, and the same possibility holds for the anomalous example on line 31 (where the crucial difference would be between same-subject /tawnsi/ and different-subject /tawns/.

The other apparent problem case on line 23 may be attributable to a simple mistranslation. The sentence is reproduced here:

348. nóqu tip hitíspyentyá:nisin pi:ʔ i:hästkú:luksla:qin. FS
 nuqu=tip hi-tisptyan-t-ya:n-is-in piʔ
 if=but NTS-beat.at.game-PROS-PL.S-DS-2.S not
- hi-i-ha-s-tku-:luk-sla-qy-in
 NTS-CAUS-RR-LM-shoot-NEG-FUT-PL.S-2.S
 “‘But if they beat you, they will not fight you.’” (XXIV:146)

The context appears to imply that the intended meaning is ‘if they_i beat you, they_i will not fight you’ (literally, ‘they will not make you shoot reciprocally’). Under this translation, the different-subject marking makes no sense, since both clauses have the same agent and the same patient, which should yield same-subject marking under any hypothesis of subjecthood. It is possible, however, that the intended meaning is ‘if someone_i beats you, they_j will not fight you’. In that case, this example would lend further support to the NTS-agent-as-subject hypothesis, since the patients of the two clauses would be the same, but the agents would be different.

Finally, note that, though there are 33 logically possible combinations of clause types listed in Table 3.40, only twelve combinations are actually attested. This is no accident, and in fact it supports the idea that the NTS construction is more about topicality than it is about subjecthood. Though the NTS construction does not deny the agent *subject* status, it does deny it (and likewise the subject of an intransitive clause) *topic* status. Notice the asterisks in the far right-hand column of Table 3.40. These mark those clause-type combinations in which the same argument would be accorded topic status in one clause while being denied topic status in another clause in the same

sentence. Apparently this is not done in Molalla, since not one of the asterisked lines represents an attested combination.

Thus, both in terms of case marking on NPs and in terms of switch reference marking on verbs, it appears that the agent of a “passive” sentence in Molalla is treated, for the most part, as a grammatical subject. In fact, there is one more line of evidence that points to the same conclusion. Recall from section 3.2.3.1 that third-person possessors are coded differently depending on whether the possessor is the same as the subject of the sentence. Unfortunately, no examples exist in the Frachtenberg corpus of a “passive” agent being co-referential with the possessor of a noun. However, a preliminary examination of the 1877 materials collected by Gatschet (from Stevens Savage, with whom Frachtenberg also worked) has revealed precisely such a sentence, reproduced here as Example .

349. ptathápin hishiláshi ihuinash.
 ptat-a=pin his-ila-s-i i:f-fin-ha-ʔs-s-Ø
 father-ACC=3SG.CRF.PX NTS-see-D.IPV-3.S glob.obj.-lie-PSF-PRES-DS-3.S
 ‘He saw his father lying.’

The agent of the matrix clause is a young boy, who is never named and who is treated as a non-topical subject. Note that the possessive clitic used on the noun ‘father’ is {=pin}, which is used only when the possessor (in this case, the boy) is the subject of the clause. What is more, it is clear from the context that the subordinate verb *ihuinash* ‘while he was lying’ refers to the father. If the father, the patient of the NTS matrix clause, were treated as the subject of that clause, we would expect the subordinate verb to show same-subject marking. The fact that it shows different-subject morphology is further confirmation that the son, not the father, is the subject of the matrix clause.

Given the indications that the Molalla non-topical subject construction is neither promotional (the patient does not assume subject status) nor demotional (the agent does not lose subject status), is it proper to term this construction a “passive”? The answer, of course, depends on what one means by a passive construction. In the introduction to the 1988 volume *Passive and Voice*, Shibatani gives a formal definition of the passive voice:

Voice is to be understood as a mechanism that selects a grammatically prominent syntactic constituent—subject—from the underlying semantic functions (case or thematic roles) of a clause...A large number of accusative languages provide a marked voice, which denies the agent the subject role...This marked voice, which contrasts with the basic, active voice in terms of the treatment of the agent is the passive voice.

As we have seen, the Molalla NTS construction does not in fact deny the agent the subject role. Thus, under this definition, the NTS is not properly a passive.

Givón (1981:167-8), on the other hand, prefers to conceptualize the passive in functional terms. According to his view, the passive lies at the nexus of three functional domains:

- (i) *Clausal topic assignment*: “The subject/agent of the active clause ceases to be the topic, and a non-agent argument of the active then assumes, by whatever means, the clausal-topic function”.
- (ii) *Impersonalization*: “The identity of the subject/agent of the active is suppressed, by whatever means”.
- (iii) *De-transitivization*: “The clause becomes semantically less-active, less-transitive, more-stative”.

As discussed above, clausal topic assignment appears to be the primary function of the NTS construction, thus placing the NTS squarely within Givón’s first domain. As for the second, the NTS construction certainly carries an impersonalizing function, since, in a transitive NTS clause, the agent is not indexed on the verb at all; and the NTS construction is in fact often used precisely in those situations when the agent is either

generic or of unknown identity. It is not entirely clear to me what Givón means when he writes that a passive clause “becomes semantically...less transitive”, as (at least on truth-conditional grounds) a passive clause is semantically just as transitive as its equivalent active clause. At any rate, a transitive non-topical subject clause is certainly *pragmatically* less transitive than an equivalent topical-subject clause, given the NTS construction’s backgrounding of the agent and emphasis on the effect on the patient. All in all, then, it would appear that the Molalla non-topical subject construction would fulfill Givón’s criteria for being considered a (functionally) passive construction.

Nevertheless, if the NTS is a passive it is a most unusual one, because its morphosyntactic facts flatly contradict a set of typological generalizations made by Givón in the very same paper. In his discussion of the Ute impersonal passive, Givón notes four typological dimensions along which passive constructions (functionally defined) may vary:

- (i) “The degree to which the new (non-agent) topic of the passive clause assumes the characteristic case-marking properties of the subject/agent of the active clause”.
- (ii) “The degree to which the identity of the subject/agent of the active clause is suppressed in the passive clause”.
- (iii) “The degree to which the passive clause retains semantic and syntactic characteristics of ‘activeness’ or ‘transitivity’”.
- (iv) “The degree to which the various non-subject/agent arguments of the active clause can become the topic/subject of the passive clause”.

At first glance, four dimensions along which to vary should yield sixteen (2^4) different types of passive constructions. However, Givón states:

Given four explicitly scalar typological dimensions, one would expect the typology of passive clauses to be expressed in terms of multi-dimensional clustering. But in fact one finds that this is not the case. Rather, there seems to be only one major continuum along a single dimension in passivization...There is only one way in which such a fact could be

compatible with the typological properties outlined above: If those typological dimensions do *not* vary independently, but rather exhibit *dependencies* among themselves.

These dependencies are stated as follows:

- (i) “The less the topic of the passive is coded by the subject/agent marking characteristic of the active clause, the *more* is the passive clause likely to obligatorily delete/suppress the agent/subject of the active”.
- (ii) “The less the topic of the passive is coded by the subject/agent marking characteristic of the active clause, the *more* is the passive clause likely to retain vestiges of ‘transitivity’ or ‘activeness’.
- (iii) “The less the topic of the passive is coded by the subject/agent marking characteristic of the active clause, the *more* is the passive clause likely to tolerate a wider range of non-agent case-arguments as topic of the passive clause”.

The dependencies among the typological variables are claimed to constrain variation in passive constructions to a single axis, with the English passive construction at one end and the Ute impersonal passive at the other. In English, the patient of a passive becomes highly subject-like, it is possible to express the agent overtly, the passive is formally rather stative-looking (involving a copula and an adjectivalized verb), and essentially only direct objects can be topicalized using the passive. In Ute, by contrast, the topicalized element does not adopt subject-like morphosyntactic properties, the agent may not be expressed (or even implied), the impersonal passive clause looks formally rather like an active clause, and all manner of elements (including instruments, locations, and adverbs) may be topicalized using the impersonal passive (Givón 1981:171-181).

These typological characteristics are summarized in Table 3.41.

Table 3.41: English Passive vs. Ute Passive

English	Ute
Non-agent topic coded as subject	
Y	N
Agent obligatorily suppressed	
N	Y
Highly stative-intransitive passive clause	
Y	N
Restrictions on non-agent arguments allowed to topicalize	
Y	N

Remember that these are claimed to be the endpoints of a single scale. Individual constructions in different languages are not supposed to be able to pick and choose among these typological variables; otherwise, we would see precisely the sort of “multi-dimensional clustering” that Givón says does not exist. What, then of the Molalla non-topical subject construction? Table 3.42 compares the NTS with the English and Ute passives.

Table 3.42: English, Molalla, and Ute Passives

English	Molalla	Ute
Non-agent topic coded as subject		
Y	N	N
Agent obligatorily suppressed		
N	N	Y
Highly stative-intransitive passive clause		
Y	N	N
Restrictions on non-agent arguments allowed to topicalize		
Y	Y	N

The NTS construction resembles the Ute impersonal passive in that the topicalized argument does not, for the most part, assume subject-like properties. It is like

the English passive in that the agent may be expressed overtly. NTS verbs are, as in Ute, quite active and transitive, in that they are not restricted to stative or imperfective aspects and they retain the ability to assign both nominative and accusative case. Finally, I am not aware of any NTS construction in which an element is topicalized that could not be expressed as an object in a normal topical-subject clause. Certainly, the Molalla NTS has nothing like the freedom to topicalize seen in Ute. In summary, then, the Molalla non-topical subject is precisely the sort of construction that should not exist under Givón's schema. Certainly, it is typologically quite unusual and worthy of further investigation.

3.1.2.8. Object Agreement

The Molalla object agreement prefixes are given in Table 3.43. All nonsingular objects share the same agreement prefix {q-}, but verb forms with first-person nonsingular objects are additionally distinguished from those with second- and third-person objects by the presence of the cislocative morpheme. The nonsingular object prefix {q-} is also used for generic or non-topical objects.

Table 3.43: Object Agreement Prefixes

	Singular	Nonsingular
1 st	n-	q-
2 nd	m-	
3 rd	Ø-	

When an object agreement prefix is added to a base beginning with more than one consonant (of which the first is something other than /s/), an epenthetic vowel /i/ is inserted after the object prefix:

350. nitmúlimłqaʔsmə FS
 n-i-tmulm-lqa-ʔs-m-a
 1SG.O-LM-think-APPL-PRES-CIS-2.S
 ‘you are thinking about me’ (Notes to III (Part 1):4:13)

351. mitpákiilhaá:syamk FS
 m-i-tpákl-ha-ʔs-yamk
 2SG.O-LM-fear-PSF-PRES-1PL.S
 ‘we are afraid of you’ (XVII:56)

This applies also to verbs of motion bearing the feminine-subject prefix {k-}:

352. mikwáuwyit FS
 m-i-k-wawy-i-ʔ-t
 2SG.O-LM-FEM-leave-V_s-D.PFV-3.S
 ‘she left you’ (Notes to II (Part 2):1:7)

It also applies, irregularly, to the verb {nu} ‘bite’:

353. qinuʔsk FS
 q-i-nu-ʔs-k
 NSG.O-LM-bite-PRES-1.S
 ‘I bite them’ (Notes to XXIII:1:14)

The object agreement morphemes do not always index patients. In some instances, they index a goal, as evidenced by the case marking on the noun phrase:

354. qí:walaʔyassi támap wítspä. FS
 q-i:w-walaʔya-s-i tam-ap wítsp-a
 NSG.O-LM-arrive-D.IPV-3.S many-LOC person-LOC
 ‘He came to many people.’ (XVI:130)

This being the case, it is sometimes possible to combine an object prefix with a reflexive/reciprocal morpheme:

355. q^ha:ftáqaq FS
 q-ha-i:f-taq-ha-q-Ø
 NSG.O-RR-flexible.obj.-wrap-around-POT-3.S
 ‘[a snake] might wrap itself around them’ (XXII:§16:4)

The nonsingular object prefix {q-} is also used for generic or indefinite objects:

356. qslá:psluyai FS
 q-s-la:p-s luya-i
 IDF.O-MASC-take.by.force-NZ want.to-3.S
 ‘robber’ (lit., ‘liking to take things from people by force’) (Notes to IX:11:18)

357. táuhu: pí:ant qpáilukslən áwa. FS
 taʔhu piʔ ʔant q-pay-luk-sla-in ʔa-w-a
 now not when IDF.O-kill-NEG-FUT-2.S who-DMSF-ACC
 “‘Now you will never kill anyone.’” (VI:211)

3.1.3. Copula

Molalla has two copula verbs, animate {ki} and inanimate {pi}:

358. ki:ⁱ kíslən qālmangint. FS
 ki: ki-sla-in qe:lmangint
 2SG be-FUT-2.S black.bear
 “‘You will be a black bear.’” (II:154)

359. paswáila tu:nts píssi. FS
 pas-way=la tu:ns pi-s-i
 good-INAN.ADJ=still eye be-D.IPV-3.S
 ‘His eyes were still good.’ (XVI:112)

The root {ki} also carries the meanings ‘be in a place, stay, dwell’, and it is probable that the general sense of ‘be’ is an extension of these functions:

360. tálapa:s təm kissə. FS
 talapa:s=tm ki-s-i
 coyote=HEARSAY dwell-D.IPV-3.S
 ‘Coyote was living.’ (IV:1)

361. pi:ʔ kisluyálukask ni:wt. FS
 piʔ ki-s luya-:luk-ha-ʔs-k ni-w-t
 not stay-NZ want.to-NEG-PSF-PRES-1.S PROX-DMSF-LCTN
 ‘I don’t want to stay here.’ (Notes to I (Part 1):5:2)

The present-tense suffix {-ʔs} is not used with {ki}; to signify present tense, the recent-past imperfective suffix {-sta} is used instead.⁵⁸

362. wísqaʔ kístak. FS
 lwisq-a-ʔ ki-sta-k
 be.alive-V_S-ABS be-STAT-1.S
 ‘I am alive.’ (Notes to I (Part 3):9:23)

Being applicable only to inanimates, the {pi} copula is attested only in the third person. It has two allomorphs, /wi/ in the present tense and /pi/ for all other tenses and aspects. In the present indicative, the inanimate copula takes no tense/aspect inflection; the forms are positive /wit/ and negative /wi:lukut/:

363. ptatəm-in wit. FS
 ptat-am=in=wi-t
 father-GEN=1SG.PX=be-3.S
 ‘It belongs to my father.’ (lit., ‘It is my father’s.’) (Notes to XX:4:16)

364. issya:ni pi:ʔ wí:lukut písqən. FS
 Ø-ʔi-s-ya:n-i piʔ wi-:luku-t pis=qan
 3SG.O-say-D.IPV-PL.S-3.S not be-NEG-3.S camas=1NSG.PX
 ‘They said, “Our camas is not there.”’ (VII:64)

The positive is normally encliticized to the predicate nominal or adjective and is often transcribed as a single word with it:

365. pnāławit FS
 pnał-a-ʔ=wi-t
 brushy-V_S-ABS=be-3.S
 ‘It is brushy.’ (Notes to XII:4:21)

There are no attested potential mood forms of the inanimate copula, nor (logically) any imperative forms.

⁵⁸ This usage of the {-sta} suffix will be glossed ‘stative’, abbreviated STAT.

3.1.4. Participles

Molalla verbs have two participial forms, a positive participle and a negative participle. The positive participle is an absolute adjective (see Section 3.6.2) based on the verbal stem, with a stem-final vowel if the stem would otherwise end in a consonant. It is used with the copula {ki} to form a progressive construction:

366. hápʌä kistak FS
 hapt-ʌa-ʔ ki-sta-k
 sit-down.onto-ABS be-STAT-1.S
 ‘I am sitting on it (chair)’ (Notes to IV:2:9)
367. ʌä táina kissi tqənt. FS
 Ø-ʌe:-ʔ tayn-a-ʔ ki-s-i tqaʔnt
 3SG.O-hold-ABS tight-V_S-ABS be-D.IPV-3.S rock
 ‘He was holding the rock tightly.’ (VIII:57)
368. láppa kistak. FS
 lap-a-ʔ ki-sta-k
 get.in-V_S-ABS be-STAT-1.S
 ‘I am inside.’ (Notes to II (Part 2):16:6)

Participles formed from transitive verbs that take the masculine subject prefix

{s-} are active when the {s-} prefix is present, passive when it is absent:

369. sí:wqʌni luʔnhaʔsk FS
 Ø-s-i:w-qʌni-ʔ luʔ-n-ha-ʔs-k
 3SG.O-MASC-chase-behind.in.motion-ABS run-along-PSF-PRES-1.S
 ‘I run behind him.’ (lit., ‘I run chasing him’) (Notes to I (Part 2):18:12)
370. í:xftqíngi: kístak. FS
 i:f-tqin-ki-ʔ ki-sta-k
 flexible.obj.-cover-in.place-ABS be-STAT-1.S
 ‘I am covered over.’ (Notes to II (Part 1):10:21)

The active participle of /we:k-ki/ ‘put away’ is one way of expressing the concept ‘to have, to own’:

371. ina swági kistak tam fyá:waqwai sitst. FS
 ina Ø-s-we:k-ki-? ki-sta-k tam
 1SG 3SG.O-MASC-put-in.house-ABS be-STAT-1.S much

fya:-waq-way sict
 w/heat-melt-INAN.ADJ pitch
 ‘I own lots of melted pitch.’ (Notest to III (Part 2):8:21)

This marking of active participles is probably connected historically with the affinity of masculine gender marking for causative forms (Section 3.1.2.6.1).⁵⁹ It is not clear whether active participles with feminine agents take this {s-} prefix or not, as none are attested in the corpus examined. A prefix {i:-} may be added to a participle (which may in turn be inflected with an object agreement prefix) to produce a *simultaneous* construction, which indicates an action, performed by the same subject as the main predicate, during the performance of which the main predicate takes place:

372. ísinti? p’ässi. FS
 i:-s-hinti-? p’a-s-i
 SIMUL-MASC-dig.roots-ABS eat-D.IPV-3.S
 ‘He ate as he dug camas.’ (Notes to VI:19:1)

373. häłni:ʔsk í:tungsa. FS
 hałt-ni-ʔs-k i:-tuŋsa-?
 walk-go-PRES-1.S SIMUL-sing-ABS
 ‘I am singing and walking.’ (Notes to I (Part 2):17:10)

374. íqsáqa pʔassi. FS
 i:-q-s-yaq-a-? p’a-s-i
 SIMUL-IDF.O-MASC-have.sex-Vs-ABS eat-D.IPV-3.S
 ‘He was cohabiting and eating.’ (Notes to VI:19:8)

⁵⁹ Berman (1996:9) connects the Molalla masculine prefix {s-} with a Klamath transitive prefix s-. The additional role of {s-} in Molalla as a marker of active participles is certainly consistent with this hypothesis.

The negative participle contains a unique suffix {-a:ʔl}; the glottal element is likely related to the absolute adjective suffix, while the /l/ may be connected with the negative suffix {-:luk}. Like {-:luk}, {-a:ʔl} always appears with the negative adverb {piʔ}:

375. ná:nqai wítsp-in paswiʔ kíssi pi:ʔ awi ló:q^hal. FS
 naŋqay wícɸ=in pas-wi-ʔ ki-s-i piʔ
 all person=1SG.PX good-TAS-ABS be-D.IPV-3.S not

ʔa-w-i luq-a:ʔl
 who-DMSF-3SG.NOM be.sick-NEG.PPL
 ‘All my family were well, nobody sick.’ (N-I:12)

376. táqsaʔsná:wi pi:ʔ tpa:alʔ. FS
 taq-saʔsna-:wi-i piʔ Ø-tpa-a:ʔl
 go.up-PERS-HAB-3.S not 3SG.O-hear-NEG.PPL
 ‘He went on going up, not listening to her.’ (XXI:47)

3.1.5. Verbalizing Morphology

There is relatively little verbalizing morphology in Molalla. The most common verbalizer is {-a} ‘get’ (or, used in a stative sense, ‘have’):

377. náŋɰaiyaʔsk FS
 naŋɰay-a-ʔs-k
 wife-get-PRES-1.S
 ‘I marry’ (Notes to II (Part 2):19:17)

Inflected as an adjective (see Section 3.6.1), a verbalized form in {-a} is one of the main ways of expressing possession:

378. tam haiks náwitauni kissuni. FS
 tam hayks ne:wit-a-wn-i ki-s-wn-i
 much then meat-have-DU.S-3.S be-D.IPV-DU.S-3.S
 ‘Then they had lots of meat.’ (XV:127)

379. nanga p^hkayá:qi nimptnan. FS
 nana-ʔ pka:ya-a-qy-i nimt=nan
 one-ABS yo.sister-have-PL.S-3.S 3PL=also
 ‘They, too, had one sister.’ (VII:4)

380. núsa pú:yak. FS
 nus-a-ʔ pu:wi-a-ik
 big-V_S-ABS belly-have-1.S
 ‘I have a big belly.’ (Notes to VIII:9:2)

The same or a homophonous morpheme combines with {qunu} ‘what?’ to derive a verb meaning ‘do what?’:

381. íssi qúnu:alqássa? FS
 Ø-ʔi-s-i qunu-a-lqa-ʔs-a
 3SG.O-say-D.IPV-3.S what-VZ-around-PRES-2.S
 ‘He said, “What are you doing?”’ (XIV:17)

There is also a rather rare prefix {if-} that appears to turn active verbs into stative verbs meaning ‘be ...-able’. These usually occur in adjectival form:

382. ifanwak FS
 if-hanwa-ik
 be...able-dislike-1.S
 ‘I am nasty’ (Notes to XIX:3:10)

3.2. Nouns

3.2.1. Number

Molalla nouns are not marked for number, aside from four human nouns: ‘man’, ‘woman’, ‘old man’, and ‘old woman’. Verbs and adjectives in Molalla inflect for singular, dual, and plural number, but these nouns show only an opposition between singular and nonsingular. The forms are listed in Table 3.44. The word for ‘man’, {ya:y}, takes a unique nonsingular suffix {-ʔtk}. The other three take a nonsingular prefix {wi:ʔ-}. ‘Woman’ and ‘old man’ show distinct nonsingular stems in addition to

marking with the {wi:ʔ-} prefix; the final /p/ of the term for ‘women’ is probably related to the abstract/mass noun suffix {-p} (see Section 3.2.4.1).

Table 3.44: Number Marking on Nouns

Gloss	Singular	Nonsingular
‘man’	ya:y	ya:yʔtk
‘woman’	naŋiʔay	wi:ʔnaŋaʔp
‘old man’	yaʔam	wi:ʔyaʔmapkwi
‘old woman’	lampisqs	wi:ʔlampisqs

Yelkes translates forms with {wi:ʔ-} as if this prefix were a paucal (‘a few old women’, ‘a few old men’), but Savage uses it for large groups. Yelkes also uses {wi:ʔ-} on the terms for ‘horse’ (*wi:ʔwiʔ^hkui* JY ‘two (or more) horses’, 35MY:12a) and ‘person’ (*wi:ʔwiʔsp^h* JY ‘a few persons’, 35MY:12a); these usages are never encountered in the materials collected from Savage.

Dual and plural suffixes ({-as} and {-at}), respectively) do exist and may be used on nouns, but they do not appear to function like a plural inflection on a noun in English. Rather, they function like sociatives, creating a sense of ‘and X’, ‘s/he and X’, or, in the case of the {-at}, ‘they and X’:

383. nú:hink p’áuni las lá:pwani ásk^hana:s. FS
 nu:hink p’a-Ø-wn-i las le:p-wan-i askana-as
 altogether eat-HAB-DU.S-3.S both two-DU.S-3.S raccoon-DU
 ‘They would eat together, the two of them, he [Wildcat] and Raccoon.’ (XX:191)

3.2.2. Case

Molalla nouns inflect for seven cases: nominative, accusative, genitive, instrumental, locative, allative, and ablative. The case endings are given in Table 3.45. The individual cases and their usage are described below.

Table 3.45: Noun Case Suffixes

Nominative	-Ø
Accusative	-a
Genitive	-am
Instrumental	-ak
Locative	-a
Allative	-i ~ -ay
Ablative	-at

3.2.2.1. Nominative

The nominative case is characterized by the absence of overt case marking. It is used for the subjects of all types of sentences (384-387) and for predicate nominals (388-389):

384. haiks tálapa:s tíl:ät. FS
 hayks talapa:s__ til-a-ʔ-t
 then coyote depart-V_S-D.PFV-3.S
 ‘Then Coyote went away.’ (III:96)
385. häqä:s mitú:ssassi íssi witspaʔ qp’áwik. FS
 haqe:s__ Ø-mitu:sa-s-i Ø-ʔi-s-i wicp-a
 grizzly 3SG.O-respond-D.IPV-3.S 3SG.O-say-D.IPV-3.S person-ACC
 q-p’a-wi-ik
 IDF.O-eat-HAB-1.S
 ‘Grizzly answered, “I always eat people.”’ (XI:27)
386. kátat pyat. FS
 ke:taʔt__ Ø-pya-ʔ-t
 weasel 3SG.O-kill-D.PFV-3.S
 ‘Weasel killed him.’ (XVII:83)
387. qitwínpassi nus ʔifqáyi ʔipáni. FS
 q-i-twinpa:-s-i nus ʔif-qay-i ʔipe:ni_
 NSG.O-LM-report-D.IPV-3.S very.much strong-PL.S-3.S mtn.person
 ‘He told them, “The mountain people are very strong.”’ (XI:43)

388. qana yaqa:nt nu:wi psnásints. FS
 qana yaʔqa:nt_=nu-w-i psnasins
 3NSG.GEN chief=3NCRF.PX-DMSF-SG.NOM beaver
 ‘Beaver was their chief.’ (XVIII:242)
389. ki:ⁱ kíslən qālmangint. FS
 ki: ki-sla-in qe:lmangint
 2SG be-FUT-2.S black.bear
 “‘You will be a black bear.’” (II:154)

It is also used for the secondary objects of some ditransitive predicates (as in 390; see Section 4.6), and with most postpositions (391-392).

390. haiks núhink sí:qi táuhu nángılai. FS
 hayks nuhiŋk Ø-s-yi:-qy-i taʔhu naŋılay_
 then altogether 3SG.O-MASC-give-HAB-PL.S-3.S now woman
 ‘Then now they would give him a woman.’ (E-I:23)
391. mhí:wlapslak tú:nts kalma. FS
 m-i:w-lap-sla-ik tu:ns_=kalma
 2SG.O-LM-get.in-FUT-1.S eye=at+CIS
 “‘I’ll crawl in through your eye.’” (XV:96)
392. ko:ʔftyəmt FS
 ku:ʔft_=yaʔmt
 grave=at
 ‘alongside of grave’ (Notes to XX:4:11)

3.2.2.2. Accusative

The accusative case is marked by a suffix {-a}. It is used for direct objects of monotransitive predicates (393-395) and for primary objects (typically the argument with the highest animacy) of ditransitive predicates (396-397).

393. haiks tú:lpkissi haqá:sa. FS
 hayks Ø-tu:-lpki-s-i haqe:s-a
 then 3SG.O-travel-meet-D.IPV-3.S grizzly-ACC
 ‘Then he met Grizzly.’ (IV:3)

394. haiks hintsma tpáissi. FS
 hayks hinsm-a Ø-tpay?-s-i
 then pigeon-ACC 3SG.O-send-D.IPV-3.S
 ‘Then he sent Pigeon.’ (XIX:64)
395. ha:ʔt si:fingiptí:wi wá:sa. FS
 ha:ʔt Ø-s-i:f-fin-ki-pi-ptyi:-wi-i wa:s-a
 moon 3SG.O-MASC-glob.obj.-throw-on.ground-DSTB-back-HAB-3.S sun-ACC
 ‘Moon always threw Sun.’ (V:5)
396. haiks táuwint íssi ásk^hanaa ámak fáyatnik. FS
 hayks tawint Ø-ʔi-s-i askana-a amak
 then wildcat 3SG.O-say-D.IPV-3.S raccoon-ACC HORT.PTC
 fayat-ni-Ø-ik
 sneak-along-PRES.IMP-1.S
 ‘Then Wildcat said to Raccoon, “Let me sneak up.”’ (XX:200)
397. qsíslak pú:lqänts yaiʔtka nú:ai nángilaya ní:nikank. FS
 q-s-yi-sla-ik pulqan-s ya:y-ʔtk-a nuay
 NSG.O-MASC-give-FUT-1.S wear.shoes-NZ man-PL-ACC and
 nanilay-a ni:nik=hiŋk
 woman-ACC likewise=EMPH
 ‘“I’ll give shoes to the men, and likewise to the women.”’ (N-III:18)

The accusative case also marks the beneficiary in a benefactive construction based on an intransitive verb:

398. swátatassí:yik pints. FS
 Ø-s-fatat-ha-ʔs-i:yi-ik pin-s
 3SG.O-MASC-dance-PSF-PRES-BEN-1.S 3SG-ACC
 ‘I dance for him’ (Notes to II (Part 1):13:16)

It is used for the object of at least one postposition, {=qans} ‘as much as’:

399. ina ʔixwik pintsqänts. FS
 ina ʔif-ik pin-s=qans
 1SG strong-1.S 3SG-ACC=as.much.as
 ‘I am as stout as he.’ (Notes to E-I:2:11)

Inanimate objects are not typically marked for accusative case. The exceptions usually involve personification or at least “animization”:

400. ha:ʔl si:fingiptí:wi wá:sa. FS
 ha:ʔl Ø-s-i:f-fin-ki-pi-ptyi-:wi-i wa:s-a
 moon 3SG.O-MASC-glob.obj.-throw-on.ground-DSTB-back-HAB-3.S sun-ACC
 ‘Moon always threw Sun.’ (V:5)

401. haiks háqäs í:wilqassi lá:pwai hänga. FS
 hayks haqe:s Ø-i:w-lqa-s-i le:p-way haŋ-a
 then grizzly 3SG.O-chase-around-D.IPV-3.S two-ACC feather-ACC
 ‘Then Grizzly was chasing the two feathers around.’ (XIII:111)

Note that even if an inanimate object is not overtly marked for case, it is still syntactically accusative, as evidenced by the accusative case marking on an associated demonstrative:

402. hai swítitíłwi ná:nqai nú:a năwit. FS
 hay Ø-s-wit-titil-wi-i naŋqay nu-w-a ne:wit_
 then 3SG.O-MASC-pack-homewards-HAB-3.S all ANA-DMSF-ACC meat
 ‘Then he would pack home all the meat.’ (N-V:16)

Possessed kin terms, too, often (but not always) lack an accusative case suffix. The reason for the difference in case marking is unclear; compare 403 and 405 (with no accusative case marking) with 404 and 406 (which do show accusative case marking):

403. haiks lássik pná:nin ló:q^haʔs. FS
 hayks Ø-la-s-ik pnen__{=in}⁶⁰ luq-ha-ʔs-s-Ø
 then 3SG.O-see-D.IPV-1.S mother=1SG.PX be.sick-PSF-CTPR-DS-3.S
 ‘Then I saw my mother sick.’ (N-I:24)

404. ísláunin táuhu: pnánhaqən híspyaʔt. FS
 Ø-ʔi-sla-wn-in taʔhu pnan-a=qan hi-s-py-a-ʔ-t
 3SG.O-say-FUT-DU.S-2.S now mother-ACC NTS-LM-kill-V_S-D.PFV-3.S
 ‘“Now you will tell him, ‘Our mother was killed.’”’ (XIII:54)

⁶⁰ Normally, in sentences of this type, the subject of the lower clause is treated as an object of the matrix verb and hence appears in the accusative case. See Section 4.8.2.

405. qitwínpassi haiks pná:tpin. FS
 q-i-twinpa:-s-i hayks pne:t=pin
 NSG.O-LM-report-D.IPV-3.S then o.brother=3SG.CRF.PX
 ‘Then he told his older brothers.’ (XI:40)
406. pnaka nú:wi istáuintsmi pnátapin. FS
 pnakha=nu-w-i Ø-ʔi-s
 yo.brother=3.NCRF.PX-DMSF-SG.NOM 3SG.O-say-NZ
 taw-n-s-m-i pne:t-a=pin
 go.to.do-along-D.IPV-CIS-3.S o.brother-ACC=3SG.CRF.PX
 ‘His younger brother invited him.’ (lit., ‘His younger brother came to tell his older brother.’) (Notes to II: (Part 1):8:12)

3.2.2.3. Genitive

The genitive case is marked by a suffix {-am}. It is used to mark possessors of nouns. Possessive constructions in Molalla are basically dependent-marking; the possessed noun frequently carries no marking, but if an overt possessor nominal is present, it is obligatorily marked as genitive:

407. á:insam pánā tú:ngsasuklassi. FS
 aʔins-am pe:na tuŋsa-s ukla-s-i
 crow-GEN daughter sing-NZ be.going.to-D.IPV-3.S
 ‘Crow’s daughter was going to sing.’ (XIX:57)
408. tálapa:s kúntšassi puṭt háqá:səm. FS
 talapa:s Ø-kunsaʔ-s-i puṭt haqe:s-am
 coyote 3SG.O-steal-D.IPV-3.S bone grizzly-GEN
 ‘Coyote was stealing Grizzly’s bones.’ (IV:22)

The genitive case is also used predicatively:

409. ptatəm-in wit. FS
 ptat-am=in=wi-t
 father-GEN=1SG.PX=be-3.S
 ‘It belongs to my father.’ (lit., ‘It is my father’s.’) (Notes to XX:4:16)

Used with inanimate nouns, the genitive case suffix functions as a linking element in compounds:

410. ʎa:qáplam wákənt FS
 ʎaʔqapʎ-am we:kant
 board-GEN log
 ‘saw-logs’ (Notes to III (Part 2):2:15)

411. pulqǎnts-əm mángislaus FS
 pulqan-s-am maŋislaus
 wear.shoes-NZ-GEN fringe
 ‘shoe-strings’ (Notes to N-III:10)

The genitive has a specialized usage marking the beneficiary in benefactive constructions formed from transitive verbs (see Section 3.1.2.5):

412. niskúntsahasmi:yin innank. FS
 n-is-kunsaʔ-ha-ʔs-m-i:yi-in in-ank
 1SG.O-LM-steal-PSF-PRES-CIS-BEN-2.S 1SG-GEN
 ‘You steal for me.’ (Notes to I (Part 2):5:11)

413. pin:ank tapánhaʔssi:yik. FS
 pin-ank Ø-tape:n-ha-ʔs-i:yi-ik
 3SG-GEN 3SG.O-buy-PSF-PRES-BEN-1.S
 ‘I buy it for him.’ (Notes to I (Part 1):11:22)

In possessive constructions, the genitive-marked noun comes before the possessed noun in a large majority of examples, though both orders are attested:

414. haiks k’ú:ya:wyam faʔʎakt tanktapíʎat. FS
 hayks k’ú:ya:wi-am faʔʎakt taŋ-qtapi-ʎa-ʔ-t
 then mtn.lion-GEN bow SPON-break-MALE-D.PFV-3.S
 ‘Then Panther’s bow broke in two.’ (XII:133)

415. haiks tántäpit faʔʎakt k’ú:yawiyam. FS
 hayks taŋ-qtapi-ʔ-t faʔʎakt k’ú:ya:wi-am
 then SPON-break-D.PFV-3.S bow mtn.lion-GEN
 ‘Then Panther’s bow broke in two.’ (XII:54)

For the most part, possessive constructions are formed either with a genitive-marked possessor nominal or with a possessive clitic (see Section 3.2.3.1). Occasionally, however, the two cooccur in the same noun phrase:

416. in:ank tmísup-in kist. FS
in-an̄k tmisw-p=in ki-s-t
 1SG-GEN have.as.relative-ABST.N=1SG.PX be-STAT-3.S
 ‘He is my relative.’ (Notes to XVIII:1:3)

417. qəm:ank pāna-qəm FS
qam-an̄k pe:na=qam
 2NSG-GEN daughter=2NSG.PX
 ‘your [pl.] daughter’ (Notes to II (Part 1):1:12)

Only non-coreferential third-person clitics cooccur with genitive-marked nominals:

418. haiks stātiqsi ilimpnu: mǎʔfam. FS
 hayks Ø-s-tat-iq-s-i ilimp=nu-w-ʔ ma:fiʔ-am
 then 3SG.O-MASC-cut-INEFF-D.IPV-3.S heart=3.NCRF.PX-DMSF-ABS elk-GEN
 ‘Then he was cutting away at the elk’s heart.’ (XV:106)

3.2.2.4. Instrumental

The instrumental case is marked by a suffix {-ak}. It is used for the instrument or

means by which a predicate is performed:

419. si:wkaʔsk hu:tsak. FS
 Ø-s-i:w-kha-ʔs-k hu:t-s-ak
 3SG.O-MASC-long.obj.-hit-PRES-1.S build.fire-NZ-INST
 ‘I hit him (with a stick).’ (Notes to VI:5:9)
420. pí:ant qpáilukslən wǎ:kakim. FS
 piʔ ʔant q-pay-luk-sla-in we:k-ak=im
 not when IDF.O-kill-NEG-FUT-2.S club-INST=2SG.PX
 ‘“Never will you kill anybody with your club.”’ (II:162)
421. wínu:nhaʔsk wítʔuyak. FS
 winu:n-ha-ʔs-k witkwiʔ-ak
 travel-PSF-PRES-1.S horse-INST
 ‘I am traveling on horseback.’ (Notes to III (Part 2):15:13)

With animate nouns, it can have a sociative meaning:

422. tsqauskaslámqayin yá:qya:k-in. FS
 n-s-qawska-sla-m-qay-in ye:qi-ak=in
 1SG.O-MASC-wrap.body-FUT-CIS-PL.S-2.S slave-INST=1SG.PX
 “‘You will wrap me up together with my slave.’” (E-IV:13)

When used on a noun denoting a bestower of spirit power, it means ‘by the power of’:

423. yá:tmáisak nip^hutəm hísaqwi ní:nik. FS
 ya:tmays-ak niphu=tm hi-s-yaq-wi-i ní:nik
 black.woodpecker-INST supposedly=HEARSAY NTS-LM-do-HAB-3.S like.this
 ‘He does this by the power of the black woodpecker.’ (XXII:§14:4)

424. nu:ʔ nip^hutəm kátatak hisí:wluʔnwi. FS
 nu-w-ʔ niphu=tm ke:taʔt-ak
 ANA-DMSF-ABS supposedly=HEARSAY weasel-INST

 hi-s-i:w-luʔ-n-wi-i
 NTS-LM-LM-run-along-HAB-3.S
 ‘That is because he runs with the power of the weasel.’ (XXII:§9:3)

There is one attested example of a particular specialized usage of the instrumental case.

In discussing the price to be paid for something, the instrumental case is used, like

English “for”, to indicate the item whose price is being negotiated:

425. námmi:s ants luyaʔst pó:qłint pának-pin FS
 n-ʔa-m-i:s ʔans Ø-luya-ʔs-t pu:qł-int
 1SG.O-say-CIS-3.PRES.IMP how.much 3SG.O-want-PRES-3.S buy.person-NZ

 pe:na-ak=pin
 daughter-INST=3SG.CRF.PX
 “‘Let him tell me how much bride-money he wants for his daughter.’” (E-I:6)

3.2.2.5. Locative

The locative case is marked by a suffix {-a}. It is used to denote the location where some event occurs:

426. swátataʔsk hílmä. FS
 s-fatat-ha-ʔs-k hílm-a
 MASC-dance-PSF-PRES-1.S house-LOC
 ‘I am dancing inside.’ (Notes to II (Part 1):12:10)

427. li:ʔmäni lá:ti:wi hawäqłwi hánlaqsapin. FS
 li:ʔme:ni la:ti-wi-i ha-we:k-ł-wi-i
 rubber.boa Molalla-TAS-3.S RR-set-on.top-HAB-3.S
 hanlaqs-a=pin
 forearm-LOC=3SG.CRF.PX
 ‘The Molalla used to put blind snakes on their forearms.’ (XXII:§2:1)

428. länsa haptutaʔsk. FS
 läns-a hapt-ut-ha-ʔs-k
 ground-LOC sit-ʔ-PSF-PRES-1.S
 ‘I am sitting on the ground.’ (Notes to IV:2:23)

The locative is commonly used with the verbs of arriving:

429. haiks walaʔyatkwn ap ná:tu háskyas paʔfta. FS
 hayks walaʔya-ʔtk-wan-Ø ʔap ná:tu ha-s-kya-s-paʔft-a
 then arrive-D.PFV-DU.S-3.S other.LOC again RR-LM-gather-NZ-place-LOC
 ‘Then again they came to another meeting place.’ (XVII:48)
430. táunit haiks hilmä. FS
tawni-ʔ-t hayks hilm-a
 get.back-D.PFV-3.S then house-LOC
 ‘Then he arrived home.’ (XV:117)

With a verb of obtaining, the locative case can indicate the source of the thing obtained:

431. látsk pínnump. FS
 Ø-łe:-c-k pin-ump
 3SG.O-get-R.PFV-1.S 3SG-LOC
 ‘I got it from him.’ (Notes to III (Part 2):11:19)

3.2.2.6. Allative

The allative case ending has two main allomorphs, /-i/ and /-ay/, which are probably lexically conditioned, as I can find no consistent semantic or phonological patterns distinguishing the two classes:

432. tá:kaksqasinti nú:ai ku:suái qsíslak. FS
 ta:kaks qa-sint-i nuay kusu-ay q-s-yi-sla-ik
 milk make-NZ-ALL and pig-ALL NSG.O-MASC-give-FUT-1.S
 ‘‘I’ll give you milk cows and pigs.’’ (N-III:23)

The /-i/ allomorph has a much wider distribution and is used on all derived nouns:

433. wákqátins tú:ngsassyani mak^hasinti. FS
 waqatins tuŋsa-s-ya:n-i mak-a-sint-i
 frog sing-D.IPV-PL.S-3.S be.warm-V_S-NZ-ALL
 ‘The frogs were singing for warm weather.’ (XIX:5)

Synchronically, at least, /-i/ can probably be taken as the basic allomorph, though some obviously recent loans (like {kusu} ‘pig’ in 432) take /-ay/. One noun root, {ptat} ‘father’, is attested with both allomorphs, with no apparent difference in meaning:

434. twámstak ptáti. FS
 Ø-twam-sta-k ptat-i
 3SG.O-ask-R.IPV-1.S father-ALL
 ‘I asked him about father.’ (Notes to VII:3:23)

435. twámstak ptátai. FS
 Ø-twam-sta-k ptat-ay
 3SG.O-ask-R.IPV-1.S father-ALL
 ‘I asked him about father.’ (Notes to VII:3:24)

The allative case has a wide range of functions. In a *directive* allative construction, the allative case marks the prospective goal or endpoint of a verb of motion:⁶¹

436. haiks hasilástáuintsi óquntsi. FS
 hayks ha-s-ila-s taw-n-s-i uq-n-s-i
 then RR-LM-see-NZ go.to.do-along-D.IPV-3.S drink-along-NZ-ALL
 ‘Then he went to the water to look at himself.’ (XXI:183)

⁶¹ However the locative case is used to indicate that the endpoint has been reached; see Section 3.2.2.5.

437. tpaɪʔtuk api láŋsi. FS
 Ø-tpayʔ-tuk-k ʔap-i laŋs-i
 3SG.O-send-D.PFV-1.S other.LOC-ALL land-ALL
 ‘I sent him to a different country.’ (Notes to VI:14:24)

438. haiks la:tíndukwan hú:silpi. FS
 hayks la:tn-tuk-wan-Ø hu:silp-i
 then go.out-D.PFV-DU.S-3.S sky-ALL
 ‘Then they went out to the sky.’ (XII:186)

The directive allative suffix may be preceded by the cislocative suffix (which normally appears on verbs), apparently to show that the motion proceeds toward the speaker or toward some location in which the speaker has an interest (see Section 3.1.2.1 on the cislocative suffix). This situation is only attested once in the data I have worked with:

439. špínifniššmi úquntšmi. JY
 Ø-s-pin-if-ni-s-m-i uq-n-s-m-i
 3SG.O-MASC-round.obj.-throw-along-D.IPV-CIS-3.S drink-along-NZ-CIS-ALL
 ‘He threw it or him into the water’ (B34:68b)

In a *compositional* allative, the allative indicates the material out of which something is made:

440. tálapa:s hú:sai písá:sindai. FS
 talapa:s hú:s-ay písá:-sint-a-i
 coyote leaf-ALL defecate-NZ-have-3.S
 ‘Coyote had an anus made of leaves.’ (III:74)
441. típ^hni fiʔtspatʔ JY
 tipn-i fiʔt-s-paʔ
 hide-ALL cover-NZ-instrument
 ‘skin blanket’ (B35MY:3a)
442. numbi pó:qti sqat ła:p. FS
 nu-mpi pu:qʔ-i Ø-s-qa-ʔ-t ła:p
 ANA-ALL oak.gall-ALL 3SG.O-MASC-make-D.PFV-3.S canoe
 ‘Out of [that oak gall] he made a canoe.’ (Notes to XIV:9:1)

The *preparatory* allative marks a time or event in the future toward which preparations are directed:

443. haiks twínpa:ssi íssi lá:ti:wi táuhu: hátspaqa kist hástkusinti. FS
 hayks Ø-twinpa:-s-i Ø-ʔi-s-i la:ti-wi-i taʔhu
 then 3SG.O-report-D.IPV-3.S 3SG.O-say-D.IPV-3.S Molalla-TAS-3.S now
 hacpaqa-ʔ ki-s-t ha-s-tku-sint-i
 prepare-ABS be-STAT-3.S RR-LM-shoot-NZ-ALL
 ‘Then he told him, “The Molalla are ready for war now.”’ (N-III:61)

444. nimpka wá:sai FS
 ni-mpka wa:s-ay
 PROX-TEMP day-ALL
 ‘for today’ (Notes to E-II:1:14)

The *comparative* allative indicates the standard of comparison in a comparative construction:

445. núswi áqu:nt yáqa:nt ná:nqaiáppi. FS
 nus-wi-i aqunt yaʔqa:nt nanqay-api
 big-TAS-3.S more chief all-ALL
 ‘He was the biggest chief of all.’ (N-VI:30)

Finally, the allative has a generalized *discursive* function, with a sense of ‘with regard to, according to, about’:

446. twámstak híłmi. FS
 Ø-twam-sta-k hilm-i
 3SG.O-ask-R.IPV-1.S house-ALL
 ‘I asked him about a house.’ (Notes to VII:3:21)
447. pí:ant ná:tamp kalla hisiwní:lukslai isintatuqspa wäqfi. FS
 piʔ ʔant na:tamp=kala hi-s-i:w-ni:luk-sla-i
 not when evening=at NTS-LM-LM-go-NEG-FUT-3.S
 isinta:tuqs-p-a-ʔ we:qł-i
 tell.story-ABST.N-V_S-ABS tradition-ALL
 “‘They will never go into the west, according to the story-tradition.’” (XXIV:197)

448. táina innēmpi. FS
 tayn-a-? in-umpi
 difficult-V_S-ABS 1SG-ALL
 ‘It is hard for me.’ (Notes to III (Part 1):11:6)

In addition to these general functions, the allative is used optionally in several contexts. It is commonly used to mark the objects of several verbs denoting everyday activities such as ‘eat’, ‘drink’, ‘hunt’, and ‘pound seeds’; this may be an antipassive construction, in which the notional patient is placed in a non-core-argument case to mark it as generic or discursively unimportant:

449. p’áslaunin sʔu:ʔnaiai. FS
 p’a-sla-wn-in sʔu:nay-ay
 eat-FUT-DU.S-2.S worm-ALL
 “‘You will eat worms.’” (XII:184)

450. taswí:yała músimsi ma:ʔfiai! FS
 taswy-ł-a musims-i ma:fiʔ-ay
 hunt-FUT.IMP-2.S blacktail.deer-ALL elk-ALL
 “‘Hunt for deer, for elk!’” (XV:9)

451. sawalaiʔ šímpsi. FS
 sa:wal-ay s-himp-s-i
 tow.weed-ALL MASC-pound-D.IPV-3.S
 ‘He was pounding tow-weed seeds.’ (XIV:8)

In the case of ‘eat’, the allative might also be functioning like the Finnish partitive case, which indicates that the object is only partially affected by the action represented by the verb. Finally, secondary objects (that is, patients) of the verb ‘to give’ and of benefactive verbs also commonly appear in the allative case, particularly if they are animate (see also Section 4.6):

452. qsisya:ni häqäsa ná:witi.
 q-s-yi-s-ya:n-i haqe:s-a ne:wit-i
 NSG.O-MASC-give-D.IPV-PL.S-3.S grizzly-ACC meat-ALL
- häqäs yáhu qissyá:ni píšai ya?yaqti kí:knaqi. FS
 haqe:s=yahu q-yi-s-ya:n-i pis-ay
 grizzly=for.their.part NSG.O-give-D.IPV-PL.S-3.S camas-ALL
- ya?-ya:qti ki-yk-ni-qy-i
 DSTB-neighboring stay-SS.CTPR-LM-PL.S-3.S
 ‘They were giving some meat to the grizzlies. The grizzlies, who were staying nearby, in turn gave them camas.’ (VII:22-23)

453. tú:hai?ai qpáislaiyk háilohaigi. FS
 tu:ʔhay?-ay q-pay-sla-yi-ik hayluhayki
 cattle-ALL NSG.O-kill-FUT-BEN-1.S always
 ‘I’ll kill cattle for you all the time.’ (N-III:16)

3.2.2.7. Ablative

The ablative case is marked by a suffix {-at}. It is used to indicate the point of origin of motion, more or less equivalently to the English prepositions “from”, “out of”, and “off”:

454. fya:ʔaʔst tátsat. FS
 fye:-tla-ʔs-t te:c-at
 smoke-INCEP-PRES-3.S fire-ABL
 ‘From fire smoke starts.’ (Notes to XX:2:4)
455. tálapa:s haiks la:tíndukum stāŋʔat. FS
 talapa:s hayks la:tn-tuk-m-Ø stāŋʔ-at
 coyote then go.out-D.PFV-CIS-3.S oak-ABL
 ‘Then Coyote came out of the oak tree.’ (III:43)
456. ápat läŋsat FS
 ʔap-at laŋs-at
 other.LOC-ABL land-ABL
 ‘from a different country’ (Notes to VI:14:25)

Like the allative suffix (Section 3.2.2.6), the ablative suffix occasionally occurs in conjunction with the cislocative suffix:

457. yíkisyamni óquntsa lāṅsmat. FS
 yiky-s-yamn-i uq-n-s-a-ʔ lāṅs-m-at
 go.ashore-D.IPV-PL.S+CIS-3.S drink-along-NZ-V_S-ABS land-CIS-ABL
 ‘They came ashore from the ocean.’ (lit., ‘from the water country’) (N-VI:5)

It frequently occurs on locational adverbials:

458. ya:ʔfat pi:ʔ pāhānat k’ú:ya:wi í:wi táuhu:. FS
 yaʔfa-at piʔ pahan-at k’u:ya:wi Ø-ʔi:-wi-i taʔhu
 close-ABL not far.away-ABL mtn.lion 3SG.O-say-HAB-3.S now
 ‘‘From nearby, not from far off,’’ Panther said now.’ (XX:138)

At least one postposition, {=yans} ‘from, out of’, takes the ablative case:

459. lá:qtiátyants hilmāt FS
 la:qti-at=yans hilm-at
 outside-ABL=from house-ABL
 ‘from out of [the] house’ (Notes to XII:12:2)

460. táiktiatyānts FS
 tayk-ti-at=yans
 cross-LCTN-ABL=from
 ‘from other side’ (Notes to XIII:3:2)

461. ta:qaliatyants FS
 te:qali-at=yans
 middle-ABL=from
 ‘from out of center’ (Notes to XII:11:18)

3.2.2.8. Special Oblique Case Forms for Animate Nouns

There are special locative, allative and ablative endings for animate nouns when they are used as locations. These are listed in Table 3.46. Examples of their usage follow. In practice, these case suffixes typically refer to a person’s dwelling rather than to his or her actual physical body.

**Table 3.46: Oblique Case Suffixes
for Animate Nouns**

Locative	-amp
Allative	-ampi
Ablative	-ampat

462. qí:wálaʔyassi háqásamp. FS
q-i:w-walaʔya-s-i haqe:s-amp
NSG.O-LM-arrive-D.IPV-3.S grizzly-LOC
‘He came to the grizzly bears’ house.’ (XXI:103)
463. ná:tu ha:ʔla pis swákissi kasú:lyamp. FS
na:tu haʔl-a-ʔ pis Ø-s-we:k-ki-s-i kasu:li-amp
again little-V_S-ABS camas 3SG.O-set-on.ground-D.IPV-3.S wolf-LOC
‘In turn, he left a little camas at the wolves’ camp.’ (VII:77)
464. haiks háqäs issi pnätampatəm. FS
hayks haqe:s Ø-ʔi-s-i pne:t-ampat=im
then grizzly 3SG.O-say-D.IPV-3.S o.brother-ABL=2SG.PX
‘Then Grizzly said, “From your older brother’s house.”’ (XVII:94)
- These are the only locative and ablative endings used on animate nouns, but there is a functional split in the allative: {-ampi} when used in a purely directional sense, /-i ~ -ay/ for all other senses:
465. haiks nissi háqä:sampi talapa:s. FS
hayks ni-s-i haqe:s-ampi talapa:s
then go-D.IPV-3.S grizzly-ALL coyote
‘Then Coyote went to Grizzly.’ (V:79)
466. haiks ni:p luptitíllät klwäs pítnampí:pin. FS
hayks ni:p luʔ-ptyi-til-a-ʔ-t klwe:s
then 3SG run-back-INCEP-V_S-D.PFV-3.S Steller’s.jay
pitn-ampi=pin
paternal.grandmother-ALL=3SG.CRF.PX
‘Then Bluejay ran back to his grandmother.’ (XXI:161)

467. twámstak ptátai. FS
 Ø-twam-sta-k ptat-ay
 3SG.O-ask-R.IPV-1.S father-ALL
 ‘I asked him about father.’ (Notes to VII:3:24)

The noun {wicp} ‘person, people’ is attested with both locative case suffixes {-a} and {-amp}, but it appears with {-a} seventeen times in the corpus, and only four times with {-amp}:

468. haiks wálayassi támap wítspä. FS
 hayks walaʔya-s-i tam-ap wicp-a
 then arrive-D.IPV-3.S many-LOC person-LOC
 ‘Then he came to many people.’ (VIII:63)
469. ni:i:i:kuni nanga wítspamp wálaʔyassuni. FS
 ni-yk-wn-i naŋa-ʔ wicp-amp walaʔya-s-wn-i
 go-SS.CTPR-DU.S-3.S one-ABS person-LOC arrive-D.IPV-DU.S-3.S
 ‘As they went along, they came to a person.’ (IX:3)

3.2.3. Possession

Possession of nouns may be shown in two ways in Molalla. For one, the possessed noun may be collocated with a possessor in the genitive case. The possessor usually precedes the possessed noun, but there are exceptions (see Section 3.2.2.3). There is no grammatical distinction in Molalla between alienable and inalienable possession.

3.2.3.1. Possessive Clitics

Aside from genitive case marking, the other method of showing possession is through the use of possessive clitics, which follow the noun case suffixes. The clitics are listed in Table 3.47; apart from the third-person non-coreferential clitics, they are identical in form to the non-nominative stems of the personal pronouns (Section 3.3.1).

Table 3.47: Possessive Clitics

		Singular	Nonsingular
1st		=in	=qan
2nd		=im	=qam
3rd	Coreferential	=pin	=qan
	Non-coreferential	=nu:wi (singular) =nu:was (dual) =nu:wat (plural) =nuw? (absolute)	

470. mótká pāna-in FS
 mat-kaʔ pe:na=in
 three-ABS daughter=1SG.PX
 ‘my three daughters’ (Notes to II (Part 1):1:14)
471. pīlak-in FS
 piʔ-ak=in
 body-INST=1SG.PX
 ‘with my body’ (Notes to VI:2:2)
472. ptásampi-im FS
 ptas-ampi=in
 son.in.law-ALL=2SG.PX
 ‘to your son-in-law’ (Notes to II (Part 1):8:9)
473. tá:psa-əm FS
 ta:ps-a=in
 ear-LOC=2SG.PX
 ‘in your ear’ (XV:50)
474. lu:ltsqən FS
 lu:ls=qan
 egg=1NSG.PX
 ‘our eggs’ (VII:49)
475. pšú:ikaqam FS
 psu:yka=qam
 grandfather=2NSG.PX
 ‘your grandfather’ (XIII:52)

I have chosen to analyze these morphemes as clitics rather than suffixes for three main reasons. First (and least persuasively) the possessive clitics are sometimes

transcribed by the researchers as separate words (though the same is occasionally true of case suffixes as well). Second, there are examples of possessive clitics following postpositions:

476. pí:ant hafáikpaʔukslən kú:nkala-əm níngantskat. FS
 piʔ ʔant ha-fay-k-pat-luk-sla-in ku:n=kala=im
 not when RR-stick.like.obj.-shove-into.hole-NEG-FUT-2.S vulva=at=2SG.PX
 níngantskat
 from.now.on
 “‘You will never shove long things into your vulva, from now on.’” (XV:216)

Third, in *n*-stem nouns (see Section 3.2.6), the stem-final /n/ surfaces as [n] with a vowel-initial case or number suffix (as in 477-478), but it surfaces as [a], as it does word-finally, with vowel-initial possessive clitics (as in 479), suggesting that the possessive morphemes occupy a morphological layer that is more loosely bound to the noun than that of the case and number suffixes:

477. haiks háqās kluwálaʔyassi pítñampnu:ʔ. FS
 hayks haqe:s k-luʔ-walaʔya-s-i
 then grizzly FEM-run-arrive-D.IPV-3.S
 pítñ-amp=nu-w-ʔ
 paternal.grandmother-LOC=3.NCRF.PX-DMSF-ABS
 ‘Then a grizzly bear came running up to his [Bluejay’s] grandmother’s house.’
 (XXI:74)
478. íssi ina nángawik kí:wik háspin pítñas. FS
 Ø-i-s-i ina naŋa-wi-ik ki-:wi-ik haspin
 3SG.O-say-D.IPV-3.S 1SG alone-TAS-1.S dwell-HAB-1.S DU.CONN
 pítñ-as
 paternal.grandmother-DU
 ‘He said, “I live alone with my grandmother.”’ (XXI:152)

479. haiks klwäs í:wi ki:¹ yáqa:nt tí:qa pítta-in. FS
 hayks klwe:s Ø-ʔi:-wi-i ki: yaʔqa:nt ti:ʔq-a
 then Steller's.jay 3SG.O-say-HAB-3.S 2SG chief become-PRES.IMP

pitn=in

paternal.grandmother=1SG.PX

'Then Bluejay said, "You be the chief, my grandmother."' (XXI:170)

Note that the possessive clitics for third-person possessors differ depending on whether the possessor is coreferential with the subject of the clause:

480. pkaʔya pin twámsi tšú hásqínissuni? FS
 pka:ya=pin Ø-twam-s-i cu ha-s-qini-s-wn-a
 yo.sister=3SG.CRF.PX 3SG.O-ask-D.IPV-3.S ever RR-LM-wrestle-ITER-DU.S.-2.S
 'He asked his [own] younger sister, "Do you two ever wrestle?"' (VII:107)

481. haiks státiqsi ílimpnu: mǎʔfam. FS
 hayks Ø-s-tat-iq-s-i ilimp=nu-w-ʔ ma:fiʔ-am
 then 3SG.O-MASC-cut-INEFF-D.IPV-3.S heart=3.NCRF.PX-DMSF-ABS elk-GEN
 'Then he was cutting away at the elk's heart.' (XV:106)

The non-coreferential clitics are transparently forms of the anaphoric demonstrative {nu}.

Their demonstrative nature is further revealed by the fact that they agree in number with the *possessed noun*, rather than the possessor:

482. ptas nú:was p'assúni plutá:wai náwit. FS
 ptas=nu-w-as Ø-p'a-s-wn-i plut-a-way
 father-in-law=3.NCRF.PX-DMSF-DU 3SG.O-eat-D.IPV-DU.S-3.S fat-have-INAN.ADJ

ne:wit

meat

'His parents-in-law were eating the fatty meat.' (XIV:87)

483. wássisya:ni pká:ya nú:wat. FS
 wasi-s-ya:n-i pka:ya=nu-w-at
 bathe-D.IPV-PL.S-3.S yo.sister=3.NCRF.PX-DMSF-PL
 'Her younger sisters were bathing.' (IX:79)

Singular /=nu:wi/, dual /=nu:was/, and plural /=nu:wat/ are used only in the nominative case. For all other cases, and sometimes for the nominative as well, the indeclinable absolute form /=nuw?/ is used (see Section 3.4.1.1.2).

Possessive structures are most commonly formed with either a possessive clitic or a genitive-marked noun, but they are occasionally encountered together (see Section 3.2.2.3).

3.2.4. Nominalizing Morphology

3.2.4.1. Morphemes That Derive Nouns from Verbs or Adjectives

The following morphemes derive nouns from verbal or adjectival bases:

- {-hant} This verbal nominalizer attaches to a handful of verb stems to form resultant nouns. This is best seen in the derivation of /fay-pt-hant/ ‘post’ from /fay-pt/ ‘put a stick-like object in a hole’, or of /tu:sk-hant/ ‘roasted meat’ from {tu:sk} ‘roast on a stick’.
- {-int} This rather rare verbal nominalizer is most clearly seen in the derivation of /pu:qɫ-int/ ‘bride-price’ from the verb stem /pu:qɫ/ ‘buy a person’. Many synchronically unanalyzable Molalla nouns ending in /-nt/ likely contain this morpheme etymologically.
- {-p} This is a common nominalizing element that produces abstract and mass nouns. Examples include /fye:-n-p/ ‘smoke’, from /fye:-n/ ‘to smoke (of a fire)’; /sʔaw-p/ ‘word’, from /sʔaw/ ‘speak’; and /tmisw-p/ ‘relative’, from /tmisw/ ‘have as a relative’. This suffix is used in the derivation of a number of common nouns based on adjectives denoting color, including /q’e:s-p/ ‘grass’, from {q’as} ‘gold’

(earlier ‘green’); /ce:q-p/ ‘liver’, from {caq} ‘red’; and /q’ay-p/ ‘dirt’, from {q’ay} ‘yellow, brown’.

{-s} This is a very common verbal nominalizer that is frequently used to form patient- or instrument-oriented deverbal nouns, as in the formation of /hu:t-s/ ‘firewood’ from /hu:t/ ‘build a fire’ or /uq-n-s/ ‘water’ from /uq-n/ ‘drink’. It also forms the complements to auxiliary verbs in *s*-type auxiliary constructions (see Section 4.7), as well as the bases upon which instrumental nouns in {-paʔ} and venue nouns in {-paʔft} are based (see next section). Verbal stems ending in a vowel lose this vowel when {-s} is added, as in /tú:lap-s/ ‘paddle (n.)’, from {tu:lap} ‘paddle (v.)’.

{-sint} This highly productive nominalizer likely represents a historical sequence of {-s} plus {-int}. It forms many types of concrete and abstract nouns (especially instruments):

484. hápʔasint FS
hapt-ʔa-sint
sit-down.onto-NZ
‘chair’ (Notes to IV:2:11)

485. piʔqasint FS
piʔq-a-sint
be.luck-V_S-NZ
‘luck’ (Notes to XXII:4:13)

486. mák^hasint FS
mak-a-sint
be.warm-V_S-NZ
‘warm weather’ (Notes to XIX:1:5)

This suffix is also used to form infinitive- or gerund-like verbal nouns that act as complements to predicates like {tpaʔkl} ‘be afraid’, {ta:yaha} ‘fail’, and {ne:m} ‘not know how’

487. tpaʔkiltsyani waitikissint. FS
 tpaʔkl-s-ya:n-i way-tyki-sint
 be.afraid-D.IPV-PL.S-3.S swim-cross-NZ
 ‘They were afraid to swim across.’ (VII:86)

488. ta:yaha:ʔsk sqásint. FS
 ta:yaha-ʔs-k Ø-s-qa-sint
 fail-PRES-1.S 3SG.O-MASC-do-NZ
 ‘I cannot do it.’ (Notes to III (Part 1):11:7)

489. ná:msi lá:tnasint. FS
 ne:m-s-i la:tn-a-sint
 not.know.how-D.IPV-3.S go.out-V_S-NZ
 ‘He didn’t know how to get out.’ (XVI:11)

The {-sint} suffix attaches to verbal and adjectival stems terminating in a stem-final vowel (see Section 3.1.1.6).

3.2.4.2. Morphemes That Derive Nouns from Nouns

The following morphemes derive nouns from nominal bases.

{-a:mt} This suffix is a grammaticalized usage of the adverb {=ha:mt} ‘only’ and may be translated as ‘nothing but X’:

490. ʔáuinta:mti p’ān. FS
 ʔawint-a:mt-i p’a-in
 flower-nothing.but-ALL eat-2.S
 ‘You will be an exclusive flower eater.’ (Notes to VI:20:18)

491. mu:ska:mt táuhu: sitilqassi. FS
 mu:sk-a:mt taʔhu Ø-s-it-lqa-s-i
 quiver-nothing.but now 3SG.O-MASC-carry-around-D.IPV-3.S
 ‘Now he was just carrying his quiver around.’ (XVI:188)

{-a:ps} Distributive diminutive. This suffix forms nonsingular diminutive nouns:

492. si:wkaʔsk hú:tsa:psak. FS
Ø-s-i:w-kha-ʔs-k hu:t-s-a:ps-ak
3SG.O-MASC-long.obj.-hit-PRES-1.S build.fire-NZ-DSTB.DIM-INST
‘[I] hit him with lots of little sticks.’ (Notes to IX:9:20)

Some examples have specialized meanings, such as {te:s-a:ps} ‘fingers’, from {te:s} ‘hand’, or /quna:ps/ ‘things, articles’, from {qunu} ‘what?, something’.

{-asa} Diminutive. This common, general-purpose diminutive noun suffix can also be applied to certain adjectives and to certain adverbials, including {pahan} ‘far off’ and {pa:ʔma} ‘a while ago’:

493. k’ú:ya:wyassa wáiwíqat. FS
k’u:ya:wi-asa waywi Ø-qa-ʔ-t
mtn.lion-DIM baby 3SG.O-make-D.PFV-3.S
‘She gave birth to a little panther.’ (XII:116)

494. kú:sasa FS
ku:s-asa
small-DIM
‘baby (not quite one year old)’ (Notes to I (Part 2):10:12)

495. ní:i:i:si pāhānasa. FS
ni-s-i pahan-asa
go-D.IPV-3.S far.away-DIM
‘He went on a little ways.’ (XX:318)

496. pa:ʔmasa i:tsk. FS
pa:ʔma-asa Ø-ʔi-c-k
a.while.ago-DIM 3SG.O-say-R.PFV-1.S
‘I said a little while ago.’ (Notes to I (Part 1):18:6)

{naʔ-} Pejorative. This prefix is generally translated as ‘bad’, ‘rotten’, and (in a pejorative sense) ‘hell of a’:

497. naʔsaka FS
naʔ-saka
PEJ-dog
'bad dog' (Notes to XII:1:4)
498. naʔwitsp FS
naʔ-wicp
PEJ-person
'dirty people (sons-of-guns)' (Notes to XII:5)
499. náʔ ilimp JY
naʔ-ilimp
PEJ-heart
'grizzly's heart, helluva heart' (B35MY:6b)

In several instances, this prefix is translated as marking nouns as pertaining to grizzly bears. It may originally have been a compounding prefix (see Section 3.2.7.1) referring to grizzly bears.

{-paʔ} Instrument noun formant. This suffix apparently represents a grammaticalization of the noun {paʔ} 'spear pole'. It combines with verbal stems that have been nominalized with the suffix {-s} (see Section 3.2.4.1) to produce instrument nouns:

500. fi:ʔtspaʔ FS
fiʔt-s-paʔ
cover-NZ-instrument
'coat' (Notes to VI:14:16)
501. wá:ptaspaʔ FS
wa:pta-s-paʔ
smoke.pipe-NZ-instrument
'tobacco' (Notes to N-III:2:12)

{-paʔft} Venue noun formant. This suffix appears to represent a grammaticalization of the noun {paʔft} ‘tracks’. Nouns formed with this suffix refer to the venue where the activity customarily takes place:

502. tmá:spaʔft FS
 tma:-s-paʔft
 camp-NZ-place
 ‘camping ground’ (Notes to VI:7:21)
503. haiks walaʔyassuni háskyaspaʔfta. FS
 hayks walaʔya-s-wn-i ha-s-kya-s-paʔft-a
 then arrive-D.IPV-DU.S-3.S RR-LM-gather-NZ-place-LOC
 ‘Then they arrived at the meeting place.’ (XV:163)

It normally combines with verbal stems that have been nominalized with the suffix {-s} (see Section 3.2.4.1) but can combine directly with certain verbal morphemes, including {hapt-} ‘sit’ and {kilaw-} ‘go camping’:

504. hätpäʔft-in FS
 hapt-paʔft=in
 sit-place=1SG.PX
 ‘my (steady) sitting place’ (Notes to XIV:2:2)

{s-} Augmentative. This prefix is only attested with the nouns {yałam} ‘old man’ and {lampisqs} ‘old woman’. At one point (Notes to IX:6:6-7), {yałam} is described as pertaining to a man of about sixty-five years and /s-yałam/ to a man of about eighty.

{-tit} Body part suffix. This apparent suffix is found in three otherwise unanalyzable body-part terms: {pałtit} ‘tail’, {paqtit} ‘cheek’, {pskałtit} ‘chin’.

{-ʔamc} This suffix, found only in forms from Yelkes, appears to be used in forming familiar names of myth characters. It is translated ‘Old X’:

505. qä:qʔamtš JY
 qe:q-ʔamc
 raven-old
 ‘Old Raven’ (B35MY:14a)

506. häqä:sʔamtš JY
 haqe:s-ʔamc
 grizzly-old
 ‘Old Grizzly’ (B35MY:24b)

{-ʔamskaʔ} Pejorative. This suffix is found mostly in forms from Yelkes and carries connotations of carelessness, sloppiness, and disagreeability.

507. yá:yamska JY
 ya:y-ʔamskaʔ
 man-PEJ
 ‘unmarried man who tramps and bums around’ (B34MY:5a)

508. nāñiʔaiʔamskaʔ JY
 nañiʔay-ʔamskaʔ
 woman-PEJ
 ‘dirty-careless-fat-and-sloppy woman’ (B34:59b)

Sometimes {-ʔamskaʔ} is used in conjunction with the pejorative prefix {naʔ-} (see above):

509. nāʔyaiʔamskaʔ JY
 naʔ-ya:y-ʔamskaʔ
 PEJ-man-PEJ
 ‘a hell of an ornery fellow’ (B34:59b)

{-ʔayfq} Ethnonym formant. This suffix is found in the names of ethnic groups, such as /la:ti-ʔayfq/ ‘Molalla’. It is also used in the term /laŋsayfq/ ‘tribe’ (from {laŋs} ‘land’). This suffix has an irregular accusative form /-ʔayfaq-a/:

510. pipqł qı:wlawıssı óquntsa lańsáıfaqa. FS
 pipqł q-i:w-lu?-awy-s-i uq-n-s-a-?
 grouse NSG.O-LM-run-in.competition-D.IPV-3.S drink-along-NZ-Vs-?

lańs-?ayfaq-a
 land-people-ACC
 ‘Grouse outran the coast tribes.’ (XXIV:165)

I do not know whether the stem /-?ayfaq/ applies to other case forms as well,
 since only nominative and accusative forms are attested.

3.2.5. Reduplication

A number of nouns, particularly terms for plants and animals, display apparently fossilized reduplication. The vowel of the second syllable is commonly reduced or lost. Examples include {musims} ‘blacktail deer’ (< **mus-ms* < **mus-mus*; see Section 2.2.8 on vowel epenthesis before resonant consonants), {pulpul} ‘butterfly’, {p’u:sp’as} ‘pheasant’, {qe:sqs} ‘spider’, {qinqin} ‘silver squirrel’, {silqsilq} ‘porcupine’, {saqsqs} ‘jaw, fish gill’, {misims} ‘blackberry’, and {timtim} ‘white fir’.

Two nouns, {ya:y} ‘man’ and {ya?qa:nt} ‘chief’, are attested with {CV?-} distributive reduplication. This formation is not used to indicate plurality as it would be in an adjective (see Section 3.6.3).⁶² Rather, distributively reduplicated nouns are usually used as adverbials meaning ‘each one being an X’:

511. ya?yaıtk FS
 ya?-ya:y-?tk
 DSTB-man-PL
 ‘each of us (being) a man’ (Notes to XX:2:6)

⁶² Distributive reduplication does denote plurality with {ni:ma} ‘young woman’, but this term is formally an adjective.

512. k'ú:ya:wi í:wi hasáúwa ya?yaqa:nt. FS
 k'u:ya:wi Ø-ʔi:-wi-i ha-s-le:-Ø-wa ya?ya?qa:nt
 mtn.lion 3SG-say-HAB-3.S RR-LM-take.hold-PRES.IMP-1DU.S DSTB-chief
 'Panther said, "Let's fight, both of us being chiefs.'" (XX:92)

However, there is one apparent example of a distributively reduplicated noun bearing case inflection:

513. i:wa:iʔasint qnāwkuṭqsi ya?yaqa:nta. FS
 i-way-ʔa-sint q-nawkuw-tq-s-i ya?ya?qa:nt-a
 CAUS-fall(long)-down.onto-NZ NSG.O-sell-APPL?-D.IPV-3.S DSTB-chief-ACC
 'He was selling traps to them, chief to chief.' (N-VII:10)

Aside from this construction, nouns do not appear to undergo reduplicative operations.

3.2.6. n-Stem Nouns

Three nouns that end in /a/ when they occur in unsuffixed form have stems ending in /n/ when case, number, or derivational suffixes are added. These are {pita} 'paternal grandmother', {sita} 'road', and {tipa} 'untanned hide':

514. haspin píṭṭa kíssuni. FS
 haspin pitn ki-s-wn-i
 DU.CONN paternal.grandmother dwell-D.IPV-DU.S-3.S
 'He lived with his grandmother.' (XV:143)
515. haiks ni:p luṭṭitíllät klwäs píṭṭampi:pin. FS
 hayks ni:p lu?-ptyi-til-a-ʔ-t klwe:s
 then 3SG run-back-INCEP-V_S-D.PFV-3.S Steller's.jay
 pitn-ampi=pin
 paternal.grandmother-ALL=3SG.CRF.PX
 'Then Bluejay ran back to his grandmother.' (XXI:161)
516. laʔsk síṭṭa. FS
 Ø-la-ʔs-k sitn
 3SG.O-see-PRES-1.S road
 'I see the road' (Notes to VIII:1:17)

517. *sítnasa* FS
sitn-asa
 road-DIM
 ‘trail’ (Notes to VIII:1:16)

518. *típpa* FS
tipn
 hide
 ‘deer skin (not dressed)’ (Notes to II (Part 1):10:7)

519. *típ^hni* fiʔtspatʃ JY
tipn-i fiʔt-s-paʔ
 hide-ALL cover-NZ-instrument
 ‘skin blanket’ (B35MY:3a)

Yelkes gives *wi:ʔna:ps* ‘a group of five stars’ (B34MY:5a), which looks as though it might be a distributive diminutive of {*wi:ʔa*} ‘silver fox’. Savage, however, does not treat {*wi:ʔa*} as an *n*-stem noun:

520. *hó:wanapat wi:ʔaa sáspyat*. FS
hu:wanapat wi:ʔa-a sa-s-py-a-ʔ-t
 after.a.while silver.fox-ACC NTS-LM-kill-V_S-D.PFV-3.S
 ‘After a while, Silver Fox was killed.’ (XVII:42)

It is not clear whether the word-final /a/ ~ prevocalic /n/ alternation seen in the *n*-stem nouns is phonological or morphological in nature. It is possible that all three *n*-stem nouns underlyingly end in /n/, and that there was a phonological rule converting /n/ to /a/ word-finally after a stop consonant (odd though such a rule might be), but there are only the three secure examples to go on. Certainly, there are nouns ending in underlying /n/ (albeit always preceded by a resonant or a fricative consonant) in which the /n/ does not alternate with /a/, for instance {*ta:ʔmn*} ‘rabbit’: *tá:mín* FS ‘rabbit (nominative)’ (XV:171), *tá:mna* FS ‘rabbit (accusative)’ (XV:196).

3.2.7. Compounding and Modification of Nouns by Nouns

3.2.7.1. Prefixal Compounding

A common method of forming compound nouns in Molalla is through the use of special compounding prefixes attached to the head noun:

521. laŋhú:yatwi FS
 laŋ-hu:yat-wi-i
 woman-oldest-TAS-3.S
 ‘old woman (about 40, strong) (Notes to IX:6:11)
522. ʎaʔpapilts FS
 ʎaʔ-papils
 head-marrow
 ‘brain’ (89:19:76)
523. mä:thíllim JY
 me:t-hilm
 menstruation-house
 ‘house for a girl’s first monthly (girl stays five days in it)’ (B34MY:13b)
524. musmałq FS
 mus-małq
 deer-female
 ‘doe’ (Notes to XII:1:1)
525. pil li:łkt FS
 pil-li:łkt
 prairie-edge
 ‘edge of the prairie’ (XXIV:160)
526. wätwitsp FS
 we:t-wicp
 water-person
 ‘water person’ (XIV:269)

The compounding prefixes are listed in Table 3.48:

Table 3.48: Compounding Prefixes

Gloss	Compounding Prefix	Related Full Noun/Verb
‘woman’	laŋ-	naŋiɬay ⁶³
‘foot’	ʌak-	taylaks
‘head’	ʌaʔ-	laʔwi
‘elk’	ma:s-	ma:fiʔ
‘menstruation’	me:t-	me:tuki ‘have first menses’
‘Kalapuya’ ⁶⁴	mu:k-	mu:khaya
‘deer’	mus-	musims
‘prairie’	pil-	pilint
‘hat’	taq-	taqe:m
‘hand’	te:-	te:s
‘cattle’	tu:ʔ-	tu:ʔhayʔ
‘shaman’	twe:-	twe:ni
‘eagle’	tya-	tyaqunt (also tya- ‘fly’)
‘fish’	way-	way- ‘swim’
‘water’	we:t-	?

Some of these prefixes are transparently truncated versions of full nouns. Others, particularly those denoting body parts, are phonologically dissimilar to the corresponding independent nouns; in this way, they resemble the lexical suffixes of the Salish and Wakashan families, located farther north in the Pacific Northwest, though the Molalla compounding prefixes form a much more restricted set than the lexical suffixes in these two families. A couple of the compounding prefixes (‘menstruation’, ‘eagle’, ‘fish’) show resemblances to verbal roots.

⁶³ In the earliest sources, the word for ‘woman’ begins with /l/: <luŋitylai> ‘woman’ (Hale 1846:570).

⁶⁴ Kalapuyan is a neighboring western Oregon language family.

3.2.7.2. Full-Noun Compounding

The most common method of modifying a full noun with another full noun is to convert the modifying noun into an absolute adjective (see Section 3.6.2) by adding a stem-final vowel (usually /-a/) and the absolute adjective suffix {-ʔ}:

527. waihámintáʔ í:m JY
wayhamint-a-ʔ i:m
salmon.roe-V_S-ABS huckleberry
'salmon-egg-berry' (B34:63b)
528. kú:ksa wáyya FS
ku:ks-a-ʔ waya
breast-V_S-ABS end
'nipples' (89:19:75)
529. óquntsa läŋs FS
uq-n-s-a-ʔ läŋs
drink-along-NZ-V_S-ABS land
'ocean' (lit., 'water country') (Notes to N-VI:1:3)

Alternatively, the modifying noun (particularly if it is inanimate) may be put in the genitive case:

530. ʔa:qáplam wákənt FS
ʔaʔqapʔ-am we:kant
board-GEN log
'saw-logs' (Notes to III (Part 2):2:15)
531. pulqänts-əm mángislaus FS
pulqan-s-am maŋislaus
wear.shoes-NZ-GEN fringe
'shoe-strings' (Notes to N-III:10)

Very occasionally, nouns are compounded through simple collocation:

532. háqäs maʔq FS
haqe:s maʔq
grizzly female
'she-grizzly' (XIII:1:1)

3.3. Personal Pronouns

Molalla personal pronouns are organized on a nominative-accusative basis (*contra* Rigsby 1965:179-180, Grant 1994). The nominative pronouns distinguish singular, dual, and plural number, while in the other cases only singular and nonsingular are distinguished. There is no distinction between inclusive and exclusive first person in Molalla (*contra* Grant 1994).

The nominative-case forms of the Molalla personal pronouns are given in Table 3.49. Note that dual /-s/ and plural /-t/ are also seen in nouns (see Section 3.2.1) and demonstratives (Section 3.4.1.1.1). The third-person singular pronoun is likely derived from the proximal demonstrative {ni} plus the nominalizer {-p}.

Table 3.49: Nominative Personal Pronouns

	Singular	Dual	Plural
1 st	ina	kiʔms	kiʔmt
2 nd	ki: ⁶⁵	kiʔms	kiʔmt
3 rd	ni:p	niʔms	niʔmt

533. ina wínunhaʔsk. FS
ina winu:n-ha-ʔs-k
 1SG travel-PSF-PRES-1.S
 ‘I am traveling (on foot)’ (Notes to III (Part 2):15:7)

534. ki:ⁱ qitpáihassə. FS
ki: q-i-tpayʔ-ha-ʔs-a
 2SG NSG.O-LM-send-PSF-PRES-2.S
 ‘You are sending them.’ (Notes to I (Part 1):13:5)

⁶⁵ Jacobs transcribes the few instances of the second-person singular pronoun recorded from Yelkes and Howard with a short vowel and final glottal stop, for instance, *kiʔ* JY (B35MY:6b). The Swadesh recording confirms that the transcription with the final glottal stop is accurate, at least for Yelkes. However, Frachtenberg records a final glottal stop only once in Savage’s speech: *ki:ʔ* FS (XXI:93).

535. ni:p láptyat. FS
 ni:p Ø-la-ptya-ʔ-t
 3SG 3SG.O-find-again-D.PFV-3.S
 'He found him.' (Notes to I (Part 3):12:12)
536. nimsnan lá:pwaní kissuklaʔswan. FS
 niʔms=nan le:p-wan-i ki-s ukla-ʔs-wan-Ø
 3DU=also two-DU.S-3.S dwell-NZ be.going.to-PRES-DU.S-3.S
 'They (2) are going to live here [too].' (Notes to I (Part 1):3:15)
537. nimt lqu npáimaqíq. FS
 niʔmt=lqu n-pay-ma-qy-aq-Ø
 3PL=DESID 1SG.O-kill-CIS-PL.S-POT-3.S
 'They ought to have killed me.' (Notes to IX:4:23)

The nominative 1ns (ns=nonsingular) and 2ns pronouns are formally identical:

538. kims lá:pwaník kislauník. FS
 kiʔms le:p-wan-ik ki-sla-wn-ik
 1DU two-DU.S-1.S stay-FUT-DU.S-1.S
 'Two of us will stay here.' (Notes to VI:1:1)
539. kims kíssunə. FS
 kiʔms ki-s-wn-a
 2DU dwell-STAT-DU.S-2.S
 'You two are living.' (Notes to I (Part 1):2:8)

Nominative pronouns are also used as vocatives:

540. kí: táuhu matšúkins mäʔsk na:t. FS
 ki: taʔhu macukins m-ʔa-ʔs-k na:t
 2SG now wren 2SG.O-tell-PRES-1.S in.turn
 "Now, you, Wren, in turn I'm telling you." (XV:213)

3.3.1. Other Case Forms of Pronouns

The non-nominative stems of the personal pronouns are given in Table 3.50:

Table 3.50: Non-nominative Personal Pronoun Stems

	Singular	Nonsingular
1 st	in	qan
2 nd	im	qam
3 rd	pin	qan

Note that the dual and plural are conflated in the non-nominative cases, as are 1ns and

3ns. Table 3.51 lists the case suffixes used with pronouns:

**Table 3.51: Case Suffixes
Used with Personal Pronouns**

Accusative	-s
Genitive	-aŋk
Instrumental	<i>unatt.</i>
Locative	-ump
Allative	-umpi
Ablative	-umpat

541. isíntatuqsaʔsk pints. FS
 Ø-isinta:tuqs-ha-ʔs-k pin-s
 3SG.O-tell.story-PSF-PRES-1.S 3SG-ACC
 'I am telling him a story.' (Notes to I (Part 1):1:11)
542. qitmúlimlqaʔsk qəms. FS
 q-i-tmulm-lqa-ʔs-k qam-s
 NSG.O-LM-think-APPL-PRES-1.S 2NSG-ACC
 'I think about you.' (Notes to III (Part 1):4:12)
543. ím:ank sitst FS
 im-aŋk sict
 2SG-GEN pitch
 'your pitch' (Notes to III (Part 2):8:9)
544. swaʔgikassi pínnump. FS
 Ø-s-we:k-ky-ka-s-i pin-ump
 3SG.O-MASC-put-PLUR-on.ground-D.IPV-3.S 3SG-LOC
 'He put them on his own side.' (IV:23)

545. ínnumbi nhí:wnissəm. FS
 in-umpi n-i:w-ni-ʔs-m-Ø
 1SG-ALL 1SG.O-LM-go-PRES-CIS-3.S
 ‘He is going to me.’ (Notes to I (Part 1):15:2)
546. síʔatsk ímmumpat. FS
 Ø-s-it-tla-c-k im-umpat
 3SG.O-MASC-carry-away-R.PFV-1.S 2SG-ABL
 ‘I take from you.’ (Notes to XII:11:11)

In addition to the regular /qan-aŋk/, there is a suppletive 3ns genitive pronoun

/qana/:

547. haiks kasú:lyəm qána pká:ya kíssi. FS
 hayks kasu:li-am qana pka:ya ki-s-i
 then wolf-GEN 3NSG.GEN yo.sister be-D.IPV-3.S
 ‘Then the wolves’ sister was there.’ (VII:104)

Not all combinations of the pronominal stems and case endings listed above are actually found in the corpus. For the 3ns, for instance, only the accusative /qan-s/ and the genitive /qan-aŋk/ are actually attested, while for the locative case, only the 3sg form /pin-ump/ is found. No personal pronoun is attested in the instrumental case, despite the fact that the instrumental can apply to animate NPs (see Section 3.2.2.4).

3.3.2. Emphatic Pronouns

Table 3.52 lists the emphatic personal pronouns.

Table 3.52: Emphatic Personal Pronouns

	Singular	Dual	Plural
1 st	inaʔwak	kinaʔms	kinaʔmt
2 nd	kinaʔwan	kinaʔms	kinaʔmt
3 rd	ni:paʔway	ni:paʔms	ni:paʔmt

The singular emphatic pronouns are composed of the singular nonemphatic pronouns plus an increment /-(a)ʔwa/ plus the postvocalic KNY-series personal endings (see

Section 3.1.2.6.3). The /-n-/ of the second-person singular emphatic pronoun is likely due to analogy with the first-person emphatic pronoun.⁶⁶ The nonsingular emphatic pronouns are composed of /kin/ for the first and second person, /ni:p/ for the third, plus an increment /-a-/ plus the same pronominal dual /-ʔms/ and plural /-ʔmt/ seen in the nonemphatic pronouns. Examples:

548. inawak hásʔautqaʔsk. FS
inaʔwak ha-sʔaw-tqa-ʔs-k
 1SG.EMPH RR-speak-APPL-PRES-1.S
 ‘I speak to myself.’ (Notes to I (Part 1):20:5)

549. tangpu:tst ni:pawai. FS
 taŋ-pu:ʔ-c-t ni:paʔway
 SPON-close-R.PFV-3.S 3SG.EMPH
 ‘(The door) shuts itself.’ (Notes to XVI:1:5)

550. kímt hastwínpa:slaqik kínaʔmt. FS
 kiʔmt ha-s-twinpa:-sla-qy-ik kínaʔmt
 1PL RR-LM-report-FUT-PL.S-1.S 1PL.EMPH
 ‘We will tell ourselves.’ (Notes to I (Part 2):2:2)

The forms described above are nominative-case forms; the only non-nominative case form attested is the third-person singular accusative emphatic pronoun /pinsaʔway/:

551. hai pínlsaʔwai íssi pni:lapiŋ... FS
 hay pínsaʔway Ø-ʔi-s-i pni:la=pin
 then 3SG.ACC 3SG.O-say-D.IPV-3.S uncle=3SG.CRF.PX
 ‘Then he said to his uncle directly...’ (XVIII:81)

The emphatic pronouns are frequently extended with a suffix /-a/, the function of which is obscure:

⁶⁶ Recall that the non-emphatic 2sg pronoun is {ki:}.

552. haiks láiqs q'assi ínawaka tú:lpkitsik táimnaslak. FS
 hayks layqs q-ʔa-s-i inaʔwak-a
 then mosquito NSG.O-tell-D.IPV-3.S 1SG.EMPH-?
 Ø-tu:-lpki-c-ik Ø-taymna-sla-ik
 3SG.O-travel-meet-SS.PROS-1.S 3SG.O-stop-FUT-1.S
 'Then Mosquito told them, "If I meet him, I'll stop him myself."' (XII:210)
553. tmúlimqayi:s ní:pamta. FS
 tmulm-qay-i:s ní:paʔmt-a
 think-PL.S-3.IMP 3PL.EMPH-?
 'Let them think for themselves.' (Notes to III (Part 2):16:10)

3.4. Demonstratives

Molalla has five demonstrative morphemes. Two are deictic in nature: proximal {ni} and distal {qa}. One, {nu}, is anaphoric, referring to entities already identifiable by the hearer; another, {nuqu}, is relative. The fifth demonstrative morpheme is {ʔay} 'other', which is here classed as a demonstrative because it inflects like one, at least in part. In the nominative, accusative, genitive, ablative, and certain other specialized case forms, the demonstratives take a demonstrative suffix {-:w} which is probably etymologically related to the thematic adjective suffix {-wi} (see Section 3.6)

Table 3.53: Demonstrative Stems

Proximal	ni
Distal	qa
Anaphoric	nu
Relative	nuqu
'Other'	ʔay

3.4.1. Demonstrative Agreement

3.4.1.1.1. Number

In the nominative case, demonstratives show inflection for number: singular {-i}, dual {-as}, and plural {-at}. Unlike with nouns (see Section 3.2.1), number suffixes on demonstratives appear to truly signify groups of entities, rather than sociative constructions.

Table 3.54: Number Inflection in Demonstratives

	Singular	Dual	Plural
Proximal	ni:wi	ni:was	ni:wat
Distal	qa:wi	qa:was	qa:wat
Anaphoric	nu:wi	nu:was	nu:wat
Relative	nuqu:wi	<i>unatt.</i>	nuqu:wat
‘Other’	?aywi	?aywas	?aywat

Examples:

554. ní:wi ya:i FS
 ni:-w-i ya:y
 PROX-DMSF-SG.NOM man
 ‘this man’ (Notes to II (Part 2):10:13)
555. nu:wi sánqətnai issi pi:?. FS
 nu:-w-i saŋqitnay Ø-?i-s-i pi?
 ANA-DMSF-SG.NOM snake 3SG.O-say-D.IPV-3.S no
 ‘That snake said, “No.”’ (I:11)
556. ná:tu áiwas hášʌa:ssuni. FS
 na:tu ?ay-w-as ha-s-le:-s-wn-i
 again other-DMSF-DU.NOM RR-LM-take.hold-D.IPV-DU.S-3.S
 ‘Again, two others got hold of each other.’ (XI:63)
557. nims qá:was lá:pwani FS
 ni?ms qa:-w-as le:p-wan-i
 3DU DIST-DMSF-DU.NOM two-DU.S-3.S
 ‘two of them’ (Notes to II (part 1):16:2)

558. ní:wat mó:twaqi ya:iʔtk FS
 ni-:w-at mat-wi-qy-i ya:y-ʔtk
 PROX-DMSF-PL.NOM three-TAS-PL.S-3.S man-PL
 ‘these three men’ (Notes to II (Part 2):10:15)
559. mhåskihaʔssya:nt tu:ntsəm nuqwa:t fiksyɑ:ni. FS
 m-hasky-ha-ʔs-ya:n-t tu:ns=im nuqu-w-at
 2SG.O-wait.for-PSF-PRES-PL.S-3.S eye=2SG.PX REL-DMSF-PL

Ø-fik-s-ya:n-i
 3SG.O-spear-D.IPV-PL.S-3.S

“‘The ones who were spearing your eyes are waiting for you.’” (XVI:140)

3.4.1.1.2. Case

The demonstratives inflect for the same seven cases as nouns, plus an eighth case used in expressions of time (‘this month’, etc.):

Table 3.55: Case Inflection in Demonstratives

	Proximal	Distal	Anaphoric	Relative	‘Other’
Accusative	ni:wa	qa:wa	nu:wa	nuqu:wa	ʔayway
Genitive	ni:wam	qa:wam	<i>unatt.</i>	<i>unatt.</i>	<i>unatt.</i>
Instrumental	nimpk	<i>unatt.</i>	numpk	<i>unatt.</i>	<i>unatt.</i>
Locative	nimp/ ni:wamp	qa:wamp	nump/ nu:wamp	<i>unatt.</i>	ʔap
Allative	nimpi/ ni:wampi	qapi/ qa:wampi	numpi	<i>unatt.</i>	ʔapi
Ablative	ni:wat	(qa:wat)	nu:wat	<i>unatt.</i>	ʔapat
Temporal	nimpka	<i>unatt.</i>	numpka	<i>unatt.</i>	ʔapka
Absolute	niwʔ	qawʔ	nuwʔ	<i>unatt.</i>	<i>unatt.</i>

Examples:

560. nú:wa ha:mt mutsá:k sqassik qámłɑʔ. FS
 nu-w-a=ha:mt mu:ca:k Ø-s-qa-s-ik qamł-a
 ANA-DMSF-ACC=only wounded.thing3SG.O-MASC-make-D.IPV-1.S male-ACC
 ‘I wounded only the buck.’ (N-II:9)

561. qá:wam pǎnǎ nú:wí FS
 qa-:w-am pe:na=nu-:w-i
 DIST-DMSF-GEN daughter=3.NCRF.PX-DMSF-SG.NOM
 ‘his daughter’ (Notes to II (Part 1):1:7)
562. nimpk tqəʔntak FS
 ni-mpk tqəʔnt-ak
 PROX-INST rock-INST
 ‘with this rock’ (Notes to VI:4:23)
563. síplaiwa níwat hink. FS
 s-i-play?-Ø-wa ni-:w-at=hink
 MASC-go-back-PRES.IMP-1DU.S PROX-DMSF-ABL=EMPH
 “‘Let’s go back from here.’” (XVIII:186)

Only the demonstrative is marked with the temporal case; the accompanying noun may be marked with various cases as the sense dictates:

564. tauhu haiks hastko:k tildukkant númpka wa:s hink. FS
 taʔhu hayks ha-s-tku-:k til-tuk-an-t nu-mpka wa:s=hink
 now then RR-LM-shoot-SUB begin-D.PFV-PL.S-3.S ANA-TEMP day=EMPH
 ‘Now then they began to fight on that same day.’ (XXIV:171)
565. nimpka wá:sai FS
 ni-mpka wa:s-ay
 PROX-TEMP day-ALL
 ‘for today’ (Notes to E-II:1:14)

The proximal, distal, and anaphoric demonstratives also have indeclinable “absolute” forms. These are used as demonstrative pronouns (‘this (one)’, ‘that (one)’) and are also used with postpositions:

566. ni:w pnák^ha-in kist. FS
 ni-:w-ʔ pnakha=in ki-s-t
 PROX-DMSF-ABS yo.brother-1SG.PX be-STAT-3.S
 “‘This is my younger brother.’” (XX:142)

567. hai nissyá:ni nu: kalla. FS
 hay ni-s-ya:n-i nu-:w-?=kala
 then go-D.IPV-PL.S-3.S ANA-DMSF-ABS=toward
 ‘Then they went in that direction.’ (XIX:49)
568. íssi qúnu: sqassyant ní:wyamt witsp? FS
 Ø-?i-s-i qunu Ø-s-qa-?s-ya:n-t
 3SG.O-say-D.IPV-3.S what 3SG.O-MASC-do-PRES-PL.S-3.S
- ni-:w-?=ya?mt wicp
 PROX-DMSF-ABS=at person
 ‘He said, “What are the people doing here?”’ (IV:57)

In the locative case, the /-:w-amp/ forms are used with animate referents when these serve as locations (compare 569 and 570):

569. pi:ʔ áwi kí:luksi nimp hilmä. FS
 pi:ʔ ʔa-w-i ki-:luk-s-i ni-mp hilm-a
 not who-DMSF-3SG.NOM be-NEG-D.IPV-3.S PROX-LOC house-LOC
 ‘Nobody was in this house.’ (Notes to VII:5:9)
570. wálaʔyat ní:wamp. FS
 walaʔya-ʔ-t ni-:w-amp
 arrive-D.PFV-3.S PROX-DMSF-LOC
 ‘He came to this man.’ (Notes to VI:11:8)

In the allative, the /-:w-ampi/ forms are used for standards of comparison:⁶⁷

571. ina ʔifik aqunt qa:wampi. FS
 ina ʔif-ik aqunt qa-:w-ampi
 1SG strong-1.S more DIST-DMSF-ALL
 ‘I am stronger than they-two.’ (89:16:34)
572. ni:ʔ ná:m-aqunt ni:wampi. FS
 ni:ʔ na:m-ʔ aqunt ni-:w-ampi
 3SG bad-ABS more PROX-DMSF-ALL
 ‘He is worse than they-two.’ (89:16:34)

⁶⁷ There are only five forms in /-w-ampi/ in the corpus. The referent is always animate.

The general discursive functions of the allative case employ the forms /ni-mpi/, /qa-pi/, and /nu-mpi/:

573. twámstak nímbi ya:yi. FS
 Ø-twam-sta-k ni-mpi ya:y-i
 3SG.O-ask-R.IPV-1.S PROX-ALL man-ALL
 ‘I asked him about this man.’ (Notes to VII:4:1)

574. twámstak qápi yayi. FS
 Ø-twam-sta-k qa-pi ya:y-i
 3SG.O-ask-R.IPV-1.S DIST-ALL man-ALL
 ‘I asked him about that man.’ (Notes to VII:4:2)

575. yo:k^häsk númbi. FS
 yu:k-ha-ʔs-k nu-mpi
 be.glad-PSF-PRES-1.S ANA-ALL
 ‘‘I am glad about that.’’ (III:128)

The morpheme {ʔay} ‘other’ has an unusual paradigm that partakes of both demonstrative and adjectival inflections. Like a demonstrative, it takes the dual suffix {-as} and the plural suffix {-at} and has a temporal case form; like an adjective, it takes the accusative suffix {-way} and undergoes distributive reduplication (see Section 3.6.3):

576. táuhu ná:t aiwai áussi máʔfia matšúkints. FS
 taʔhu na:t ʔay-way ʔaw-s-i ma:fiʔ-a macukins
 now again other-ACC shout.at-D.IPV-3.S elk-ACC wren
 ‘Now, again, Wren called for another elk.’ (XV:81)

577. naʔnanim aʔaiwat witsp núwat spínuyiqi. FS
 naʔ-nan-im ʔa-ʔay-w-at wicp=nu-:w-at
 DSTB-one-times DSTB-other-DMSF-PL person=3.NCRF.PX-DMSF-PL
 Ø-s-pinuyi-Ø-qy-i
 3SG.O-MASC-bail.out-HAB-PL.S-3.S
 ‘Once in a while, his other people will pay for him.’ (E-I:34)

It has a special locative form /ʔap/ on which the allative, ablative, and temporal case forms are based:

578. haiks walaʔyatkun ap ná:tu háskyas paʔfta. FS
 hayks walaʔya-ʔtk-wan-Ø ʔap na:tu ha-s-kya-s-paʔft-a
 then arrive-D.PFV-DU.S-3.S other.LOC again RR-LM-gather-NZ-place-LOC
 ‘Then again they came to another meeting place.’ (XVII:48)
579. sinhaʔsk aʔap^hnan hílmä. FS
 sin-ha-ʔs-k ʔa-ʔap=nan hilm-a
 go.in-PSF-PRES-1.S DSTB-other=also house-LOC
 ‘I go into different houses.’ (Notes to XI:2:10)
580. tpaiʔtuk api läŋsi. FS
 Ø-tpayʔ-tuk-k ʔap-i läŋs-i
 3SG.O-send-D.PFV-1.S other.LOC-ALL land-ALL
 ‘I sent him to a different country.’ (Notes to VI:14:24)
581. ápat läŋsat FS
 ʔap-at läŋs-at
 other.LOC-ABL land-ABL
 ‘from a different country’ (Notes to VI:14:25)
582. apka hó:ant FS
 ʔap-ka hu: ʔant
 other.LOC-TEMP early when
 ‘the day after tomorrow.’ (lit., ‘another morning’) (Notes to II (Part 1):16:19)

In addition to the forms listed above, there is a separate absolute demonstrative /tawʔ/

used anaphorically to refer to chunks of discourse:

583. mítwinpá:tsunisk tauʔ íslən. FS
 m-i-twinpa:-c-wn-is-k ta-w-ʔ Ø-ʔi-sla-in
 2SG.O-LM-report-PROS-DU.S-DS-1.S ANA-DMSF-ABS 3SG.O-say-FUT-2.S
 ‘“When we tell you, you’ll say that.”’ (III:142)

3.4.2. Demonstrative Adverbials

Table 3.56 presents the Molalla demonstrative adverbial elements:

Table 3.56: Demonstrative Adverbials

	Proximal	Distal	Anaphoric	Relative	Equative
Location	ni:wt 'here'		nu:wt 'there'	nuqun 'wherever'	
Location (Emphatic)	nima 'right here'	qama 'right there'			
Destination	ni:way 'to here'		nu:way 'to there'		
Direction		qatay 'in that direction'	nu:tay 'in that direction'	nuqutay 'wherever'	
Path	niḡayat 'this way'	qaḡayat 'that way'			
Origin	ni:wat 'from here'	qa:wat 'from there'	nu:wat 'from there'		
Kind	ni:nik 'like this'		ni:nuk 'like that'		
Size	ni:ḡis 'this big'	qaḡis 'that big'			
Amount	niḡans 'this much'	qaḡans 'that much'	naḡans 'so much'	nuquns 'however much'	=qans 'as much as'
Length			naḡantk 'so long'		=qantk 'as long as'
Distance	niḡansk 'this far'		naḡansk 'that far'	nuqunsk 'however far'	=qansk 'as far as'
Time	taʔhu 'now'		naḡant 'at that time'	nuqunt 'at the time when'	
Inception	niḡanskat 'from now on'		naḡanskat 'from then on'		
Manner				nuquḡk 'however'	quḡk 'like'

Many of the proximal, distal, and anaphoric adverbials are based on the same stems {ni}, {qa}, and {nu} discussed in the previous section; others show bases of the form /niḡ/, /qaḡ/, and /naḡ/:

584. tǐlləm níḡayatəm. FS
 til-a-m niḡayat-m
 depart-PRES.IMP-CIS this.way-CIS
 'Come this way.' (Notes to III (Part 2):10:15)

585. qaḡiswik. FS
qaḡis-wi-ik
 that.big-TAS-1.S
 'I am so big, that big.' (Notes to XX:2:19)

586. haiks íslai nangants luyaʔsk tsislá:mi. FS
 hayks Ø-ʔi-sla-i naṇans Ø-luya-ʔs-k
 then 3SG.O-say-FUT-3.S so.much 3SG.O-want-PRES-1.S

 n-s-yi-sla-m-i
 1SG.O-MASC-give-FUT-CIS-3.S
 ‘Then he will say, “I want him to give me so much.”’ (E-I:16)

As before, all of the relative forms are based on {nuqu}:

587. ina psí:wintslak nóqutaiʔ hink níslən! FS
 ina m-s-i:w-n-sla-ik nuqutay=hiṇk ni-sla-in
 1SG 2SG.O-MASC-follow-along-FUT-1.S wherever=EMPH go-FUT-2.S
 ‘‘I will follow you wherever you go!’’ (VI:46)

The equative elements {=qans}, {=qantk}, and {=qansk} take the form of postpositions that take the standard of comparison as their object. At least {=qans} assigns accusative case to its object; {=qantk} and {=qansk} are not attested with animate objects (recall that the nominative and accusative are usually identical for inanimates):

588. ina ʔixwik pintsqənts. FS
 ina ʔif-ik pin-s=qans
 1SG strong-1.S 3SG-ACC=as.much.as
 ‘I am as stout as he.’ (Notes to E-I:2:11)
589. hanlaksqantk-in FS
 hanlaqs=qantk=in
 forearm=as.long.as=1SG.PX
 ‘length of my arm’ (Notes to E-I:2:1)
590. níssik nóqunskai silatsqanskai. FS
 ni-s-ik nuqunsk-ay silac=qansk-ay
 go-D.IPV-1.S however.far-DIR Siletz=as.far.as-DIR
 ‘I went as far as Siletz.’ (Notes to VI:11:23)

Instead of /ni:wt/, /nu:wt/, Yelkes gives *ní:mt* ‘here’, *nú(?)mt* ‘there’, which may be contracted from /ni-w-ʔ=yaʔmt/ and /nu-w-ʔ=yaʔmt/, respectively.⁶⁸

Other related sets of demonstrative elements worthy of mention are /qatat/ ‘on the other side’ and /nu:tat/ ‘beyond, on the other side’, and /qati/ ‘to one side’ and /nu:ti/ ‘beyond, farther’. At least the {qa} forms can undergo distributive reduplication: /qaʔqati/ ‘here and there’, /qaʔqatat/ ‘on either side’, /qaʔqatay/ ‘in each direction’. Probably related to the discursal demonstrative /tawʔ/ is the adverbial /te:nik/ ‘(saying) that way’.

3.5. Interrogative Elements

Interrogative elements are used in forming content questions and as indefinites (see next section). The various interrogative pronouns, adjectives, and adverbs are presented in Table 3.57. Examples follow.

⁶⁸ The postposition {=yaʔmt} means ‘at, alongside’. See Section 3.9.2.

Table 3.57: Interrogative Elements

Gloss	Form
‘who?’	/ʔawi/
‘what?’	{qunu}
‘what?’ (dialogue)	/ʔanak/
‘where?’	/ʔawʔ/, /ʔawt/
‘how?, why?’	/ʔanku/
‘how?’	/ʔatay/
‘when?’	/ʔant/
‘what kind?’	/ʔaŋk/
‘how much?’	/ʔans/
‘how many?’	/ʔan/
‘how far?’	/ʔansk/

591. talapa:s í:wi áwi yahu sitílqaslai páhän willawäni? FS
 talapa:s Ø-ʔi:-wi-i ʔa-w-i=yahu
 coyote 3SG.O-say-HAB-3.S who-DMSF-3SG.NOM=for.his.part
 Ø-s-it-lqa-sla-i pahan wilaʔwani
 3SG.O-MASC-carry-around-FUT-3.S far.away traveler
 ‘Coyote said, “Who will carry him around while we’re far off on our trip?”’
 (XXIV:13)
592. issi qunu qaʔsa ni:wt? FS
 Ø-ʔi-s-i qunu Ø-qa-ʔs-a ni-w-t
 3SG.O-say-D.IPV-3.S what 3SG.O-do-PRES-2.S PROX-DMSF-LCTN
 ‘He said, “What are you doing here?”’ (XXIII:91)
593. qúnaa sí:paqaʔsa tyáqunt íssi. FS
 qunu-a Ø-sipaq-ha-ʔs-a tyaqunt Ø-ʔi-s-i
 what-ACC 3SG.O-evade-PSF-PRES-2.S eagle 3SG.O-say-D.IPV-3.S
 ‘“What are you running away from?” Eagle said.’ (XXIII:69)
594. qúnaai niphu kláiwassa twámwi k’ú:ya:wi. FS
 qunu-ay=niphu klaywa-ʔs-a Ø-twam-wi-i k’u:ya:wi
 what-ALL=supposedly be.angry-PRES-2.S 3SG.O-ask-HAB-3.S mtn.lion
 ‘“What are you angry about?” asked Panther.’ (XX:81)

595. hó:wanapat híssassuni angu: pi:ʔ kims hawá:klukássuni? FS
 hu:wanapat hi-s-aʔ-s-wn-i ʔanku piʔ kims
 after.a.while NTS-LM-say-D.IPV-DU.S-3.S why not 2DU
 hawe:k-luk-ha-ʔs-wn-a
 run.race-NEG-PSF-PRES-DU.S-2.S
 ‘After a while, someone said to them, “Why aren’t you racing?”’ (XVII:29)
596. ant pí:ʔáslan? FS
 ʔant pi:ʔa-sla-in
 when return-FUT-2.S
 ‘“When will you go home?”’ (II:59)
597. námmi:s ants luyaʔst pó:qʰint pǎnak-pin. FS
 n-ʔa-m-i:s ʔans Ø-luya-ʔs-t pu:qʰ-int
 1SG.O-say-CIS-3.PRES.IMP how.much 3SG.O-want-PRES-3.S buy.person-NZ
 pe:na-ak=pin
 daughter-INST=3SG.CRF.PX
 ‘“Let him tell me how much bride-money he wants for his daughter.”’ (E-I:6)
598. píttanu: íssi á:nha? túktu:kkə? FS
 pita=nu-w-ʔ Ø-ʔi-s-i
 pat.g’ mother=3SG.NCRF.PX-DMSF-ABS 3SG.O-say-D.IPV-3.S
 ʔan-a-ʔ Ø-tuk-tuk-a
 how.many-V_S-ABS 3SG.O-shoot-D.PFV-2.S
 ‘His grandmother said, “How many did you shoot?”’ (XV:121)
599. ánnim lássin? FS
 ʔan-im Ø-la-s-in
 how.many-times Ø-see-D.IPV-2.S
 ‘How many times did you see him?’ (Notes to VI:12:9)

All interrogative elements except {qunu} ‘what?’ are based on an interrogative stem /ʔa/.

The word /ʔaw-/ ‘who?’ is composed of this interrogative base plus the demonstrative suffix /-w/:

600. áwa lássin? FS
 ?a-w-a Ø-la-s-in
 who-DMSF-ACC 3SG.O-see-D.IPV-2.S
 ‘Whom did you see?’ (Notes to II (Part 1):4:11)

Note that ‘who?’ inflects for person:

601. talapa:s íssi áwin kíssə? FS
 talapa:s Ø-ʔi-s-i ?a-w-in ki-s-a
 coyote 3SG.O-say-D.IPV-3.S who-DMSF-2SG.NOM be-STAT-2.S
 ‘Coyote said, “Who are you?”’ (IX:16)

There is a special form {ʔanak} ‘what?’ that is used when inquiring about what has been said:

602. anak naʔsyamma:nt? FS
 ?anak n-ʔa-ʔs-yama:n-t
 what 1SG.O-say-PRES-PL.S+CIS-3.S
 ‘“What are they telling me?”’ (XIII:253)

Of the two forms for ‘where?’, /ʔawʔ/ is far more common than /ʔawt/. The /ʔawt/ form only occurs once in the corpus; 604 implies that it may refer to a more permanent location than /ʔawʔ/:

603. íssi au twáni kist? FS
 Ø-ʔi-s-i ?awʔ twe:n-i ki-s-t
 3SG.O-say-D.IPV-3.S where be.shaman-3.S be-STAT-3.S
 ‘He said, “Where is the doctor?”’ (IX:153)

604. aut kíss[ə]ʔ⁶⁹ FS
 ?awt ki-s-a
 where dwell-STAT-2.S
 ‘Where do you live?’ (Notes to II (Part 1):4:8)

/ʔawʔ/ also serves as the object of postpositions:

⁶⁹ The final letter of this form was cut off on my copy.

605. klwās issi auʔkálha? FS
 klwe:s Ø-ʔi-s-i ʔawʔ=kala
 Steller's jay 3SG.O-say-D.IPV-3.S where=toward
 'Bluejay said, "Which way?"' (II:12)

Where it is not followed by a preposition, Yelkes uses /ʔamt/ 'where?', which may be a contracted form of /ʔawʔ=yaʔmt/:

606. ámt^h náŋɪlai ʔim kíšt^h? JY
 ʔamt náŋɪlay=im ki-s-t
 where wife=2SG.PX be-STAT-3.S
 'Where is your wife?' (B34:59a)

The distinction between {ʔanku} 'how?' and {ʔatay} 'how?' is unclear:

607. angú: sqak? FS
ʔanku Ø-s-qa-Ø-ik
 how 3SG.O-MASC-do-PRES.IMP-1.S
 "'What shall I do?'" (lit., 'How shall I do it?') (VI:153)

608. átai hasʔáqən? FS
ʔatay ha-s-ʔe:-q-in
 how RR-LM-take.hold-POT-2.S
 "'How could you fight?'" (XV:47)

The stems /ʔanj/ 'what kind?' and /ʔan/ 'how many?' inflect as thematic adjectives (see Section 3.6):

609. ankwi ya:i kiʔst? FS
 ʔanj-wi-i ya:y ki-s-t
 what.kind-TAS-3.S man be-STAT-3.S
 'What kind of man is he?' (Notes to IX:9:15)

610. haiks íssi ánwi wítsp ní:wyamt kí:wi? FS
 hayks Ø-ʔi-s-i ʔan-wi-i wicp
 then 3SG.O-say-D.IPV-3.S how.many-TAS-3.S person
 ni-w-ʔ=yaʔmt ki:wi-i
 PROX-DMSF-ABS=at dwell-HAB-3.S
 ‘Then he said, “How many people live here?”’ (XXI:150)

3.5.1. Indefinite Usage

Many (perhaps all) interrogative elements may be used as indefinites:

611. k’ú:ya:wi íssi áwat anak í:qin láqwa! FS
 k’u:ya:wi Ø-ʔi-s-i ʔa-w-at ʔanak
 mtn.lion 3SG.O-say-D.IPV-3.S who-DMSF-PL what
 Ø-ʔi:-qy-in laqwaʔ
 3SG.O-say-PRES.IMP-PL.S-2.S quickly
 ‘Panther said, “Somebody say something, quickly!”’ (XII:171)
612. táuhu: pí:ant qpáilukslən áwa. FS
 taʔhu piʔ ʔant q-pay-luk-sla-in ʔa-w-a
 now not when IDF.O-kill-NEG-FUT-2.S who-DMSF-ACC
 ‘“Now you will never kill anyone.”’ (VI:211)

3.5.2. Reduplication

Many interrogative elements show {CV(?)-} distributive reduplication:

613. äxáwi FS
 ʔa-ʔa-w-i
 DSTB-who-DMSF-3SG.NOM
 ‘everybody’ (Notes to I (Part 1):10:6)
614. áangu ho: sí:fingissik. FS
 ʔa-ʔanku hu: Ø-s-i:f-fin-ki-s-ik
 DSTB-how before 3SG.O-MASC-glob.obj.-throw-on.ground-D.IPV-1.S
 ‘I might have thrown him.’ (Notes to IV:8:2)
615. áʔataiʔ sqássi. JY
 ʔa-ʔatay Ø-s-qa-s-i
 DSTB-how 3SG.O-MASC-do-D.IPV-3.S
 ‘He did it any-old-which-way, any old way, badly.’ (B34:50a)

The existence of /ʔaʔa:nuk/ ‘various different things’ would seem to suggest an interrogative */ʔa:nuk/ ‘what?’, but it is only attested in reduplicated form:

616. aʔá:nuk^h lássik^h. JY
 ʔaʔa:nuk Ø-la-s-ik
 various.things 3SG.O-see-D.IPV-1.S
 ‘I [saw] various different things.’ (B34:61a)

3.6. Adjectives

The adjective is a well-defined grammatical category in Molalla, at least at the level of the word (even if, at a deeper level, most or all adjectival roots appear to be verbal). Morphologically, adjectives are well-distinguished both from nouns and from most verbs by their distinctive inflectional paradigms. They inflect both for person and for number; as might be expected, almost all first- and second-person forms are predicative rather than attributive, but there are one or two exceptions:

617. ki:ⁱ núswín kíslən qpa:l. FS
 ki: nus-wi-in ki-sla-in qpa:l
 2SG big-TAS-2.S be-FUT-2.S cottonwood
 “‘You will be a big cottonwood tree.’” (IV:112)

Adjectives are further distinguished from verbal predicates in that they inflect for case and in that they may appear with a copula, though this is frequently omitted. Adjectives, in and of themselves, are tenseless; if the tense of an adjectival predicate is to be specified, an overt copula must be used:

618. kú:sangwín kíssə. FS
 ku:s-aŋ-wi-in ki-s-a
 small-DIM-TAS-2.S be-STAT-2.S
 “‘You’re small.’” (XV:58)

3.6.1. Agreement

Adjectives are divided into two broad inflectional classes, thematic and athematic.

Thematic adjectives carry the thematic adjective suffix {-wi}, while athematic adjectives do not. Athematic adjectives are further distinguished in their inflectional patterns according to whether they end in a consonant or a vowel. Compare the 1sg and 1pl forms of the thematic adjective {naŋa} ‘one, alone’, the consonant-final athematic adjective {qł̥a:q} ‘white’, and the vowel-final athematic adjective /laʔwi-a/ ‘having a head’:

619. náŋawik FS
naŋa-wi-ik
alone-TAS-1.S
‘(I am) alone’ (XX:367)
620. náŋawaqik FS
naŋa-wi-qy-ik
alone-TAS-PL.S-1.S
‘(we are) alone’ (XXI:158)
621. qł̥a:qik FS
qł̥a:q-ik
white-1.S
‘(I am) white’ (Notes to I (Part 3):8:20)
622. qł̥a:qayik FS
qł̥a:q-qay-ik
white-PL.S-1.S
‘(we are) white’ (Notes to I (Part 3):8:25)
623. laʔwyak FS
laʔwi-a-ik
head-have-1.S
‘I have my head’ (Notes to I (Part 3):9:16)
624. laʔwyáqik FS
laʔwi-a-qy-ik
head-have-PL.S-1.S
‘we have heads’ (Notes to I (Part 3):9:17)

3.6.1.1. Person and Number

The nominative-case person and number inflections for athematic adjectives are given in Table 3.58.

Table 3.58: Athematic Adjective Inflections

	Postconsonantal				Postvocalic		
	Sg.	Du.	Pl.		Sg.	Du.	Pl.
1st	-ik	-wan-ik	-qay-ik		-k	-wn-ik	-qy-ik
2nd	-in	-wan-in	-qay-in		-n	-wn-in	-qy-in
3rd	-i	-wan-i	-qay-i		-y	-wn-i	-qy-i

These agreement inflections are not normally used with inanimate nouns; inanimate adjectives usually take a suffix {-way} (or perhaps /-way?/, if certain forms from Yelkes are correct) formally identical to the adjectival accusative (see next section):

625. klískliswai FS
 klis-klis-way
 bright-CHAR-INAN.ADJ
 'it is bright' (Notes to V:3:6)

In the singular and plural, thematic adjectives take the same allomorphs of the person and number endings as vowel-final athematic adjectives. In the dual, they inflect like consonant-final athematic adjectives, with no overt thematic suffix {-wi} and an invariant dual suffix /-wan/:

Table 3.59: Thematic Adjective Inflections

	Sg.	Du.	Pl.
1st	-wi-k	-wan-ik	-wi-qy-ik ⁷⁰
2nd	-wi-n	-wan-in	-wi-qy-in
3rd	-wi	-wan-i	-wi-qy-i

⁷⁰ In plural thematic adjectives, the /i/ of the thematic adjective suffix is commonly lowered to [a] by the flanking uvular stop.

In the adjective {na:m} ‘bad’, the /w/ of the thematic adjective suffix often assimilates to or merges with the final /m/ of the root: *ná:mmik* FS /na:m-wi-k/ ‘I am bad’ (Notes to II (Part 2):11:24), *na?na:mai* FS /na?-na:m-way/ ‘bad (inanimate distributive)’ (XII:33).

3.6.1.2. Case

In cases other than the nominative, the adjective inflects only for case, not for person or number. The non-nominative case inflections for adjectives are given in Table 3.60. There is no distinction between thematic and athematic adjectives in the non-nominative cases.

Table 3.60: Adjectival Case Inflections

Accusative	-way
Genitive	-wayam
Instrumental	-wayk
Locative	-ap/ -wayamp
Allative	-api/ -wayi
Ablative	-apat

The endings for the genitive and instrumental cases appear to be built on the accusative, as do one each of the two alternate forms of the locative and allative. When used without a noun, the adjectival locative means ‘in a place characterized by’ the feature denoted by the adjective:

626. *ki:ⁱ kíslən fátap^h*. FS
 ki: *ki-sla-in* *fat’-ap*
 2SG be-FUT-2.S cold-LOC
 ‘You will be in the cold.’ (Notes to V:5:14)

The /-wayamp/ form of the locative is used with animate referents; the /-ap/ form is used with both animate and inanimate referents:

627. haiks wálayassi ku:sangwayamp yá:yamp. FS
 hayks walaʔya-s-i ku:s-aŋ-wayamp ya:y-amp
 then arrive-D.IPV-3.S small-DIM-LOC man-LOC
 ‘Then he came to the young man.’ (III:89)
628. wísqap ʔa wálaʔyassuni. FS
 lwisq-ap=ʔa walaʔya-s-wn-i
 awake-LOC=still arrive-D.IPV-DU.S-3.S
 ‘They came to them when they were still awake.’ (XX:197)
629. táqsi sápa:p má:sa. FS
 taq-s-i sap-ap ma:s-a
 climb-D.IPV-3.S tall-LOC fir.tree-LOC
 ‘He climbed up on tallest tree.’ (Notes to VI:11:1)

The distinction in the allative between /-api/ and /-wayi/ is somewhat unclear (both forms are quite rare), though only /-api/ is attested in reference to animates:

630. yaqa:nt kistak na:nqaiappi. FS
 yaʔqa:nt ki-sta-k nanqay-api
 chief be-STAT-1.S all-ALL
 ‘I am chief over (above all).’ (Notes to N-VI:1:16)
631. sí:qiniʔsk nánqapi. FS
 Ø-s-i:qini-ʔs-k nanq-api
 3SG.O-MASC-consider-PRES-1.S all.sorts-ALL
 ‘I study over many things.’ (Notes to III (Part 2):9:3)
632. páswaihi: náwiti p’an kíslan. FS
 pas-wayi ne:wit-i p’a-in ki-sla-in
 good-ALL meat-ALL eat-2.S be-FUT-2.S
 ‘‘You will be an eater of good meat.’’ (XIV:278)

The adjectival instrumental has some specialized adverbial uses:

633. haiks wá:inwaik sí:xwintínnit pnak^há:pin. FS
 hayks wayn-wayk Ø-s-i:f-fin-tin-i-ʔ-t
 then quiet-INST.ADJ 3SG.O-MASC-glob.obj.-throw-out-V_S-D.PFV-3.S

 pnakha=pin
 yo.brother=3SG.CRF.PX
 ‘Then, without saying a word, he threw out his brother.’ (XVII:88)

634. pi:ʔ luyálukaʔsk tíllasint lá:pwaik wíllawáni. FS
 piʔ Ø-luya-:luk-ha-ʔs-k til-a-sint le:p-wayk wilaʔwani
 not 3SG.O-want-NEG-PSF-PRES-1.S depart-V_S-NZ two-INST.ADJ traveler
 “‘I don’t want to go on a trip with just two.’” (XXIV:6)

3.6.2. Absolute Adjectives

The suffix {-ʔ} forms an indeclinable noun-modifying form, here termed an *absolute* adjective.⁷¹ The {-ʔ} suffix nearly always follows a stem containing a stem-final vowel (see Section 3.1.1.6):

635. nusaʔ wa:kənt FS
 nus-a-ʔ we:kant
 big-V_S-ABS log
 ‘a big log’ (Notes to I (Part 3):17:3)

636. tsaqtsáqa FS
 caq-caq-a-ʔ
 red-CHAR-V_S-ABS
 ‘red’ (Notes to I (Part 3):8:8)

There are three exceptions: {na:m} ‘bad’, which has an irregular absolute form /namʔ/; {tam} ‘much, many’, which takes no suffix in the absolute; and {pas} ‘good’, in which the absolute suffix {-ʔ} is attached to the thematic adjective suffix {-wi} (see Section 3.6.1):

637. paswiʔ laʔkunwiyak. FS
 pas-wi-ʔ laʔkunwi-a-ik
 good-TAS-ABS face-have-1.S
 ‘My face is pretty.’ (lit., ‘I have a good face’) (Notes to VIII:3:3)

⁷¹ Frachtenberg very commonly omits the final glottal stop, especially in adjectives of more than two syllables.

Absolute adjectival forms are also used in noun-noun compounding (see Section 3.2.7.2), as adverbs (Section 3.7.1), and as verbal participles (Section 3.1.4).

3.6.3. Reduplication

Molalla adjectives undergo two types of reduplication, here termed *characteristic* and *distributive*. Characteristic reduplication involves copying of the entire root; if the root begins with a resonant, an /i/ is inserted between the two iterations of the root:

638. qyútqyuta? FS
 qyut-qyut-a-?
 smooth-CHAR-V_S-ABS
 ‘smooth’ (Notes to VI:12:16)
639. látilatwai. FS
 lat-i-lat-way
 blue-i-CHAR-INAN.ADJ
 ‘It is blue.’ (Notes to I (Part 3):8:14)

This type of reduplication applies to a class of adjectives denoting features of color, shape, and texture. The distinction between reduplicating and non-reduplicating adjectives, however, is formal rather than semantic: while {puq} ‘gray’ and {ʔpaq} ‘wide’ exhibit characteristic reduplication, {qʔa:q} ‘bright, white’ and {ʔik} ‘thick’ do not:

640. póqpoqwai. FS
 puq-puq-way
 gray-CHAR-INAN.ADJ
 ‘It is gray.’ (Notes to I (Part 3):8:12)
641. qʔa:qwai hílləm FS
 qʔa:q-way hilm
 white-INAN.ADJ house
 ‘a white house’ (Notes to I (Part 3):17:19)

A list of all the adjectives in my corpus that exhibit characteristic reduplication is given in Table 3.61.

Table 3.61: Adjectives Exhibiting Characteristic Reduplication

Root	Gloss
{caq}	‘red’
{fkāt}	‘dark’
{klis}	‘bright’
{lat}	‘blue’
{ʔpaq}	‘wide’
{ʔuq}	‘wet, slushy (of snow)’
{mlus}	‘round’
{muk}	‘black’
{msat}	‘brown-yellow, black’
{nhuk}	‘dark’
{puq}	‘gray’
{pu:ʔ}	‘soft’
{p’uf}	‘soft’
{qil}	‘greasy, stiff and shiny’
{qliw}	‘brightly colored, shiny’
{qyaw}	‘straight’
{qyut}	‘smooth’
{q’as}	‘golden, brass’ (earlier sources: ‘green’) ⁷²
{q’ay}	‘yellow, brown, khaki’
{sʔaʔf} ⁷³	‘soft’
{t’ul}	‘crooked’

Adjectives with characteristic reduplication exhibit certain other formal commonalities as well: all inflect as athematic adjectives, and all take /a/ as their stem-final vowel. The

⁷² Note also the derived noun /q’e:sp/ ‘grass’.

⁷³ The actual attested form is *səaʔfsəaʔfwai* FS (Notes to N-III:2:13); Frachtenberg’s *səV* seems to represent /sʔV/ elsewhere.

adjective {sukway} ‘brown’ is irregular in that it is disyllabic and indeclinable; the entire disyllabic root is reduplicated: *sukwáisukwai* FS /sukway-sukway/ ‘brown’ (Notes to I (Part 3):8:16).⁷⁴

The other type of reduplication seen in Molalla adjectives is *distributive* reduplication, which takes the form of a prefix {CV?-}. Unlike characteristic reduplication, which is a formal property of a particular class of adjectives, distributive reduplication is a derivational (or quasi-inflectional) process. It applies only to a small set of common thematic adjectives (listed in Table 3.62), on which it is optionally used to mark plurality.

Table 3.62: Adjectives Exhibiting Distributive Reduplication

Root	Gloss
{hu:}	‘old’
{hu:yat}	‘old, eldest’
{ku:s}	‘small’
{ku:ʔn}	‘small’
{na:m}	‘bad’
{pas}	‘good’
{sap}	‘long, tall’

This is the only way to mark plurality on adjectives referring to inanimate nouns, as inanimate adjectives do not take dual or plural endings (Section 3.6.1.1):

642. naʔnámwai náwit FS
 naʔ-na:m-way ne:wit
 DSTB-bad-INAN.ADJ meat
 ‘bad pieces of meat’ (XX:252)

⁷⁴ This root is probably borrowed from Sahaptian (compare Sahaptin *šk'úyšk'uy* ‘dark brown’); this may account for its morphological oddness.

Distributively reduplicated adjectives can even be used with collective nouns, in which case the adjectival root is reduplicated but the adjective shows singular agreement morphology:

643. ho:lāŋs hohó:wi witsp fita hīlləm sqá?kwakat. FS
 hu:lāŋs hu?-hu:-wi-_i wicp fi:t-a-ʔ hilm
 long.ago DSTB-old-TAS-3.S person winter-V_S-ABS house
 Ø-s-qa-:k waʔ-ka-ʔ-t
 3SG-MASC-make-SUB DSTB-in.place-D.PFV-3.S
 ‘Long ago, the old people used to build winter houses.’ (E-II:1)

The roots {ku:s} ‘small’ and {pas} ‘good’ lose their vowels when they undergo distributive reduplication, while {sap} ‘long, tall’ has an irregular distributive accusative /saʔsap/:

644. ku:ʔksángwaqin. FS
 kuʔ-ks-aŋ-wi-qy-in
 DSTB-small-DIM-TAS-PL.S-2.S
 ‘you [plural] are small’ (Notes to I (Part 3):16:18)
645. tam pá:pswaiʔ nāwit FS
 tam paʔ-ps-way ne:wit
 much DSTB-good-INAN.ADJ meat
 ‘It is full of good meat.’ (lit., ‘much good meat, many good pieces of meat’)
 (Notes to III (Part 2):6:11)
646. saʔsap tá:psai FS
 saʔ-sap ta:ps-a-i
 DSTB-long ear-have-3.S
 ‘mule’ (lit., ‘it has long ears’) (Notes to N-IV:1:14)

Savage uses /nuŋnis/ as a suppletive distributive of {nus} ‘large’, though Yelkes gives forms with distributive reduplication applied to /nuŋnis/ itself:

647. núngnisa táśai. FS
 nuŋnis-a-ʔ te:s-a-i
 big.DSTB-V_S-ABS hand-have-3.S
 “‘It has big paws.’” (XXIII:50)

648. tám nuʔnúŋniš kíłhaup^h ʔY
 tam nuʔ-nuŋnis kíłhayp
 many DSTB-big lake
 ‘many big lakes (B35MY:9a)

Distributive reduplication also applies to the noun {ni:ma} ‘young woman’, which is formally a thematic adjective, as evidenced by the fact that it inflects for person:

649. tšóhu: tauhu: hāsqini:win niʔni:mawanin! FS
 cuhu: taʔhu ha-s-qini:-wn niʔ-ni:ma-wan-in
 HORT.PTC now RR-LM-wrestle-PRES.IMP-DU.S DSTB-young.woman-DU.S-2.S
 “‘Well now, you two girls wrestle!’” (VII:133)

3.6.4. Comparison

Molalla adjectives have no inflected comparative or superlative forms. Adjectival comparison is usually expressed with the adverb {aqunt} ‘more’, placed after the inflected adjective:

650. ni:w nusáa:qunt. FS
 ni:-w-ʔ nus-a-ʔ aqunt
 PROX-DMSF-ABS big-V_S-ABS more
 ‘This is bigger.’ (Notes to IX:6:19)

651. ná:ta aiwi witsp isi:wálaʔyatsəm tamwaqi áqunt. FS
 na:tu ʔay-wi-i wicp hi-s-i:w-wálaʔya-c-m-Ø
 again other-DMSF-3.S person NTS-LM-LM-arrive-R.PFV-CIS-3.S

 tam-wi-qy-i aqunt
 many-TAS-PL.S-3.S more
 “‘Other people have come again, more of them.’” (N-VI:32)

652. táinwayáqunt FS
 tayn-way aqunt
 tight-INAN.ADJ more
 ‘(this is) stronger’ (Notes to IX:7:2)

The comparative construction may additionally include the verb {aluya} ‘defeat’ in the absolute adjectival form, here acting as a participle; Klamath has a parallel comparative construction using the verb ‘defeat’ (Barker 1964:312-313).

653. ina ʔi:xwik aqunt pints a:luya hink. FS
 ina ʔif-ik aqunt pin-s Ø-aluya-ʔ=hink
 1SG strong-1.S more 3SG-ACC 3SG.O-defeat-ABS=EMPH
 ‘I am stouter than he.’ (lit., ‘I am stronger, beating him’) (Notes to E-I:2:12)

Superlatives are formed using {aqunt} as well:

654. núswi áqu:nt yáqa:nt ná:nqaiáppi. FS
 nus-wi-i aqunt yaʔqa:nt nanqay-api
 big-TAS-3.S more chief all-ALL
 ‘He was the biggest chief of all.’ (N-VI:30)
655. nú:ngnisáqu:nt nikaʔptú:ksi. FS
 nuḡnis aqunt Ø-nik-aptu:k-s-i
 big.DSTB more 3SG.O-pull-tear.up-D.IPV-3.S
 ‘She was breaking up the biggest ones.’ (XI:37)
656. í:wi tílləm núswinaqunt máʔfi! FS
 Ø-ʔi:-wi-i til-a-m nus-wi-in aqunt ma:fiʔ
 3SG.O-say-HAB-3.S depart-PRES.IMP-CIS big-TAS-2.S more elk
 ‘He said, “Come here, you biggest elk!”’ (XV:72)

The sense ‘excessively, too much’ is expressed by the adverb {cqunt}, placed after the inflected adjective:

657. núswik tsqunt. FS
 nus-wi-ik cqunt
 big-TAS-1.S too.much
 ‘I am too big.’ (Notes to XX:2:15)

3.6.5. Adjectivalizing Morphology

Adjectives are readily derived from verb stems by the adding adjectival agreement suffixes (or the absolute suffix) directly to the stem, with no intervening tense/aspect or mood morphology:

658. ma:npiai p'an kÍslan. FS
 ma:npa-ay p'a-in ki-sla-in
 fawn-ALL eat-2.S be-FUT-2.S
 "‘You will be a fawn-eater.’" (lit., ‘you will be fawn-eating’) (XXIII:102)
659. qłá:qa lak. FS
 qłá:q-a-? la-ik
 white-V_S-ABS see-1.S
 ‘I look white.’ (lit., ‘(I am) white-looking’) (Notes to I (Part 3):9:9)

The adverb {qun̥k} ‘-like’ can be inflected as a thematic adjective:

660. täts pó:kłqonkwai lusímluswai. FS
 te:c pu:qł qun̥k-way mlus-mlus-way
 fire ball like-INAN.ADJ round-CHAR-INAN.ADJ
 ‘The fire was round, like a ball.’ (I:4)
661. hí:yasqunqwai tmai?kspaλ
 hí:ya:s qun̥k-way tmay?k-s-paλ
 needle like-INAN.ADJ write-NZ-instrument
 ‘pen’ (Notes to N-I:2:6)

An adjectival diminutive suffix {-aŋ} is found in thematic adjectives based on stems denoting smallness in size or fewness in number:

662. há:langwaqin FS
 ha?l-aŋ-wi-qy-in
 few-DIM-TAS-PL.S-2.S
 ‘a few of you’ (Notes to XVIII:3:14)
663. wála?yat kú:sangap hilmä. FS
 wala?ya-?t ku:s-aŋ-ap hilm-a
 arrive-D.PFV-3.S small-DIM-LOC house-LOC
 ‘He came to a small house.’ (Notes to VI:11:5)

An important adjectivalizing suffix is {-si}, which forms adjectives from bases denoting places of habitation or origin, such as the verb root {taw} ‘inhabit, be associated with’, the postposition {=kalma} ‘from’, a demonstrative in the ablative case, or a locational adverbial in {-aŋ} or {-ti}. The {-si} suffix has two allomorphs: /-si/ after consonants and /-sci/ after vowels:

664. tá:ltštausi JY
 te:ls taw-si-i
 river inhabit-ADJ-3.S
 ‘river people (who live in houseboats)’ (B34MY:16a)

665. ná:tamp kálmastsi ya:i FS
 na:tamp=sci-i ya:y
 evening=sci-i man
 ‘a man from the west’ (Notes to V:1:19)

666. yáŋintaŋsi JY
 yaŋint-aŋ-si-i
 mountain-LCTN-ADJ-3.S
 ‘mountaineer’ (B34MY:16a)

667. pá:ti:stsi FS
 pa:ti-sci-i
 under-ADJ-3.S
 ‘devil’ (Notes to XX:2:14)

The *si*-adjectives have the unusual property of taking the (normally verbal) plural suffix {-ya:n}, rather than the regular adjectival plural {-qay}:⁷⁵

668. táuhu: yá:wintukkant yíkiti:stšya:ni. FS
 taʔhu ya:w-n-tuk-an-t yiky-ti-sci-ya:n-i
 now die-away-D.PFV-PL.S-3.S go.ashore-LCTN-PL.S-3.S
 ‘Now the shore people died.’ (XVIII:238)

Otherwise, they inflect as normal vowel-final athematic adjectives.

⁷⁵ Gatschet, however, working in 1877, records *Haithluntchike* ‘Cayuse’ (literally, ‘upriver people’), and similar forms. These probably represent /haylunt-si-qy-i/, with a normal adjectival plural. The shift, if there was one, might have been by analogy with the distant-past imperfective, which has 3sg /-s-i/, 3pl /-s-ya:n-i/.

3.6.6. Negative Adjective

The suffix {-fa} forms negative adjectives, which inflect as vowel-final athematic adjectives. The {-fa} suffix has two main functions. First, it combines with forms that have been derived using {-a} ‘get, have’ to indicate lack of something:

669. pi:ʔ sakká:fan wi:nu:ntslan. FS
 piʔ saka-a-fa-in winu:n-sla-in
 not dog-have-NEG.ADJ-2.S travel-FUT-2.S
 “‘You will travel around dogless.’” (XVII:161)
670. pi:ʔ tá:psafai. FS
 piʔ ta:ps-a-fa-i
 not ear-have-NEG.ADJ-3.S
 ‘He did not want to listen.’ (lit., ‘He did not have ears.’) (I:56)
671. ní:nik lá:ti:wi hó:lǽŋs hoʔho:wi täts hisaqwákat pi:ʔ ła isinta:tuqspafap nángant.
 FS
 ní:nik lá:ti-wi-i hu:lǽŋs huʔ-hu:-wi-i te:c hi-s-yaq-Ø
 thus Molalla-TAS-3.S long.ago DSTB-old-TAS-3.S fire NTS-LM-make-SUB

 waʔ-ka-ʔ-t piʔ=ła isinta:tuqsp-a-fa-ap
 DSTB-in.place-D.PFV-3.S not=still white.person-have-NEG.ADJ-LOC

 naŋant
 at.that.time
 ‘The old Molallas used to make fire like that a long time ago, back then when there were still no white people.’ (E-III:14)

The second function of {-fa} is to combine with a verb nominalized with the suffix {-s} to form a sort of negative habitual construction:

672. pi:ʔ häwäkswan kíslən. FS
 piʔ hawe:k-s-fa-in ki-sla-in
 not run.race-NZ-NEG.ADJ-2.S be-FUT-2.S
 “‘You will not be a racer.’” (XV:207)

673. pi:ʔant kwí:nuntswai haskyas paʔfti. FS
 piʔ ʔant k-winu:n-s-fa-i ha-s-kya-s-paʔft-i
 not when FEM-travel-NZ-NEG.ADJ-3.S RR-LM-gather-NZ-place-ALL
 ‘She never goes to the meeting grounds.’ (E-I:30)
674. pi:ʔ qpáisfak. FS
 piʔ q-pay-s-fa-ik
 not IDF.O-kill-NZ-NEG.ADJ-1.S
 ‘I am not a killer.’ (Notes to XXIV:2:2)

The negative adjective suffix always appears in conjunction with the (normally clause-initial) negative particle or adverb {piʔ}.

3.7. Adverbials

3.7.1. Manner Adverbs

Most manner adverbs are absolute adjectives (see Section 3.6.2):

675. paswi: sí:št’ohuni. FS
 pas-wi-ʔ Ø-s-i-st’u:-l-wn-a
 good-TAS-ABS 3SG.O-MASC-CAUS-be.cooked-FUT.IMP-DU.S-2.S
 “‘Cook it well.’” (XIII:57)

The adjective {nus} ‘large’ forms a root adverb /nus/ ‘very much’:

676. kláiwassi nus. FS
 klaywa-s-i nus
 be.angry-D.IPV-3.S very.much
 ‘He was very angry.’ (VI:142)

Common underived manner adverbs include {aqunt} ‘more’, {hayaqa} ‘a little (more)’, {kaltaykt} ‘straight, correctly’, {laqwaʔ} ‘quickly, soon’, {nakis} ‘last, behind, afterwards’, and {qula} ‘only, baselessly, idly’:

677. náuwanəm láqwa. FS
 n-ʔa-Ø-wan-m laqwaʔ
 1SG.O-tell-PRES.IMP-DU.S-CIS quickly
 “‘Tell me quickly.’” (VIII:84)

678. íssi qúlla háʔtilqaʔsk. FS
 Ø-ʔi-s-i qula haʔt-lqa-ʔs-k
 3SG.O-say-D.IPV-3.S only walk-around-PRES-1.S
 ‘He said, “I’m just walking around.”’ (VIII:5)

3.7.2. -ay Adverbs

Several common adverbs are formed with a suffix {-ay} that is probably connected etymologically with the allative case suffix (see Section 3.2.2.6). Some have clear derivations, such as {naŋqay} ‘all’ (from {naŋq} ‘all kinds’), {paqay} ‘to one side’ (probably connected with {paq-tit} ‘cheek’), and {tawsi:yay} ‘in the morning, the next morning’ (from {tawsi:y} ‘be the next morning’). The origins of {pisqay} ‘at night’, however, are obscure. The postposition {=yaqay} ‘here and there in the vicinity of’ may belong here as well; compare {-yaq} ‘in a row’ and {ya:q-ti} ‘nearby, neighboring’.

3.7.3. Temporal Adverbials

Common temporal adverbials include {haqaws} ‘always, every time’, {hayks} ‘then, and then’, {hayluhayki} ‘always, forever’, {hu:} ‘long ago, before, already’, {hu:laŋs} ‘long ago’, {hu:wan} ‘for a while’, {mi:ya} ‘after a while’, {nakis} ‘afterwards’, {na:tu} ‘again, in turn’, {naʔamst} ‘all night’, {pa:ʔma} ‘a while ago’, {paʔmastya} ‘eventually, finally’, {taʔhu} ‘now’, {taʔtm} ‘yesterday, tomorrow’, {tu:ks} ‘first’, and {yaʔfa} ‘close, soon’:

679. pʔáslak mí:a. FS
 p’a-sla-ik mi:ya
 eat-FUT-1.S after.a.while
 ‘I’ll eat after a while.’ (Notes to XII:3:14)

680. ta:ʔtəm issik. FS
taʔtm Ø-ʔi-s-ik
 yesterday 3SG.O-say-D.IPV-1.S
 ‘I said yesterday.’ (Notes to I (Part 1):18:9)
681. talapá:s issi ta:ʔtəm pí:ʎasla-k. FS
 talapá:s Ø-ʔi-s-i taʔtm pí:ʎa-sla-ik
 coyote 3SG.O-say-D.IPV-3.S tomorrow go.home-FUT-1.S
 ‘Coyote said, “Tomorrow I will go home.”’ (II:60)

Short forms of {hayks} and {na:tu} (/hay/ and /na:t/, respectively) are commonly encountered in texts:

682. hái sínpitísmi. FS
hay sin-pity-s-m-i
 then go.in-back-D.IPV-CIS-3.S
 ‘Then he came back inside.’ (XII:25)
683. haiks ná:t nānissuni. FS
 hayks na:t nani-s-wn-i
 then again continue-D.IPV-DU.S-3.S
 ‘Then they went on again.’ (XX:58)

The adverb /wa:sʎay/ ‘all day’ is clearly derived from {wa:s} ‘sun, day’, though the second element is obscure. Other adverbs with the sense ‘for a whole time period’ are formed with a prefix {naʔ-}: /naʔ-fi:t/ ‘a whole winter’, /naʔ-laŋs/ ‘a whole year’, /naʔ-na:tamp/ ‘all evening’. Adjectival locative and ablative suffixes (see Section 3.6.1.2) may be added to temporal adverbials, with sometimes unpredictable semantic results:

684. hu:äp mláuislak na:t FS
 hu:-ap m-law-sla-ik na:t
 already-LOC 2SG.O-see-FUT-1.S again
 ‘I’ll see you again some time.’ (IV:37)
685. hú:wanapat wísqpitíssi. FS
 hu:wan-apat lwisq-pity-s-i
 a.while-ABL be.conscious-again-D.IPV-3.S
 ‘After a while, he began to come to.’ (VI:133)

The transcription of {taʔhu} ‘now’ is a salient point of difference between Jacobs and Frachtenberg, who consistently transcribes this morpheme as if it were /tawhu/; compare 686 and 687:

686. tauhu: psí:ptitsk. FS
 taʔhu m-s-yi-ptyi-c-k
 now 2SG.O-MASC-give-back-R.PFV-1.S
 “‘Now I’ve given them back to you.’” (XVI:122)

687. mú:khǎʔšim tǎʔhu JY
 mu:k-ha-ʔs-m-Ø taʔhu
 get.dark-PSF-PRES-CIS-3.S now
 ‘It is getting dark now.’ (B34:48b)

Since Frachtenberg tends to miss glottal stops in other places as well, I have chosen to accept Jacobs’s transcription and attribute the diphthong written by Frachtenberg in the first syllable to the effect of the following /u/.

3.7.4. Locational and Directional Adverbials

A number of locational adverbs end in a suffix {-ti}. Some of these are clearly derived from verbal roots, often with a lengthened vowel: /pa:ti/ ‘under’, from {pat} ‘into a hole or water’; /taykti/ ‘on the other side’, from {tayk} ‘cross’; /te:qti/ ‘on top’, from {taq} ‘climb, go up’; /ya:qti/ ‘nearby, neighboring’, from {-yaq} ‘in a row’; /yikyti/ ‘on shore, on the edge’, from {yiky} ‘go ashore’. Others are slightly farther removed from their sources, like /ʔe:ti/ ‘below’, which must be somehow related to {ʔit} ‘go down’, and /waʔti/ ‘below’, probably connected with {-iwʔa} ‘downriver’. Some are of completely obscure provenance, including /ʔe:witi/ ‘in front, first’, /la:qti/ ‘outdoors’ (perhaps somehow connected with {-lqa} ‘around, here and there’), /papti/ ‘all over’, /yuʔnti/ ‘on the threshold’, and perhaps /ta:tkanti/ ‘summit’. These elements may also be

used as nouns and frequently appear with case suffixes (especially the ablative) or postpositions:

688. lá:qtiátyants hilmät FS
 la:qti-at=yans hilm-at
 outside-ABL=from house-ABL
 ‘from out of [the] house’ (Notes to XII:12:2)

689. síwailitsk fāwitiya:ʔmt pints. FS
 Ø-s-i-way-lit-c-k fe:witi=yaʔmt pin-s
 3SG.O-MASC-CAUS-fall(long)-down-R.PFV-1.S in.front=at 3SG-ACC
 ‘I dropped it in front of him.’ (Notes to I (Part 3):4:17)

Several of the roots above also form directional adverbs with a suffix {-t}: /la:qt/ ‘out(side)’, /taykt/ ‘across’, /te:qt/ ‘upwards’, /te:lit/ ‘downhill’, /waʔe:t/ ‘downriver’.

The particle (adverb? noun?) {maʔt} ‘side’ is used to form expressions like ‘right’, ‘left’, ‘upper side’, ‘underside’, and so on:

690. wáʔti maʔt FS
 waʔti maʔt
 below side
 ‘below’ (Notes to VI:19:18)
691. páswi măʔt FS
 pas-wi-ʔ maʔt
 good-TAS-ABS side
 ‘right-hand’ (Notes to II (Part 2):13:1)

Underived locational adverbs include {la:t} ‘outside’, {limk} ‘below’, and {pahan} ‘far away’.

692. ásk’ana lím kí:wi. FS
 askana limk ki-:wi-i
 raccoon below stay-HAB-3.S
 ‘Raccoon would stay below.’ (XX:8)

693. paháäään níssi. FS
pahan ni-s-i
 far.away go-D.IPV-3.S
 ‘He was going way off.’ (N-II:30)

3.7.5. Enclitic Adverbials

There is a set of five adverbial elements that always occur encliticized to some host: {=kanik} ‘even’, {=la} ‘still, yet’, {=nan} ‘also’, and the two emphatic enclitics {=hink} and {=niku}:

694. ni:p kánik lóqaʔst. FS
 ni:p=kanik luq-ha-ʔs-t
 3SG=even be.sick-PSF-PRES-3.S
 ‘Even he is sick.’ (Notes to II (Part 2):13:27)

695. hápʔa ʔa kistak. FS
 hapt-ʔa-ʔ=la ki-sta-k
 sit-down.onto-ABS=still be-STAT-1.S
 ‘I am still sitting.’ (Notes to IV:2:16)

696. inánan táuhu: tilhaʔsk. FS
 ina=nan taʔhu til-ha-ʔs-k
 1SG=also now depart-PSF-PRES-1.S
 ‘‘I am going now, too.’’ (XV:222)

697. qúlla hink yángint kíslən. FS
 qula=hink yaŋint ki-sla-in
 only=EMPH mountain be-FUT-2.S
 ‘‘You will just be a mountain.’’ (X:92)

698. ya:faniku síplaiqitsk. FS
 yaʔfa=niku s-i-playʔ-qyi-c-k
 almost=EMPH MASC-go-back-PENE-R.PFV-1.S
 ‘I came near turning back.’ (Notes to III (Part 2):1:2)

The element {=la} may belong here as well. It is always found encliticized (or suffixed?) to the negative adverb {piʔ}. It may mean something like English ‘at all’, but its semantic content is not really clear:

699. pi:ʔ la p'ásint kí:luksla:qin. FS
 piʔ=la p'a-sint ki-:luk-sla-qy-in
 not=at.all eat-NZ be-NEG-FUT-PL.S-2.S
 “‘You will not be food at all.’” (XIX:93)

3.8. Numerals

The Molalla numeral system is quinary: the numbers from ‘one’ through ‘five’ are unanalyzable, while ‘six’ through ‘eight’ are based (at least etymologically) on the terms for ‘one’ through ‘three’. The term for ‘nine’ appears to be a subtractive form based on ‘ten’. The numeral stems from ‘one’ through ‘ten’ are given in Table 3.63.

Table 3.63: Numeral Stems

one	naja-
two	le:p-
three	mat-
four	pi:pa-
five	pik-
six	na:pitq-
seven	lapitq-
eight	matpitq-
nine	laqnstya:tqs
ten	laqn-

No Molalla ordinal numbers have been preserved. The only fractional number known is

{layʔ} ‘half’:

700. layʔ wa:s FS
 layʔ wa:s
 half day
 ‘half a day’ (Notes to II (Part 1):21:10)

3.8.1. Inflection and Derivation

The numerals ‘six’ through ‘eight’ are formed with an element {pitq-a-ʔ}, which is surely connected with the adverbials {pitqaʔ} ‘also, additionally’ and {pitqt} ‘close to, against’,⁷⁶ the sense being ‘[five and] one additionally’. ‘Six’ contains a unique combining form of ‘one’, /na:/, while ‘seven’ contains an allomorph of ‘two’ with a shortened vowel. The term for ‘nine’ clearly contains the root {laqn} ‘ten’, along with a second part that is obscure but might contain an element connected with the verb root {tya:tq} ‘catch up to’.

The numerals from ‘one’ through at least ‘six’ and ‘ten’ inflect as thematic adjectives; {pi:pa} ‘four’ has an irregular genitive /pi:payam/. ‘Seven’ and ‘eight’ are only attested in the absolute. ‘One’, ‘six’, ‘seven’, ‘eight’, and probably ‘four’ take the regular absolute suffix /-(a)ʔ/, while ‘two’ through ‘five’ have a special absolute suffix /-kaʔ/. ‘Nine’ is completely invariant.

⁷⁶ Ultimately, these may all derive from the inanimate copula {pi} plus an allomorph of the suffix {-tqa} ‘on, at, against something or someone’.

Table 3.64: Adjectival Forms of Numerals

Gloss	Absolute	Thematic Adjective
one	naja-ʔ	naja-wi
two	le:p-kaʔ	le:p-wan-i
three	mat-kaʔ	mat-wi-qy-i
four	pi:pa-ʔ	pi:pa-wi-qy-i
five	pik-kaʔ	pik-wi-qy-i
six	na:pitq-aʔ	na:pitq-wayi ⁷⁷
seven	lapitq-aʔ	<i>unatt.</i>
eight	matpitq-aʔ	<i>unatt.</i>
nine	laqnstya:tqs	<i>unatt.</i>
ten	laqn-an	laqn-wi-qy-i

The numeral ‘ten’ normally appears with a unique absolute suffix /-an/, but it also has a locative /laqnap/, with which the expressions for ‘eleven’ through ‘nineteen’ are formed using a participle based on the verb ‘set on top’:

701. láqənap nanga wa:ksa FS
 laqn-ap naja-ʔ we:k-ʔ-a-ʔ
 ten-LOC one-ABS set-on.top-V_S-ABS
 ‘eleven’ (lit., ‘one set on top of ten’) (89:15:1)

Possibly due to the effects of language attrition, Fred Yelkes (the last known speaker of Molalla) appears not to have known the normal forms for the numerals ‘six’ through ‘eight’. Instead, he gives the complex forms *píkkaʔ náŋŋa wá:kʰläʔ* ‘six’, lit., ‘five, one set on top’; *píkkaʔ lá:pkäʔ wá:kʰläʔ* ‘seven’, lit., ‘five, two set on top’; and *píkkaʔ mátkäʔ wá:kʰläʔ* ‘eight’, lit., ‘five, three set on top’ (all forms from B34:13b). These are formed similarly to Savage’s terms for ‘eleven’ through ‘nineteen’, though

⁷⁷ The thematic adjective based on the numeral ‘six’ is attested only in the allative case.

notice that the numeral ‘five’ appears in the absolute form rather than with locative case inflection. There is no term for ‘nine’ recorded from Yelkes.

All the numeral stems may be combined with a suffix {-im} ‘X times’ (see Table 3.65).

Table 3.65: Numerals with {-im} ‘Times’

once	nan-im
twice	lap-im
three times	mat-im
four times	pi:pa-m
five times	pik-im
six times	na:pitq-im
seven times	lapitq-im
eight times	matpitq-im
nine times	laqnstya:tqs-im
ten times	laqn-im

When the {-im} suffix is used with the numeral ‘one’, the result is not the expected */naŋam/ but rather /nanim/. This would make sense if the root for ‘one’ were actually /nan/. However, in that case, the absolute numeral /naŋa?/ would presumably be /nan-ka?/ underlyingly (with the same {-ka?} absolute suffix as ‘two’, ‘three’, and ‘five’), and /n/ and /k/ do not normally coalesce into [ŋ]. In addition, recall from Table 3.64 that the thematic adjective ‘one’ is /naŋa-wi/; the thematic adjective forms are normally based on roots, so one would expect */nan-wi/ if /nan/ were the underlying form of the numeral ‘one’. Thus, /nanim/ ‘once’ stands as an anomaly.

Decadal numbers are created on the formula {X-im laqn-} ‘X-times ten’.⁷⁸

702. lapómlaqqan FS
 lap-im laqn-an
 two-times ten-ABS
 ‘twenty’ (89:15:1)

703. motómlaqqan nanga wa:ksa FS
 mat-im laqn-ap naŋa-ʔ we:k-ł-a-ʔ
 three-times ten-LOC one-ABS set-on.top-V_S-ABS
 ‘thirty-one’ (89:15:2)

The {-im} suffix can also combine with the interrogative stem {ʔan} ‘how many?’ to produce /ʔanim/ ‘how many times?’:

704. ánnim lássin? FS
 ʔan-im Ø-la-s-in
 how.many-times 3SG.O-see-D.IPV-2.S
 ‘How many times did you see him?’ (Notes to VI:12:9)

Adding a locative suffix {-ap} to a numeral with {-im} produces an expression meaning either ‘for the Xth time’ or ‘on the Xth day’:

705. haiks pí:pamap poqəlwá:intsi na:t. FS
 hayks pi:pa-im-ap puqil-way-n-s-i na:t
 then four-times-LOC diving-swim-along-D.IPV-3.S again
 ‘Then he dove down again for the fourth time.’ (XIV:141)

706. pikkímap hai pí:łatkwn. FS
 pik-im-ap hay pi:ła-ʔtk-wan-Ø
 five-times-LOC then go.home-D.PFV-DU.S-3.S
 ‘Then, on the fifth day, they left.’ (XIV:89)

For ‘one’, there is a suppletive term {namstama} ‘first, for the first time, at first’:

⁷⁸ Hale (1846), the earliest source on Molalla records an alternate system of decadal numbers alongside this one: <nawítspu> ‘ten’, <lapuítspu> ‘twenty’, <matuítspu> ‘thirty’; see the Appendix. These appear to be based on the word {wicp} ‘person’, perhaps on the logic that ‘ten fingers’ equals ‘one person’.

707. námstama háwaksi witsp. FS
 namstama hawe:k-s-i wicp
 at.first run.race-D.IPV-3.S person
 ‘At first the people were running races.’ (XVII:112)

Adverbial expressions meaning ‘both’, ‘all three’, etc., are formed with the particles {las}
 ‘both’ and {nas} ‘all’, placed immediately before the numeral:⁷⁹

708. táuhu: pí:ʎassuni las lá:pwani. FS
 taʎhu pi:ʎa-s-wn-i las le:p-wan-i
 now go.home-D.IPV-DU.S-3.S both two-DU.S-3.S
 ‘Now both of them went home.’ (II:71)
709. haiks tungsassyá:ni táuhu: nas láqinwaqi. FS
 hayks tuŋsa-s-ya:n-i taʎhu nas laqn-wi-qy-i
 then sing-D.IPV-PL.S-3.S now all ten-TAS-PL.S-3.S
 ‘Then now all ten of them sang.’ (XIX:3)

3.8.2. Reduplication

The numerals ‘one’ through ‘five’ (at least) show {CVʎ-} reduplication, with the
 sense ‘X apiece, X at a time’:

710. naʎnanga qšítintsima:ni. FS
 naʎ-naʎa-ʎ q-s-it-n-s-mman-i
 DSTB-one-ABS NSG.O-MASC-carry-along-D.IPV-DU.S+CIS-3.S
 ‘They carried them one apiece.’
711. laʎla:pka FS
 laʎ-le:p-kaʎ
 DSTB-two-ABS
 ‘two at a time’ (Notes to II (Part 2):20:25)
712. piʎpíkka täʎsaqi. FS
 piʎ-pik-kaʎ te:s-a-qy-i
 DSTB-five-ABS finger-have-PL.S-3.S
 ‘“They have five fingers each.”’ (N-VI:27)

⁷⁹ It seems probable to me that {las} and {nas} represent a vestige of the same //n diminutive/augmentative sound symbolism common in the Sahaptian languages.

3.9. Minor Categories

3.9.1. Conjunctions

The attested coordinating conjunctions are {ankuyans} ‘or else’, {nuay} ‘and’, and {qunuyans} ‘either’.

713. tsəm anguyants pstístikaslak. FS
 n-s-yi-Ø-m ankuyans m-s-tisti-kha-sla-ik
 1SG.O-MASC-give-PRES.IMP-CIS or.else 2SG.O-MASC-w/fist-hit-FUT-1.S
 ‘Give it to me or else I’ll hit you.’ (Notes to XXII:5:1)
714. k’máph^hua q’ála knílam:nt nu:ai wáqatinsa q’ála knílam:a:nt. FS
 k’mə:phu-a q-ʔa-l-a k-ni-l-yama:n-t nuay
 bullfrog-ACC NSG.O-tell-FUT.IMP-2.S FEM-go-FUT.IMP-PL.S+CIS-3.S and

 waqatins-a q-ʔa-l-a k-ni-l-yama:n-t
 frog-ACC NSG.O-tell-FUT.IMP-2.S FEM-go-FUT.IMP-PL.S+CIS-3.S
 ‘ “Tell the bullfrogs they are to come here, and tell the frogs they are to come here.”’ (XIX:65)

The conjunction {qunuyans} ‘either’ appears before the first conjunct, while an element {qunu} ‘or’ appears before the second:

715. tsəm qunuyants óqunts qunu năwit. FS
 n-s-yi-Ø-m qunuyans uq-n-s qunu ne:wit
 1SG.O-MASC-give-PRES.IMP-CIS either drink-along-NZ or meat
 ‘Give me meat or water.’ (Notes to XXII:5:2)

The subordinating conjunctions are {ki:ya} ‘even if, even though’, {ne:nik} ‘the more as’, {nuqu} ‘if, when’, and probably {wi:s} ‘because’. The conjunction {ki:ya} may be used with verbs displaying subordinating morphology (as in 716), normal indicative morphology (as in 717), or potential-mood morphology (as in 718):

716. kí:ya hísfkissi piʔyá:winlukwi. FS
ki:ya hi-s-fki-s-i piʔ nya:w-n-luk-wi-i
 even.if NTS-LM-stab-SS.CUST not die-away-NEG-HAB-3.S
 ‘Even if he is stabbed, he doesn’t die.’ (XXII:§7:2)

717. kǐ:ya psíhäftúngu:ntslai. FS
kǐ:ya m-s-i-ha-ftuṇun-sla-i
 even.if 2SG.O-MASC-CAUS-RR-argue-FUT-3.S
 “‘Even if he argues with you.’” (II:100)
718. kǐ:ya hístku:q pí:ant lúqlukuk. FS
kǐ:ya hi-s-tku-q-Ø pi? ?ant luq-luk-uq-Ø
 even.if NTS-LM-shoot-POT-3.S not when be.wounded-NEG-POT-3.S
 ‘Even if he were shot, he would never be wounded.’ (XXII:§13:2)

The same three possible situations are likewise attested with {nuqu} ‘when, if’:

719. nóqu kú:sanatsik po:qilwáina tilqak látú:qak. FS
nuqu ku:sana-ḡ-ik puqil-way-na-? til-q-ik
 if be.uneasy-SS.PROS-1.S diving-swim-along-ABS depart-POT-1.S

 latw-q-ik
 escape-POT-1.S
 “‘If I get scared, I can dive down and escape.’” (XXIV:69)
720. nóqu haḡna?nt^hayaqak wá:ḡin wákak-in qsí:wkákwakaqak. FS
nuqu haḡna?nthaya-ḡ-ik wa:ḡ=in we:k-ak=in
 if run.out.of.ammo-POT-1.S arrow=1SG.PX club-INST=1SG.PX

 q-s-i:w-kha-:k wa?-ka-q-ik
 NSG.O-MASC-long.obj.-hit-SUB DSTB-in.place-POT-1.S
 “‘If I should run out of arrows, I can hit them with my club.’” (XXIV:74)
721. nóqu lip máq:at kálla hátxwítilwi, láqwa hisinyá:winwi. FS
nuqu=lip maqat=kala hatfi?-til-wi-i laqwa?
 if=but left=toward wriggle-away-HAB-3.S quickly

 hi-s-nya:w-n-wi-i
 NTS-LM-die-away-HAB-3.S
 ‘But if she crawls to the left, he dies right away.’ (XXII:§3:6)

With the conjunction {ne:nik} ‘the more as’, the subordinate verb always displays subordinating morphology:

722. kláissi nánik lóqums~~as~~. FS
 klay?-s-i ne:nik luq-mst-~~aa-s-s~~-Ø
 go.out-D.IPV-3.S the.more.as spit-?-down.onto-CUST-DS-3.S
 ‘The more he spat on it, the more it went out.’ (XIV:213)

Etymologically, the conjunction {wi:s} ‘because’ may be a subordinate form of /wi/, the present stem of the inanimate copula {pi}. It differs from the conjunctions discussed before in that it invariably comes last in its clause. The subordinate verb appears with subordinating morphology:

723. psítsk íms mlauwílaigik wi:s. FS
 m-s-yi-c-k im-s m-lawíla-yk-ik wi:s
 2SG.O-MASC-give-R.PFV-1.S 2SG-ACC 2SG.O-love-SS.CTPR-1.S because
 ‘I give it to you because I like you.’ (Notes to XIII:8:2)

Often, {wi:s} is used without any overt subordinate verb:

724. tšóhu: ims mak fáwiti yałama wi:s. FS
 cuhu: im-s m-ʔa-Ø-ik fe:witi yałam-a wi:s
 HORT.PTC 2SG-ACC 2SG.O-tell-PRES.IMP-1.S first old.man-ACC because
 ‘‘Now let me tell you first, because you are an old man.’’ (XIII:216)

725. síntsəmk fātʔap wi:s. FS
 sin-c-m-k fatʔ-~~ap~~ wi:s
 go.in-R.PFV-CIS-1.S cold-LOC because
 ‘I came in because it is cold.’ (Notes to XX:1:13)

3.9.2. Postpositions

I have found ten postpositions in Molalla: the locational postpositions {=kala} ‘at, toward’, {=kalma} ‘at, from’, {=taykt} ‘right on’, {=timt} ‘on, at’, {=yans} ‘from, out of’, {=yaqay} ‘around’, and {=yaʔmt} ‘on, at’; and the equative postpositions {=qans} ‘as much as’, {=qansk} ‘as far as’, and {=qantk} ‘as long as’:

726. tú:ngsasya:ni háyəmp kala. FS
 tuŋsa-s-ya:n-i haymp=kala
 sing-D.IPV-PL.S-3.S east.wind=toward
 ‘They sang toward the east wind.’ (XIX:11)

727. páiklat syálpuptaikt. FS
 Ø-payk-l-a-ʔ-t syálpupt=taykt
 3SG.O-step-on.top-Vs-D.PFV-3.S knee=right.on
 ‘She stepped right on his knee.’ (XIII:129)
728. súkusindəmt FS
 sukusin=timt
 occiput=on
 ‘(he hit him) in the back part of the head’ (Notes in VI:5:4)
729. ní:wyaqai yí:wsalqaʔ. FS
 ni-:w-ʔ=yaqay yi:ws-Ø waʔ-lqa-ʔ
 PROX-DMSF-ABS=around smell-SUB DSTB-around-ABS
 ‘It smells here and there.’ (Notes to II (Part 2):12:16)
730. ni:p ʔip kissi pnänin Salem-yəmt. FS
 ni:p=ʔip ki-s-i pnan=in Salem=yaʔmt
 3SG=but dwell-D.IPV-3.S mother=1SG.PX Salem=at
 ‘But my mother was living in Salem.’ (N-I:18)
731. hanlaksqantk-in FS
 hanlaqs=qantk=in
 forearm=as.long.as=1SG.PX
 ‘length of my arm’ (Notes to E-I:2:1)
732. níssik nóquntskai silatsqanskai. FS
 ni-s-ik nuqunsk-ay silac=qansk-ay
 go-D.IPV-1.S however.far-DIR Siletz=as.far.as-DIR
 ‘I went as far as Siletz.’ (Notes to VI:11:23)

At least {=qans} takes its object in the accusative case; {=yans} appears to take its object in the ablative:

733. ina ʔixwik pintsqənts. FS
 ina ʔif-ik pin-s=qans
 1SG strong-1.S 3SG-ACC=as.much.as
 ‘I am as stout as he.’ (Notes to E-I:2:11)
734. ta:qaliatyants FS
 te:qali-at=yans
 middle-ABL=from
 ‘from out of center’ (Notes to XII:11:18)

The postposition {=kala} appears to consist of a base (perhaps a noun) /kal/ plus the locative case suffix {-a}. This impression is strengthened by the existence of {-kalma}, which seems to consist of the same two elements with the cislocative suffix {-m} intercalated between them:

735. haiks nísmi háqǎ:s nu:kálma
 hayks ni-s-m-i haqe:s nu-:w-?=kalma
 then go-D.IPV-CIS-3.S grizzly ANA-DMSF-ABS=at+CIS
 ‘Then Grizzly came along there.’ (XI:17)

3.9.3. Particles

The particle class is composed of the question particle {cu} ‘at all, ever’ and the hortatory particles {amak}, {cuhu:}, and {nukha}. The functional distinctions among the three hortatory particles are unclear, though {nukha} (which only occurs three times in the corpus) is used only with first-person imperatives:

736. pka?ya pin twámsi tšú hásqínissuni? FS
 pka:ya=pin Ø-twam-s-i cu ha-s-qini-s-wn-a
 yo.sister=3SG.CRF.PX 3SG.O-ask-D.IPV-3.S ever RR-LM-wrestle-ITER-DU.S.-2.S
 ‘He asked his younger sister, “Do you two ever wrestle?”’ (VII:107)

737. haiks táuwint íssi ásk^hanaa ámak fáyatnik. FS
 hayks tawint Ø-?i-s-i askana-a amak
 then wildcat 3SG.O-say-D.IPV-3.S raccoon-ACC HORT.PTC
 fayat-ni-Ø-ik
 sneak-along-PRES.IMP-1.S
 ‘Then Wildcat said to Raccoon, “Let me sneak up.”’ (XX:200)

738. tšóhu: tauhu: hásqíní:win ni?ní:mawanin! FS
cuhu: ta?hu ha-s-qini-:-wn ni?-ni:ma-wan-in
 HORT.PTC now RR-LM-wrestle-PRES.IMP-DU.S DSTB-young.woman-DU.S-2.S
 “‘Well now, you two girls wrestle!’” (VII:133)

739. nuk^ha máinik. FS
nukha m-ʔa-yni-Ø-ik
HORT.PTC 2SG.O-tell-ATTEN-PRES.IMP-1.S
'Hold on, let me tell you.' (Notes to XIV:2:9)

Chapter 4

Syntax

4.1. Constituent Order

Constituent order in Molalla is quite free. In general, new or surprising information comes toward the beginning of a clause, while old or expected information comes toward the end. To help elucidate patterns in this variation, certain texts from the Frachtenberg corpus were selected for examination in closer detail. These include all seven historical narratives, the four ethnographic descriptions, and three of the longer myths.⁸⁰ The narratives and ethnographic descriptions are far shorter than the myth texts; for the sake of comparability, data from all narratives will be pooled in what follows, as will the data from all ethnographic descriptions.

4.1.1. Subject, Object, and Verb

Neither the subject nor the object need be represented by an overt noun phrase or pronoun. Table 4.1 shows the number and percentage of clauses for each text genre in which a given argument is overtly represented. It can be seen from the table that clauses containing both an overt subject and an overt object are relatively rare, about three percent of all clauses for the myths and narratives and about seven percent for the ethnographic descriptions.

⁸⁰ The three myths examined are VI, "Skunk, Silver Fox, and Wolf"; XX, "Panther and Wildcat; Beavers and Black Bears"; and XXIV, "Coyote Battles with Tillamooks".

Table 4.1: Frequency of Overt Arguments

Text	Total Clauses	S & O	%	S Alone	%	O Alone	%
VI	299	6	2.0	101	33.8	35	11.7
XX	534	14	2.6	139	26.0	45	8.4
XXIV	304	10	3.3	106	34.9	37	12.2
Overall Myths	1137	30	2.6	346	30.4	117	10.3
Overall Narratives	389	10	2.6	87	22.4	63	16.2
Overall E.D.'s	136	10	7.4	23	16.9	25	18.4

Table 4.2 displays the frequency of the various possible ordering relations among subject, verb, and object in the different genres:

Table 4.2: Relative Ordering of Subject, Object, and Verb

Text	Total ⁸¹	OSV	OVS	SOV	SVO	VOS	VSO	VSOS ⁸²
VI	6	0 0%	0 0%	1 16.7%	3 50%	1 16.7%	1 16.7%	0 0%
XX	14	0 0%	3 21.4%	0 0%	7 50%	2 14.3%	1 7.1%	1 7.1%
XXIV	10	0 0%	1 10%	2 20%	7 70%	0 0%	0 0%	0 0%
Overall Myths	30	0 0%	4 13.3%	3 10%	17 56.7%	3 10%	2 6.7%	1 3.3%
Overall Narratives	9	0 0%	1 11.1%	3 33.3%	5 55.6%	0 0%	0 0%	0 0%
Overall E.D.'s	10	0 0%	1 10%	3 30%	5 50%	1 10%	0 0%	0 0%

Here, as in the tables to come, the orders displayed are simple linear precedence relations; other material, including adverbials, clitics, or quoted material, may intervene between the elements. For all genres, SVO is the single most common ordering, followed by SOV, OVS, VOS, and VSO. No examples of OSV ordering occurred in the texts

⁸¹ The figures in this column represent the total number of clauses in which subject, object, and verb are all overt.

⁸² Arguments listed twice (as in VSOS) are either discontinuous or doubled by a pronoun that is not adjacent to the noun phrase (see Section 4.9). I am using a notional, functional definition of "subject", "object", and so forth; I have no evidence to bring to bear on, say, whether the demonstrative pronoun or the noun is the syntactic subject in example 745, or whether they somehow share that role.

examined. Examples of each attested order are given below; to ease interpretation, the subject in each example will be marked by a single underline, the verb by a double underline, and the object by a wavy underline.

OVS:

740. haiks paswi ilimpsqassi áskhana. FS
 hayks pas-wi-? ilimp Ø-s-qa-s-i askana
 then good-TAS-ABS heart 3SG.O-MASC-make-D.IPV-3.S raccoon
 ‘Then Raccoon was glad.’ (XX:182)

SOV:

741. haiks ptát nu:wi səaup^h si:xwínni:wi. FS
 hayks ptat nu-w-i sʔaw-p
 then father 3SG.NCRF.PX-DMSF-SG.NOM speak-NZ
 Ø-s-i:f-fin-ni:-wi-i
 3SG.O-MASC-glob.obj.-send-along-HAB-3.S
 ‘Then his father would send word.’ (E-I:2)

SVO:

742. táuhu: pi:ʔ yáqa:nt qsi:wí:nu:nluksi wítspa. FS
 taʔhu piʔ yaʔqa:nt q-s-i:w-winu:n-luk-s-i wicp-a
 now not chief NSG.O-MASC-CAUS-travel-NEG-D.IPV-3.S person-ACC
 ‘Now the President did not allow the Indians to travel around.’ (N-IV:21)

VOS:

743. łássi haiks pállä:sa kasú:li. FS
 Ø-ʔe:-s-i hayks pale:s-a kasu:li
 3SG.O-catch-D.IPV-3.S then skunk-ACC wolf
 ‘Then Wolf took hold of Skunk.’ (VI:124)

VSO:

744. fikit nú:wi ya:i pálläsəm ku:lú:t. FS
 Ø-fik-i-ʔ-t nu-w-i ya:y pale:s-am kulu:t
 3SG.O-spear-VS-D.PFV-3.S ANA-DMSF-SG.NOM man skunk-GEN anus
 ‘The man speared Skunk’s anus.’ (VI:195)

VSOS:

745. haiks sítkitantsi ni:p láwat táuwint. FS
hayks Ø-s-it-ky-tan-s-i ni:p lawa:t tawint
then 3SG.O-MASC-transport-PLUR-out-D.IPV-3.S 3SG salmon bobcat
'Then Wildcat was carrying out the salmon.' (XX:260)

4.1.2. Subject and Verb

The next several sections illustrate precedence relations between pairs of elements, regardless of what other constituents may be present in the clause. Table 4.3 shows the relative ordering of subject and verb.

Table 4.3: Relative Ordering of Subject and Verb

Text	Total	SV	%	VS	%	SVS	%
VI	108	79	73.1	26	24.1	3	2.8
XX	154	98	63.6	53	34.4	3	1.9
XXIV	116	97	83.6	18	15.5	1	0.8
Overall Myths	378	274	72.5	97	25.7	7	1.9
Overall Narratives	97	64	66.0	28	28.9	5	5.2
Overall E.D.'s	33	25	75.8	7	21.2	1	3.0

In the following examples, as above, single underlining will mark the subject of the clause under investigation, and double underlining will mark the verb. For all genres, the subject normally precedes the verb. Verb-subject order, however, is not uncommon. It tends to be used when the subject is already established in the discourse, and therefore the new information contained in the clause is that concerning the action:

746. haiks tálapa:s tämä:p tú:niłasmi nu:kálma.
 hayks talapa:s taʔme:p tu:-niła-s-m-i
 then coyote sure.enough traveling-appear-D.IPV-CIS-3.S

 nu-w-ʔ=kalma
 ANA-DMSF-ABS=at+CIS
 ...
 haiks wi:tá:kissi tálapa:s. FS
 hayks wita:-ki-s-i talapa:s
 then stand-in.place-D.IPV-3.S coyote
 ‘Then, sure enough, Coyote appeared there...Then Coyote stopped.’ (XX:291-293)
747. haiks lássi pállä:s ni:ʔsmis.
 hayks Ø-la-s-i pale:s ni-ʔs-m-is-Ø
 then 3SG.O-see-D.IPV-3.S skunk go-CTPR-CIS-DS-3.S
 ...
 haiks walʔayassi nu:ʔt pállä:s. FS
 hayks walaʔya-s-i nu-w-t pale:s
 then arrive-D.IPV-3.S ANA-DMSF-LCTN skunk
 ‘Then he [Silver Fox] saw Skunk coming...Then Skunk arrived there.’ (VI:64-66)

When a clause begins with an adverbial, the verb may be placed before the subject in a manner somewhat reminiscent of verb-second ordering phenomena in Germanic languages:

748. táuhu: kíslən ki:ⁱ pálläs. FS
 taʔhu ki-sla-in ki: pale:s
 now be-FUT-2.S 2SG skunk
 “Now you will be a skunk.” (VI:212)
749. nú:ai yá:qti nángawi kist ásk^hana. FS
 nuay ya:qti naŋa-wi-i ki-s-t askana
 and neighboring one-TAS-3.S dwell-STAT-3.S raccoon
 “And in the house nearby, Raccoon lives alone.” (XX:368)

Existential constructions, too, often use verb-initial order; these are particularly common in the introductions to myth texts:

750. haiks ki:i:ssuni lá:pwani pálläs nú:ai wí:la. FS
 hayks ki-s-wn-i le:p-wan-i pale:s nuay wi:la
 then dwell-D.IPV-DU.S-3.S two-DU-3.S skunk and silver.fox
 ‘Then the two of them were living, Skunk and Silver Fox.’ (VI:1)

4.1.3. Verb and Direct Object

Table 4.4 shows the relative rates of occurrence of OV versus VO word order in the Molalla texts.

Table 4.4: Relative Ordering of Verb and Object

Text	Total	OV	%	VO	%	OVO	%
VI	41	13	31.7	28	68.3	0	0
XX	59	15	25.4	44	74.6	0	0
XXIV	47	15	31.9	32	68.1	0	0
Overall Myths	147	43	29.3	104	70.7	0	0
Overall Narratives	73	32	43.8	40	54.8	1	1.4
Overall E.D.’s	35	17	48.6	18	51.4	0	0

As above, the verb will be indicated by double underlining in the examples, and the object by wavy underlining. For all text types, VO order is more common than OV. In the myth texts, most of the exceptions fall into several broad categories. The largest class of OV clauses consists of those that contain forms of {qa} ‘do, make’ and {ti:ʔq}

‘become, come to be’, which almost invariably follow their objects:

751. wa:l-qən sqáptissya:ni hu:t:sa wa:l. FS
 wa:l=qan Ø-s-qa-ptyi-s-ya:n-i hu:t-s-a-ʔ
 arrow=3NSG.PX 3SG.O-MASC-make-again-D.IPV-PL.S-3.S build.fire-NZ-V_S-ABS
 wa:l
 arrow
 ‘They repaired their arrows, wooden arrows.’ (XXIV:56)

752. haiks paswi ilimpsqassi ásk^hana. FS
 hayks pas-wi-ʔ ilimp Ø-s-qa-s-i askana
 then good-TAS-ABS heart 3SG.O-MASC-make-D.IPV-3.S raccoon
 ‘Then Raccoon was glad.’ (XX:182)

753. pikka wa:s nánga wa:s siti:ʔqsi tálapa:s. FS
 pik-kaʔwa:s naŋa-ʔ wa:s Ø-s-i-ti:ʔq-s-i
 five-ABS day one-ABS day 3SG.O-MASC-CAUS-become-D.IPV-3.S
 talapa:s
 coyote
 ‘Coyote made five days become one day.’ (XXIV:23)

Other situations in which OV order may be used involve contrastive focus (as in 754), clarification (as in 755), or emphasis (as in 756):

754. páswaiʔ hu:ts snätkísmə papa:hasint.
 pas-way hu:t-s
 good-INAN.ADJ build.fire-NZ
 Ø-s-nat-ki-s-m-i papa:hasint
 3SG.O-MASC-pack.on.shoulders-in.house-D.IPV-CIS-3.S dry.bark
 ...
plu:nʔwai tnäləm šítkismi. FS
 pluʔn-way tne:lm Ø-s-it-ki-s-m-i
 wet-INAN.ADJ bark 3SG.O-MASC-transport-in.house-D.IPV-CIS-3.S
 ‘He [Silver Fox] brought in nice wood, dry bark...He [Skunk] brought in wet bark.’ (VI:10-13)
755. haiks k’ú:ya:wi íssi títłwank wíllaʔwäni pnák^ha-in.
 hayks k’u:ya:wi Ø-ʔi-s-i til-t-wan-k wilaʔwani
 then mtn.lion 3SG.O-say-D.IPV-3.S depart-FUT.IMP-DU.S-1.S traveler
 pnakha=in
 yo.brother=1SG.PX
 táuwinta íssi tauʔ. FS
 tawint-a Ø-ʔi-s-i tawʔ
 bobcat-ACC 3SG.O-say-D.IPV-3.S thus
 ‘Then Panther said, “Let us go on a trip, my little brother.” He said this to Wildcat.’ (XX:14-15)

756. pällä:s íssi nanga yá:ya ínts tsəm ínts tšəm! FS
 pale:s Ø-ʔi-s-i naja-ʔ ya:y-a in-s
 skunk 3SG.O-say-D.IPV-3.S one-ABS man-ACC 1SG-ACC
 n-s-yi-Ø-m in-s n-s-yi-Ø-m
 1SG.O-MASC-give-PRES.IMP-CIS 1SG-ACC 1SG.O-MASC-give-PRES.IMP-CIS
 ‘Skunk said to one man, “Give it to me! Give it to me!” (VI:193)

There is also at least one set phrase, to ‘send word’, in which the object consistently precedes the verb (see ex. 757, and also ex. 741 above):

757. haiks yáqa:nt səaup^h si:xwínnismi. FS
 hayks yaʔqa:nt sʔaw-p Ø-s-i:f-fín-ni-s-m-i
 then chief speak-NZ 3SG.O-glob.obj.-send-along-D.IPV-CIS-3.S
 ‘Then the chief sent word to them.’ (XXIV:105)

As can be seen from Table 4.4, OV order is considerably more common in the (presumably) less-formal registers of narrative and ethnographic description than in the myth register. For the ethnographic descriptions, this is doubtless partly due to the common occurrence of {qa} (as in 758), but they and the narratives also contain many OV clauses that are difficult to classify (such as 759 through 761). The single example of OVO order is given in 762.

758. ta:suks hisaqwákat. FS
 taʔsuks hi-s-yaq waʔ-ka-ʔ-t
 kindling NTS-LM-make DSTB-in.one.place-D.PFV-3.S
 ‘They made kindling’ (E-III:7)
759. ní:nikank q^həms qsítluyask. FS
 ni:nik=híŋk qam-s q-s-it-luya-ʔs-k
 thus=exactly 2NSG-ACC NSG.O-MASC-transport-want-PRES-1.S
 “‘Likewise, I want to take you along.’” (N-III:14)
760. haiks yaqá:nta twinpa:stáuintsyamni. FS
 hayks yaʔqa:nt-a Ø-twinpa:s taw-n-s-yamn-i
 then chief-ACC 3SG.O-report-NZ go.to-along-D.IPV-PL.S+CIS-3.S
 ‘Then they came to tell the chief.’ (N-VI:10)

761. haiks núai yó:qtsik'am tnálim ní:nik ank swá:ikifaqi. FS
 hayks nuay yu:qcik'a-am tnalm ní:nik=híqk
 then and hemlock-GEN bark thus=exactly

Ø-s-fay-qi-fa-Ø-qy-i

3SG.O-MASC-w/stick-peel-off-HAB-PL.S-3.S

'And then they would likewise peel off the bark of hemlocks.' (E-II:7)

762. nú:wa ha:mt mutsá:k sqassik qámł-a? FS
 nu-w-a=ha:mt mu:ca:k Ø-s-qa-s-ik qamł-a
 ANA-DMSF-ACC=only wounded.thing 3SG.O-MASC-make-D.IPV-1.S male-ACC
 'I wounded only the buck.' (N-II:9)

4.1.4. Verb and Predicate Nominal

See Table 4.5 for data on the location of the predicate nominal (symbolized by P) relative to the verb. In the examples below, the relevant verb will be indicated by double underlining (as before), while the predicate nominal will be marked by dashed underlining.

Table 4.5: Relative Ordering of Verb and Predicate Nominal

Text	Total	PV	%	VP	%
VI	11	8	72.7	3	27.3
XX	17	15	88.2	2	11.8
XXIV	8	6	75	2	25
Overall Myths	36	29	80.6	7	19.4
Overall Narratives	23	18	78.3	5	21.7
Overall E.D.'s	4	3	75	1	25

In a large majority of cases, the predicate nominal precedes the verb:

763. í:ssya:nt yáqá:ntəm kíssa. FS
 Ø-ʔi-ʔs-ya:n-t yaʔqa:nt=tm ki-s-a
 3SG.O-say-PRES-PL.S-3.S chief=HEARSAY be-STAT-2.S
 'They're saying you are a chief.' (XX:148)

764. ki:ⁱ táuhu klwās ti:ʔqtsa núhink. FS
 ki: taʔhu klwe:s ti:ʔq-c-a nu:hink
 2SG now Steller's.jay become-R.PFV-2.S altogether
 'Now you have entirely turned into a jay.' (XXIV:206)
765. saʔsap tálimdai tqússyani isinta:tuqsp. FS
 saʔsap talimt-a-i Ø-tqu-s-ya:n-i isinta:tuqsp
 DSTB-long hair-have-3.S 3SG.O-name-D.IPV-PL.S-3.S white.person
 "'Long-Hair", the white people called him.' (N-III:81)
- I have, however, been unable to discern any consistent patterns among the exceptions:
766. táuhu: ki:ⁱ kísuklassa háilohaigi k'u:ya:wi. FS
 taʔhu ki: ki-s ukla-ʔs-a hayluhayki k'u:ya:wi
 now 2SG be-NZ be.going.to-PRES-2.S always mtn.lion
 'Now you are always going to be a mountain lion.' (XX:373)
767. ki:ⁱ ʔip kíslən áints. FS
 ki:=ʔip ki-sla-in aʔins
 2SG=but be-FUT-2.S crow
 'But you will be a crow.' (VI:228)
768. ptat-in tqó:qi saʔsap tálimtai. FS
 ptat=in Ø-tqu:-qy-i saʔsap talimt-a-i
 father=1SG.PX 3SG.O-name-HAB-PL.S-3.S DSTB-long hair-have-3.S
 'They called my father "Long-Hair".' (N-III:2)

4.1.5. Verb and Direct Quotation

Complements to verbs of thinking and saying almost always take the form of direct quotation (see Section 4.8.2). Direct quotations (symbolized by Q in Table 4.6 and marked by double wavy underlining in the examples) almost always follow the verbs that govern them (as in 769 and 770).

Table 4.6: Relative Order of Verb and Direct Quotation

Text	Total	QV	%	VQ	%
VI	50	10	20	40	80
XX	105	16	15.2	89	84.8
XXIV	62	8	12.9	54	87.1
Overall Myths	217	34	15.7	183	84.3
Overall Narratives	53	3	5.7	50	94.3
Overall E.D.'s	6	0	0	6	100

769. haiks tyáqunt í:wi qsihastkusla:qik nóqu angu hisaqslá:qik. FS
 hayks tyaqunt Ø-ʔi:-wi-i
 then eagle 3SG.O-say-HAB-3.S

q-s-i-ha-s-tku-sla-qy-ik nuqu anku
 IDF.O-MASC-CAUS-RR-LM-shoot-FUT-PL.S-1.S if what

hi-s-yaq-sla-qy-ik
 NTS-LM-do-FUT-PL.S-1.S

‘Then Eagle said, “If they do anything to us, we will fight them!”’ (XXIV:137)

770. k’ú:yá:wi máwi ki:swán=tat hilmä. FS
 k’u:ya:wi me:-wi-i ki-s-wan-Ø=tat hilm-a
 mtn.lion think-HAB-3.S stay-STAT-DU.S-3.S=DUB house-LOC
 ‘Panther thought, “They must be at home.”’ (XX:228)

This is perhaps not surprising, as quotations tend to be rather long and “heavy”; many of the exceptions consist of single words, usually interjections:

771. å pällä:s íssi. FS
 å päle:s Ø-ʔi-s-i
 Oh! skunk 3SG.O-say-D.IPV-3.S
 ““Oh,” said Skunk.’ (VI:161)

772. pi:ʔ íssi tíllawin. FS
 pi:ʔ Ø-ʔi-s-i til-a:-wn
 no 3SG.O-say-D.IPV-3.S depart-V_S-PRES.IMP-DU.S
 ““No,” he said. “Go away!”’ (XX:32)

Nevertheless, there are instances of longer quotations preceding the verb:

773. qúnaai niphu kláiwassa twámwi k'ú:ya:wi. FS
 qunu-ay=niphu klaywa-ʔs-a twam-wi-i k'ú:ya:wi
 what-ALL=supposedly be.angry-PRES-2.S ask-HAB-3.S mtn.lion
 “‘What are you angry about?’ asked Panther.’ (XX:81)

4.2. Second-Position Clitics

Second-position clitic particles are a salient feature of Molalla syntax. Most are modal or evidential in nature; others behave more like conjunctions. Similar clitic elements are found in Klamath and in the Sahaptian languages (Barker 1964:308, Rigsby & Rude 1996:688). There are also two second-position focus clitics. The focused element is placed first in the sentence, with the focus clitic immediately afterward. More detailed descriptions of the individual clitics follow.

4.2.1. Modal and Evidential Clitics

{=aq} Inferential. When this clitic was elicited in isolation, Savage translated it as ‘knowledge by evidence’ (Notes to XIII:9:3). In context, it is usually translated ‘I guess’.

774. płissik aq. FS
 płi-s-ik=aq
 sleep-D.IPV-1.S=INFER
 ‘I guess I was sleeping.’ (Notes to IV:8:18)
775. ki:ⁱ aq płissin. FS
 ki:=aq płi-s-in
 2SG=INFER sleep-D.IPV-2.S
 ‘I guess you were sleeping.’ (Notes to IV:8:19)

776. haiks íssi mínhink aq i?sa pnáka-in. FS
 hayks Ø-ʔi-s-i minhink=aq Ø-ʔi-ʔs-a
 then 3SG.O-say-D.IPV-3.S truth=INFER 3SG.O-say-PRES-2.S
 pnakha=in
 yo.brother=1SG.PX
 ‘Then he said, “Indeed, you are telling the truth, my younger brother.”’
 (XXIII:31)

In conjunction with /ʔa-w/ ‘who?’, {=aq} creates a sense of ‘we will see who, let us see who’:

777. k’ú:ya:wi íssi ámak níwank áwa aq hískist. FS
 k’u:ya:wi Ø-ʔi-s-i amak ni-Ø-wan-k
 mtn.lion 3SG.O-say-D.IPV-3.S HORT.PTC go-PRES.IMP-DU.S-1.S
 ʔa-w-i=aq hi-s-ki-s-t
 who=DMSF-3SG.NOM=INFER NTS-LM-dwell-STAT-3.S
 ‘Panther said, “Let’s go and see who lives there.”’ (XX:22)

{=ay} The function of this clitic generally appears to be to emphasize information that is already known or obvious to both interlocutors.

778. hánint ai kist yałam əm. FS
 hanint=ay ki-s-t yałam=im
 corpse=KNOWN be-STAT-3.S husband=2SG.PX
 ‘“Your husband is a dead man.”’ (II:68)

779. kú:sangwinai kíssə. FS
 ku:s-aŋ-wi-in=ay ki-s-a
 small-DIM-TAS-2.S=KNOWN be-STAT-2.S
 ‘“You are really small.”’ (XV:90)

780. haiks íssi laʔssəai qúnu: qá:sisk. FS
 hayks Ø-ʔi-s-i Ø-la-ʔs-a=ay qunu
 then 3SG.O-say-D.IPV-3.S 3SG.O-see-PRES-2.S=KNOWN what
 Ø-qa-ʔs-is-k
 3SG.O-do-CTPR-DS-1.S
 ‘Then she [Wren’s grandmother] said [to Wren], “You see what I’m doing!”’
 (XV:154)

{=hu:} This clitic appears to have two functions. First, it appears, with unclear effect, in conjunction with /ʔa-w/ ‘who?’:

781. q’assi áwin hu: qíhaskyast wítspa? FS
 q-ʔa-s-i ʔa-w-in=hu:
 NSG.O-say-D.IPV-3.S INTRG-DMSF-2.S=HU:

 q-i-ha-s-kya-s-t wicp-a
 NSG.O-CAUS-RR-LM-gather-R.IPV-3.S person-ACC
 ‘He said to them, “Who caused the people to come together?”’ (XIX:81)

782. íssi mǎʔfi áuwin hu:? FS
 Ø-ʔi-s-i mǎ:fi? ʔa-w-in=hu:
 3SG.O-say-D.IPV-3.S elk INTRG-DMSF-2.S=HU:
 ‘The elk said, “Who are you?”’ (XV:63)

Second, it appears with commands and hortatives, perhaps to soften them:

783. q’assi ta:spá:qin hu: paswi?! FS
 q-ʔa-s-i ta:sp-a:-qy-in=hu: pas-wi-ʔ
 NSG.O-say-D.IPV-3.S comb.hair-V_S-PRES.IMP-PL.S-2.S=HU: good-TAS-ABS
 ‘He told them, “Comb your hair nicely!”’ (XXI:104)
784. íssi áwat hu: náq:ayəm láqwa! FS
 Ø-ʔi-s-i ʔa-w-at=hu: n-ʔa-Ø-qay-m aqwa?
 3SG.O-say-D.IPV-3.S INTRG-DMSF-PL.S=HU: 1SG.O-say-PRES.IMP-PL.S-CIS quickly
 ‘He said, “Someone tell me, quickly!”’ (XVIII:221)
785. tílwa hu:. FS
 til-Ø-wa=hu:
 depart-PRES.IMP-1DU.S=HU:
 “‘Let’s go.’” (II:111)

In either or both of its guises, {=hu:} may be the same thing as {=hu?}, described below.

{=hu?} The clitic element {=hu?} appears in yes/no questions:

786. tíłtsin hu:? FS
 til-s-in=hu?
 depart-D.IPV-2.S=QUES
 ‘Did you go?’ (Notes to XIII:2:4)
787. łípāni íssi łixwin hu:? FS
 łipe:ni Ø-łi-s-i łif-in=hu?
 mountain.being 3SG.O-say-D.IPV-3.S strong-2.S=QUES
 ‘The mountain-woman said, “Are you strong?”’ (XI:24)
788. nangawin hu: wi:nú:nhasse twámsi tálapa:s. FS
 naŋa-wi-in=hu? winu:n-ha-łs-a Ø-twam-s-i talapa:s
 one-TAS-2.S=QUES travel-PSF-PRES-2.S 3SG.O-ask-D.IPV-3.S coyote
 ‘“Are you traveling alone?” asked Coyote.’ (XVII:104)

Ex. 789 illustrates the use of {=hu?} with a bare noun, though this is probably analyzable as an elliptical question with the copula deleted. Yes/no questions are discussed further in Section 4.4.

789. hisá:wi qúnu: kissa?
 hi-s-a?-wi-i qunu ki-s-a
 NTS-LM-say-HAB-3.S what be-STAT-2.S
- yáqa:nt hu:? FS
 ya?qa:nt=hu?
 chief=QUES
 ‘Someone said, “What are you? A chief?”’ (XX:140)

{=łqu} Desiderative. This clitic appears to express a wish on the part of the speaker that some state of affairs had existed in the past, or that it will exist in the future. The verb in a sentence containing this clitic invariably appears in the potential mood (see Section 3.1.2.3.1). In elicited sentences, {=łqu} is always cliticized to a clause-initial pronoun (as in 790 and 791), but 792 shows that this is not invariably the case.

790. ni:p lqu nláumaq ho:. FS
 ni:p=lqu n-law-m-aq-Ø hu:
 3SG=DESID 1SG.O-see-CIS-POT-3.S before
 ‘I wish he could have seen me.’ (Notes to IV:9:9)

791. ina lqu lāqaik! FS
 ina=lqu Ø-le:-q-ik
 1SG=DESID 3SG.O-catch-POT-1.S
 “‘I wish I could get hold of him!’” (VII:94)

792. hai issi nus lqu óqunts tí:qak! FS
 hay Ø-ʔi-s-i nus=lqu uq-n-s
 then 3SG.O-say-D.IPV-3.S very.much=DESID drink-along-NZ

 ti:ʔq-aq-Ø
 become-POT-3.S
 ‘Then he said, “I wish the water would become deep!”’ (XIV:127)

{=na} Debitive. This clitic is always translated into English as “ought to”. As with

{=lqu} (described above), the verb in a clause with {=na} is always in the

potential mood:

793. pyaqáiqak na. FS
 Ø-pya-qay-q-ik=na
 3SG.O-kill-PL.S-POT-1.S=DEB
 ‘We ought to have killed him.’ (Notes to IX:4:19)

794. hú:tsakna sí:wqaqən pyáqən. FS
 hu:t-s-ak=na Ø-s-i:w-kha-q-in Ø-pya-q-in
 build.fire-NZ-INST=DEB 3SG.O-MASC-long.obj.-hit-POT-2.S 3SG.O-kill-POT-2.S
 “‘You ought to have hit him with a club and killed him.’” (IX:45)

The {=na} clitic often occurs in conjunction with {=lqu}; it may appear in the second position immediately following {=lqu} (as in 795) or with {=lqu} in second position and {=na} cliticized to the verb (as in 796).

795. ni:p lquna sí:wkaq. FS
 ni:p=lqu=na Ø-s-i:w-kha-q-Ø
 3SG=DESID-DEB 3SG.O-MASC-long.obj.-hit-POT-3.S
 ‘He ought to hit him.’ (Notes to IX:4:14)

796. ina lqu pyaqakna. FS
 ina=lqu Ø-pya-q-ik=na
 1SG=DESID 3SG.O-kill-POT-1.S=DEB
 ‘I ought to have killed him.’ (Notes to IX:4:17)

{=niphu} This clitic is difficult to translate. It is used when speaking or inquiring about another person’s mental state.

797. k’u:ya:wi í:wi qúnaai niphu kláiwassa. FS
 k’u:ya:wi Ø-ʔi-:wi-i qunu-ay=niphu klaywa-ʔs-a
 mtn.lion 3SG.O-say-HAB-3.S what-ALL=NIPHU be.angry-PRES-2.S
 ‘Panther said, “Why are you angry?” (XX:62)

798. haiks qwaʔlai í:wi qúnu niphu? FS
 hayks qwaʔlay Ø-ʔi-:wi-i qunu=niphu
 then rattlesnake 3SG.O-say-HAB-3.S what=NIPHU
 ‘Then Rattlesnake said, “What do you think it is?” (XXIII:52)

The {=niphu} is commonly combined with {=tm} HEARSAY (see below) to indicate a sense of ‘it is said, so they claim, supposedly’:

799. yá:tmáisak nip^hutəm hísaqwi ní:nik. FS
 ya:tmays-ak=niphu=tm hi-s-yaq-wi-i ní:nik
 black.woodpecker-INST=NIPHU=HEARSAY NTS-LM-do-HAB-3.S thus
 ‘He does this by the power of the black woodpecker.’ (XXII:§14:4)

800. máfi qúnqwi nip^hutəm. FS
 ma:fiʔ-qunʔk-wi-i=niphu=tm
 elk-like-TAS-3.S=NIPHU=HEARSAY
 ‘They claim it to be elk.’ (Notes to II (Part 2):12:20)

The adverbial phrase {tanan=niphu} means ‘in pretense, pretending’ (the {tanan} element is obscure and does not occur elsewhere):

801. pʔask tánan ní^hp^hu. FS
 p’a-ʔs-k tanan=niphu
 eat-PRES-1.S pretending?=NIPHU
 ‘I pretend to eat.’ (Notes to VI:18:15)

Historically, {=niphu} may be composed of a short-vowel form of the third-person singular pronoun {ni:p}, plus either {=hu:} or {=hu?}.

{=payt} This clitic is quite rare; it appears to be similar in function to {=tat} ‘maybe, possibly’, described below. See examples 802 and 803.

802. hai pní:la-in í:wi qúnaai pait ptánjísłst. FS
 hay pní:la=in Ø-ʔi:-wi-i qunu-ay=payt
 then uncle=1SG.PX 3SG.O-say-HAB-3.S what-ALL=perhaps
 m-tanjísłst
 2SG.O-be.bad.omen-PRES-3.S
 ‘Then my uncle said, “Perhaps it is a bad sign for you for some reason.”’
 (N-II:45)

803. ní:nik pait áangu. FS
 ní:nik=payt ʔaʔ-ʔanku
 thus=perhaps DSTB-how
 ‘It might be so.’ (AGN:2:5)
 (*pait*, possibility—like *tat*—Leo Frachtenberg)

{=tat} Dubitative. This clitic is the normal way of indicating possibility, present or future:

804. í:wi qúllaʔtat píłšim yí:wsassa! FS
 Ø-ʔi:-wi-i qulla=tat píłs=im Ø-yi:ws-ha-ʔs-a
 3SG.O-say-HAB-3.S only=DUB nose=2SG.PX 3SG.O-smell-PSF-PRES-2.S
 ‘She said, “Maybe you’re just smelling your own nose!”’ (XXI:81)
805. npaisłá:mi tat pnáyaks-in. FS
 n-pay-sł-m-i=tat pnayaks=in
 1SG.O-kill-FUT-CIS-3.S=DUB o.sister=1SG.PX
 “My big sister might kill me.” (XIII:40)

The {=tat} clitic may also be cliticized to individual sentential constituents:

806. haiks pnänin íssi ant lássin?

hayks pnan=in Ø-ʔi-s-i ant Ø-la-s-in
 then mother=1SG.PX 3SG.O-say-D.IPV-3.S when 3SG.O-see-D.IPV-2.S

íssik mótká ha:ʔt̩at. FS

Ø-ʔi-s-ik mat-ka? ha:ʔt̩=tat
 3SG.O-say-D.IPV-1.S three-ABS moon=DUB

‘Then my mother said, “When did you see him?” I said, “About three months ago.”’ (N-I:27-28)

Combined with /ʔa-w/ ‘who?’ and {qunu} ‘what?’, {=tat} produces indefinites:

807. áwitat hispúntsatyamk! FS

ʔa-w-i=tat hi-s-kunsaʔ-t-yamk
 who-DMSF-3SG.NOM=DUB NTS-LM-steal-R.PFV-1PL.S
 “‘Somebody stole it from us!’” (VII:65)

808. qúnu: tat kist núswi nu:t. FS

qunu=tat ki-s-t nus-wi-i nu-w-t
 what=INDEF be-STAT-3.S large-TAS-3.S ANA-DMSF-LCTN
 “‘There is something big there.’” (XVIII:99)

Combined with {ʔanku} ‘how?, why?’ and the clitic element {=ya} ‘then’

(described in Section 4.2.2), {=tat} creates an expression meaning ‘I don’t know,

I don’t know what’s the matter’:

809. angú:yatat anakíslai pná:tin. FS

anku=ya=tat ʔanak Ø-ʔi-sla-i pnat=in
 how=then=DUB what 3SG.O-say-FUT-3.S o.brother=1SG.PX
 “‘I don’t know what my older brother will say.’” (XVIII:70)

810. í:ʰ angú:yatat. FS

i: anku=ya=tat
 yes how=then=DUB
 “‘Yes, I don’t know what’s the matter.’” (XIV:189)

{=tm} This clitic is used to indicate that the information contained in the clause is hearsay, to deny firsthand knowledge of what is reported:

811. nus təm óqunts íti:ʔqslai. FS
 nus=tm uq-n-s Ø-i-ti:ʔq-sla-i
 very.much=HEARSAY drink-along-NZ 3SG.O-CAUS-become-FUT-3.S
 ‘‘I heard she is going to make the water rise up high.’’ (XXIII:58)

812. í:ʃsya:nt yáqá:ntəm kǐssa. FS
 Ø-ʔi-ʔs-ya:n-t yaʔqa:nt=tm ki-s-a
 3SG.O-say-PRES-PL.S-3.S chief=HEARSAY be-STAT-2.S
 ‘They’re saying you are a chief.’ (XX:148)

The {=tam} clitic is commonly seen in the introductory sentences to myth texts (as in 813 and 814), to emphasize the reported nature of the mythological material; the remainder of the myth is not marked with {=tm}.

813. kǐssi təm háqās maʔq. FS
 ki-s-i=tm haqə:s maʔq
 be-D.IPV-3.S=HEARSAY grizzly female
 ‘There was a she-grizzly.’ (XIII:1)

814. tálapa:s təm kǐssi ná:təmp kálma. FS
 talapa:s=tm ki-s-i na:təmp=kalma
 coyote=HEARSAY dwell-D.IPV-3.S evening=at+CIS
 ‘Coyote was living in the west.’ (VIII:1)

The {=tm} morpheme is occasionally found in positions other than second in the clause. Exx. 815 and 816 probably involve cliticization of {=tam} to a lower-level sentential constituent; 817 probably reflects the treatment of /pe:ŋ sqasi/ as a single prosodic unit.

815. ka:ʔmánginta tǐswaʔqai kilqláhi təm histi:ʔqwi. FS
 qe:ʔmaŋint-a Ø-tiswaʔqa-i kilqlah-i=tm
 black.bear-ACC 3SG.O-dream.of-3.S brave-3.S=HEARSAY

 hi-s-ti:ʔq-wi-i
 NTS-LM-become-HAB-3.S
 ‘Whoever dreams of a black bear becomes a brave man.’ (XXII:§7:1)

816. ɬk'äʔmap háfinʌa:wi təm. FS
 ɬk'aʔmap ha-i:-fin-ʌa:-wi-i=tm
 moss RR-glob.obj.-put-down.onto-HAB-3.S=HEARSAY
 'He would put moss over himself.' (N-V:5)

817. pǎŋ sqassi təm taʔtəm
 pe:ŋ Ø-s-qa-s-i=tm taʔtm
 snow 3SG.O-MASC-make-D.IPV-3.S=HEARSAY yesterday
 'I heard it snowed yesterday.' (Notes to I (Part 2):9:1)

The combination of {=tm} with {=niphu} is described above. This morpheme is always recorded as [təm]. It may be underlyingly vowelless (showing the pre-resonant vowel epenthesis discussed in Section 2.2.8), or it may contain an underlying /a/ that is raised to schwa by the adjacent nasal.

4.2.2. Conjunctive Clitics

{=lip} This clitic appears to have essentially the same function as English “but” or “however”, namely to connect two chunks of discourse while at the same time contrasting them in some manner:

818. ki:ⁱ tauhu kɬwä:s kɪɬa.
 ki: taʔhu kɬwe:s ki-t-a
 2SG now Steller's.jay be-FUT.IMP-2.S
 ...
 ki:ⁱ ɬip säp kíslən. FS
 ki:=ɬip sye:p ki-sla-in
 2SG=but buzzard be-FUT-2.S
 “‘Now you be a bluejay...But *you* will be a buzzard.’” (II:161-163)

819. támałqin íssi pi:ʔ qúnu: p'ásintafak.

tamałkin Ø-ʔi-s-i piʔ qunu p'a-sint-a-fa-ik
 beaver 3SG.O-say-D.IPV-3.S not what eat-NZ-have-NEG-1.S

tálapa:s twámsi qúnu: łip p'assa háילוhaigi? FS

talapa:s Ø-twam-s-i qunu=łip p'a-s-a hayluhayki
 coyote 3SG.O-ask-D.IPV-3.S what=but eat-ITER-2.S always
 'Beaver said, "I don't have any food." Coyote asked him, "But what do you eat all the time?"' (IX:24)

820. nóqu qsi:fingislaqik háqāsa na:nqai hai qpáislaqik.

nuqu q-s-i:-fin-ki-sla-qy-ik haqe:s-a
 if NSG.O-MASC-glob.obj.-throw-on.ground-FUT-PL.S-1.S grizzly-ACC

nanqay hay q-pay-sla-qy-ik
 all then NSG.O-kill-FUT-PL.S-1.S

nó:qu:łip nimpt qsi:fingityamni qpaislamqayi:. FS

nuqu=łip nimt q-s-i:-fin-ki-t-yamn-i
 if=but 3PL NSG.O-MASC-glob.obj.-throw-on.ground-SS.PROS-PL.S+CIS-3.S

q-pay-sla-m-qay-i
 NSG.O-kill-FUT-CIS-PL.S-3.S

"If we throw all the grizzlies down, we will kill them. But if they throw us down, they will kill us." (VII:114-115)

The {=łip} clitic also combines with {ʔanku} 'how?, why?' to form an expression

variously translated as 'because, certainly, just so': *ānkuʔłip* JH 'because'

(76:37:21).

{=ya} This particle carries a sense of 'in that case, then':

821. pi:ʔ luyálukask áwi nímmaq.

piʔ Ø-luya:-luk-ha-ʔs-k ʔa-w-i ni-m-aq-Ø
 not 3SG.O-want-NEG-PSF-PRES-1.S who-DMSF-3SG.NOM go-CIS-POT-3.S

haiks k'ú:ya:wi í:wi hasáuwaʔya. FS

hayks k'ú:ya:wi Ø-ʔi:-wi-i ha-s-łe:-Ø-wa=ya
 then mtn.lion 3SG.O-say-HAB-3.S RR-LM-take.hold-PRES.IMP-1DU.S=then
 '[The beaver said,] "I don't want anyone coming around here." Then Panther said, "Let's fight, then."' (XX:52-53)

822. issi tšu:wáigunta:n sápa?
 Ø-ʔi-s-i cu: waykunt-a-in sap-a-ʔ
 3SG.O-say-D.IPV-3.S at.all penis-have-2s long-V_S-ABS
 haiks mitú:sassi issi í:ⁱ
 hayks mitu:sa-s-i Ø-ʔi-s-i ʔi:
 then respond-D.IPV-3.S 3SG.O-say-D.IPV-3.S yes
 haiks talapa:s issi nāsú:yimya. FS
 hayks talapa:s Ø-ʔi-s-i n-hasuʔyi-Ø-m=ya
 then coyote 3SG.O-say-D.IPV-3.S 1SG.O-lend-PRES.IMP-CIS=then
 ‘He [Coyote] said, “Do you have a long penis?” Then he [the old man]
 answered, “Yes.” Coyote said, “Lend it to me, then.” (IX:66-68)
823. klwäs í:wi pi:ʔ luyálukaʔsk
 klwe:s Ø-ʔi:-wi-i piʔ Ø-luya-luk-ha-ʔs-k
 Steller’s.jay 3SG.O-say-HAB-3.S not 3SG.O-want-NEG-PSF-PRES-1.S
 píttanu: í:wi qúnu: ya mháyəqak
 pita=nu-w-ʔ Ø-ʔi:-wi-i qunu=ya
 pat.g’mother=3SG.NCRF.PX-DMSF-ABS 3SG.O-say-HAB-3.S what=then
 m-ay-q-ik
 2SG.O-give-POT-1.S
 ‘Bluejay said, “I don’t want it.” His grandmother said, “What can I give you,
 then?”’ (XXI:176-177)
 Occasionally—for instance, in 824—{=ya} appears instead to mean ‘because’.
824. haiks häqäs issi ángu: kláiwassya:ni?
 hayks haqe:s Ø-ʔi-s-i ʔanku klaywa-ʔs-ya:n-a
 then grizzly 3SG.O-say-D.IPV-3.S why be.angry-PRES-PL.S-2.S
 pi:ʔ ya mluyálukasyamk wi:nú:ntsʔasisin ni:wt. FS
 piʔ=ya m-luya:-luk-ha-ʔs-yamk winu:n-sla-ʔs-is-in
 not=because 2SG.O-want-NEG-PSF-PRES-1PL.S travel-FUT-CTPR-DS-2.S
 ni-w-t
 PROX-DMSF-LCTN
 ‘Then Grizzly said, “Why are you mad?” “Because we don’t want you wandering
 around here.” (XVII:76-77)

The combination of {=ya} with {anku} ‘how?, why?’ and {=tat} ‘maybe’ is discussed in Section 4.2.1.

{=yahu} This clitic is generally translated ‘for his/her part’ and is used to highlight a change in topic:

825. haiks kasú:li taswítaltsya:ni.
 hayks kasu:li taswy-tal-s-ya:n-i
 then wolf hunt-away-D.IPV-PL.S-3.S

háqás yáhu nímp̄t síndissya:ni piš. FS
 haq:s=yahu nímt Ø-s-hinti-s-ya:n-i pis
 grizzly=for.their.part 3PL 3SG.O-MASC-dig.roots-D.IPV-PL.S-3.S camas
 ‘Then the wolves went hunting. The Grizzlies, for their part, were digging camas.’ (VII:19-20)

826. haiks walaʔyasmi núswi mǎʔfi.
 hayks walaʔya-s-m-i nus-wi-i ma:fiʔ
 then arrive-D.IPV-CIS-3.S large-TAS-3.S elk

...

ni:pyahu pá:ti pǎ:ʔsq̄a kíssi matšúkintsasa. FS
 ni:p=yahu pa:t-ti pe:ʔsq̄-a-ʔ ki-s-i
 3SG=for.his.part go.underneath-LCTN hide-V_S-ABS be-D.IPV-3.S

macukins-asa
 wren-DIM

‘Then a big elk came up... Little Wren, for his part, was hiding under the brush.’ (XV:84-86)

827. pyat ná:tu stǎŋʌa tá:qti.
 Ø-pya-ʔ-t na:tu stanʌ-a te:q-ti
 3SG.O-kill-D.PFV-3.S again oak-LOC climb-LCTN

nú:wat yahu: witsp qulla pstátitkissya:ni. FS
 nu-w-at=yahu wicp qula
 ANA-DMSF-PL=for.their.part person only

Ø-pstatut-ki-s-ya:n-i
 3SG.O-watch-in.place-D.IPV-PL.S-3.S

‘Again he killed it on top of an oak tree. The people, for their part, were just watching him.’ (XVIII:123-124)

4.2.3. Focus Clitics

The second-position focus clitics {=nu?} and {=qu} appear to function similarly to each other in placing a strong focus on a particular sentential constituent, usually an argument. The focused element appears at the left edge of the sentence, immediately followed by the focus clitic. They are often translated into English using cleft or pseudo-cleft constructions. Of the two particles, {=qu} is attested much more frequently than {=nu?}. All attested instances of {=nu?} have an argument as the focused element (as in 828 through 830), while {=qu} is used to focus adverbials (as in 831 and 832) as well as arguments (as in 833 and 834).

828. hăqắsnu:ʔ taláustsi. FS
 haqe:s=nuʔ Ø-talaws-s-i
 grizzly=FOC 3SG.O-confer.spirit.power-D.IPV-3.S
 ‘It was Grizzly who gave him the power.’ (N-V:18)
829. pa:ʔpswai nu: náwit swákí:wi. FS
 paʔ-ps-way=nuʔ ne:wit Ø-s-we:k-ki:-wi-i
 DSTB-good-INAN.ADJ=FOC meat 3SG.O-place-in.house-HAB-3.S
 ‘He would put the best pieces of meat away.’ (XX:189)
830. nú:wa nuʔ sí:paqilqaʔsk. FS
 nu-w-a=nuʔ Ø-sipaq-lqa-ʔs-k
 ANA-DMSF-ACC=FOC 3SG.O-evade-around-PRES-1.S
 ‘“That’s what I’m running away from.”’ (XXIII:71)
831. hó:qu lá:tintst. FS
 hu:=qu la:tn-c-t
 already=FOC go.out-R.PFV-3.S
 ‘Already he went out.’ (Notes to IX:11:21)
832. í:wi ánguqu häptutaʔsa pnák^ha-inʔ FS
 Ø-ʔi:-wi-i ʔanku=qu hapt-ut-ha-ʔs-a pnakha=in
 3SG.O-say-HAB-3.S why=FOC sit-ʔ-PSF-PRES-2.S yo.brother=1SG.PX
 ‘He said, “Why are you sitting there, my little brother?”’ (XX:158)

833. íssi timyá:niqu mískuntsaʔtatst múmu:sa. FS
 Ø-ʔi-s-i timye:ni=qu m-is-kunsaʔ-ʔa-c-t mumu:s-a
 3SG.O-say-D.IPV-3.S thunder=FOC 2SG.O-LM-steal-MALE-R.PFV fly-ACC
 ‘He said, “It was Thunder who stole Fly from you.”’ (XII:149)
834. ína qu kístak k’u:ya:wi tyáʔak’äʔf íssi. FS
 ina=qu ki-sta-k k’u:ya:wi tyáʔak’aʔf Ø-ʔi-s-i
 1SG=FOC be-STAT-1.S mtn.lion black.eagle 3SG.O-say-D.IPV-3.S
 ‘“I am Panther,” said Black Eagle.’ (XII:17)

One attested sentence appears to employ both focus clitics in tandem, with {=nuʔ}
 following {=qu}:

835. haiks íssuni ká:ʔmangint qu nu: pyaʔt háqä:sa. FS
 hayks Ø-ʔi-s-wn-i qe:ʔmangint=qu=nuʔ Ø-pya-ʔ-t
 then 3SG.O-say-D.IPV-DU.S-3.S black.bear=FOC=FOC 3SG.O-kill-D.PFV-3.S
 haqe:s-a
 grizzly-ACC
 ‘Then they said, “It was Black Bear who killed Grizzly.”’

4.3. Negative Sentences

Sentential negation in Molalla is doubly marked. The negative suffix {-luk}
 appears within the verb, while the negative adverb or particle {piʔ} usually appears
 clause-initially:

836. pi:ʔ tpa:luktyamk. FS
 piʔ Ø-tpa-:luk-t-yamk
 not 3SG.O-hear-NEG-R.PFV-1PL.S
 ‘We did not hear it.’ (Notes to III (Part 2):4:8)
837. qáuni pi:ʔ kní:lukqayəm níngayatəm! FS
 q-ʔa-:-wn-i piʔ k-ni-:luk-Ø-qay-m níngayat-m
 NSG.O-say-HAB-DU.S-3.S not FEM-go-NEG-PRES.IMP-PL.S-CIS this.way-CIS
 ‘They told them, “Don’t come this way!”’ (XVIII:15)

838. íssya:ni pi:ʔ wí:lukut písqən. FS
 Ø-ʔi-s-ya:n-i piʔ wi-:luku-t pis=qan
 3SG.O-say-D.IPV-PL.S-3.S not be-NEG-3.S camas=1NSG.PX
 ‘They said, “Our camas is not there.”’ (VII:64)

Occasionally, however, sentential constituents are fronted to a position to the left of {piʔ} for emphasis:

839. támwai lip pi:ʔ qpáilukasəm. FS
 tam-way=lip piʔ q-pay-luk-ha-ʔs-m-Ø
 many-ACC=but not NSG.O-kill-NEG-PSF-PRES-CIS-3.S
 “‘But if there are many of us, it doesn’t kill us.’” (XVIII:101)
840. ha:ʔl pi:i:i:ʔ mitu:sá:luksi. FS
 ha:ʔl piʔ Ø-mitu:sa-:luk-s-i
 moon not 3SG.O-respond-NEG-D.IPV-3.S
 ‘Moon did not answer her.’ (V:23)
841. táuhu: níngantskat pi:ʔ kí:lukslaqin naʔnanga. FS
 taʔhu niŋanskat piʔ ki-:luk-sla-qy-in naʔ-naŋa-ʔ
 now from.now.on not dwell-NEG-FUT-PL.S-2.S DSTB-one-ADV
 “‘Now, from now on, you will not live singly.’” (XVII:170)

Interrogative elements are interpreted as indefinites when they occur under the scope of negation:

842. haiks tyáqunt íssi pi:ʔ qúnu sqá:luksla:qin táuhu:. FS
 hayks tyaqunt Ø-ʔi-s-i piʔ qunu
 then eagle 3SG.O-say-D.IPV-3.S not what

 Ø-s-qa-:luk-sla-qy-in taʔhu
 3SG.O-MASC-do-NEG-FUT-PL.S-2.S now
 ‘Then Eagle said, “You will not do anything now.”’ (XIX:63)
843. pi:ʔ áwi kí:luksi nimp hilmä. FS
 piʔ ʔa-w-i ki-:luk-s-i ni-mp hilm-a
 not who-DMSF-3SG.NOM be-NEG-D.IPV-3.S PROX-LOC house-LOC
 ‘Nobody was in this house.’ (Notes to VII:5:9)

4.4. Yes/No Questions

Most yes/no questions in Molalla are formed by means of the second-position clitic {=hu?}. This is illustrated in 786 through 789 and in 844 and 845:

844. tpaʔsa hu: häqäsa issi. FS
tpa-ʔs-a=hu? haqe:s-a Ø-ʔi-s-i
understand-PRES-2.S=QUES grizzly-ACC 3SG.O-say-D.IPV-3.S
“‘Do you understand?’ he said to Grizzly.’ (XI:83)
845. haiks hísassi tú:ntsəm hu:ʔ láptyatkəʔ FS
hayks hi-s-aʔ-s-i tu:ns=im=hu? Ø-la-ptya-ʔtk-a
then NTS-LM-say-D.IPV-3.S eye=2SG.PX=QUES 3SG.O-see-again-D.PFV-2.S
‘Then someone said, “Did you find your eyes?”’ (XVI:156)

Negative questions begin with the negative particle {piʔ} followed by the question clitic {=hu?}:

846. pi:ʔ hu: lá:lukuqʔ FS
piʔ=hu? Ø-la-:luk-uq-Ø
not=QUES 3SG.O-see-NEG-POT-3.S
‘Can he see him?’⁸³ (Notes to V:4:12)

Yes/no questions may also be formed with the sentence-initial particle {cu} ‘at any time, ever, at all’:

847. pkaʔya pin twámsi tšú häsqínissuni? FS
pka:ya=pin Ø-twam-s-i cu ha-s-qini-s-wn-a
yo.sister=3SG.CRF.PX 3SG.O-ask-D.IPV-3.S ever RR-LM-wrestle-ITER-DU.S.-2.S
‘He asked his younger sister, “Do you two ever wrestle?”’ (VII:107)
848. issi tšú láuquʔqaʔsmi? FS
Ø-ʔi-s-i cu n-lawquʔqa-ʔs-m-a
3SG.O-say-D.IPV-3.S at.all 1SG.O-recognize-PRES-CIS-2.S
‘He said, “Do you recognize me?”’ (XX:355)

⁸³ The literal translation would seem to be, ‘Can’t he see him?’.

849. tsóqu háiloqumqik? FS
 cu=qu hayluqm-q-ik
 at.all=FOC warm.hands-POT-1.S
 ‘May I warm my hand?’ (Notes to I (Part 2):13:6)

4.5. Content Questions

Content questions are formed much as they are in European languages, with an interrogative word (argument or adverbial; see Section 3.5) placed at the beginning of the sentence. Examples illustrating the various Molalla interrogative elements follow.

/ʔa-w/ ‘who?’:

850. talapa:s í:wi áwi yahu sitilqaslai páhän willawäni? FS
 talapa:s Ø-ʔi:-wi-i ʔa-w-i=yahu
 coyote 3SG.O-say-HAB-3.S who-DMSF-3SG.NOM=for.his.part

 Ø-s-it-lqa-sla-i pahan wilaʔwani
 3SG.O-MASC-carry-around-FUT-3.S far.away traveler
 ‘Coyote said, “Who will carry him around while we’re far off on our trip?”’
 (XXIV:13)

851. talapa:s íssi áwin kíssə? FS
 talapa:s Ø-ʔi-s-i ʔa-w-in ki-s-a
 coyote 3SG.O-say-D.IPV-3.S INTRG-DMSF-2SG.NOM be-STAT-2.S
 ‘Coyote said, “Who are you?”’ (IX:16)

852. áwa lássin? FS
 ʔa-w-a Ø-la-s-in
 INTRG-DMSF-ACC 3SG.O-see-D.IPV-2.S
 ‘Whom did you see?’ (Notes to II (Part 1):4:11)

{ʔan} ‘how many?’:

853. píttanu: íssi á:nha? túktu:kkə? FS
 pita=nu-w-ʔ Ø-ʔi-s-i
 pat.g’ mother=3SG.NCRF.PX-DMSF-ABS 3SG.O-say-D.IPV-3.S

 ʔan-a-ʔ Ø-tuk-tuk-a
 how.many-V_S-ABS 3SG.O-shoot-D.PFV-2.S
 ‘His grandmother said, “How many did you shoot?”’ (XV:121)

854. haiks íssi ánwi wítsp ní:wyamt kí:wi? FS
 hayks Ø-ʔi-s-i ʔan-wi-i wicp
 then 3SG.O-say-D.IPV-3.S how.many-TAS-3.S person

ni-w-ʔ=yaʔmt ki-:wi-i
 PROX-DMSF-ABS=at dwell-HAB-3.S
 ‘Then he said, “How many people live here?”’ (XXI:150)

855. ánnim lássin? FS
 ʔan-im Ø-la-s-in
 how.many-times Ø-see-D.IPV-2.S
 ‘How many times did you see him?’ (Notes to VI:12:9)

{ʔanak} ‘what? (dialogue)’:

856. anak naʔsyamma:nt? FS
 ʔanak n-ʔa-ʔs-yama:n-t
 what 1SG.O-say-PRES-PL.S+CIS-3.S
 “‘What are they telling me?’” (XIII:253)

{ʔanj-wi} ‘what kind?’:

857. ankwi ya:i kiʔst? FS
 ʔanj-wi-i ya:y ki-s-t
 what.kind-TAS-3.S man be-STAT-3.S
 ‘What kind of man is he?’ (Notes to IX:9:15)

{ʔanku} ‘why?, how?’:

858. hó:wanapat híssassuni angu: pi:ʔ kims hawá:klukássuni? FS
 hu:wanapat hi-s-aʔ-s-wn-i ʔanku piʔ kims
 after.a.while NTS-LM-say-D.IPV-DU.S-3.S why not 2DU
 hawe:k-luk-ha-ʔs-wn-a
 run.race-NEG-PSF-PRES-DU.S-2.S
 ‘After a while, someone said to them, “Why aren’t you racing?”’ (XVII:29)

859. angú: sqak? FS
 ʔanku Ø-s-qa-Ø-ik
 how 3SG.O-MASC-do-PRES.IMP-1.S
 ‘What shall I do?’ (VI:153)

{ʔans} ‘how much?’:

860. námmi:s ants luyaʔst pó:qłint pǎnak-pin. FS

n-ʔa-m-i:s ʔans Ø-luya-ʔs-t pu:qł-int
1SG.O-say-CIS-3.PRES.IMP how.much 3SG.O-want-PRES-3.S buy.person-NZ

pe:na-ak=pin
daughter-INST=3SG.CRF.PX

“Let him tell me how much bride-money he wants for his daughter.” (E-I:6)

{ʔant} ‘when?’:

861. ant pí:ʔáslan? FS

ʔant pí:ʔa-sla-in
when return-FUT-2.S

“When will you go home?” (II:59)

{ʔatay} ‘how?’:

862. átai hasʔáqən? FS

ʔatay ha-s-ʔe:-q-in
how RR-LM-take.hold-POT-2.S
‘How could you fight?’ (XV:47)

{ʔawʔ} ‘where?’:

863. íssi au twǎni kist? FS

Ø-ʔi-s-i ʔawʔ twe:n-i ki-s-t
3SG.O-say-D.IPV-3.S where be.shaman-3.S be-STAT-3.S
‘He said, “Where is the doctor?”’ (IX:153)

{qunu} ‘what?’:

864. íssi qunu qaʔsa ni:wt? FS

Ø-ʔi-s-i qunu Ø-qa-ʔs-a ni-w-t
3SG.O-say-D.IPV-3.S what 3SG.O-do-PRES-2.S PROX-DMSF-LCTN
‘He said, “What are you doing here?”’ (XXIII:91)

865. qúnaa sí:paqaʔsa tyáqunt íssi. FS

qunu-a Ø-sipaq-ha-ʔs-a tyaqunt Ø-ʔi-s-i
what-ACC 3SG.O-evade-PSF-PRES-2.S eagle 3SG.O-say-D.IPV-3.S
“What are you running away from?” Eagle said.’ (XXIII:69)

866. qúnaai niphu kláiwassa twámwi k'ú:ya:wi. FS
 qunu-ay=niphu klaywa-ʔs-a Ø-twam-wi-i k'ú:ya:wi
 what-ALL=supposedly be.angry-PRES-2.S 3SG.O-ask-HAB-3.S mtn.lion
 “‘What are you angry about?’ asked Panther.’ (XX:81)

4.6. Ditransitive Constructions and Possessor-Raising Constructions

In a notionally two-place predicate, Molalla generally treats any animate entity affected by an action as the direct object. Thus, in the typology of Haspelmath 2005, Molalla is a *secundative* language (in that recipients, rather than themes of ditransitives, are treated like patients of monotransitives). The direct object, here, refers to that argument which appears in the accusative case (when overt) and is cross-referenced by the object agreement prefix on the verb; accordingly, Molalla displays syntactic secundativity both in the flagging of arguments and in the indexing on the verb. An inanimate theme, when overtly represented, is usually unmarked for case, as is normal for inanimate arguments.⁸⁴ Compare 867 and 868:

867. ni:p tapānpiptissəm ints. FS
 ni:p n-tape:n-pipti-s-m-Ø in-s
 3SG 1SG.O-buy-repeatedly-R.IPV-CIS-3.S 1SG-ACC
 ‘He bought it from me.’ (Notes to I (Part 1):11:21)

868. íssi haiks ptapānik ta:ts. FS
 Ø-ʔi-s-i hayks m-tape:n-Ø-ik te:c_
 3SG.O-say-D.IPV-3.S then 2SG.O-buy-PRES.IMP-1.S fire
 ‘He said, “Let me buy your fire.”’ (I:10)

Other verbs besides {tape:n} ‘buy’ that work this way include {yi} ‘give’, {kunsəʔ}

‘steal’, {it-til-ʔa} ‘take away from’, {la:p} ‘rob, take by force’, and {hasuʔyi} ‘borrow,

lend, trade’ (see examples 869 through 873):

⁸⁴ It is unclear to me at this point whether these secondary object nominals are true syntactic arguments or merely some sort of syntactically inert, non-case-marked adjuncts.

869. íssi táuhu: psí:ptisk tú:nts. FS
 Ø-ʔi-s-i taʔhu m-s-yi-ptyi-ʔs-k tu:ns_
 3SG.O-say-D.IPV-3.S now 2SG.O-MASC-give-back-PRES-1.S eye
 ‘He said, “I’m giving you back your eyes now.”’ (XVI:118)
870. í:wi niskúntsaʔsmis láwat pyaʔtuk. FS
 Ø-ʔi:-wi-i n-is-kunsaʔ-s-m-is-Ø lawa:t_
 3SG.O-say-HAB-3.S 1SG.O-LM-steal-HAB-CIS-DS-3.S salmon
 Ø-pya-ʔtuk-k
 3SG.O-kill-D.PFV-1.S
 ‘He said, “I killed him because he was stealing salmon from me.”’ (XX:312)
871. ná:nqai ná:tu qsítlaʔat. FS
 nanqay na:tu q-s-it-ʔa-ʔa-ʔ-t
 all again NSG.O-MASC-transport-away-APPL-D.PFV-3.S
 ‘Again he took everything from them.’ (VII:74)
872. mä:sya:ni tsła:pslamqayi wáiguntin. FS
 me:-s-ya:n-i n-s-la:p-sla-m-qay-i waykunt_=in
 think-D.IPV-PL.S-3.S 1SG.O-MASC-rob-FUT-CIS-PL.S-3.S penis=1SG.PX
 “‘They thought they would take away my penis.’” (IX:147)
873. haiks tálapa:s íssi näsú:yimya. FS
 hayks talapa:s Ø-ʔi-s-i n-hasuʔyi-Ø-m=ya
 then coyote 3SG.O-say-D.IPV-3.S 1SG.O-lend-PRES.IMP-CIS=then
 “‘Lend it to me, then.’” (IX:68)

The verb ‘to hear’, {tpa}, is sometimes translated as though it works similarly to these, at other times not (compare 874 and 875).

874. ína mtápsik. FS
 ina m-tap-s-ik
 1SG 2SG.O-hear-D.IPV-1.S
 ‘I heard it from you.’ (Notes to I (Part 1):8:23)
875. qtapaʔsəm tat. FS
 q-tap-ha-ʔs-m-Ø=tat
 NSG.O-hear-PSF-PRES-CIS-3.S=DUB
 ‘He might hear us.’ (Notes to VI:16:5)

876. pstú:kípatslak símilqa. FS
m-s-tu:-ky-pat-sla-ik similq-a
 2SG.O-MASC-horiz.obj.-PLUR-into.hole-FUT-1.S mouth-LOC
 “‘I’ll toss it into your mouth.’” (XXI:13)

877. matšúkins íssi tú:ntsa-əm mí:wlapqak mpáiqak. FS
 macukins Ø-ʔi-s-i tu:ns-a=im m-i:w-lap-q-ik
 wren 3SG.O-say-D.IPV-3.S eye-LOC=2SG.PX 2SG.O-LM-get.in-POT-1.S
 m-pay-q-ik
 2SG.O-kill-POT-1.S
 ‘Wren said, “I can get into your eye and kill you”’ (XV:48)

Note, however, ex. 878, in which a body part cast as a location in the English translation is treated as the same sort of secondary, non-case-marked object seen with verbs like ‘give’ and ‘steal’:

878. numpk tqəntak šínukat šú:kusin pällä:sa. FS
 nu-mpk tqaʔnt-ak Ø-s-inukha-ʔ-t sukusin_ pale:s-a
 ANA-INST rock-INST 3SG.O-MASC-hit.w/obj.-D.PFV-3.S occiput skunk-ACC
 ‘He hit Skunk on the back of the head with the rock.’ (VI:21)

On the other hand, note the lack of possessor raising with /payk-1/ ‘step on’ in 879:

879. taiktšimmanin pī:la saɭpupt-in pāikhukhuni! FS
 tayk-c-mman-in pi?=la syaɭpupt=in
 cross-SS.PROS-DU.S+CIS-2.S not=at.all knee=1SG.PX
 Ø-payk-t-luk-t-wn-a
 3SG.O-step-on-NEG-FUT.IMP-DU.S-2.S
 ‘When you come across, don’t step on my knee!’

The difference may lie in the degree of affectedness of the possessor. Ex. 880 illustrates another exception to possessor raising. Here, the patient is the true syntactic object (note

the lack of nonsingular object agreement on the verb), while the possessor appears in the allative case.

880. pi:ʔ twinpa:ʔlukwik aʔp q^hámambi p’ässik. FS
 piʔ Ø-twinpa:-luk-wi-ik aʔp qam-ampi Ø-p’a-s-ik
 not 3SG.O-report-NEG-HAB-1.S blood 2NSG-ALL 3SG.O-eat-SS.HAB-1.S
 ‘I never tell him that I eat your blood.’ (XII:217)

Ditransitive constructions with two animate objects sometimes work slightly differently from the constructions discussed above. For instance, note in 881 how the affected entity is indexed by the object prefix on the verb, but the (third-person) patient appears in the accusative case:

881. íssi timyá:niqu mískuntsa:ʔatst múmu:sa. FS
 Ø-ʔi-s-i timye:ni=qu m-is-kunsaʔ-ʔa-c-t múmu:s-a
 3SG.O-say-D.IPV-3.S thunder=FOC 2SG.O-LM-steal-APPL-R.PFV fly-ACC
 ‘He said, “It was Thunder who stole Fly from you.”’ (XII:149)

This accusative case marking on the notional patient appears to be optional; note the lack of accusative case marking in 882, which otherwise closely parallels 881 (and in fact refers to the very same event):

882. haiks láfkis íssi timyá:niqu mískuntsa:ʔat wa:iwi nú:ai múmu:s. FS
 hayks lafkis Ø-ʔi-s-i timye:ni=qu
 then small.woodpecker 3SG.O-say-D.IPV-3.S thunder=FOC

 m-is-kunsaʔ-ʔa-ʔ-t waywi_ nuay múmu:s_
 2SG.O-LM-steal-APPL-D.PFV-3.S baby and fly
 ‘Then Little Woodpecker said, “It was Thunder who stole Fly and the baby from you.”’ (XII:144)

In example 883, we have (non-overt) human recipients and a pair of animate (though not human) patients. As usual, the recipients are indexed by the object prefix on the verb; the patients, however, appear in the allative case:

883. tá:kaksqasinti nú:ai ku:suái qsislak. FS
 ta:kaks-qa-sint-i nuay kusu-ay q-s-yi-sla-ik
 milk-make-NZ-ALL and pig-ALL NSG.O-MASC-give-FUT-1.S
 ‘I will give you milk-cows and pigs.’ (N-III:23)

This case-marking pattern, however, apparently does not depend strictly on the animacy of the patient, as there are also instances of allative case marking of inanimate patients (884), as well as non-case-marked human patients (885):

884. qsisya:ni háqása ná:witi.
 q-s-yi-s-ya:n-i haqe:s-a ne:wit-i
 NSG.O-MASC-give-D.IPV-PL.S-3.S grizzly-ACC meat-ALL
- háqās yáhu qissyá:ni píšai ya?yaqti kí:knaqi. FS
 haqe:s=yahu q-yi-s-ya:n-i pis-ay
 grizzly=for.their.part NSG.O-give-D.IPV-PL.S-3.S camas-ALL

ya?-ya:qti ki-yk-ni-qy-i
 DSTB-neighboring stay-SS.CTPR-LM-PL.S-3.S
 ‘They were giving some meat to the grizzlies. The grizzlies, who were staying nearby, in turn gave them camas.’ (VII:22-23)

885. haiks núhink sí:qi táuhu nángılai. FS
 hayks nuhiŋk Ø-s-yi:-qy-i ta?hu naŋılay_
 then altogether 3SG.O-MASC-give-HAB-PL.S-3.S now woman
 ‘Then now they would give him a woman.’ (E-I:23)

Another type of ditransitive construction is the benefactive, formed with the suffix {-yiyi} (see Section 3.1.2.5). The case-marking properties of benefactive constructions vary. Ex. 886 shows a benefactive of {qa} ‘do, make’ with a non-case-marked, inanimate patient:

886. táuhu p’a?sint qyaqsíyi. FS
 ta?hu p’a-sint_ q-yaq-s-i:yi-i
 now eat-NZ NSG.O-make-D.IPV-BEN-3.S
 ‘Now she began to cook for them.’ (XII:99)

Ex. 887, based on {pya} ‘kill’, has an allative-marked patient:

887. tú:haiʔai qpáislaiyik háilohaigi. FS
 tu:ʔhayʔ-ay q-pay-sla-yi-ik hayluhayki
 cattle-ALL NSG.O-kill-FUT-BEN-1.S always
 ‘I’ll kill cattle for you all the time.’ (N-III:16)

In all benefactive constructions, the object agreement prefix reflects features of the beneficiary, rather than the patient; in 888, the beneficiary is overt and marked with the accusative case:

888. tsipəqunhassí:yiwan ints. FS
 n-s-i-piqun-ha-ʔs-i:yi-wan-Ø in-s
 1SG.O-MASC-CAUS-shut.off-PSF-PRES-BEN-DU.S-3.S 1SG-ACC
 ‘They (dual) shut it for me.’ (Notes to III (Part 1):7:17)

However, with benefactives based on transitive verbs like {kunsaʔ} ‘steal’, {tape:n} ‘buy’, and {le:} ‘get, take’, even though the beneficiary is treated as an object for the purposes of verb marking, the corresponding noun phrase actually appears in the genitive case:⁸⁵

889. niskúntsaħasmí:yin ínnank. FS
 n-is-kunsaʔ-ha-ʔs-m-i:yi-in in-ank
 1SG.O-LM-steal-PSF-PRES-CIS-BEN-2.S 1SG-GEN
 ‘You steal for me.’ (Notes to I (Part 2):5:11)

890. pin:ank tapānhaʔssi:yik. FS
 pin-ank Ø-tape:n-ha-ʔs-i:yi-ik
 3SG-GEN 3SG.O-buy-PSF-PRES-BEN-1.S
 ‘I buy it for him.’ (Notes to I (Part 1):11:22)

891. łáyitsk pín:ank. FS
 Ø-le:-yi-c-k pin-ank
 3SG.O-get-BEN-R.PFV-1.S 3SG-GEN
 ‘I got it for him.’ (Notes to III (Part 2):11:20)

⁸⁵ An alternative interpretation would be that, for instance, example 889 actually means something like ‘you steal for me what is (prospectively) mine’.

Causatives and applicatives are two other types of constructions that would potentially be relevant to the discussion of Molalla ditransitives. Unfortunately, I have been able to find rather few examples of causatives and applicatives built on transitive bases, and none with two overt objects.

4.7. Auxiliary Verb Constructions

The auxiliary verb in Molalla always comes immediately after the main verb; no other material may intervene between the two. All prefixes appear on the main verb; all tense/aspect, mood, and subject-agreement suffixes appear on the auxiliary. Two of the auxiliaries are also main verbs: {til} ‘begin’ is also a main verb meaning ‘depart, go’, and {luya} ‘want to’ is also the general verb for ‘want’.

Molalla has two types of auxiliary verb constructions, which I will refer to as *s*-type and *k*-type.⁸⁶ In *s*-type constructions, the main verb is nominalized with the suffix {-s}:

892. λ áltqasí:yatsk. FS
 Ø- λ al-tqa-s i:ya-c-k
 3SG.O-laugh-APPL-NZ stop-R.PFV-1.S
 ‘I stopped laughing at him.’ (Notes to II (Part 1):19:8)
893. táuhu: nángantsink q’así:yatsk. FS
 taʔhu naŋans=hiŋk q-ʔa-s i:ya-c-k
 now so.much=EMPH NSG.O-say-NZ finish-R.PFV-1.S
 ‘Now I have finished telling you.’ (XX:345)
894. pi:ʔ títlsлуйáluksi lá:ti:wi ná:nqai. FS
 piʔ til-s luya:luk-s-i la:ti-wi-i naŋqay
 not depart-NZ want-NEG-D.IPV-3.S Molalla-TAS-3.S all
 ‘All the Molalla didn’t want to go.’ (N-III:26)

⁸⁶ Main verb-auxiliary verb sequences are tightly bound phonologically and are usually written as single words in the sources. I count a particular morpheme as an auxiliary verb, rather than as a suffix, whenever the main verb carries an overt subordinating morpheme in at least some morphophonemic contexts.

895. sʔáusluyaʔsk. FS
 sʔaw-s luya-ʔs-k
 speak-NZ want-PRES-1.S
 'I feel like talking' (Notes to IV:4:24)
896. twínpa:s pápatastak. FS⁸⁷
 Ø-twinpa:-s papata-sta-k
 3SG.O-report-NZ do.repeatedly-ITER-1.S
 'I always tell him' (Notes to I (Part 1):19:21)
897. nú:hink láqwa yá:wintstangwi pi:ʔ hó:wan. FS
 nu:hink láqwaʔ nya:w-n-s taŋ-wi-i piʔ hu:wan
 altogether quickly die-away-NZ hasten-HAB-3.S not a.while
 'He dies right away, not after a while.' (XXII:§3:10)
898. sáutqastangsi páłwá:sa. FS
 Ø-sʔaw-tqa-s taŋ-s-i pałwa:s-a
 3SG.O-speak-APPL-NZ hasten-D.IPV-3.S chicken.hawk-ACC
 'As quick as he saw him, he talked to Chicken Hawk.' (XVIII:253)
899. hísassi í:ʔ fikstauna kí:nan. FS
 hi-s-aʔ-s-i ʔi: fik-s taw-n-a ki:=nan
 NTS-LM-say-D.IPV-3.S yes spear-NZ go.to-along-PRES.IMP 2SG=also
 'The person said, "Yes, you go and spear, too."' (XVI:104))
900. haiks hasilástáuintsi óquntsi. FS
 hayks ha-s-ila-s taw-n-s-i uq-n-s-i
 then RR-LM-see-NZ go.to-along-D.IPV-3.S drink-along-D.IPV-3.S
 'Then he went to the water to look at himself.' (XXI:183)
901. pʰsníštíyaqhaʔst. ʔY⁸⁸
 psni-s ti:yaq-ha-ʔs-t
 breathe-NZ stop.to-PSF-PRES-3.S
 'He stopped [sic] and got his breath and went on again.' (B34MY:10a)

⁸⁷ This is the only attested example of {papata} 'do repeatedly'.

⁸⁸ This is the only attested form with {ti:yaq} 'stop to do'.

902. hasá:luyasuklaʔsyant, o:quntsángsi nu:ai yíkidi:stši. FS
 ha-s-a:luya-s ukla-ʔs-ya:n-t uq-n-s-aŋ-si-i
 RR-LM-defeat-NZ be.going.to-PRES-PL.S-3.S drink-along-NZ-LCTN-ADJZ-3.S
 nuay yiky-ti-sci-i
 and go.ashore-LCTN-ADJZ-3.S
 ‘They were going to have a contest, the water creatures and the shore creatures.’
 (XVIII:233)

903. päŋ sqasuklaʔsəm. FS
 pe:ŋ Ø-s-qa-s ukla-ʔs-m-Ø
 snow 3SG.O-MASC-make-NZ be.going.to-PRES-CIS-3.S
 ‘It will snow.’ (Notes to I (Part 2):8:26)

In *k*-type constructions, the main verb carries a subordinating suffix, which takes one of two allomorphs: /-:k/ (or perhaps /-ʔk/) when the main verb ends in a vowel and zero when the main verb ends in a consonant (including a vocalized semivowel):

904. ní:pnan táuhu: häspätski:k tillat. FS
 ni:p=nan taʔhu ha-s-packi-k til-a-ʔ-t
 3SG=also now RR-LM-shoot.at.target-SUB begin-V_S-D.PFV-3.S
 ‘Now he, too, began to shoot at the target.’ (XVI:185)

905. haiks táuhu: tyáqunt q’aʔk tillät. FS
 hayks taʔhu tyaqunt q-ʔa-ʔk til-a-ʔ-t
 then now eagle NSG.O-say-SUB begin-V_S-D.PFV-3.S
 ‘Then now Eagle began to talk to them.’ (XIV:274)

906. haiks tšáqi:lq tillät matšúkints. FS
 hayks caqilq-Ø til-a-ʔ-t macukins
 then skin-SUB begin-V_S-D.PFV-3.S wren
 ‘Then Wren began skinning him.’ (XV:113)

907. pyentíhaʔst. FS
 pyan-Ø til-ha-ʔs-t
 flood-SUB begin-PSF-PRES-3.S
 ‘The water rises.’ (Notes to XIV:9:9)

908. si:túŋsa:k timhaʔsk. FS
 Ø-s-i-tuŋsa-:k tim-ha-ʔs-k
 3SG.O-MASC-CAUS-sing-SUB be.insideʔ-PSF-PRES-1.S
 ‘I make music inside.’ (Notes to III (Part 1):19:19)⁸⁹

The *s*-type construction can only be applied to full verb stems, while the *k*-type construction can operate on incomplete stems. For instance, the *k*-type subordinator can immediately follow a bound motional element or medial stem element that would ordinarily require a following directional element (see examples in next paragraph).

The auxiliary verb {waʔ-} ‘do distributively, do in several places’ cannot appear without a directional element.⁹⁰ Only a limited set of directional suffixes are used with {waʔ-}: {ki} ‘in a group, in one place’, {-ky-yaq} ‘in a row’, {-lqa} ‘around’, {-l} ‘on top’, {ni} ‘along’, {til} ‘away’, {-tqa} ‘on/at/to someone/something’. When they are used with {waʔ-}, {ki} has an allomorph /-ka/, {ni} has an allomorph /-n/, and {-til} appears as /-tla/. Often, {waʔ-} will acquire a suffix by “stealing” it from the main verb (compare the non-distributive predicates in 909, 911, and 913 with the distributive versions in 910, 912, and 914).

909. hápʌä kistak. FS
 hapt-ɬ-a-ʔ ki-sta-k
 sit-on.top-V_S-ABS be-STAT-1.S
 ‘I am sitting on it.’ (Notes to IV:2:9)

⁸⁹ This is the only attested example of {tim} ‘be inside to do’.

⁹⁰ There is one attested exception: *haptwáaʔsya:nt* FS ‘they are sitting’ (Notes to VIII:7:21), which would seem to represent /hapt waʔ-ha-ʔs-ya:n-t/, with the present stem formant {-ha} immediately following {waʔ-}. This may be a mistake or a misprint, however, as the sequence /hapt waʔ-ka/ (in which {waʔ-} is followed by the directional {ki}) is also attested.

910. häptwáŕa kissya:nt. FS
 hapt-Ø wa?-ŕ-a-? ki-s-ya:n-t
 sit-SUB DSTB-on.top-V_S-ABS be-STAT-PL.S-3.S
 ‘They are sitting on it.’ (Notes to IV:2:21)

911. taswítalha?sk. FS
 taswy-tal-ha-?s-k
 hunt-away-PSF-PRES-1.S
 ‘I am going hunting.’ (Notes to II (Part 1):14:17)

912. taswiwaŕa?syamk. FS
 taswy-Ø wa?-ŕla-?s-yamk
 hunt-SUB DSTB-away-PRES-1PL.S
 ‘We are going hunting.’ (Notes to N-V:1:8)

913. sakka hapawítŕi?st. FS
 saka? hape:wit-ŕi-?s-t
 dog run-along-PRES-3.S
 ‘The dog is running.’ (Notes to XIII:2:20)

914. häpáwitwanha?sya:nt. FS
 hape:wit-Ø wa?-ŕ-ha-?s-ya:n-t
 run-SUB DSTB-along-PSF-PRES-PL.S-3.S
 ‘They are running.’ (Notes to VIII:7:24)

If no other appropriate suffix is available, {wa?-} will appear either with {-lqa} ‘around, here and there’ or {ki} ‘in one place’:

915. fíkwálqa?sk. FS
 Ø-fik-Ø wa?-lqa-?s-k
 3SG.O-spear-SUB DSTB-around-PRES-1.S
 ‘I am spearing around here and there (salmon is moving).’
 (Notes to III (Part 1):15:1)

916. stisptqálkakwaka?sk. FS
 Ø-s-tis-ptqálka-:k wa?-ka-?s-k
 3SG.O-MASC-w/hands-plaster-SUB DSTB-in.place-PRES-1.S
 ‘I plaster (mud).’ (Notes to XIII:8:7)

Table 4.7 lists the specific auxiliary verbs which appear in each type of construction:

Table 4.7: Molalla Auxiliary Verbs

s-Type⁹¹	k-Type
{i:ya} ‘stop, finish’	{til} ‘begin’
{luya} ‘want to’	{tim} ‘be inside to do’?
{papata} ‘do repeatedly’	{waʔ-} ‘do distributively’
{taŋ} ‘hasten to’	{taw-} ‘go to’
{taw-} ‘go to’	
{ti:yaq} ‘stop to’?	
{ukla} ‘be going to’	

Note that the auxiliary verb {taw-} ‘go to do’ is listed in both columns in Table 4.7.

With most verbs, {taw-} is an *s*-type auxiliary (see examples 899 and 900 on page 321).

However, there are two verbs with which {taw-} behaves as a *k*-type auxiliary: {fatat-} ‘dance’ and {we:k-} ‘bury’ (probably a specialized meaning of {we:k} ‘put, place’). The verb {fatat-} is unusual for a consonant-final verb in that it takes an overt subordinating suffix /-k/.

917. swátatktáuintsik. FS
s-fatat-k taw-n-s-ik
MASC-dance-SUB go.to-along-D.IPV-1.S
‘I went to dance.’ (Notes to II (Part 1):12:21)⁹²

918. haiks pupt hamt sawaktáuinwi ko:ʔfti. FS
hayks pupt=ha:mt sa-we:k-Ø taw-n-wi-i ku:ʔft-i
then bone=only NTS-bury-SUB go.to-along-HAB-3.S grave-ALL
‘Then they would go to the graveyard to bury just the bones.’ (E-IV:4)

⁹¹ Berman (1996:8-9) analyzes two of these *s*-type auxiliary verbs ({luya} and {taw-}) as suffixes, but he is unable to account for the /s/ that usually precedes them (his “movable *s*”).

⁹² Note that this construction is also unusual in employing the /-k/ allomorph of the subordinator, rather than the zero allomorph, after the consonant-final root {fatat}.

919. swäktáuinhaʔst. FS
 Ø-s-we:k-Ø taw-n-ha-ʔs-t
 3SG.O-MASC-bury-SUB go.to-along-PSF-PRES-3.S
 ‘He goes to bury him.’ (Notes to XXII:2:9)

The vowel-final verb {wasi} ‘bathe’ is also unusual in that it takes no overt subordinating morphology when it is used in conjunction with {taw-}.⁹³

920. wasitáuinhaʔsk. FS
 wasi-Ø taw-n-ha-ʔs-k
 bathe-SUB go.to-along-PSF-PRES-1.S
 ‘I am going out bathing’ (Notes to I (Part 3):19:22)

The auxiliary {taw-} almost always appears with the suffix /-n/ (an allomorph of {ni} ‘go, along’), but it occasionally combines with {til} ‘depart, away’ instead, as in 921:

921. wassitáutiltslak. FS
 wasi-Ø taw-til-sla-ik
 bathe-SUB go.to-away-FUT-1.S
 ‘I will go out bathing.’ (Notes to I (Part 3):10:12)

4.8. Subordination

4.8.1. Adverbial Clauses

Functionally, adverbial clauses can be divided into four types: temporal (like 922), causal (like 923), conditional (like 924), and descriptive (like 925). In the examples, the adverbial clause will be indicated with underlining.

922. ni:i:i:kuni nanga wítspamp wálaʔyassuni. FS
 ni-yk-wn-i nanga-ʔ wítsp-amp walaʔya-s-wn-i
 go-SS.CTPR-DU.S-3.S one-ABS person-LOC arrive-D.IPV-DU.S-3.S
 ‘As they went along, they came to a person.’ (IX:3)

⁹³ According to Berman’s (1996:9), {wasi} ‘bathe’ also lacks an overt subordinator when used with the auxiliary verb {taŋ} ‘hasten to do, do quickly’. Thus, this lack of a subordinator appears to be an idiosyncratic fact about {wasi}.

923. páswi ilí:mp sqaʔsk i:fin:i:ssisin. FS
 pas-wi-ʔ ilimp Ø-s-qa-ʔs-k
 good-TAS-ABS heart 3SG.O-MASC-make-PRES-1.S
 Ø-i:-fin-ni-ʔs-is-in
 3SG.O-glob.obj.-throw-away-CTPR-DS-2.S
 'I am glad because you left him.' (II:129)
924. nóqu lip máq:at kállá hätxwítilwi, láqwa hisinyá:winwi. FS
 nuqu=lip maqat=kala hatfiʔ-til-wi-i laqwaʔ
 if=but left=toward wriggle-away-HAB-3.S quickly
 hi-s-nya:w-n-wi-i
 NTS-LM-die-away-HAB-3.S
 'But if she crawls to the left, he dies right away.' (XXII:§3:6)
925. haiks ní:nikhink qassi nóqunk hink is. FS
 hayks ní:nik=hink Ø-qa-s-i nuqunk=hink
 then thus=EMPH 3SG.O-do-D.IPV-3.S just.as=EMPH
 Ø-ʔi-ʔs-s-Ø
 3SG.O-say-CTPR-DS-3.S
 'Then she did just as he said.' (XIV:110)

Formally, there is no distinction among these types. Most adverbial clauses, whatever their function, are marked by special subordinating morphology on the verb (see Section 3.1.2.4). A minority are marked by a subordinating conjunction, as in 924-929. When a subordinating conjunction is present, the verb may appear with normal tense/aspect and subject inflection, as in 924 and 928; with subordinating morphology, as in 925-927; or (rarely) in the potential mood, as in 929. The adverbial clause may either precede or follow the main clause.

926. haiks áíwi na:t histwínpa:ssi nóqu pyatsin nú:wa, yaqá:ntam pána lá:slan. FS
 hayks ay-wi-i na:t hi-s-twinpa:-s-i nuqu
 then other-TAS-3.S in.turn NTS-LM-report-D.IPV-3.S if
 Ø-pya-c-in nu-w-a yaʔqa:nt-am pe:na-a
 3SG.O-kill-SS.PROS-2.S ANA-DMSF-ACC chief-GEN daughter-ACC
 Ø-ʔe:-sla-in
 3SG.O-get-FUT-2.S
 ‘Then another one told him, “If you kill it, you’ll get the chief’s daughter.”’
 (XVIII:103)
927. núhink haiks sí:wik nóqunts hink is. FS
 nuhink hayks Ø-s-yi:-wi-ik nuquns=hink
 altogether then 3SG.O-MASC-give-HAB-1.S however.much=EMPH
 Ø-ʔi-ʔs-s-Ø
 3SG.O-say-CTPR-DS-3.S
 ‘Then I give him as much as he says.’ (E-I:19)
928. ína psi:wintslak nóqutaiʔ hink níslən! FS
 ina m-s-i:w-n-sla-ik nuqutay=hink ni-sla-in
 1SG 2SG.O-MASC-follow-along-FUT-1.S wherever=EMPH go-FUT-2.S
 “‘I’ll follow you wherever you go!’” (VI:46)
929. nóqu haʔnaʔnt^háqak wá:ʔin wákak-in qsí:wkäkwakaqak. FS
 nuqu haʔnaʔnthaya-q-ik wa:ʔin we:k-ak=in
 if run.out.of.ammo-POT-1.S arrow=1SG.PX club-INST=1SG.PX
 q-s-i:w-kha:k waʔ-ka-q-ik
 NSG.O-MASC-w/long.obj.-hit-SUB DSTB-in.place-POT-1.S
 “‘If I should run out of arrows, I can hit them with my club.’” (XXIV:74)

4.8.2. Complement Clauses

Complements of verbs of thinking and saying almost always take the form of

direct discourse. As before, complement clauses are indicated by underlining:

930. haiks tmúlimsi í:núʔasint sqá:ʔk. FS
 hayks tmulm-s-i i:núʔasint Ø-s-qa-t-k
 then think-D.IPV-3.S decoration 3SG.O-MASC-make-FUT.IMP-1.S
 ‘Then he thought, “I should make sashes (out of Silver Fox’s skin).”’ (VI:83)

931. tpálkiltsi mä:ssi gayá:mislak. FS
 tpákl-s-i me:-s-i q-haye:mi-sla-ik
 be.afraid-D.IPV-3.S think-D.IPV-3.S NSG.O-lose-FUT-1.S
 ‘He was afraid; he thought, “I will lose them.”’ (III:114)

932. ptáfnu í:wi sí:fingistakai. FS
 ptaf=nu-w-? Ø-ʔi:-wi-i 933
 son=3SG.NCRF.PX-DMSF-ABS 3SG.O-say-HAB-3.S
 Ø-s-i:-fin-ki-sta-k=ay
 3SG.O-MASC-glob.obj.-throw-on.ground-ITER-1.S=KNOWN
 ‘Her son would say, “I always throw him down.”’ (V:10)

Verbs of perception show a functional distinction with respect to the encoding of the thing perceived: when what is perceived is information, as in 933 and 934, the information is expressed as direct discourse (in ex. 934, the copula has been deleted, but it is clear that direct discourse is involved because the adjective *ítpulhauwi* appears in the nominative case). There is no subordinating conjunction in Molalla equivalent to English *that*.

933. tpassyá:ni witsp tá:tsai hískist. FS
 Ø-tpa-s-ya:n-i wicp te:c-a-i hi-s-ki-s-t
 3SG.O-hear-D.IPV-PL.S-3.S person fire-have-3.S NTS-LM-be-STAT-3.S
 ‘They heard (that) some person had fire.’ (Notes to I (Part 1):6:16)

934. ítpulhauwi stāṇ lássi. FS
 it-pulha-wi-i stāṇ Ø-la-s-i
 hole-round.hole-TAS-3.S oak 3SG.O-see-D.IPV-3.S
 ‘He saw (that) the oak tree had a hole in it.’ (III:5)

When what is perceived is a particular sight or sound, as opposed to its informational content, the notional object of perception is expressed using subordinating morphology; the notional subject of the subordinate verb, if overt, appears in the accusative case:

935. nangílaya sqá:sas tpassyá:ni. FS
 nanílay-a sqe:s-ha-ʔs-s-Ø Ø-tpa-s-ya:n-i
 woman-ACC cry-PSF-CTPR-DS-3.S 3SG.O-hear-D.IPV-PL.S-3.S
 ‘They heard a woman crying.’ (XIX:48)
936. haiks lássik pná:nin ló:q^haʔs. FS
 hayks Ø-la-s-ik pnan=in luq-ha-ʔs-s-Ø
 then 3SG.O-see-D.IPV-1.S mother=1SG.PX be.sick-PSF-CTPR-DS-3.S
 ‘Then I saw my mother being sick.’ (N-I:24)
937. wísqaʔsk niʔsmis. FS
 Ø-wisq-ha-ʔs-k ni-ʔs-m-is-Ø
 3SG.O-notice-PSF-PRES-1.S go-CTPR-CIS-DS-3.S
 ‘I notice him coming.’ (Notes to XIX:2:7)
938. mláuistak lu:ʔnhāʔsisin. FS
 m-law-sta-k luʔ-n-ha-ʔs-is-in
 2SG.O-see-R.IPV-1.S run-along-PSF-PRES-DS-2.S
 ‘I saw you running.’ (Notes to I (Part 3):3:9)

Formally speaking, these are not syntactic complements at all, but temporal adverbial clauses. For instance, a literal translation of 938 would be more like ‘I saw you when you were running’.

Very occasionally, complement clauses are encountered like the one in 939, which employs indirect discourse: notice that here the literal translation is ‘*he* (i.e. Q’mayux) will not kill them’. An equivalent sentence employing direct discourse would be expected to translate as, ‘Tell Q’mayux, “Now *you* will not kill them”’.

939. q’má:yuxa íluna táuhu: pi:ʔ qpáilukslai. FS
 q’má:yux-a Ø-ʔi-t-wn-a taʔhu piʔ q-pay-luk-sla-i
 Q’mayux-ACC 3SG.O-say-FUT.IMP-DU.S.-2.S now not NSG.O-kill-NEG-FUT-3.S
 ‘“Tell Q’mayux (that) now he will not kill them.”’ (N-VI:41)

Note also that even in this situation, no subordinating conjunction is used.

The verb {luya} ‘want’ normally acts as an *s*-type auxiliary verb (see Section 4.7). However, when it appears in the negative, {luya} either takes a clausal complement or a subordinate verb nominalized with the suffix {-sint}. Clausal complements of {luya} ‘want’ in which the subject of the subordinate clause is not the same as the subject of {luya} fall into three formal categories. In the first type, the subordinate verb appears with future subordinate morphology (see Section 3.1.2.4.2). This is the only context in which future subordinate morphology appears:

940. yaqá:nt issi pi:ʔ luyálukaʔsk yá:wintsla:s witsp-in. FS
 yaʔqa:nt Ø-ʔi-s-i piʔ Ø-luya-:luk-ha-ʔs-k
 chief 3SG.O-say-D.IPV-3.S not 3SG.O-want-NEG-PSF-PRES-1.S

 nya:w-n-sla-ʔs-s-Ø wicp=in
 die-away-FUT-CTPR-DS-3.S person=1SG.PX
 ‘The chief said, “I don’t want that my people should die.”’ (III:214)

In the second type, the verb is in the future indicative, as in 941.

941. tálapa:s issi pi:ʔ luyá:lukask wáigunt-in tánʔtslai. FS
 talapa:s Ø-ʔi-s-i piʔ Ø-luya-:luk-ha-ʔs-k
 coyote 3SG.O-say-D.IPV-3.S not 3SG.O-want-NEG-PSF-PRES-1.S

 waykunt=in tán-ʔ-sla-i
 penis=1SG.PX SPON-separate-FUT-3.S
 ‘Coyote said, “I don’t want my penis to come off!”’ (III:160)

In the third type, the verb appears in the potential mood, as in 942.

942. pi:ʔ luyálukask áwi nímmaq. FS
 piʔ Ø-luya-:luk-ha-ʔs-k ʔa-w-i ni-m-aq-Ø
 not 3SG.O-want-NEG-PSF-PRES-1.S who-DMSF-3SG.NOM go-CIS-POT-3.S
 ‘He said, “I don’t want anyone coming around here.”’ (XX:52)

When the subordinate verb has the same subject as the main verb, the subordinate verb is usually nominalized with {-sint} (see 943), but there is at least one example (944) with the verb in the potential mood:

943. pi:ʔ luyálukaʔsk tíllasint. FS
 piʔ Ø-luya-:luk-ha-ʔs-k til-a-sint
 not 3SG.O-want-NEG-PSF-PRES-1.S depart-V_S-NZ
 ‘I don’t wish to go.’ (Notes to II (Part 2):7:24)
944. pi:ʔ luyálukaʔsk tätsak kíqak. FS
 piʔ Ø-luya-:luk-ha-ʔs-k täc-a-ik ki-q-ik
 not 3SG.O-want-NEG-PSF-PRES-1.S fire-have-1.S be-POT-1.S
 ‘I don’t want to have fire.’ (Notes to I (Part 1):6:2)

4.8.3. Embedded Questions

Two kinds of embedded questions are attested in the Molalla corpus. The simpler type consists of direct discourse (embedded questions in the examples are underlined):

945. námmi:s ants luyaʔst pó:qłint pānak-pin. FS
 n-ʔa-m-i:s ʔans Ø-luya-ʔs-t pu:qł-int
 1SG.O-say-CIS-3.PRES.IMP how.much 3SG.O-want-PRES-3.S buy.person-NZ
 pe:na-ak=pin
 daughter-INST=3SG.CRF.PX
 “‘Let him tell me how much bride-money he wants for his daughter.’” (E-I:6)
946. láuluyassyani anha lāns kíslaqi. FS
 Ø-law-luya-s-ya:n-i ʔan-a-ʔ lāns ki-sla-qy-i
 3SG.O-see-want-D.IPV-PL.S-3.S how.many-V_S-ABS year live-FUT-PL.S-3.S
 ‘They wanted to see how many years they would live.’ (XXII:§2:2)

In the other type, the verb displays subordinating morphology (see Section 3.1.2.4):

947. haiks íssi laʔssəai qúnu: qá:sisk. FS
 hayks Ø-ʔi-s-i Ø-la-ʔs-a=ay qunu
 then 3SG.O-say-D.IPV-3.S 3SG.O-see-PRES-2.S=KNOWN what
 Ø-qa-ʔs-is-k
 3SG.O-do-CTPR-DS-1.S
 ‘Then she [Wren’s grandmother] said [to Wren], “You see what I’m doing!”’
 (XV:154)

948. haiks General Palmer q'á:wi hu:ap hink tpáslak núswi yáqa:nt ának s^háuts. FS
 hayks General Palmer q-ʔa:wi-i hu:ap Ø-tpa-sla-ik
 then G.P. NSG.O-say-HAB-3.S sometime 3SG.O-hear-FUT-1.S
- nus-wi-i yaʔqa:nt ʔanak Ø-sʔaw-ǵ-s-Ø
 large-TAS-3.S chief what 3SG.O-speak-PROS-DS-3.S
 ‘Then General Palmer told them, “After a while I will hear what the President has to say.”’ (N-III:31)

It is not clear whether there is any semantic or functional difference between the two types of embedded questions. Notice, for instance, that the difference between exx. 946 and 947 cannot be attributed to the matrix verb, as both examples have the matrix verb {la} ‘see’.

4.8.4. Relative Clauses

Relative clauses are rather rare in the Molalla texts, their function being largely fulfilled by adjectival constructions as in 949.

949. haiks yáqa:nta íssi na:nqai ʔixwä tu:ŋsawai qłä:ʔa. FS
 hayks yaʔqa:nt-a Ø-ʔi-s-i naŋqayʔif-a-ʔ tuŋsa-way
 then chief-ACC 3SG.O-say-D.IPV-3.S all strong-V_S-ABS sing-ACC.ADJ
- q-ʔe:-ʔ-a
 NSG.O-get-FUT.IMP-2.S
 ‘Then he said to the chief, “Get everyone who can sing loudly.”’ (IX:134)

The handful of good candidates for true relative-clause status appear to be internally headed by the relative demonstrative {nuqu} ‘the one who, that which, whoever’ (see Section 3.4 on demonstratives). The verb bears normal indicative (rather than, for instance, subordinate) inflection. Relative clauses are underlined in the examples:

950. la:qin noqú:wa pyátsk. FS
 Ø-la:-qy-in nuqu-w-a Ø-pya-c-k
 3SG.O-see-PRES.IMP-PL.S-2.S REL-DMSF-ACC 3SG.O-kill-R.PFV-1.S
 “‘See what I have killed.’” (VIII:112)

951. noqá:wi hink si:fingislai ná:ngilaya nú:ä hisá:slai nú:wi. FS
 nuqu-w-i=hink Ø-s-i:-fin-ki-sla-i
 REL-DMSF=EMPH 3SG.O-MASC-glob.obj.-throw-on.ground-FUT-3.S

 nanilay-a nu-w-a hi-s-ŋe:-sla-i
 woman-ACC ANA-DMSF-ACC NTS-LM-get-FUT-3.S

 nu-w-i
 ANA-DMSF-SG.NOM
 “‘Whoever throws that woman down, he will get her (for his wife).’” (IV:60)
952. mhaskiha?ssya:nt tu:ntsəm nuqwa:t fiksyā:ni. FS
 m-hasky-ha-?s-ya:n-t tu:ns=im nuqu-w-at
 2SG.O-wait.for-PSF-PRES-PL.S-3.S eye=2SG.PX REL-DMSF-PL

 Ø-fik-s-ya:n-i
 3SG.O-spear-D.IPV-PL.S-3.S
 “‘The ones who were spearing your eyes are waiting for you.’” (XVI:140)
953. pällä:s lássi nóqun plissi.
 pale:s Ø-la-s-i nuqun pli-s-i
 skunk 3SG.O-see-D.IPV-3.S where sleep-D.IPV-3.S
 ‘Skunk saw where he [Silver Fox] had slept.’ (VI:58)

4.9. Doubling Pronouns

One or another overt third-person argument (never more than one in a clause) will frequently be doubled by a pronoun showing the same person, number, and case. Such an argument is therefore referenced three times: by the full noun phrase, by the pronoun, and by the agreement morphology on the verb. These pronouns are not emphatic (there is a separate set of emphatic pronouns; see Section 3.3.2). Neither are they clitics (in fact, they often serve as hosts for clitics).

The single most common function of these redundant pronouns is as hosts for the clitic {=nan} ‘also, too’. Encliticizing {=nan} to a pronoun is the normal way of expressing the concept ‘also’; {=nan} may take narrow scope (that is, over the pronoun alone, as in 954 and 955), or it may take scope over the whole sentence. In 956, for

instance, it is clear that the meaning intended is not ‘[*Other people* might kill me, and] *she* might kill me, too!’ (a narrow-scope reading), but ‘[She has *killed other people*, and] she might *kill me* as well!’.

954. pálläs tillät ní:pnan. FS

pale:s til-a-ʔ-t ni:p=nan
skunk depart-V_S-D.PFV-3.S 3SG=also
‘Skunk went off, too.’ (VI:102)

955. haiks isya:ni pínsnan k’latkwi:xa. FS

hayks Ø-ʔi-s-ya:n-i pin-s=nan klatkwi:x-a
then 3SG.O-say-D.IPV-PL.S-3.S 3SG-ACC=also bullsnake-ACC
‘Then they told Bullsnake, too.’ (XIX:33)

956. ní:nik qyakst nánqaiwai yáitka.

ni:nik q-yaq-s-t nanqay-way ya:y-ʔtk-a
thus NSG.O-do-ITER-3.S all-ACC man-PL-ACC

tam yá:winhaʔssyant yaitek.

tam nya:w-n-ha-ʔs-ya:n-t ya:y-ʔtk
many die-away-PSF-PRES-PL.S-3.S man-PL

...

issi haiks ints tat npaisla:mi, ní:pnan! FS

Ø-ʔi-s-i hayks in-s=tat n-pay-sla:-m-i
3SG.O-say-D.IPV-3.S then 1SG-ACC=DUB 1SG.O-kill-FUT-CIS-3.S

ni:p=nan

3SG=also

“‘She does like that to all the men [lures them with sex and kills them]. Many men are dying.’...Then he said, “She might kill me, too!”” (VIII:30-33)

Another common use for a doubling pronoun is as a host for one of the second-position clitics described in Section 4.2:

957. ni:p ʔip kissi pnänin Salem-yəmt. FS

ni:p=ʔip ki-s-i pnan=in Salem=yaʔmt
3SG=but dwell-D.IPV-3.S mother=1SG.PX Salem=at
‘But my mother was living in Salem.’ (N-I:18)

However, in a couple of instances, the full noun phrase serves as the host for the clitic, while the pronoun serves to re-start the sentence:

958. háqás yáhu nímt síndissya:ni piš. FS
 haqe:s=yahu nímt Ø-s-hinti-s-ya:n-i pis
 grizzly=for.their.part 3PL 3SG.O-MASC-dig.roots-D.IPV-PL.S-3.S camas
 ‘The Grizzlies, for their part, were digging camas.’ (VII:20)

Outside of the two functions described above, doubling pronouns are most commonly used in narrative when topic-switching among actors:

959. pällä:s íssi hí:i:tpityəm!
 pale:s Ø-ʔi-s-i hit-pity-a-m
 skunk 3SG.O-say-D.IPV-3.S go.down-back-PRES.IMP-CIS

 wí:la táa:a:a:qsi ní:p. FS
 wi:la taq-s-i ní:p
 silver.fox climb-D.IPV-3.S 3SG
 ‘Skunk said [to Silver Fox], “Come back down here!” Silver Fox kept climbing.’
 (VI:71-72)

960. haiks nú:hink hastó:qaqsta:tkant.
 hayks nu:hiŋk ha-s-tu:-qa-qsta-ʔtk-an-t
 then altogether RR-LM-traveling-DSTB-go.in.diff.direction-D.PFV-PL.S-3.S

 haiks tíldukwun nímš háqás kátatas. FS
 hayks til-tuk-wan-Ø nímš haqe:s ke:taʔt-as
 then depart-D.PFV-DU.S-3.S 3DU grizzly weasel-DU
 ‘Then they went in different directions. Then Grizzly and Weasel set off.’
 (XVII:21-22)

961. háilohaigi nan ta:ʔtəm, taswílqassi ní:p k’ú:ya:wi.
 hayluhayki nanʔ taʔtm taswy-lqa-s-i ní:p k’u:ya:wi
 always every tomorrow hunt-around-D.IPV-3.S 3SG mtn.lion

 ní:p náŋilai nú:wi híndisi pis. FS
 ní:p nanjilay nu-w-i Ø-hinti-s-i
 3SG wife 3SG.NCRF.PX-DMSF-SG.NOM 3SG.O-dig.roots-D.IPV-3.S

 pis
 camas
 ‘Always, every day, Panther hunted. His wife dug camas.’ (XII:126-127)

Sometimes doubling pronouns are used for simple emphasis, as in 962 and 963:⁹⁴

962. twamsi au kist ni:ⁱp wí:ła? FS
Ø-twam-s-i ?aw? ki-s-t ni:p wi:ła
3SG.O-ask-D.IPV-3.S where be-STAT-3.S 3SG silver.fox
'He asked him, "Where is Silver Fox?"' (VI:97)
963. haskikáwa? pints tálapa:?sa. FS
Ø-hasky-ka-Ø-wa pin-s talapa:s-a
3SG.O-wait.for-in.place-PRES.IMP-1DU.S 3SG-ACC coyote-ACC
“Let’s wait for Coyote.” (XXI:189)

4.10. Complex Arguments

Molalla displays several ways of expressing arguments composed of multiple members. The most common is to use `{nuay}` ‘and’:

964. laikatins nú:ai yá:tmais, nu:ai láfkis FS
lakatins nuay ya:tmais nuay lafkis
flicker and black.woodpecker and little.woodpecker
‘Flicker and Black Woodpecker and Little Woodpecker’ (XVIII:134)
965. núat hánint húyaqəns núai qásḳs p’aqi. FS
nu-w-at hanint húye:qins nuay qe:sqs Ø-p’a-:-qy-i
ANA-DMSF-PL corpse snail and spider 3SG.O-eat-HAB-PL.S-3.S
“‘Those dead people eat snails and spiders.’” (II:93)

Occasionally, however, the components are simply listed without using `{nuay}`:

966. staʔatwaqat na:nqai kluwa:t má:wit. FS
 Ø-s-tat-ʔat-Ø waʔ-ka-ʔ-t nanqay
 3SG.O-MASC-cut-reduce.to.pieces-SUB DSTB-in.place-D.PFV-3.S all

 kluwa:t ma:wit
 shoulder leg
 ‘He cut up all the shoulders and the hindquarters.’ (XV:115)

⁹⁴ Note, however, that these are not formally emphatic pronouns (see Section 3.3.2).

967. haiks hú:fna qastáuintsmi, tyáʔak'äʔfa. FS
 hayks hu:fn-a q-ʔa-s taw-n-s-m-i tyáʔak'aʔf-a
 then owl-ACC NSG.O-say-NZ go.to-along-D.IPV-CIS-3.S black.eagle-ACC
 'Then he came to tell Owl and Black Eagle.' (XII:239)

Dual arguments are often constructed using a special dual connective {haspin}.

The connective {haspin} is used to conjoin two noun phrases of which the second is a kin-term noun possessed by the first. When the possessor is third person, the possessed noun carries no possessive enclitic; thus, in 968, where we would normally expect /naŋɪʔay=pin/ 'his (own) wife', we instead have /naŋɪʔay/ by itself.⁹⁵

968. haiks táuhu: kíssuni k'u:yá:wi ní:pamsa háspin nangɪʔai. FS
 hayks taʔhu ki-s-wn-i k'u:ya:wi ní:pams-a haspin naŋɪʔay
 then now dwell-D.IPV-DU.S-3.S mtn.lion 3DU.EMPH-? DU.CONN wife
 'Then now the two of them were living together, Panther and his wife.' (XII:105)

969. pátwa:s kí:wni háilohaigi hílmä háspin pnák^ha. FS
 paʔwa:s ki:-wn-i hayluhayki hilm-a haspin
 chicken.hawk stay-HAB-DU.S-3.S always house-LOC DU.CONN
 pnakha
 yo.brother
 'Chicken Hawk and his brother always stayed in the house.' (XVIII:5)

The possessor may be a null pronominal:

970. haspin píttá kíssuni. FS
 haspin pitn ki-s-wn-i
 DU.CONN paternal.grandmother dwell-D.IPV-DU.S-3.S
 'He lived with his grandmother.' (XV:143)

⁹⁵ Berman (1996:10) is probably correct when he suggests that {haspin} etymologically contains the 3sg coreferential possessive enclitic {=pin}, and hence probably was originally used specifically with third-person possessors. However at least in Savage's speech, {haspin} has expanded its functional range and now appears with first- and second-person possessors as well.

When the possessor noun phrase is first or second person,⁹⁶ an appropriate possessive clitic may appear on the possessed noun phrase:

971. *kíssunik háspin pánā-in*. FS
 ki-s-wn-ik haspin pe:na=in
 dwell-D.IPV-DU.S-1.S DU.CONN daughter=1SG.PX
 ‘I was living together with my daughter.’ (Notes to II (Part 1):1:1)
972. *kíssunin háspin pánā-əm*. FS
 ki-s-wn-in haspin pe:na=im
 dwell-D.IPV-DU.S-2.S DU.CONN daughter=2SG.PX
 ‘You were living together with your daughter.’ (Notes to II (Part 1):1:3)

One or both components of a two-part argument may be marked with the dual suffix {-as}:

973. *haiks tildukwun nims háqās kátatas*. FS
 hayks til-tuk-wan-Ø nims haqe:s ke:taʔt-as
 then depart-D.PFV-DU.S-3.S 3DU grizzly weasel-DU
 ‘Then Grizzly and Weasel started off.’ (XVII:22)
974. *ká:tata:s háwaksuni ta:ʔmnas*. FS
 ke:taʔt-as hawe:k-s-wn-i ta:ʔmn-as
 weasel-DU run.race-D.IPV-DU.S-3.S rabbit-DU
 ‘Weasel had a foot race with Rabbit.’ (XV:170)

As 975 shows, a single dual-marked member can stand for the pair:

975. *naq’ásas hasqinissuni*. FS
 naq’as-as ha-s-qini-s-wn-i
 cinn.bear-DU RR-LM-wrestle-D.IPV-DU.S-3.S
 ‘He and Cinnamon Bear were wrestling.’ (XV:174)

Various hybrid systems are also encountered, which combine two of the strategies outlined above in the same clause. In 976, for instance, the second conjunct {kʷe:s} is

⁹⁶ There are only three instances of {haspin} being used with a first- or second-person possessor; they are given here as exx. 971, 972, and 978.

marked with the dual suffix {-as}, but there additionally follows an appositive noun phrase constructed with {haspin}:

976. haiks táusi:ai pí:ʔassuni tálapa:s klwá:sas, háspin pnaká. FS
 hayks tawsiyay pi:ʔa-s-wn-i talapa:s klwe:s-as
 then next.morning go.home-D.IPV-DU.S-3.S coyote bluejay-DU
- haspin pnakha
 DU.CONN yo.brother
 ‘Then the next morning Coyote was going home with Bluejay, his younger brother.’ (II:65)

In 977, we have an overt conjunction {nuay} ‘and’ combined with dual marking on the second conjunct {ha:ʔ} ‘moon’.

977. ha:ʔam pnän issi häsqiníswan háilohaigi wá:s nú:ai ha:ʔas. FS
 ha:ʔam pnän Ø-ʔi-s-i ha-s-qini-s-wan-Ø hayluhayki
 moon-GEN mother 3SG.O-say-D.IPV-3.S RR-LM-wrestle-ITER-DU.S-3.S always
- wa:s nuay ha:ʔas
 sun and moon-DU
 ‘Moon’s mother said, “They’re always wrestling, Sun and Moon.”’ (V:40)

These complex arguments are often most felicitously translated using English sociative constructions (“X was living/going/racing *with* Y”), which require singular verb agreement. Notice, however, that in Molalla they are almost always syntactically dual, as evidenced by the dual verb agreement morphology on the associated verbs.

There are two attested exceptions, in which the verb takes singular agreement as it would with an English sociative. One of these two exceptional cases is given as ex. 978. Note also that in this example, the connective {haspin} is combined with the dual suffix {-as}, and that there is no possessive enclitic on the possessed noun, even though the possessor is first person:

978. íssi ina nángawik kí:wik háspin pítnas. FS
 Ø-i-s-i ina naŋa-wi-ik ki-:wi-ik haspin
 3SG.O-say-D.IPV-3.S 1SG alone-TAS-1.S dwell-HAB-1.S DU.CONN
 pitn-as
 paternal.grandmother-DU
 ‘He said, “I live alone with my grandmother.”’ (XXI:152)

4.11. Definiteness Marking

Marking of definite (established referent) and indefinite (new referent) noun phrases is common but not obligatory in Molalla. Indefinite noun phrases are marked with the absolute adjectival form of the numeral /naŋa?/ ‘one’:

979. nanga ya:i láuwilassi ní:mauwai. FS
 naŋa-? ya:y Ø-lawila-s-i ni:ma-way
 one-ABS man 3SG.O-love-D.IPV-3.S young.woman-ACC.ADJ
 ‘A man fell in love with a girl.’ (E-I:1)
980. haplá:paqassi nanga yá:ya. FS
 Ø-hapt-la:paqa-s-i naŋa-? ya:y-a
 3SG.O-sit-alongside-D.IPV-3.S one-ABS man-ACC
 ‘He sat down next to a man.’ (IX:114)
981. ni:i:i:kuni nanga wítspamp wála?yassuni. FS
 ni-yk-wn-i naŋa-? witsp-amp wala?ya-s-wn-i
 go-SS.CTPR-DU.S-3.S one-ABS person-LOC arrive-D.IPV-DU.S-3.S
 ‘As they went along, they came to a person.’ (IX:3)

Definite noun phrases are marked with forms of the demonstrative {nu}:

982. nú:wi nángilai íssi šutta ya. FS
 nu-w-i naŋilay Ø-?i-s-i
 ANA-DMSF-3.SG.NOM woman 3SG.O-say-D.IPV-3.S
 s-hu:t-a=ya
 MASC-build.fire- PRES.IMP =then
 ‘The woman said, “Build a fire, then.”’ (XIV:105)

983. haiks háqās í:wilqassi lá:pwai hānga.
 hayks haqe:s Ø-i:w-lqa-s-i le:p-way haŋ-a
 then grizzly 3SG.O-chase-around-D.IPV-3.S two-ACC.ADJ feather-ACC
- nú:was hāŋ ná:tamp kálla níssuni. FS
 nu-w-as haŋ na:tamp=kala ni-s-wn-i
 ANA-DMSF-DU.NOM feather evening=toward go-D.IPV-DU.S-3.S
 ‘Then Grizzly was chasing the two feathers. The two feathers were going toward the west.’ (XIII:111-112)

The {nu} demonstrative is most commonly translated as ‘that’ in the texts and in elicitation, but unlike the proximal demonstrative {ni} and the distal demonstrative {qa} (see Section 3.4), {nu} appears to have little if any deictic force and is instead essentially anaphoric. Both /naŋaʔ/ and {nu} usually appear before the noun (as in 979-983) but occasionally follow it, as in 984 and 985:

984. lát tqaʔnt nanga, lušámluswai tqənʔt. FS
 Ø-la-ʔ-t tqaʔnt naŋa-ʔ mlus-mlus-way tqaʔnt
 3SG.O-see-D.PFV-3.S rock one-ABS round-CHAR-INAN.ADJ rock
 ‘He found a rock, a round rock.’ (VI:20)
985. tauhu šihatkusmi náŋiŋaya nú:wa. FS
 taʔhu Ø-s-i-hatku-s-m-i naŋiŋay-a
 now Ø3SG.O-MASC-CAUS-get.up-D.IPV-CIS-3.S woman-ACC
 nu-w-a
 ANA-DMSF-ACC
 ‘Now he made the woman get up.’ (XII:35)

Both can also be dissociated from the noun, with another constituent (usually the verb) appearing in the middle, as in 986 and 987.

986. haiks nanga lássi kú:sangwai ya:ʔyasa. FS
 hayks naŋa-ʔ Ø-la-s-i ku:s-aŋ-way ya:y-asa
 then one-ABS 3SG.O-see-D.IPV-3.S small-DIM-ACC.ADJ man-DIM
 ‘Then he saw a small boy.’ (III:73)

987. nú:wi issi ya:i? həsqíni:ssya:nt. FS
 nu-w-i Ø-ʔi-s-i ya:y
 ANA-DMSF-SG.NOM 3SG.O-say-D.IPV-3.S man
 ha-s-qini-ʔs-ya:n-t
 RR-LM-wrestle-PRES-PL.S-3.S
 ‘The man said, “They are wrestling.”’ (IV:58)

4.12. Verb Serialization (?)

It is quite common in Molalla texts to find two verbs that share a subject and a tense/aspect specification and that apparently (judging by the punctuation in the sources) share the same intonational phrase, but that are not linked by a conjunction or by subordinating morphology. It is a distinct possibility that such verb pairs are actually members of the same clause; if so, they would represent a type of serial verb construction.

The putative serial-verb constructions in Molalla fall into several broad categories. In the most common type, one of the verbs represents a sort of semantic subset of the other. That is, one verb will have a more general meaning (like ‘say’), while the other will have a related but more specific denotation (such as ‘ask’, ‘answer’, or ‘scold’). This type is illustrated in 988-991:

988. haiks k’ú:ya:wi twámsi issi tšu há:tyən kíssə? FS
 hayks k’u:ya:wi Ø-twam-s-i Ø-ʔi-s-i cu ha:ty-in
 then mtn.lion 3SG.O-ask-D.IPV 3SG.O-say-D.IPV at.all get.pregnant-2.S
 ki-s-a
 be-STAT-2.S
 ‘Then Panther asked her, “Are you pregnant?”’ (XII:80)
989. å pállas íssi áhintsi. FS
 å pale:s Ø-ʔi-s-i Ø-ʔahin-s-i
 aha! skunk 3SG.O-say-D.IPV-3.S 3SG.O-answer-D.IPV-3.S
 ‘“Aha!” answered Skunk.’ (VI:187)

990. haiks tká:msi íssi ktílləm láqwa! FS
 hayks Ø-tka:m-s-i Ø-ʔi-s-i k-til-a-m
 then 3SG-scold-D.IPV-3.S 3SG-say-D.IPV-3.S FEM-depart-PRES.IMP-CIS
 laqwa?
 quickly
 ‘Then he scolded her, saying, “Come on, quickly!”’ (XV:155)
991. nóqu kú:sanatsik po:qilwáina tilqak látu:qak. FS
 nuqu ku:sana-c-ik puqil-way-na-ʔ til-q-ik
 if be.uneasy-SS.PROS-1.S diving-swim-along-ABS depart-POT-1.S
 latw-q-ik
 escape-POT-1.S
 “‘If I get scared, I can dive down and escape.’” (XXIV:69)
992. kasú:li tíllät wáuwiyt. FS
 kasu:li til-a-ʔ-t Ø-wawy-i-ʔ-t
 wolf depart-V_S-D.PFV-3.S 3SG.O-leave-V_S-D.PFV-3.S
 ‘Wolf went off and left him.’ (VI:131)

The existence of such a construction is intriguing from a historical linguistic point of view, since one can easily imagine how such an essentially redundant verb as ‘say’ in examples 988 through 990 could be reanalyzed as a functional element (in this case, perhaps a quotative marker).

In a second category of double-verb construction, one of the verbs expresses the manner or method by which the action of the other verb is performed:

993. matšúkins íssi tú:ntsa-əm mí:wlapqak mpáiqak. FS
 macukins Ø-ʔi-s-i tu:ns-a=im m-i:w-lap-q-ik
 wren 3SG.O-say-D.IPV-3.S eye-LOC=2SG.PX 2SG.O-LM-get.in-POT-1.S
 m-pay-q-ik
 2SG.O-kill-POT-1.S
 ‘Wren said, “I can get into your eye and kill you.”’ (XV:48)

994. hú:tsakna sí:wqaqən pyáqən. FS
 hu:t-s-ak=na Ø-s-i:w-kha-q-in Ø-pya-q-in
 build.fire-NZ-INST=DEB 3SG.O-MASC-w/long.obj.-hit-POT-2.S 3SG.O-kill-POT-2.S
 “‘You ought to have hit him with a club and killed him.’” (IX:45)

Other verb pairs simply denote events that happen to be simultaneous:

995. noqúhink hiskílautilts qstänulqa:wi lpanimluqá:wi. FS
 nuqu=hiŋk hi-s-kilaw-til-s-s-Ø
 when=EMPH NTS-LM-camp-away-CUST-DS-3.S

 q-s-tanw-lqa-:wi-i Ø-lpanm-lqa-:wi-i
 IDF.O-MASC-watch-around-HAB-3.S 3SG.O-listen-around-HAB-3.S
 ‘Whenever someone went camping, he would watch for them and listen.’
 (N-V:10)

Ultimately, of course, given the nature of the extant Molalla materials and the lack of any contemporary speakers, it is impossible to say anything really definitive about the syntactic status of these constructions. They certainly lack certain features that make serial verb constructions in other languages easier to diagnose: both verbs, importantly, are independently fully inflected for tense/aspect and for subject.⁹⁷ Since any fully inflected Molalla verb can in principle constitute a clause unto itself, it is entirely plausible that the potential serial-verb constructions I have identified might merely represent sequences of independent clauses. However, the ubiquity and consistency of these patterns suggests to me that this is a subject worthy of future scrutiny. I am not aware of any report of a serial verb construction in any other Northwest language.

⁹⁷ In this way, the putative serial verb construction is crucially distinct from the auxiliary verb constructions discussed in Section 4.7. Recall that in an auxiliary verb construction, the tense/aspect and subject morphology on the subordinate verb are replaced by a subordinator (the nominalizer {-s} in the *s*-type construction or the subordinator /-Ø ~ -:k ~ -ʔk/ in the *k*-type construction).

Chapter 5

Conclusion

5.1. Review

Among the salient features of Molalla phonology are a stop system comprised of plain and ejective stops, and possibly aspirated stops as well, though the latter two categories are comparatively rare. There is also a velar nasal and a fairly large array of fricatives. Acoustic analysis of a Molalla recording reveals a surface complement of three short and four long vowels, though there is reason to think that the low short vowel represents a merger of two originally distinct vowels.

Morphologically, Molalla is characterized by a highly intricate verb structure. Many verbs contain morphemes indicating direction or location, modal qualities, and causation, as well as morphemes that classify verbs based on the type of motion or the shape of the arguments involved. The verb also exhibits a rich system of seven tense-aspect morphemes distinguishing recent and distant past; verb-internal negation; a typologically unusual non-topical subject morpheme (which often functions like, but formally is not, a passive construction); gender agreement (manifested only on the verb); special subordinating morphology; singular, dual, and plural subject agreement; object agreement; and a highly productive cislocative morpheme that interacts with the subject agreement morphology in highly complex ways. There are two copula verbs, one for animate and one for inanimate subjects.

Nouns, while not generally marked for number, display a robust system of seven cases, some of which have different allomorphs for use with animate or inanimate nouns. Possession is shown by genitive marking on the possessor, possessive enclitics on the possessed noun, or both. Personal pronouns distinguish singular, dual, and plural number; show no distinction between inclusive and exclusive 1du and 1pl forms; and have their own unique case inflections. Demonstratives distinguish two degrees of distance and inflect for the same seven cases as nouns, plus an eighth case specifically referring to units of time. Interrogative elements also act as indefinites. Adjectives are a morphologically well-defined category at the word level, though many or perhaps all appear to be underlyingly verbal. They inflect for person and number like verbs and for case like nouns.

Syntactically, Molalla shows highly flexible constituent ordering, with SVO as the single most common order. A system of second-position clitics carries modal, evidential, conjunctive, and focusing functions. Negative sentences are doubly marked by a negative adverb {pi?} and a negative morpheme in the verb. Typologically interesting syntactic features include frequent use of redundant pronouns and a possible serial verb construction. All of this shows the value and the fruitfulness of archival research on extinct languages, without which we could never have gotten to know this fascinating language, many of whose typological quirks are not shared even by its closest relatives.

5.2. Molalla in an Areal Context

5.2.1. The Plateau Linguistic Area

Molalla formed a part of a linguistic and cultural area centered on the Columbia Plateau. The Plateau itself stretches from southeastern British Columbia to central Oregon and from eastern Washington to western Montana; the Plateau linguistic area extends southward from here to encompass Molalla (in western Oregon) and Klamath (in the Oregon-California border area) as well. The northern part of the Plateau linguistic area, in eastern Washington, northern Idaho, western Montana, and southeastern British Columbia, is dominated by the interior branch of the Salish language family. Interior Salish is divided into two sub-branches: Northern (comprising the Lillooet, Thompson, and Shuswap languages) and Southern (comprising Columbian, Coeur d'Alene, Okanagan, and Kalispel).⁹⁸ Also found in the northern Plateau are the extinct Athabascan language Nicola and the linguistic isolate Kootenai.

Geographically, the southern Plateau region is dominated by the Sahaptian family, which has two members, the highly internally diverse Sahaptin, in southern Washington and north-central Oregon, and Nez Perce, in central Idaho and adjacent parts of Washington and Oregon. In northeastern Oregon and southeastern Washington, Cayuse was once spoken, while in the southwestern portion of the Plateau linguistic area we find Molalla, Klamath, and Kiksht, which represents an extension up the Columbia River of the Chinookan family.

⁹⁸ Language names are used here in the same senses as in Kinkade, Elmendorf, Rigsby & Aoki 1998. "Okanagan" includes the Colville dialect, while "Kalispel" is a dialect chain made up of Spokane, Kalispel proper, and Montana Salish.

5.2.2. Plateau Features in Molalla

Kinkade, Elmendorf, Rigsby & Aoki (1998; hereafter KERA) list a large number of linguistic features characteristic of the Plateau linguistic area or subsections thereof. Unfortunately, Molalla had to be largely left out of their discussions due to the lack of an adequate description (KERA 1998:64). Thus, now that the language is better known, it should prove a worthwhile enterprise to review the list of features cited by KERA and examine more precisely how Molalla fits into the areal linguistic picture.

KERA present features characteristic of the Plateau as a whole, and of various subsets of the Plateau languages, in four tables (their Table 7 through Table 10). Three of these (Tables 7, 8, and 10) are reproduced here with corrected codings for Molalla. The fourth table, Table 9, lists features found in the Salish languages and in Kootenai; it is not reproduced here because Molalla is negative for all features listed, with the possible exception of item (12), “‘Yellow’ and ‘green’ are expressed by a single lexical item, opposed to ‘blue’” (see below).

Table 5.1 (modified from KERA’s Table 7) lists language features characterizing a wide variety of Plateau languages. The individual features are discussed below.

Table 5.1: Language Features Characterizing the Plateau as a Whole

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Kootenai	•	•		•	•	•		•		•		•	•				•	
Lillooet	•	•		•		•	•	•	•	•		•		•	•	•	•	
Thompson	•	•		•		•	•	•	•	•	•	•		•	•	•	•	•
Shuswap	•	•		•		•	•	•	•			•	•	•	•		•	•
Okanagan	•	•		•		•	•	•	•	•	•	•	•	•	•	•	•	•
Kalispel	•		•	•		•	•	•	•			•	•	•	•	•	•	•
Coeur d'Alene			•	•	•	•	•	•	•	•		•	•	•	•	•	•	•
Columbian	•	•		•		•	•	•	•	•	•	•	•	•	•	•	•	•
Sahaptin	•		•	•			•	•	•	•	•	•	•	•	•	•	•	•
Nez Perce	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Cayuse	•	•		•	•		?	?	?	?	?	?	?	?		?	?	?
Molalla	?	•		•	•	•?	•	•		•	•				•		•	
Kiksht			•	•						•			?					•
Klamath		•		•	•	•	•	•			•	•	•	?	•	?	•	•

- (1) *Two stop-affricate series (glottalized and voiceless) only.* The status of this feature in Molalla depends on how one wishes to analyze the aspirated stops (Section 2.1.2). If they are analyzed as unitary segments, then Molalla has three stop series (but still only two affricate series). On the other hand, glottalized stops and affricates are themselves somewhat marginal in Molalla: my database includes 595 morphemes beginning with /p t c k q/ and a grand total of 31 beginning with /p' t' c' k' q'/, and a number of the latter are personal names or obvious borrowings from neighboring languages.
- (2) *A single alveolar or palatal affricate-spirant obstruent series (or both alternating nondistinctively).* This is clearly the case in Molalla, a feature shared with all Plateau languages except Kalispel, Coeur d'Alene, Sahaptin, and Kiksht. Note

that for the purposes of this item, KERA are ignoring lateral obstruents, which are present in most of the languages of the Plateau, including Molalla.

- (3) *Contrast between alveolar and palatal affricate-spirant positions; symbolic only in Kiksht.* There is no contrast between alveolar and palatal fricatives or affricates in Molalla. This item is simply the inverse of the previous item; all codings for item (2) are reversed for item (3).
- (4) *Velar and uvular obstruent series contrast.* This is true for Molalla as for all other Plateau languages.
- (5) *An ejective lateral affricate (ʔ') is lacking.* Molalla lacks an ejective lateral affricate, unlike Kiksht and most of the Interior Salish languages. Presumably, this item was included because most of the Plateau languages have lateral obstruents, and all have ejective stops and affricates, yet many of them lack an ejective lateral affricate.
- (6) *Glottalized resonants contrast with plain resonants.* There is reason to think that Molalla had a contrastive glottalized resonant series (see Section 2.1.4), as do Klamath, Nez Perce, and the Interior Salish languages.
- (7) *Clusters of four or more consonants are allowed word-medially and word-finally.* Molalla allows sequences of up to five consonants word-medially and word-finally (see Section 2.1.3), like all the Plateau languages except Kootenai and Kiksht.

- (8) *Vowels may be drawn out for emphasis, especially in narratives.* This type of rhetorical lengthening is indeed a common feature of Molalla narratives; it can apply to underlyingly short or long vowels:

996. kɪ:i:i:ssi ni:p k'ú:ya:wi. FS
 ki-s-i ni:p k'ú:ya:wi
 stay-D.IPV-3.S 3SG mtn.lion
 'Panther was staying there.' (XX:187)
997. ku:u:u:sangwin kislən sánqətnai. FS
 ku:s-aŋ-wi-in ki-sla-in saŋqitnay
 small-DIM-TAS-2.S be-FUT-2.S snake
 'You will be a small snake.' (I:84)
998. haiks íssi kíⁱ kǎ:ä:ä:tmassa kíssi. FS
 hayks Ø-ʔi-s-i ki: ke:tm-asa ki-s-a
 then 3SG.O-say-D.IPV-3.S 2SG bugger-DIM be-STAT-2.S
 'Then he said, "You're a damn bugger!"' (VI:45)

This feature is found throughout the Plateau area, with the exception of Kiksht.

- (9) *Numeral classifiers (for counting various types of objects) are present.* There are no numeral classifiers in Molalla; numeral classifiers are a feature shared between Sahaptian and Interior Salish.
- (10) *Three (or more) primary aspectual categories are distinguished.* Molalla distinguishes perfective, imperfective, and habitual aspect (see Section 3.1.2.2).
- (11) *At least some aspect markers are suffixed or postposed.* All aspects are coded as suffixes in Molalla. This is like Klamath and Sahaptian but unlike most of the Interior Salish languages. However, KERA seem to be ignoring the Salish stative suffix {-t} (Sarah Thomason, pers. comm.).

- (12) *Marking of plurality is largely optional.* While inanimate objects are typically unmarked for number (both on the noun and in terms of agreement morphology on the verb), dual and plural agreement marking on verbs seems to be largely obligatory for animate referents. If this is true for Molalla, it is an unusual feature on the Plateau.
- (13) *Different formations are used for distributive and collective plurals.* There does not seem to be a formal difference between distributive and collective plurality in Molalla, though collective nouns like {wicp} ‘person, people’ are often construed as singular.
- (14) *The language is at least partly ergative.* I have found no trace of ergative morphosyntax in Molalla. (Split) ergativity is a feature shared between Sahaptian and Interior Salish.
- (15) *Predicates/verbs marked for plurality refer to a plural subject in intransitive forms, but a plural object in transitive forms.* This is true for certain verbs of motion: namely, those consisting of a form or activity classifier and the medial stem element {-ky-} ‘plural objects move or are located’. This is unsurprising, however, if the transitive verbs are considered a kind of causative.
- (16) *Possessive constructions may be used as main predicates with at least a few roots (e.g., ‘my liking...’).* I am unaware of any predicative use of such possessed nominalized forms, which are common in Interior Salish.

- (17) *'Ripe' and 'cooked' are expressed by the same lexical item, or one is derived from the other; the same is sometimes true for 'unripe' and 'raw'.* The Molalla verb {st'u:} means both 'be ripe' and 'be cooked':

999. stʔu:wai FS
 st'u:-way
 ripe-INAN.ADJ
 'ripe' (Notes to III (Part 1):1:20)
1000. haiks st'u:t táuhu:. FS
 hayks st'u:-ʔ-t taʔhu
 then be.cooked-D.PFV-3.S now
 'Then now it got cooked.' (XXI:36)

In this way, Molalla patterns with all the Plateau languages but Kiksht.

- (18) *Different roots are used for the singular and plural of various concepts (e.g., 'sit', 'stand', 'take'), although each member of such pairs is considered a distinct concept within the language, coded by a single stem; in Lillooet 'die' is the only such pair.* The only specialized plural verb of which I am aware is {-ky-} 'plural objects move or are situated'. Another possibility is {kayky} 'go (plural)', but this likely contains {-ky-}. Verbs like 'sit', 'stand', and 'take' are pluralized using normal plural inflectional morphology.

Table 5.2 (modified from KERA's Table 8) lists linguistic features that most commonly appear in the Salish languages of the Plateau linguistic area.

Table 5.2: Language Features Typical Primarily of Salish

	1	2	3	4	5	6
Kootenai			•			
Lillooet			•	•	•	
Thompson			•	•		
Shuswap	•		•	•	•	
Okanagan	•	•	•	•	•	•
Kalispel	•	•	•	?	(partial)	•
Coeur d'Alene	•	•	•	•	•	•
Columbian	•	•	•	•		(partial)
Cayuse	?	?	?		?	•
Molalla					•	
Kiksht	(not systematic)	•				
Klamath			•	•	•	

- (1) *Clusters of four or more consonants are permitted word-initially.* Molalla permits at most three consonants to appear at the beginning of a word (see Section 2.1.3).
- (2) *Aspect is marked primarily by prefixes or proclitics.* Aspect is marked exclusively by suffixes in Molalla.
- (3) *Tense is not a basic grammatical category and is not obligatorily marked.* Tense is obligatorily marked in the indicative mood in Molalla except in the habitual aspect, which is tensed only in that it implies non-futurity.
- (4) *Two temporal categories are marked (although they are usually not obligatory).* Four temporal categories are marked in Molalla (future, present, recent past, distant past), and they are normally obligatory.

- (5) *Deictic particles resembling definite articles are used.* The anaphoric demonstrative {nu} is commonly but optionally used like a definite article (see Section 4.11).
- (6) *'Blue' and 'green' are expressed by a single lexical item, opposed to 'yellow'.* Sources are consistent in giving {lat} for 'blue', except for Yelkes, who was unsure of the translation, and Howard, who translated it as 'red', though this seems clearly in error. No source lists a single lexical item covering both 'blue' and 'green'. Indeed, there is evidence that Molalla formerly used a single lexical item for 'green' and 'yellow', as opposed to 'blue'. The root {q'as} is used for brass by Yelkes and for gold, brass, and egg yolks by Savage, implying a translation 'yellow'. However, the related noun {q'e:sp} 'grass' probably implies a meaning 'green'. Early sources differ on the translation of this item. Curtis gives it as 'green'. Hale and Gatschet were both working from predetermined vocabulary lists; Hale listed {q'as} for 'yellow' and left 'green' blank, while Gatschet entered {q'as} for 'green' and left 'yellow' blank. Based on all this, it seems quite likely that the root {q'as} originally meant either 'yellow' or 'green'. This supposition is bolstered by the fact that the form listed by Frachtenberg for 'green', {psnus}, shows evidence of recent entry into the color terminology system, in that it does not reduplicate as most other color terms do.

Table 5.3 (modified from KERA's Table 10) lists features typical of non-Salish Plateau languages.

Table 5.3: Language Features Characteristic of Non-Salishan Plateau Languages

	1	2	3	4	5	6	7	8	9	10	11
Kootenai		•							•		
Sahaptin		⁹⁹	•	•	•	•	•	•	•	•	
Nez Perce		•	•	•	•	5/6	•	?		•	•
Cayuse		•	?	?	?	?	•			?	?
Molalla	?	•	•		•	4	•			•	•
Kiksht	•			•	•		(partial)		•		
Klamath	•	•	•				•	•	•	•	

- (1) *Three stop-affricate series (glottalized, fortis, and lenis); in part also in Coeur d'Alene.* As discussed above, the presence of this feature in Molalla depends on the analysis of the aspirated stops.
- (2) *Labialized velars are lacking.* Molalla has no labiovelar (or labiouvular) obstruents, like most other southern Plateau languages but unlike Sahaptin and Kiksht.
- (3) *A set of long vowels contrasts with the set of short vowels.* At least on the surface, Molalla has four long vowels and three short vowels (see Section 2.3.2).
- (4) *Consonant symbolism occurs (i.e., consonant changes may indicate diminutive, augmentative, etc.); as historical residue in Klamath.* Consonant symbolism was clearly not a productive process in Molalla. A possible historical residue involves the forms {las} 'both' and {nas} 'all', which appear to show the same /l/ = diminutive, /n/ = augmentative symbolism as found in Sahaptian.

⁹⁹ I have corrected the Sahaptin and Nez Perce codings for this item, which appear to have been switched in the original. Sahaptin has labialized velar (and labialized uvular) consonants, while Nez Perce lacks them, at least on the surface (pers. obs.).

- (5) *Tense is a basic, obligatory grammatical category.* Tense is a basic category in Molalla, as in Kiksht and Sahaptian. In the indicative mood, it is obligatorily marked, with the exception that the non-future tenses are not distinguished in the habitual aspect.
- (6) *Three primary tense categories are distinguished.* Molalla distinguishes four primary tense categories: future, present, recent past, and distant past.
- (7) *Tense is marked by suffixes or postposed elements.* Tense is marked by suffixes in Molalla, as in Sahaptian and Klamath.
- (8) *Aspect is not a basic grammatical category.* Aspect is a basic grammatical category in Molalla, as in Sahaptian and Klamath.
- (9) *The pronominal system distinguishes hearer-included and hearer-excluded in nonsingular first-person forms; also Shuswap.* There is no distinction in Molalla between inclusive and exclusive first-person nonsingular pronouns.
- (10) *Nouns are marked for case distinctions.* Molalla nouns inflect for seven cases: nominative, accusative, genitive, instrumental, locative, allative, and ablative.
- (11) *The language has a copula (linking predicate/verb like English be).* Molalla has two copulas: an inanimate copula {pi} (with suppletive present stem /wi/) and an animate copula {ki}.

In this section, I have tried to clarify the presence or absence in Molalla of a suite of features characteristic of the Plateau linguistic area. The distribution of features in Molalla places it squarely within the southern subarea of the Plateau, as it is in many

ways quite unlike the more northerly Salish languages. In all, Molalla appears, perhaps unsurprisingly, to be typologically most similar to Sahaptian and Klamath, its close neighbors and probable closest relatives. However, in other ways, Molalla is quite distinctive; perhaps most saliently, both Klamath and Sahaptian utterly lack the category of gender on verbs, as well as the prefixal object agreement and suffixal subject agreement systems of Molalla.

5.3. Prospects for Future Research

Despite the progress that has been made so far in the interpretation of the Molalla material, much remains to be done. I have not yet fully integrated the materials collected by Gatschet into my analysis, and the texts obtained from Kate Chantèle have yet to be translated. Once these tasks are accomplished, preparation of a published grammar and text collection will be the next priority.

There also remain fine points of analysis to be cleared up, including examination of the precise conditions for consonant gemination (Section 2.2.2). It is likely that more intensive analysis of the Swadesh recording (and, should it be feasible, of the Harrington/Marr recording) will be helpful here and in other areas. Work remains to be done, too, on the theoretical analysis of various Molalla structures, and on internal reconstruction. More rigorous probing of stem-final vowel patterns and of morphological alternations involving /a/, /a:/, and /e:/ will likely prove useful in recovering historical processes such as vowel loss and historical states such as the original distribution of short /e/ and /a/.

Though comparative work has already begun, particularly with Klamath and Sahaptian (Berman 1996, Pharris, in revision), there is still much ground to cover in

elucidating the origins and relations of Molalla, as well as in tracking non-genetic influences on the language. With respect to this work, one thing is certain. Having a thorough description of Molalla will be vital in continuing efforts to understand both the genetic relationships among Plateau languages and the areal phenomena that have led to observed patterns of shared non-inherited features.

Appendix: Early Molalla Vocabularies

The following table lists forms taken from three relatively early sources on Molalla, along with phonologized forms based on data from Stevens Savage and Fred Yelkes. The Molalla vocabulary in Hale (1846) was collected by Horatio Hale in 1841 as part of the United States Exploring Expedition. George Gibbs collected forms from “Molale of the Santiam band” at Champoege (a former town in western Oregon) in 1851. The forms published by Edward S. Curtis in 1911 were apparently collected sometime during the first decade of the twentieth century. None of the researchers credits a consultant by name.

Gibbs’s notation is not rigorously phonetic and has been presented here in its original form. The orthography in Hale (1846) and Curtis (1911) has been converted to Americanist notation according to the following conventions:

Hale	Curtis	Amer.	IPA
a		a	a, æ ¹
	a	a	a
	ǣ	æ	æ
ɑ		ɑ	ɑ
b	b	b	b
ç	(sh)	š	ʃ
d	d	d	d
ð	th	ð	ð
e		e	e, ε
	e	e	e
	ẽ	ε	ε
f	f ²	f	f
g	g	g	g
γ	(gh)	γ	ɣ
h	h	h	h
i		i	i, I
	i	i	i
	ĩ	I	I
k	ḳ	k	k
	k	k ^h	k ^h

¹ Hale sometimes uses macrons and breves to distinguish tense from lax vowels (e.g. <ē> for [e], <ē̃> for [ɛ]), but he does not avail himself of these distinctions in the Molalla data.

² Curtis notes that his <f> indicates a bilabial sound in Molalla.

Hale	Curtis	Amer.	IPA
χ	h	x	x
l	l	l	l
m	m	m	m
n	n ₃	~	~
ŋ		ŋ	ŋ
o	o	o	o
	â	ɔ	ɔ
	ô	aw	au
p	p	p	p
	p	p ^h	p ^h
q		q (?) ⁴	q (?)
	q	k ^w	k ^w
s	s	s	s
t	ṭ	t	t
	t	t ^h	t ^h
	(ts)	c	ts

³ Curtis describes this symbol as indicating nasalization on a vowel, but in the Molalla data it is found combined with a following <g> or <k> in forms where other sources indicate [ŋ]. In the forms that follow, I will retain Curtis's raised-n notation rather than indicating nasalization on the vowel.

⁴ Hale describes this as a 'very harsh guttural'. In the Molalla data, it only occasionally corresponds to actual /q/, which is usually transcribed <k>.

Hale	Curtis	Amer.	IPA
txl	hl̃	ɬ	ɬ
u		u	u, ʊ
		u	u
	u	ʊ	ʊ
ʊ	ũ	ə	ə
v	v	v	v
w	w	w	w
y	y	y	j
z	z	z	z
	‘	? (?) ⁵	? (?)
		V.V ⁶	V.V

⁵ Curtis describes this as 'a pause'.

⁶ I assume that the dieresis is intended to denote a syllable break; in practice, it often indicates the presence of a glottal stop.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
acorns			pló-kum	plu:qum ⁷
affection	málkəst			maʔqa-ʔs-t ‘it pleases him’
alive	kest			ki-s-t ‘s/he is, dwells, is alive’
all	náŋkai			naŋqay
ankle-joint			pakʔ	pa:qʔ
antelope			mú-yæk ^h	?
arm	háŋləqs		há ⁿ g-ak ^h s	haŋlaqs
arrow	waʔ		waʔ	wa:ʔ
arrow-point			t ^h i-ók ^h s	tyu(:)qs ‘flint, arrowhead’
ash (tree)			cha-k ^h á-mi-sint ^{h8}	caqaʔmisint
ashes			tá-nu-wak ^h s	tanʔwaqs ‘heavy ashes’
aunt			pləps	ple:ps ‘stepmother, “aunt”’
autumn	naíəmp			naʔa:ma ‘autumn’ (?)
axe, hatchet	iulwákains			i:f-l waʔ-ka-ʔ ⁹
		kus-tin		q’isthin
baby			wai-wí-a-sa	waywi-asa

⁷ Yelkes gives /plu:qumt/.

⁸ I assume the sequence <ch> is intended to represent [č], though it is not listed in Curtis’s table of orthographic conventions.

⁹ Savage gives /i:f-l-a-sint/ ‘axe’. The form given by Hale appears to contain the same stem plus the auxiliary verb {waʔ-} ‘do distributively’.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
baby-board			sok ^h ɬ	sukɬ ‘cradle board’
bad	námai, nóma			na:m-way
bat (animal)			sat ^h k ^h s	sʔatqs
bear (n.)		ha-kaas, ha-ka _s (grizzly)	há-k ^h as (grizzly)	haqɛ:s ‘grizzly bear’
	natám			nata:m ‘grizzly bear’ ¹⁰
		kas-me-nit (black)	k ^h aɬ-má-nit ^h (black)	qe:ɬmaɲint ‘black bear’
beard	puskaúnts			pskayns
beaver	pəsnásins	p’no-zints, pno-zints		psnasins
			t ^h a-máɬ-k ^h in	thamaɬkin
bird	teítša:			c’i:c’a
black	mokimoki		mo-k ^h im-u-k ^w e	muk-imuk-i
		m’sah-tim-sa-ta, m’sá-tim-sa-ta		msat-imsat-a-ɿ ¹¹ ‘black, brown’
blackberries			mi-sí-mis	misims
blood	áɬp	ahl-pe, ál-pi	aɬp ^h	aɬp
blue	latilátwe			lat-ilat-way

¹⁰ Jacobs and Frachtenberg indicate that {nata:m} is a taboo replacement for {haqɛ:s}.

¹¹ The modern surface form is [p^hsatimsataʔ].

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
body	píliin			pił=in ‘my body’
bone	púpt		bop ^h t ^h	pupt
bow	wółak		hwá-łaxt	faʔłakt
boy, son	maiats			may-asa ‘boy’
	kúšəŋwi, gúšaŋwi			ku:s-aŋ-wi ‘small’
breech-cloth			há-ník ^h -tú-pıls	?
brother	punáka		p ^h i-ná-k ^h a (younger)	pnakha (younger)
	punát		p ^h i-nát ^h (elder)	pne:t (elder)
buzzard			səp	s(y)e:p
camas			pis	pis
canoe, boat	łap			ła:p
cedar			t ^h aí-mın	taymin
charcoal			tá-p ^h i-ok ^h s	tapyuqs ‘coals’
chest			luk ^h s	luks
chief	yakánt		yá-k ^h ont ^h	yaʔqa:nt
chin			mis-k ^h át-t ^h ıt ^h	pskałtit
cold	fwaíta; fətásəm	hwat-’ah		fat’-a-ʔ ‘cold’; fat’-ha-ʔs-m ‘it is cold’
come	tilám			til-a-m ‘come!’
crow			ó-ins	aʔins
dance	watátki			fatat-ki-ʔ ‘dance!’

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
daughter	puéna, péna	pá-na		pe:na
day	wasná			wa:snat 'noon'
	łáka			qł̥a:q-a-ʔ 'white, light'
dead	niaúina			nya:w-n-a-ʔ 'dead', ¹²
				hanint 'corpse'
deer	musims			musims 'blacktail deer'
			swó-i	swayʔ 'whitetail deer'
deerskin			tʰá-boskʰ	tapusk 'tanned hide'
dog	wítkui	wit-kui 'wolf'	wítʰ-kʰul 'horse'	witkwiʔ 'horse'
			sákʰ-kʰa	saka(?)
dove			oi-oi	ʔu:yʔu:y
drink	ókuna			uq-n-a 'drink!'
duck	nest		næs	ne:s 'mallard'
dusk		sit-kai		ʔ ¹³
eagle			tʰi-á-kontʰ	tyaqunt
ear	taops	ta-ops	tʰɔpʰs	ta:ps
earth; land	lanjs	leng-se	lænkʰs	lanjs; lanjs-a (locative)

¹² The initial /n/ does not surface word-initially in the modern language.

¹³ Savage and Yelkes use /fke:t/ or /mu:k/ for 'get dark, be dusk'.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
east			was-yá-mas-lmk ^h s (sun comes up)	wa:s ‘sun’; yami? ‘overtop’; laŋs ‘land, county’
eat	pá.ast			p’a?st ‘s/he is eating’
egg	lults			lu:ls
eight	mətpítka	mot-pit-ka, mot-pit-ka	mát ^h -p ^h it ^h -xa	mat-pitq-a-?
elbow			sók ^h -idlc	sakils
eleven			ná ⁿ g-a-wæk ^h -tɛ	naŋa-? ‘one’; we:k-l-a-? ‘set on top’
elk	máfii		mó-fi-i	ma:fi?
enemy			hast ^h -k ^h ú-sint ^h	ha-s-tku-sint ‘war’
evening	naðamp			na:tamp
eye	tunts	toonts, tunts	tuns	tu:ns
face	logónui		láv-k ^h un-wi	laʔkunwi
father	pətátiša	pu-tath, pu-tat’ ^h	p ^h t ^h á-t ^h in	ptat(-asa?); ptat=in ‘my father’
	tətəš			?
feathers; wings	heŋ			haŋ
fifty			pi-kim-lák ^h -nan	pik-im ‘five times’; laqnan ‘ten’
fingers	tafaítoks			te:-fay-? ¹⁴
fire	tats	taats, tats	tæc	te:c

¹⁴ Savage and Yelkes use /te:s-a:ps/ ‘finger(s)’, a distributive diminutive of {te:s} ‘hand’. The form from Hale likely contains {te:-} ‘of the hand’, {fay-} ‘long, thin, stick-like object’, and the nominalizer {-s}.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
fish	waibalf			waypalf 'trout'
fish-spear			wai-tæms	wayte:ms
five	píka	pit-ka	pí-k ^h ə-u	pik-ka?
flesh; meat	náwit	nah-wit, na-wit 'meat'		ne:wit
fly	múmus			mumu:s 'fly (n.)'
food			pá-sint ^h	p'a-sint
foot, feet	tailəks	tai-luks	taí-lak ^h s 'foot, toes'	taylaks
forehead	tákai			te:qi 'temple, forehead'
forest			t ^h am-hóc	tam 'much, many'; hu:t-s 'wood'
forty			pi-pəm-lák ^h -nan	pi:pa-m 'four times'; laqnan 'ten'
four	pípa	pih-pa, pé-pa	píp-a	pi:pa-?
girl	kwónasa			kwan-asa
			mí-ma-wi	ni:ma-wi
go	tíla			til-a 'go!'
good	báswe, páswi			pas-wi
gopher			t ^h át-k ^h ap ^h -lis	te:ɬqaplayʔs 'mole'
grass	paləksəmxte			ʔ ¹⁵
great, large	nosa, nuša	noo-sah	nú-sæ	nus-a-?

¹⁵ Savage and Yelkes give /q'e:sp/ 'grass', a derivative of {q'as} 'yellow, green'.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
grouse			pipkɫ	pipqɫ
hail	paɫiwás, patliwás			paɫa:ys
hair	táɫim	tahk-lim-it, ták-lim-it	t ^h á-ti-mit ^h	taɫimt
hand	tes	taas, t̩as	tæs ‘fingers, hand’	te:s
hazel-nuts			k ^h ám-st ^h ums	qamstu:ns
he	nui	nu-ikh		nu:-w-i ‘that one (anaphoric)’
head	láwi	la-wi	læʔ-wi	laʔwi
heart	ilímp		í-limp ^h	ilimp
hill; mountain	yəŋjint		yá-γint ^h ‘mountain peak’	yaŋjint
house	hélim	hil-lim	hé-lim	hilm ¹⁶
huckleberries			im	i:m
husband	iáɫəm			yaɫam
I	ína	eenah, i-na		ina
ice	ɫəs		ɫæs	ɫe:s
Indian; people	witsp, witšp		wicp ^h	wicp
infant; child	kəɫákəla			?
	kušása			ku:s-asa ‘small’

¹⁶ The surface form of the nominative is [hɪllim] or [hɪlləm].

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
kettle	iáqət		yak ^h t ^h ‘water-basket’	yaqt ‘basket’
	tiqđi			tikay ‘wooden bucket’
kill	piá.əst			pya-ʔs-t ‘s/he kills him/her’
knee			sát-pupt ^h	syapupt
knife	íkómla	thl-hom-lai, t’hl-hom-lai		ʌqamlay
lake	kilaíp		kíl-haip ^h	kilhayp
leaf	ihíkəm			ʔ ¹⁷
leg	mauit		má-wrt ^h	ma:wit
leggings			maí-yok ^h	mayuq ‘pants’
light		ah-pilla		ʔ ¹⁸
lightning	təltíktost			təltitqaʔst ‘it shines’
love	ína komáʎkas			ina=qu maʎqa-ʔs-k ‘it is I who please you’ (?) ¹⁹
lungs			pá-hidlc	pahils ‘rib(s)’
man	iái, iđi	iai	yá-i	ya:y
many (much)	tam			tam

¹⁷ Savage gives {hʉ:s} ‘leaf, leaves’

¹⁸ Savage and Yelkes give {qla:q} ‘light in color’, {sk’af} ‘light in weight’.

¹⁹ Savage and Yelkes both give {lawila} ‘like, love’.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
medicine-man			t ^h u-wæ-ni	twe:ni
moon	há.əl	haalt, h _{alt}	hoʔt	ha:ʔt
morning	pákast			ʔ ²⁰
mosquito	laíəks			layqs
mother	quks			ku:kus
	na	pu-nanh, pu-nan'h	p ^h i-næ	pnan
mountain range			ya-γm-t ^h ap ^h s	yanjint-a:ps
mountain-goat			o ⁿ k ^h s	ʔuŋs 'mountain sheep'
mountain-lion			kwe-æ-wi	k'u:ya:wi
mouth	símilk	similk, si-milk	sí-milk ^h 'lip, mouth'	similq
nails	suks	se-okes, si-ōks 'fingers'	sok ^h s 'finger-nail, toe-nail, claw'	suʔqs
name	haístok			hastu(:)qs
near	iáuhwe			yaʔfa 'near, soon'
neck	iétpəp		yát ^h -pupt ^h	yatpupt
night	iskái		pís-kai	pisqay 'night'
	múka	mooh-kah, mukh-ka		mu:k-a-ʔ 'darkness, night'
night-hawk			k ^h sp ^h i-uk ^h s	qspiwks

²⁰ Jacobs and Yelkes use /hu:ant/ 'morning, early in the morning' or derivatives of {tawsi:y} 'be morning, be the next morning'.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
nine	laginstšiátkəs	lagh its-stiatsk, lakh-its-stiatsk	la-kɪnt ^h -ši-át ^h k ^h s	laqnstya:tqs
no	píla			piʔ=la
north			hai-yímp ^h -k ^h a-la	haymp ‘cold wind, north or east wind’; =kala ‘at’
nose	piłts	pihlts, pikhlts	piłc	piłs
oak			st ^h æ ⁿ k ^h ł	stanł
old	naíwe			ʔ ²¹
one	nájə, náŋa	nung-na, nung-na	ná ⁿ g-a	naja-ʔ
onions			sæk	ʔ ²²
otter			wat ^h -næ-wit ^h	we:tne:wit
owl			hú-fm	hu:fm
pheasant			pós-pæs	p’u:sp’as
pine	mas			ma:s ‘(?Douglas) fir’
pipe	wébəkš, wéabikš			we:piks
rabbit, cottontail			tá-mn	ta:mn
raccoon			ás-k ^h an-ə	askana

²¹ Savage and Yelkes generally use /hu:ya/ for ‘old’.

²² Neither Savage nor Yelkes gives a term for ‘onions’. Cf. Nez Perce *se:x* /se:k/ ‘wild onions, *Allium geberi*; Sahaptin *šaak* ‘wild onion, onion’.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
rain	kwauwəst			?
	kíuwašm	ke-ho-hasm, ki-ho-hasm		ki:yw-ha-ʔs-m 'it is raining'
			kí-yuk ^h	ki:yw-k-p 'rain (n.)'
raven			kæk ^h	qe:q
rainbow			móť ^h -faip ^h	ma:tfe:li (?)
red	tšaktšákwe	tsak-tsak-a	cák ^h -cá-k ^w ai	caq-caq-way; caq-caq-a-ʔ
river	tels	tahl-tse, táł-tse	dæls	te:ls; te:ls-a (locative)
run	lúnəst			luʔ-n-ha-ʔs-t 'he is running'
salal-berries			wai-hí-li-u	ʔ ²³
salmon	lóat	la-waat, la-wat	lá-wat ^h	lawat: 'salmon, Chinook salmon'
see	pəťstatúitke			pstatut-ki-ʔ 'watch!'
seven	lapítka	la-pit-ka	lá-p ^h it ^h -xa	lap-pitq-a-ʔ
shirt			tæ-mi	te:mi
shoes	pəłkánš	puhl-rads, pukhl-rads	púl-kans 'moccasins'	pulqans
sing	túŋsas			tuŋsa-ʔs-t 's/he is singing'
sister			p ^h naí-ak ^h s (elder)	pnayaks (elder)
	pukaíai		p ^h k ^h ó-i-ai	pka:ya (younger)
sit	hápitke			hapt-ki-ʔ 'sit!'

²³ Kate Chantèle gives /qapa:tils/ 'elderberries, salalberries'.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
six	napítka	náh-bit-ka, na-bit-ka	ná-p ^h it ^h -xa	na:-pitq-a-ʔ
skunk			slós-k ^h ask ^h s	pslaskasks ‘spotted skunk’
sky; cloud; heaven	tafánəp	ta-fan-up, ta-fán-up	t ^h a-fán ^h	?
	húšilp ²⁴	o’silp ‘clouds’	hó-silp ^h ‘cloud’	hu:silp ‘cloud, sky’
slave			yá-ke	ye:qi
sleep	plíist			pliʔst ‘s/he is sleeping’
small	kosa, kuša	koosah, ku-sa	kók ^h -si	ku:s-a-ʔ; kuʔ-ks-i (distributive)
smoke			fí-æns	fye:-n ‘smoke (v.)’
snake	kwálai			qwa:ʔlay ‘rattlesnake’
snow	peŋ	pahn, pān	pæ ⁿ g	pe:ŋ
son	waíu			waywi ‘infant’
		pu-tahf, pu-táf		ptaf ‘son’
south			was-nát ^h ; was-nát ^h -k ^h a-li	wa:snat ‘noon’; =kala ‘at’
speak	sáwast			sʔaw-ha-ʔs-t ‘s/he is speaking’
spider			k ^h ask ^h s	qe:sqs
spring	talímk			te:limk
stand	wiláki			wita:kiʔ ‘stand!’
star	kaki	kah-geh, ka-gé	ká-ki	ka:ki

²⁴ Hale (1846:587) actually gives <húcilp>, rather than <húçilp>, but I assume the latter is actually intended, as Hale’s transcription system does not otherwise employ <c> without a cedilla.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
steelhead			su-saíns	susayns
stone, rock	kant	t'küht, t'küht	t ^h kant ^h	tqaʔnt
strawberries			tól-cæk ^h	t'u:lce:q
strong	hífoe			ʔif-way
sturgeon	sénhai		sé ⁿ g-hai	saŋhay
summer	wásam			wa:samʔ
sun	was	waas, <u>was</u> (also 'day')	was	wa:s 'sun, day'
ten	nawítspə			na:-wicp-a-ʔ (?)
	lákena	lagh-e-nukh, lakh-e-nak'h	lák ^h -nan	laqnan
teeth	ténuf, ténux	tenf	dæʔft ^h	taʔnf
that	kawe			qa:-w-i 'that one'
they	áwi			ʔa-w-i 'who?, someone'
thirty	matuítspə			mat-wicp-a-ʔ (?)
	matímlakenan		má-t ^h im-lák ^h -nan	mat-im 'three times'; laqnan 'ten'
this	níwi	new-ih 'he'		ni:-w-i 'this one'
thou	ki	keeh, kikh		ki:
three	mótka	mot-ka, m <u>o</u> t-ka	mát ^h -k ^h a	mat-kaʔ
thunder	tímiən		tí-mi-yæ-ni 'lightning, thunder'	timye:ni
tobacco	fiénəp		fí-æ-nəp ^h	fye:-n-p

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
today	nímkawas			ni-mpka wa:s
toes	łakxwaitoł			łak-fay-ʔ ²⁵
tongue		op-anse, op-ans ²⁶	á-pa-us	aʔpa:ws
tortoise	lkámət			qamt ‘turtle, turtle shell’
tree	mos, mas		məs ‘fir’	ma:s ‘(?Douglas) fir’
twelve			láp ^h -k ^h a-wæk ^h -łɛ	le:p-kaʔ ‘two’; we:k-l-a-ʔ ‘set on top’
twenty	lapuitspə			lap-wicp-a-ʔ (?)
	lapímlakenan		lá-p ^h im-lák ^h -nan	lap-im ‘twice’; laqnan ‘ten’
twenty-one			lá-p ^h im-lak ^h -nan-ná ⁿ g-a-wæk ^h -łɛ	lap-im ‘twice’; laqnan ‘ten’; naŋa-ʔ ‘one’ we:k-l-a-ʔ ‘set on top’
two	lápka	laap-ka, lap-ka	læp ^h -k ^h a	le:p-kaʔ
uncle			p ^h ník ^h -sim	pniksim ‘uncle (of woman)’
valley	iákəp			ʔ ²⁷
warm	pəlákene			plaqn-i
	móka	mok-ah, mok-a		mak-a-ʔ
warrior	kiləkəlaí			kilqlah-i ‘brave’

²⁵ Savage gives /łak-smuʔms/ ‘toe’. The form from Hale appears to contain {łak-} ‘of the foot’ and {fay-} ‘long, thin, stick-like object’.

²⁶ Gibbs may have intended <op-aus(e)>.

²⁷ Neither Frachtenberg nor Jacobs records a form for ‘valley’.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
water	okónits	o-kwunts	ó-kuns	uq-n-s ²⁸
we	kimt			kiʔmt ‘we (plural)’
weasel			kæ-dæt	ke:taʔt
west			náw-tam	na:tamp ‘evening’
white	łakš	klah-kah, klá-ka	k ^h łá-k ^w ai; k ^h łá-k ^h a ‘day, light’	qla:q-a-ʔ; qla:q-way; qla:q-s ‘when it gets light’
white people			k ^h łá-k ^h e-ai	qla:q-i ‘white’; ya:y ‘man’
who	éwi			ʔa-w-i
wildcat			tó-wint ^h	tawint
wind	háłkəšp		háł-tin	he:łt-tqa-ʔs-t ‘wind blows’; he:łt-n-p ‘wind (n.)’
winter	fit			fi:t
wolf	kasúli		ka-sú-li	kasu:li
woman, wife	ləŋɪłai, ləŋɪłai	lung-it-klai	ná ⁿ g-i-łai	naŋɪłay
wood	kux			ʔ ²⁹
ye	káməŋ			qam-aŋk ‘you (genitive plural)’
	kámə			ʔ
yellow	ka:skáswe		kas-kás-we ‘green’	q’as-q’as-way ‘yellow (?), green (?)’

²⁸ The surface form is [(ʔ)uqun(t)s].

²⁹ Savage and Yelkes consistently use /hu:t-s/ ‘wood’. The form given in Hale (1846:598) for Cayuse (listed just above Molalla) is <hútiç>; it is possible that the Cayuse and Molalla entries were switched, as I know of no Molalla word for ‘wood’ that remotely resembles /kux/.

Gloss	Hale 1846	Gibbs 1851	Curtis 1911	Modern Phonologization
yes	ia			i:
yesterday; tomorrow	tátim	tah-dim, ta-dim 'tomorrow'; tá-dim 'light'		taʔtm
young	kusáŋwe			ku:s-aŋ-wi 'young, small'

References

- Aoki, Haruo. 1962. Nez Perce and Northern Sahaptin: A binary comparison. *International Journal of American Linguistics* 28:172-182.
- Berman, Howard. 1996. The position of Molala in Plateau Penutian. *International Journal of American Linguistics* 62:1-30.
- . 2001. Notes on comparative Penutian. *International Journal of American Linguistics* 67:346-349.
- Barker, M.A.R. 1964. Klamath grammar. University of California Publications in Linguistics #32. Berkeley: University of California Press.
- Boas, Franz. 1890. Unpublished field notes on Molalla.
- Campbell, Lyle. 1997. American Indian languages: The historical linguistics of Native America. New York: Oxford University Press.
- Cho, Taehong, and Peter Ladefoged. 1999. Variation and universals in VOT: Evidence from 18 languages. *Journal of Phonetics* 27:207-229.
- Curtis, Edward S. 1911. The North American Indian, vol. 8. Seattle, Washington: E. S. Curtis.
- DeLancey, Scott. 1989. Klamath stem structure in genetic and areal perspective. Papers from the 1988 Hokan-Penutian Languages Workshop, pp. 31-39. Eugene, OR: Department of Linguistics, University of Oregon (available online at <http://darkwing.uoregon.edu/~delancey/papers/hpw88.html>).
- . 1996. Penutian in the bipartite stem belt: Disentangling areal and genetic correspondences. Proceedings of the Twenty-Second Annual Meeting of the Berkeley Linguistics Society: Special Session on Historical Topics in Native American Languages (available online at <http://darkwing.uoregon.edu/~delancey/papers/bls96.html>).
- , and Victor Golla. 1997. The Penutian hypothesis: Retrospect and prospect. *International Journal of American Linguistics* 63:171-202.
- Frachtenberg, Leo J. n.d. Handwritten copies of unpublished field notes, housed in the Melville Jacobs Collection, University of Washington, Seattle.

- Gatschet, Albert S. 1877. Molale language. Words, sentences, and various texts collected at the Grande [sic] Ronde Agency, northwestern Oregon, in November and December, 1877. Manuscripts 998, 1000, and 2029, Smithsonian Institution National Anthropological Archives.
- _____. 1890. The Klamath Indians of southwestern Oregon. Pt. 1. Contributions to North American Ethnology, vol. 2. Washington, D.C.: Government Printing Office.
- Gibbs, George. 1851. Molale vocabulary. Obtained at Champoege 1851. Manuscript 995-a-b, Smithsonian Institution National Anthropological Archives.
- Givón, T. 1981. Typology and Functional Domains. *Studies in Language* 5:163-193.
- Grant, Anthony P. 1994. Molala: An introduction. Unpublished manuscript, University of Bradford, England.
- Greenberg, Joseph H. 1987. *Language in the Americas*. Stanford, California: Stanford University Press.
- Hale, Horatio. 1846. *Ethnography and philology*. Philadelphia: Lea & Blanchard. Reprinted 1968, Ridgewood, New Jersey: The Gregg Press.
- Harrington, John P., and John Paul Marr. 1942. Aluminum disc recordings of words, phrases, and texts elicited from Fred Yelkes. Inventory Nos. 1178-1185, Smithsonian Institution National Anthropological Archives.
- Haspelmath, Martin. 2005. Argument marking in ditransitive alignment types. *Linguistic Discovery* 3.1:1-21 (online journal, Dartmouth College).
- Jacobs, Melville. n.d. Unpublished field notes and unfinished grammatical sketch of Molalla, housed in the Melville Jacobs Collection, University of Washington, Seattle.
- Jacobsen, William. 1980. Washo bipartite verb stems. *American Indian and Indoeuropean studies: Papers in honor of Madison S. Beeler*, ed. K. Klar et al., pp. 85-99.
- Kinkade, M. Dale, William W. Elmendorf, Bruce Rigsby, and Haruo Aoki. 1998. Languages. *Handbook of North American Indians*, gen. ed. William C. Sturtevant, vol. 12: Plateau, vol. ed. Deward E. Walker, Jr., pp. 49-72. Washington, D.C.: Smithsonian Institution.
- Ladefoged, Peter, and Ian Maddieson. 1996. *The sounds of the worlds languages*. Malden, Massachusetts: Blackwell.
- Mithun, Marianne. 1999. *The languages of native North America*. Cambridge, U.K.: Cambridge University Press.

- Pharris, Nicholas J. In revision. A comparison of Molalla and Nez Perce, with preliminary Proto-Molalla-Sahaptian Reconstructions. *International Journal of American Linguistics*.
- Rigsby, Bruce. 1965. Linguistic relations in the southern Plateau. Ph.D. dissertation, University of Oregon.
- _____. 1966. On Cayuse-Molalla relatability. *International Journal of American Linguistics* 32:369-78.
- _____, and Noel Rude. 1996. Sketch of Sahaptin, a Sahaptian language. *Handbook of North American Indians*, gen. ed. William C. Sturtevant, vol. 17: Languages, vol. ed. Ives Goddard, pp. 666-692. Washington, D.C.: Smithsonian Institution.
- _____, and Michael Silverstein. 1969. Nez Perce vowels and Proto-Sahaptian vowel harmony. *Language* 45:45-59.
- Rude, Noel. 1992. Data for a Nez Perce phonology. Unpublished manuscript, University of Oregon.
- Shibatani, Masayoshi. 1988. Introduction. *Passive and Voice*, ed. Masayoshi Shibatani, pp. 1-8. *Typological Studies in Language* #16. Amsterdam: J. Benjamins.
- Swadesh, Morris. 1953. Recording of vocabulary elicitation from Fred Yelkes. Accession No. 85-555-F, Archives of Traditional Music, Indiana University, Bloomington, Indiana.
- Velten, H. V. 1943. The Nez Perce verb. *Pacific Northwest Quarterly* 34: 271-292.
- Zenk, Henry B., and Bruce Rigsby. 1998. Molalla. *Handbook of North American Indians*, gen. ed. William C. Sturtevant, vol. 12: Plateau, vol. ed. Deward E. Walker, Jr., pp. 439-445. Washington, D.C.: Smithsonian Institution.