

Nez Perce Verb Morphology
 Phillip Cash Cash
 University of Arizona, 2004

1.0 Introduction

In this paper, I present an introduction to Nez Perce verb morphology. The goal of such a study is to describe the internal structure of Nez Perce verb form and meaning. It takes as its task identifying the constituent elements of words and examining the rules that govern their co-occurrence.

The Nez Perce language is a polysynthetic language and, as such, it displays an enriched morphological system whereby complex propositions can be expressed at the level of a single word. Typologically, utterances of the polysynthetic type suggest that speakers of these languages employ a structural principle of dependent-head synthesis that treats the minimal units of meaning, that is, its morphemes, in ways different from other world languages. This is simply to say that the morphology plays a more prominent role at the clausal level than in synthetic languages like English.

Consider a concrete example as in /hiw^lé·keʔyke/ ‘He/she/it ran.’ When we examine the structure of a morphosyntactic word in Nez Perce, we are interested in i) identifying the pairing of each morpheme’s phonological form, often called its surface structure, with the content specified in its lexical entry, and ii) identifying how morphemes are organized and combined with respect to grammatical principles.

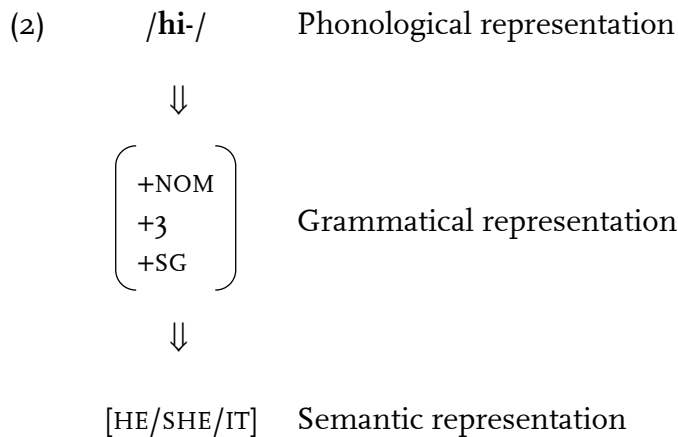
First, we begin by examining a morphosyntactic word through its component parts. Four main representations of words are used in this analysis, these are i) the *surface form*, ii) the *morphological form*, iii) the *morphological gloss*, and iv) the *free translation*. Each of these elements are arranged in interlinear form, as in (1).

(1) **Morphological Representation in Interlinear Form**

surface form	hiw^lé·keʔyke
morphological form	hi-wilé·-keʔéy _{vc} -k-e
morphological gloss	3NOM-run-move/change.location.or.position- K.ELEMENT-PST
free translation	‘He/she/it ran.’

Second, we will want to base our assessment of such words on our examination of the content of each morpheme’s lexical entry, including the verb root. When we speak of a lexical entry we are simply referring to the mental dictionary speakers carry in their head and to the corresponding linguistic content that is attributed to human

utterances. For example, if we examine the first morphological element in /hiwle·keʔyke/ ‘He/she/it ran,’ we obtain the following lexical entry in (2).



In this instance, /hi-/ is a string of phonemes and thus constitutes its Phonological representation. The Grammatical representation consists of a categorized set of grammatical features (NOMINATIVE, 3 PERSON, SINGULAR) which contribute to the morphemes identity. That is, the category NOMINATIVE distinguishes this morpheme as a “subject” and it possesses the values for the qualities of PERSON (third person) and NUMBER (singular). Likewise, the Semantic representation denotes the conceptual content or meaning of the morpheme. The important linguistic fact here is that all three representations are activated when a speaker selects a lexical entry from his or her mental dictionary and inserts it into human speech.

When we examine a grammatical utterance, as in our earlier example (1), we know that a morphosyntactic operation is at work which takes into account all the various properties of a lexical entry and the morphosyntactic environments in which they are inserted. We also know that such operations are syntactic because it assembles a wide range of morphemes into larger coherent structures such as phrases (verb phrase, noun phrase, etc.). To account for this phenomenon, this study adopts a linguistic theory called Distributed Morphology (DM) (Halle and Marantz 1993, 1994). Distributed Morphology (DM) asserts that morphemes are the atoms of morphosyntactic representation and the operations which assemble such morphemes into coherent structures are motivated on the idea that morphemes combine directly from their grammatical representations, as portrayed in (2).

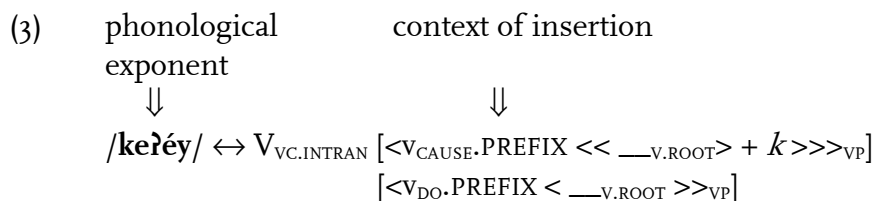
In a Distributed Morphology approach, decisions on how morphemes combine rely upon a basic syntactic operation called MORPHOLOGICAL MERGER. In its most basic form, MORPHOLOGICAL MERGER is an operation that builds larger morphosyntactic structures from adjacent morphemes. The advantage of adopting a notion of MORPHOLOGICAL MERGER is that we have at our disposal a means of evaluating the combinatory potential of a Nez Perce verb root and its many verb affixes.

The verb morphology in a polysynthetic language like Nez Perce can tell us a great deal about the adjacency requirements of verb roots and verb affixes that form a verb phrase. Our analytic strategy thus claims that it is the content of a lexical entry (Phonological, Grammatical, and Semantic representations) that determines the combinatory potential of the verb phrase itself and that a morphosyntactic operation like MORPHOLOGICAL MERGER is a realization of this potential.

When MORPHOLOGICAL MERGER occurs, we can say whether the merged morpheme elements are linguistically *well-formed* or not. As in our first example in (1), /hiwlé·keʔyke/ ‘He/she/it ran’ is a well formed expression because each of its combined lexical entries or morphemes satisfy a basic set of well-formedness principles in the grammar of Nez Perce. In other words, the content of each lexical entry is successfully satisfied in the derivation of a morphosyntactic word.

Crucially, the challenge of this research is to determine what properties of a lexical entry enable well-formedness principles to apply at the level of the verb phrase. A basic intuition of this analysis, one that will be explored further in following sections, is that the properties of the lexical entries that yield well-formed verb complexes minimally follow from both its semantic and grammatical properties. This is to claim that verbs, by their very nature, express compositional potential and flexibility in the way a verb predicate can represent the participants and themes of discourse such as its SUBJECT and OBJECT arguments. This is desirable because Nez Perce verbs represent their argument structure quite freely.

To conceptualize our data for purposes of this analysis, we can represent the verb root of (1) in a subcategorization frame below which expands on our notion of a lexical entry in important ways. A subcategorization frame determines the local context in which a vocabulary item is selected and later inserted via MORPHOLOGICAL MERGER.



The subcategorization frame in (3) provides us with a number of facts about the structure of /keʔéy_{VC}/ as a Nez Perce verb root. First, the notation V_{VC.INTRAN} identifies this verb as intransitive and as a VC verb, a Nez Perce classificatory verb form. Second, as a VC verb, /keʔéy_{VC}/ has the option selecting one of two possible insertion points, each with its own categorial composition. Note that the context of insertion is identified here by outer brackets [...] whereas the inner brackets <...>_{VP} identify an ordered list of adjacent morphemes which, in this case, demarcates the domain of a

Examine (6) below when the verb /keʔéy_{VC}/ does not select for /-k-/.

- (6) **tilkeʔéyce**
 til_{V.DO}-keʔéy_{VC}-ce
 on.the.warpath-move/change.location.or.position-IMPERF.PRS.SG
 ‘I go to war.’

Here, the PROTO-PATIENT interpretation no longer holds because /-k-/ is absent and the verb prefix /til-/ ‘on the warpath’ is of the _{V.DO}.PREFIX category type. Thus, in this type of morphological context, /tilkeʔéyce/ possesses the attributes of a PROTO-AGENT. That is, the referent entity is initiating the event of ‘going to war’ which suggests intention to act, a hallmark of AGENTS.

Our developing account on the compositionality of /keʔéy_{VC}/ makes the following predictions when a verb root selects for /+ k/ and when it does not. In (7), showing only the verb phrase subcategorization frame, ungrammaticality arises when there is a mismatch between an DO-based verb prefix occurring with /+ k/ and a CAUSE-based prefix with occurring without /- k/. The examples show (1) and (6) respectively.

- (7) grammatical form

$$\mathbf{hiwle \cdot keʔyke} = V_{VC.INTRAN} [<V_{CAUSE} <<\sqrt{ROOT_{VC}} + k >>>_{VP}]$$

$$\mathbf{tilkeʔéyce} = V_{VC.INTRAN} [<V_{DO.PREFIX}, <\sqrt{ROOT_{VC}} >>_{VP}]$$

ungrammatical form

$$*\mathbf{hiwle \cdot keʔéyce} = V_{VC.INTRAN} [<V_{CAUSE} <\sqrt{ROOT_{VC}} >>_{VP}]$$

$$*\mathbf{tilkeʔéyke} = V_{VC.INTRAN} [<V_{DO.PREFIX}, <<\sqrt{ROOT_{VC}} + k >>>_{VP}]$$

Indeed, the ungrammaticality of the forms in (7) turn out to be correct². This is a desirable outcome since our main interest here is in knowing what elements in the verb structure contribute to a well-formed grammatical utterance and those which don’t. Thus, we can begin to apply our preliminary analytic framework to other aspects of Nez Perce verb morphology to see if our account is correct in determining what factors contribute to a grammatical utterance much like we have seen in example (7).

In conclusion, the purpose of this introductory section is to provide a basic data statement on the combinatory potential of verb roots in Nez Perce. It conceptualizes the nature of this potential by proposing a subcategorization frame and adopting a

² Thanks to Eugene Wilson, a fluent Nez Perce speaker, for the identifying the ungrammaticality of the following expressions in (7). Eugene says, “You can’t say it like that!”

theory of Distributed Morphology as a means of investigating the emergence of well-formedness principles and how verb-based affixes combine with classificatory verb roots in Nez Perce. The explanatory power of our analysis will enable us to look carefully at the full range of the verb morphology in the proceeding sections of this study.

Following this introduction, Section 2 provides a historical background statement on the Nez Perce language, its dialectical composition, and its parametric characteristics in light of polysynthesis as a language type. Section 3 begins by introducing and outlining the general structure of Nez Perce verb roots, its morphophonological characteristics, as well as the position class of morphemes in a morphosyntactic word. Section 4 presents a new account of Nez Perce verb morphology based upon event semantics and grammatical encoding. Section 5 briefly examines the pronominal argument system and its significance to Nez Perce syntax. Appendix A of this paper concludes with a data section on Nez Perce thematic prefixes and suffixes.

2.0 Background

Nez Perce is classified as belonging to the Sahaptian³ language family which is composed of two genetically related languages: Nez Perce (Nuumíipuu) and Sahaptin (ʔIčiiškiin). As a consequence of this common genetic inheritance, Nez Perce and Sahaptin share a basic vocabulary, phonology, and grammatical system. The proto-ancestor from which these two languages descend is termed Proto-Sahaptian.

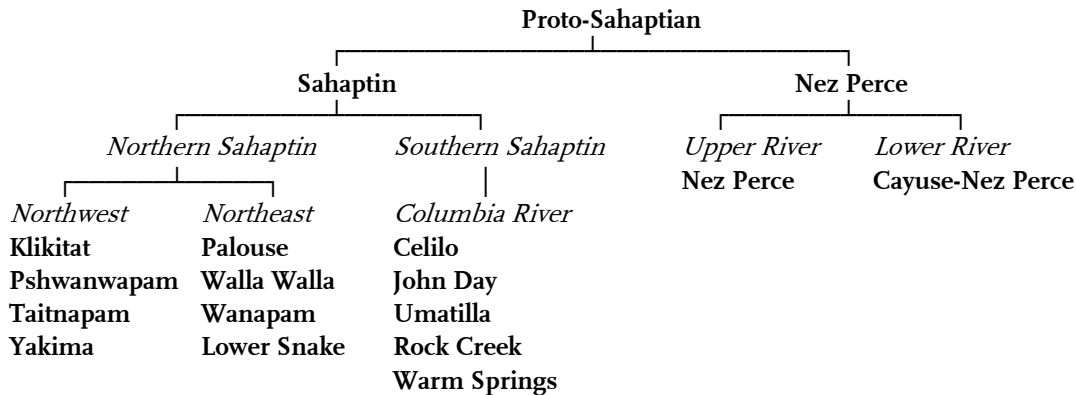


Fig. 1. Sahaptian Language Grouping

³ Historically, the term ‘Sahaptian’ and its diminutive form ‘Sahaptin’ arose from the anglicized expression *sháptnəx*^w, a Columbia Salish term meaning “stranger.” Both its historical and modern usage generally serve to distinguish the ethnic identity of Sahaptin and Nez Perce speakers from other neighboring groups in the Columbia Plateau region. In linguistic terminology, ‘Sahaptian’ designates the language family grouping whereas ‘Sahaptin’ refers to one of its isolatable daughter languages.

2.1 Nez Perce (Nuumípuu)

Nez Perce is an endangered language and is currently spoken by an estimated 60-70 fluent speakers the majority of whom reside on the Nez Perce reservation (ID) (Crook 1999). A small number of speakers of the Lower River Nez Perce dialect reside on the Umatilla (OR) and Colville (WA) Indian reservations. The Nez Perce speech community was historically a major tribal grouping of 30 or more independent bands distributed across northeastern Oregon, southeastern Washington, and central Idaho. Today, the majority of the Nez Perce people reside on the Nez Perce reservation (ID). The term 'Nez Perce' is a historical French misnomer; nonetheless, the name continues to identify both the culture group and its language. Culturally, speakers will refer to themselves as **Niimípuu** (Upper River dialect), **Nuumípuu** (Lower River dialect), or sometimes as **Cúupnítpeluu**.

The dialectical features of Nez Perce have been summarized in Aoki (1962, 1970, 1971, 1975, 1994) and Rude (1985, 1999). Two dialects are present in Nez Perce⁴. These are termed the Lower River dialect and the Upper River dialect. The Upper River dialect cluster is geographically situated on the middle and south forks of the Clearwater River of central Idaho, the majority of which is within the present-day Nez Perce reservation boundary. The Lower River dialect cluster occupied the areas west of these groups and was geographically spread throughout the middle Snake River drainage area that included parts of northeastern Oregon and southeastern Washington. In the early nineteenth century, the Lower River dialect expanded to include the Cayuse, speakers of a language isolate, as a result of a language shift. It is generally believed that the Cayuse adopted the Nez Perce language as a result of intermarriage and a political alliance with the Nez Perce.

2.2 Polysynthesis in Nez Perce

Nez Perce is a polysynthetic language. Polysynthesis is a typological term that refers to a system of morphology that expresses semantically important elements, such as subjects and objects, as bound morphemes in a syntactically well-formed argument-predicate representation.

Typologically, polysynthetic languages are generally known to exhibit two kinds of gradient morphological complexity: noun-incorporation and complex predicate

⁴ The major differences that exist between the Lower River and Upper River dialects are 1) the Lower River dialects have at least five additional phonemes, these include the labiovelars /k^w, k^w, q^w, q^w/ and the voiceless fricative /š/ making it the more conservative dialect due to the fact that these phonemes are present in Sahaptin (Aoki 1962, Rude 1999), 2) the Lower River dialects tend to show one less vowel where /o/ freely alternates with /u/, 3) as a result of 2, there tends to be no vowel harmony in the Lower River dialects (Aoki 1994), and finally, 4) the Lower River dialects frequently show /n/ for Upper River dialect /l/ (Aoki 1970, 1994, Rude 1985).

formation (Baker 1996:338)⁵. The general characteristic that distinguishes one form from the other is the way in which a language represents its arguments in an argument-predicate formation. Noun-incorporating languages can incorporate nouns as the argument expressing element in an argument-predicate representation. Alternatively, complex predicate formation languages can incorporate embedded predicates as the argument-taking element in an argument-predicate formation. In other words, arguments are maximally represented in a noun-incorporating language and minimally represented in a complex predicate formation language. This descriptive generalization is depicted below (Fig. 2).

	Noun Incorporation	Complex Predication
Complex Predication	- weak	+ strong
Noun Incorporation	+ strong	- weak

Fig. 2. Morphological Complexity in Polysynthetic Languages

In light of these two general polysynthetic trends, Nez Perce is a complex predicate formation language⁶ with a non-productive noun-incorporating component.

3.0 Nez Perce Verb Morphology

3.1 Position Class

The internal organization of Nez Perce verb roots and affixes are described as broad position class elements. Position class elements are composed of two types: thematic verb prefixes and suffixes and inflectional prefixes and suffixes.

The schematic structure of the verb is diagrammed below (Fig. 3). The verb stem constitutes the central element in this schematic structure. It is composed of a verb root and a set of optional thematic prefixes and suffixes. It is also the domain of derivation. In addition, the verb stem takes a set of obligatory inflectional prefixes and a well defined class of inflectional suffixes, termed the Inflectional Suffix Complex, which is composed of tense, aspect, and agreement morphology.

⁵ Recent research by Mattisen (2003:284) proves this generalization to be false. Mattisen claims that polysynthetic languages can be typologically differentiated on the basis of affixal and compositional strategies in word formation. However, we will retain Baker’s generalization as a matter of descriptive convenience.

⁶ Geographically, the polysynthetic type attributed to Nez Perce is part of a larger areal phenomenon where tendencies toward complex predicate formation are attested in Klamath, Takelma, Washo, Yana, Atsugewi, Maiduan, Pomoan (Delancey 1996, 1999) and other languages in the Western US. Termed the “bi-partite stem” construction, complex predicate formation in these languages show “an earlier stage at which least some independent verb stem combined syntactically, and ultimately morphologically” (Delancey 1991, 1996, Rude 1991).

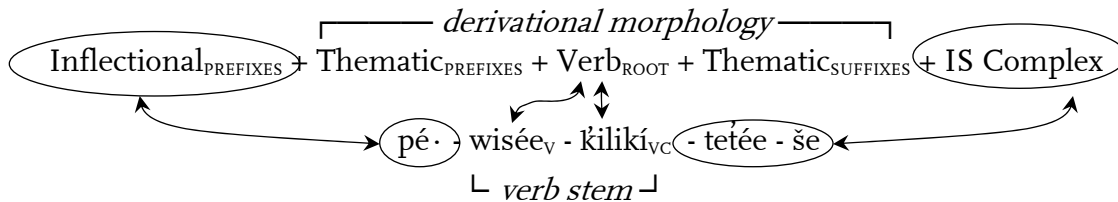
$$\text{Inflectional}_{\text{PREFIXES}} + \overbrace{\text{Thematic}_{\text{PREFIXES}} + \text{Verb}_{\text{ROOT}} + \text{Thematic}_{\text{SUFFIXES}}}^{\text{derivational morphology}} + \text{IS Complex}$$

$$\underbrace{\hspace{10em}}_{\text{verb stem}}$$

Fig. 3. Nez Perce Position Class Elements

Consider the following Nez Perce (Lower River dialect) example in (8) showing the underlying serial verb stem. As we will see later, verb affix (prefix and suffix) morphemes are common morphological elements of the verb stem.

- (8) **pe·wiskiltetéeše**
 pé·-wisée_v-kílikí_{vc}-tetée-še
 3→3-from.a.standing.position-to.be.blocked-INCEP-IMPERF.PRS.SG
 ‘He is about to tear it down.’



3.2 Verb Roots

In terms of basic morphology, Nez Perce exhibits three types of verb roots: free roots, bound roots, and polymorphic roots (i.e. reduplicated roots). Bound roots must take an affix, usually a verb prefix, as in (9).

- (9) *bound root* → [$\llcorner\sqrt{\text{ROOT}}\gg + \text{AFFIX}$]

- nimtáksa**
 nim_{v,DO}-ták_{vs}-se
 with.one's.eyes-to.do.something.as.one.passes.by-IMPERF.PRS.SG
 ‘I see (mine) as (mine) passes by.’

Free root forms participate in all inflectional and derivational environments.

- (10) *free root* → [$\llcorner\sqrt{\text{ROOT}}\gg \pm \text{AFFIX}$]

- yálwaca**
 yalwá_{vc}-ce
 not.have.confidence.in-IMPERF.PRS.SG
 ‘I don’t think (mine) is good enough.’

Polymorphic roots are reduplicative verb roots that have no discernable base separate from its reduplicated surface form. While it is uncertain whether the reduplication itself is the domain of predication, polymorphic roots tend to express frequency, distribution, or degree of emphasis.

(11) *polymorphic root* → [$\langle \langle \text{ROOT}_{\text{REDUPLICANT}} \cup \text{ROOT}_{\text{BASE}} \rangle \pm \text{AFFIX} \rangle$]

luxlukíce

(lux)_{REDUP.EMPH}-luk_{VC}-i-ce

REDUP-to.worry/have.palpatations-V.ELEMENT-IMPERF.PRS.SG

‘I am worried.’

Thus, ROOT morphemes provide the principle meaning of a word. Through affixation, verb prefix and verb suffix elements serve to modify or qualify the root in some way.

3.3 Concatenating Morphology

The Nez Perce verb structure utilizes two primary types of concatenating morphology: inflectional and derivational. Inflectional morphology prototypically pertains to the way prefixes and suffixes express grammatical relations between properties in a simple clause. These grammatical relations identify participants in states or events such as the SUBJECT and OBJECT in addition to other basic grammatical concepts. Thus, inflectional morphemes tend to be semantically regular. Derivational morphology prototypically pertains to the way affixes modify the content of root elements. Derivation not only adds meaning to a roots underlying semantic content but it can also change the syntactic category of a root. As a consequence, thematic affixes of this type tend to be semantically less regular.

A third and unique type of morphological process present in Nez Perce is *fusion*. Fusion is commonly expressed as a process where two morphologically adjacent elements $\{\mu_1, \mu_2\}$ combine into a single unit, as in (12) below.

(12) $\langle \dots \mu_1, \mu_2 \dots \rangle \rightarrow \langle \dots \mu_1 \cup \mu_2 \dots \rangle$

$\langle \text{cúu}, \text{ɬéxt} \rangle \rightarrow \langle \text{cúɬxt} \rangle_{\text{V.DO}}$

cúɬxteylekse

$\langle \text{cú} \cdot_{\text{V.DO}} \cup \text{ɬéxt} \cdot_{\text{V.CAUSE}} \rangle_{\text{V.DO}} \cdot \text{leylé} \cdot \text{k}_{\text{VS}} \cdot \text{se}$

{with.pointed.object-swallow}-into-IMPERF.PRS.SG

‘do.with.jugular.vein’-into-IMPERF.PRS.SG

‘I am cutting the jugular vein (e.g. of deer).’

3.4 Morphophonology

Concatenated morpheme elements, such as verb roots and thematic affixes, display distinct phonological properties and processes. Data for this section is summarized from Aoki (1970), Crook (1999), Hargus and Beavert (2002), Rigsby and Rude (1996), and Rude (n.d.).

3.5 Lexical Stress

Nez Perce is a lexical stress language meaning that the abstract property of prominence is marked in the lexicon.

(13)	NOUN	sí·s	‘broth’
		sís	‘navel’
	VERB	wé·cese	‘I am riding.’
		we·cé·se	‘I am dancing.’

Nez Perce exhibits a strong tendency towards penultimate stress assignment.

(14)	té·mux	‘footprint (ABS)’
	temú·xne	‘footprint (OBJ)’

In concatenating structures, Nez Perce expresses culminativity or what is simply a prosodic domain which signals that each word or phrase must contain a single strong syllable bearing stress. Secondary or non-primary stress is prevalent where concatenation produces sufficiently complex structures, however, in practice, it is rarely indicated.

(15)	ʔattó·lasa	{root stress}
	ʔa-ttóla _{VS} -se	
	1/2→3OBJ-to.forget-IMPERF.PRS.SG	
	‘I am forgetting it.’	
(16)	pá·ttòlasa	{prefix stress, root stress}
	pé·-ttóla _{VS} -se	
	3→3-to.forget-IMPERF.PRS.SG	
	‘S/he is forgetting it.’	
(17)	pàpaynó·yoʔqa	{prefix stress, root stress, suffix stress}
	pé·-páy _{VC} -úu _{CAUSE} -oʔqa	
	3→3-to.arrive-toward-COND.PRS	
	‘S/he could arrive at his/her place.’	

3.6 Verb Classification

Nez Perce $\sqrt{\text{ROOTS}}$ are classified in two concrete morphophonological forms: s-class and c-class verbs (Aoki 1970, 1994). The reference “s-class” and “c-class” simply refers to the way verb roots realize the onset alternation in concatenated inflectional suffix morphemes as either $\langle \sqrt{\text{ROOT}}\text{-/s_}/ \rangle$ or $\langle \sqrt{\text{ROOT}}\text{-/c_}/ \rangle$.

$\sqrt{\text{ROOTS}}$ of the s-class and c-class also show a distinct pattern of lexical stress: stressed and unstressed.

(18) STRESSED S-CLASS = cvc'c

<u>teqí</u> ·kse	‘I am descending.’
<u>taqí</u> ·ksaqa	‘I descended.’
we· <u>teqí</u> ·kse	‘I am landing.’

(19) STRESSED C-CLASS = c'vcv

<u>tí</u> ·wece	‘I smell. I stink.’
<u>tí</u> ·wacaqa	‘I smelled.’
hiʔ <u>letí</u> ·wece	‘It smells like smoke.’

The unstressed types occur in two general forms: the {hipí} and the {hení·} type. Because these two forms are not inherently stressed, allomorphy is generally more concrete.

(20) {hipí} type = UNSTRESSED S-CLASS

<u>hipí</u> se	‘I eat.’
<u>hipsá</u> ·qa	‘I ate.’
<u>hipúʔ</u>	‘I will eat.’

(21) {hipí} type = UNSTRESSED C-CLASS

<u>hekíce</u>	‘I see.’
<u>hakcá</u> ·qa	‘I saw.’
ʔe· <u>xnúʔ</u>	‘I will see it.’

(22) {hení·} type = UNSTRESSED S-CLASS

<u>hení</u> ·se	‘I make.’
<u>hanisá</u> ·qa	‘I made.’
<u>haníyuʔ</u>	‘I will make.’

Verb stems with shapes greater than CVCV show two types of alternations: stem initial alternation and stem final alternation. Stem initial alternations are widely attested across all environments, as in (23) and (24), whereas stem final alternations tend to be restricted to the {hipí} and {hení·} type environments, as in (25) and (26).

(23) STRESSED S-CLASS = cvcvc > ccvc

cinú·kse 'I have gonorrhoea.'
pecnú·kiyu? 'We might get gonorrhoea.'

(24) STRESSED C-CLASS = cvcvcv > ccvcv

lokó·li·ca 'I am lying curled up.'
hilkó·lica 'S/he is lying curled up'
pa·capalkoli·kó·kinya 'S/he wrapped it up as it approached.'

(25) {hipí} type = UNSTRESSED C-CLASS

xe?píce 'I crawl.'
xe?épin 'crawling'

(26) {hipí} type = UNSTRESSED S-CLASS

tekpíse 'I dip water out.'
tekípt 'to dip water out.'

The stem alternations discussed above are also prevalent in verb prefixes. Verb prefixes are generally the most heterogeneous elements in terms of overall stress and morpheme shape.

(27) ʔelweyné·kse ʔelíw > ʔelw-
 ʔelíw_{V.CAUSE}-leylé·k_{VS}-se
 winter-into-IMPERF.PRS.SG
 i) 'It is getting into winter.'
 ii) 'I am spending winter.'

(28) ʔecmípeʔqs cimí > -cmí-
 ʔe-cimí_{V.DO}-péʔq_{VS}-s
 3OBJ-by.lying.upon-to.split/break-PERF
 'I just broke it by lying on it.'

- (29) **hipaʔxawláhtqíya** ʔexewí > -ʔxaw-
 hi-pa-ʔexewí_{V.DO}-láhtqí_{VS}-(y)e
 3NOM-PL-abreast-out.of.water-PST
 ‘They rode up together out of the water.’

As described earlier, Nez Perce shows a preference for penultimate stress, a feature prevalent in concatenated structures containing suffix elements. Suffix elements also show a trend towards heterogeneity in overall form and stress assignment. In s-class environments, stem initial alternation in suffixes is dominant (30) and, in c-class environments, [n-] insertion is a semi-regular though not entirely exclusive feature, as in (31).

- (30) **hiwe · letpé · yikse** e · yi > yi-
 hi-we · _{V.CAUSE}-letpé · _{VS}-e · yi_{V.CAUSE}-k-se
 3NOM-to.run-against-move.around-K.ELEMENT-IMPERF.PRS.SG
 ‘S/he is bumping around.’

- (31) **hiwahná · tksix** é · tk > (n)á · tk
 hi-wehí_{VC}-(n)é · tk-six
 3NOM-to.bark-as.an object goes.by-IMPERF.PRS.PL
 ‘They barked as we went by.’

Our description thus far has focused primarily on the morphophonological conditions which respond to the syllable shape of verb roots according to their classificatory identity. Alternatively, a VS and VC classificatory system can also be accounted for morphosyntactically. It is proposed in the following section that these two verb types can be properly characterized according to their argument-structure representations. This new proposal does not directly challenge or discount the morphophonological account in anyway but rather it can be seen as broadening our discussion of the VS/VC verb classificatory system as a distinctive component of Nez Perce morphosyntax.

4.0 Verb Classification and Morphosyntax

In this section, I account for the classificatory system and structure of Nez Perce verb stems by assessing the combinatory potential of verb roots and verb affixes. The standard assumption that I adopt here is that morphologically complex verb stems are formed from i) the atomic properties contained in the morphosyntactic description of a verb root or verb affix, and from ii) the nature of how such properties in (i) are applied as output in the syntactic component (Halle and Marantz 1993, Marantz 1997), via a process known as morphological merger.

Because verb roots and verb affixes are by definition l-morphemes, that is, they

express the “conceptual” content of linguistic structure, Nez Perce verb stems can be characterized as a sequence of predicates that act compositionally as a single representation. Recall that in our introductory section, we found that complex predicate formation in Nez Perce is not an open and unbounded range of representations. Rather, the sequence of verb roots and verb affixes are restricted in terms their compositionality (VP structural composition) in addition to their order (position of exponence) and semantic attributes (sub-event representations). Thus, the productivity of these structural patterns in Nez Perce enable us to examine these issues in a systematic manner.

Minimally, we claim that Nez Perce verb stems share in the following characteristics.

- Verbs are classified into two verb types: VC and VS.
- Morphosyntactic words, inclusive of a verb stem, share in a single intonation and vowel harmonic contour known as culminativity.
- Verb roots and verb affixes share Tense, Aspect, and Modality.
- Verb roots and verb affixes expressing a complex sequence of predicates share in its Argument Structure via its pronominal system.
- Verb roots and verb affixes are semantically interpretable as referring to sub-parts of a core event.
- Verb roots and verb affixes show a distinct order in their position of exponence.

Previous research by Aoki (1970, 1994) has shown that Nez Perce verb roots are classified on the basis of root syllable shape and its participation in a morphophonological process of exponence, one that holds between a verb root and inflectional suffixes. The pattern that emerges from this process is the onset alternation in the aspectual inflectional suffix morpheme realized here as $\langle\sqrt{\text{ROOT}}\text{-/s_}/\rangle$ and $\langle\sqrt{\text{ROOT}}\text{-/c_}/\rangle$.

Alternatively, we propose that the s-class and c-class $\sqrt{\text{ROOT}}$ classification can be attributed to the formal properties of the $\sqrt{\text{ROOT}}$ s themselves and that the realization of the s-class and c-class verb roots in the Phonological component are but one consequence of these properties. We arrive at this conclusion based on the observation that at least some basic conceptual property of Nez Perce l-morphemes or $\sqrt{\text{ROOT}}$ s are being minimally satisfied in the output by assigning them either a morphophonological string of -ce/ or -se/ . We can refer to this output as the canonical syntactic form since the grammar is associating a semantic verb type via morphophonological markedness. If we simply this description in terms of morphophonological markedness, then we obtain the following generalization in (Fig. 4) below.

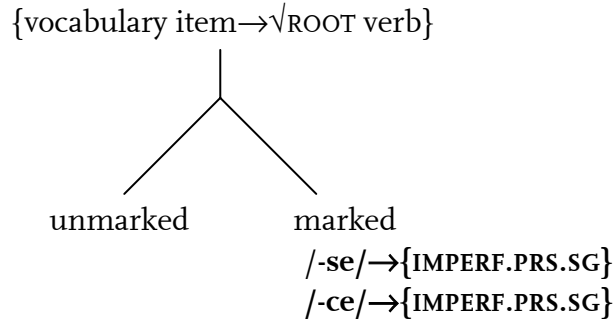


Fig. 4 Morphophonological Markedness

Naturally, we need to inquire “Are there morphophonologically unmarked $\sqrt{\text{ROOT}}$ s in Nez Perce in the sense that we are describing?” The answer is yes. A preliminary conclusion can be drawn in that these unmarked (i.e. unclassified) verbs are bound $\sqrt{\text{ROOT}}$ s, most of which tend to describe change-of-state (COS) events and adjectivals. Thus, it is important to note that these unmarked V verbs do not realize the phonological string /-se/ or /-ce/ directly as is common elsewhere. Further inquiry is needed to clarify their status in the Nez Perce verb classification schema.

(32) /**kípíc**/ → V ‘to loosen, unfasten, settle or set a load down...’

kípíc ‘settling of heavy food’

kípíckípíc ‘east to tear’

niké·kpicke ‘I am releasing (something) by pulling.’ ‘I am disentangling (something).’

A broader generalization can be captured if we apply the notion of morphological markedness exclusive to Nez Perce $\sqrt{\text{ROOT}}$ s, as in Fig. 5 below.

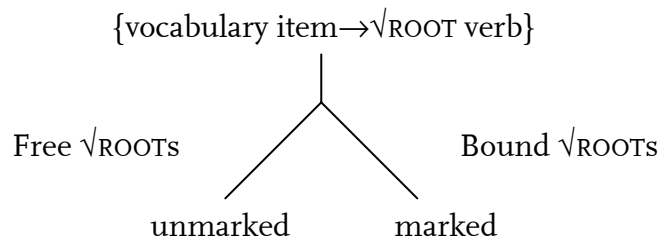


Fig. 5 $\sqrt{\text{ROOT}}$ Markedness

If we assume that the unmarked $\sqrt{\text{ROOT}}$ in Nez Perce is the most natural form, as some theories of markedness do (Wurzel 1994, Bauer 2003), or simply as a minimally marked input-to-output morphophonological representation, then at a minimum we can claim that unmarked VC $\sqrt{\text{ROOT}}$ s tend to express prototypical EXPERIENCER $\sqrt{\text{ROOT}}$ s and unmarked VS $\sqrt{\text{ROOT}}$ s tend to express proto-typical

transitive $\sqrt{\text{ROOTS}}$. Unclassified V $\sqrt{\text{ROOTS}}$ have no unmarked forms. Instead, they are bound $\sqrt{\text{ROOTS}}$ and generally tend to express a change-of-state (COS) event or end up becoming a VS $\sqrt{\text{ROOT}}$ by virtue of its markedness contrast.

- (33) VC $\sqrt{\text{ROOT}}$ {PROTO-TYPICAL EXPERIENCER}

sisú·yce
 sisú·y_{VC}-ce
 to.fear-IMPERF.PRS.SG
 ‘I fear.’

- (34) VS $\sqrt{\text{ROOT}}$ {PROTO-TYPICAL TRANSITIVE}

ʔaptámisa
 ʔaptámi_{VS}-se
 to.be.against-IMPERF.PRS.SG
 ‘I am against (mine).’

- (35) V $\sqrt{\text{ROOTS}}$ (unclassified, bound) {PROTO-TYPICAL CHANGE-OF-STATE}

tiwaxímksa
 tiw_{a_V,DO}-xím_V-k-se
 rake.with.pole-to.become.lost/dissappear-K.ELEMENT-IMPERF.PRS.SG
 ‘I make something disappear with a pole.’

Thus, the unmarked $\sqrt{\text{ROOTS}}$ give us a general indication of how the core conceptual features of Nez Perce predicates are minimally treated in the grammar. The morphophonological conditioned environments in which these $\sqrt{\text{ROOTS}}$ are inserted support this view. This is a desirable outcome because we are now in a better position to accurately assess the kinds of syntactic operations or mechanisms which later apply to these forms in derivational terms.

4.1 Combinatory Principles

Complex predicates in Nez Perce are typically composed of one or more $\sqrt{\text{ROOTS}}$ with one or more verb affixes. The derivational sequences which emerge from this process are accounted for by three principles: *s-selection*, *argument sharing*, and *headedness*.

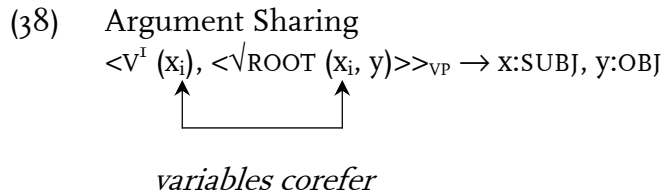
4.1.2 S-selection

Because one of the main goals of this research is determine the syntactic behavior of the complex predicates, we want to distinguish how the conceptual attributes of

of objects, and motion).

4.1.3 Argument Sharing

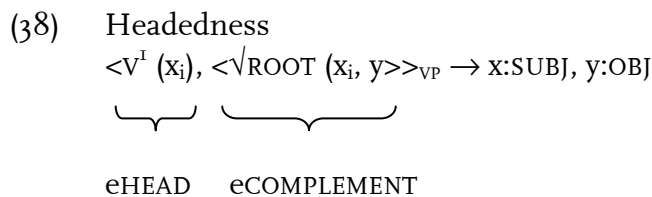
Arguments that correspond in a complex predicate formation are coreferenced by indices. Referential indices attach to the argument of each predicate to indicate its coreference relation representation.



In (38), (x) of SO^I (syntactic object^I) corefers to (x) of $\sqrt{\text{ROOT}}$. Under this assumption, argument sharing diminishes the distinctiveness of argument variables, as expressed in (36), on the basis of argument resemblance.

4.1.4 Headedness

Headedness acts as a filter to constrain the set of projectable arguments (Pustejovsky 1995:102). A $\sqrt{\text{ROOT}}$ is its own event head when no other sub-event representation has been merged with it. Alternatively, when an l-morpheme containing a sub-event representation is merged with a $\sqrt{\text{ROOT}}$, the merged element becomes the event head.



Headedness does not constrain the potential number of co-event representations in a complex predicate formation. Rather, it simply makes a headed argument (or set of arguments) accessible to grammatical encoding.

4.2 $\sqrt{\text{ROOTS}}$

In this section, we examine the potential for a Nez Perce $\sqrt{\text{ROOT}}$ to s-select a $\sqrt{\text{ROOT}}$. When $\sqrt{\text{ROOTS}}$ serialize, we hypothesize that $\sqrt{\text{ROOTS}}$ are isomorphic to the same compositional strategies as verb affixes. We begin by distinguishing the differences and similarities between VS and VC $\sqrt{\text{ROOTS}}$ in general.

Verb $\sqrt{\text{ROOTS}}$ can be characterized according to two event parameters: *internally* and

externally caused eventualities (Levin and Rappaport Hovav 1995). The inherent properties of an internally caused eventuality are such that some entity manifests or brings about the eventuality in question. VC $\sqrt{\text{ROOT}}$ s generally show this pattern, as in (39).

- (39) **hissé·wce**
 hi-sisé·w_{VC-CE}
 3_{NOM}-to.drip/leak-IMPERF.PRS.SG
 i) ‘It is dripping.’
 ii) ‘It is leaking.’

Based on this observation, we can revise our preliminary understanding of VC $\sqrt{\text{ROOT}}$ s as described at the beginning of section 3.7 (see example 34). We propose that VC $\sqrt{\text{ROOT}}$ s proto-typically express internally caused eventualities. EXPERIENCER representations are simply one potential expression type in a VC $\sqrt{\text{ROOT}}$ classification schema.

Similarly when a $\sqrt{\text{ROOT}}$ is of the VS type, the inherent properties of an externally caused eventuality are such that there exists some “external” entity in the bringing about of an event.

- (40) **kíwyekse** {free $\sqrt{\text{ROOT}}$ }
 kíwyek_{VS-SE}
 to.feed-IMPERF.PRS.SG
 ‘I am feeding (mine).’

- (41) **ʔipaláhsasa** {bound $\sqrt{\text{ROOT}}$ }
 ʔipé·v.CAUSE-láhsa_{VS-SE}
 fog/smoke-to.go.up-IMPERF.PRS.SG
 ‘It (e.g. fog, smoke, cloud) is rising.’

$\sqrt{\text{ROOT}}$ serialization in Nez Perce must make reference to the inherent properties of two compositional potentials, internal and external events, as well as to the kinds of argument expressions they entail. Thus, our aim here is to simply arrive at a generalization that gives us a sense of the grammatical behavior of $\sqrt{\text{ROOT}}$ serialization.

In our first example in (42) below, VS + VS $\sqrt{\text{ROOT}}$ serialization appears to be an irregular process. This is initially confirmed by the fact that vowel harmony is not active across all morpheme environments in a morphosyntactic word. Typically, vowel harmony in Nez Perce does not allow the non-harmonic vowel sequence /a/ and /e/.

- (42) **temeniktisáqsa**
 temení_{VS}-t-hí·saq_{VS}-se
 to.plant-NOMINALIZER-to.add/increase-IMPERF.PRS.SG
 i) ‘I add in planting.’
 ii) ‘I do additional planting.’

It is particularly important to point out that the headed $\sqrt{\text{ROOT}}$ /temení_{VS}/ is detransitivized by the nominalizing morpheme /t/, an uncommon process at this level of derivation. This appears to be a compositional strategy or rule behavior suggesting that when a semantic transitive cannot be reduced in terms of its argument structure, it is an all or nothing process. Further examples are required to confirm this intuition.

The order VS + VC $\sqrt{\text{ROOT}}$ serialization is present. In example (43), this serial order shows a <external, internal>_{EVENT} composition. The $\sqrt{\text{ROOT}}$ s under this arrangement both share in a corresponding semantic event specifying a material process (i.e. motion). Also, note the $\sqrt{\text{ROOT}}$ serialization is headed by a VS $\sqrt{\text{ROOT}}$. Thus, a serialization of this kind, one containing a headed external event, appears to be an optimal form since VS $\sqrt{\text{ROOT}}$ s by their very nature express an external argument.

- (43) **sepxulekeḡéykse.**
 sé·p_{V.DO}-ḡule_{VS}-keḡéy_{VC}-k-se
 CAUS.SG-roll-change.location.or.position-K.ELEMENT-IMPERF.PRS.SG
 ‘I am rolling (something) and moving along with it.’

The serial order VC + VC is also present.

- (44) **pó·yalkili·kaḡyxqana**
 pé·-weye_{V.CAUSE}-likilí·_{VC}-keḡéy_{VC}-k-qana
 3→3-move.quickly-move.in.circle-change.location.or.position-K.ELEMENT-HAB.PST.SG
 ‘He ran around in circles.’

Example (44) shares an internal event in its serial verb formation (and in its verb prefixation) specifying a material process, however, it not clear how headedness contributes towards its semantic interpretability. Nonetheless, it appears that the compositional strategy is to take a headed $\sqrt{\text{ROOT}}$ specifying a temporal oriented internal event and contrasting it with non-temporal, directional oriented internal event. The benefits of examining this type of serial formation in closer detail are great, however, we offer only this preliminary assessment.

Thus, the serialized $\sqrt{\text{ROOT}}$ combinations all semantically share in the compositionality of thier event causation (internal or external) whether they are of the {VS, VS}, {VS, VC}, or {VC, VC} order. At least in terms of compositionality and

semantic well-formedness, the {VS, VC} serial form appears to be the optimal form because the serial order corresponds to a syntactic notion of argument structure. The {VS, VS} and {VC, VC} serial combinations are much more restricted in compositionality on the basis of semantic and structural similarity. It is possible to suggest that these compositional forms are semi-productive, at least for the {VC, VC} serial order, when they share in a corresponding semantic event specifying a material process. Finally, mere frequency would suggest that the potential number of $\sqrt{\text{ROOT}}$ combinations reduce by half due to the limited availability of typed candidates when the {VS, VS} or {VC, VC} serial order occurs not to mention their limited semantic availability.

4.3 Verb Affixes

Verb affixes in Nez Perce occur of two general types v_{DO} and v_{CAUSE} ⁷. The light verb v_{DO} prefix type specifies an PROTO-AGENT subject whereas v_{CAUSE} prefix type simply specifies the subject to be a possible cause entailing a PROTO-AGENT or PROTO-PATIENT (Folli and Harley forthcoming). The verb also stem shows an l-morpheme verb suffix termed v_{K} or K.ELEMENT simply realized phonologically as [-k-]. This verb stem formative has been described as fossilized element having the semantic properties of an ALLATIVE (Crook 1999:168). In this section, we will examine the underlying causal relation present in each verb affix, their position of exponence in a VP, and their combinatory potential with regard to $\sqrt{\text{ROOT}}$ s. In terms of representation, the subcategorization frame will include raised numbering indices on verb affixes to indicate their merge order in a complex predicate formation.

4.3.1 Encoding of v_{DO}

The verb affix v_{DO} typically expresses a form of causation that specifies an entity possessing intention or animacy in a cause and effect eventuality. Such entities usually possess the attributes of a PROTO-AGENT.

With certain v_{DO} prefixes, the valency of a $\sqrt{\text{ROOT}}$ can be increased causing an intransitive to become a transitive.

⁷ Additional semantic primitive specifications are possible such as TEMPORALITY and DIRECTION, however, these attributes can be directly linked to the v_{DO} and v_{CAUSE} l-morphemes by semantic extension. BECOME is also a viable semantic primitive but is not explored in this analysis.

$$(45) \quad \langle V^I(x, y_i), \langle \langle \sqrt{\text{ROOT}}_{\text{VS}}(y_i) \rangle \rangle \rangle \rightarrow x:\text{SUBJ}, y:\text{OBJ}$$

$$\qquad \qquad \qquad \downarrow \qquad \downarrow$$

$$\qquad \qquad \qquad \text{AGENT PATIENT}$$

cú·yeliwyikse

cú·ye_{v.DO}-liwík_{VS}-se

working.an.implement-to.be.bright-IMPERF.PRS.SG

‘I am polishing it.’

Ordinarily, a $\sqrt{\text{ROOT}}$ expressing a transitive encoding will share arguments, as in (46).

$$(46) \quad \langle V^I(x_i), \langle \sqrt{\text{ROOT}}_{\text{VS}}(x_i, y) \rangle \rangle \rightarrow x:\text{SUBJ}, y:\text{OBJ}$$

$$\qquad \qquad \qquad \downarrow \qquad \downarrow$$

$$\qquad \qquad \qquad \text{AGENT PATIENT}$$

cúhiluskse

cu·v.DO-hí·lusk_{VS}-se

with.pointed.object-chase.away-IMPERF.PRS.SG

‘I poke around to scare (e.g. fish).’

Morphological “causatives” are of the v.DO type. Example (47) below shows a morphological causative in a complex predicate formation. Here, the transitive $\sqrt{\text{ROOT}}$ is merged with a set of affixes bearing PROTO-AGENT and PROTO-PATIENT entailments.

$$(47) \quad \langle V^2(x_i, y_j), \langle \langle \sqrt{\text{ROOT}}_{\text{VS}}(x_i, y_j) \rangle, V^I(x_i) \rangle \rangle \rightarrow x:\text{SUBJ}, y:\text{OBJ}$$

$$\qquad \qquad \qquad \downarrow \qquad \downarrow$$

$$\qquad \qquad \qquad \text{AGENT PATIENT}$$

hicá·pkilakayiksa

hi-cé·p_{v.DO}-kilak_{VS}-é·yik_{v.CAUSE}-se

3NOM-with.hands→PL.OBJ-to.pick.up-move.around-IMPERF.PRS.SG

‘He/she picks things up here and there.’

Note in example (47) that there is an internal event head by an external event. In terms of derivation, the first merged element $\langle \sqrt{\text{ROOT}}_{\text{VS}}(x_i, y_j) \rangle, V^I(x_i) \rangle$ expresses an internally caused eventuality. This derivational sequence is later headed by a v.DO which, based upon a notion of Headedness, projects a PROTO-AGENT entailment.

Thus, we arrive at one of our first well-formedness principles for Nez Perce verb affixes: internal events always take encoding precedence over external events. The syntactic prediction this makes is that v.CAUSE will always be encoded prior to a v.DO because v.CAUSE affixes tend to be linked to internally caused events whereas v.DO tends to be linked to externally caused events.

We can examine this in more detail in example (48) below. Note that the VS $\sqrt{\text{ROOT}}$ obtains a /-ce/ morphophonological markedness when there is internal event mapping to one its argument.

$$(48) \quad \langle v^4(y_j), \langle v^3(x_i), \langle \langle \langle \sqrt{\text{ROOT}}_{\text{VS}}(x_i, y_j) \rangle, v^1(y_j) \rangle, v^2(x_i) \rangle \rangle \rangle \rightarrow \begin{array}{cc} \text{x:SUBJ, y:OBJ} \\ \downarrow \quad \downarrow \\ \text{AGENT PATIENT} \end{array}$$

ʔawliwaaʔinpqawtaca

ʔe(w)-ʔilíw_{V.CAUSE}-we·_{V.DO}-ʔinipí_{VS}-qaw_{V.CAUSE}-té_{e.V.DO}-ce

I/2→3OBJ-fire-fly-grab-straight.through-go.away-IMPERF.PRS.SG

‘I go to scoop him up in fire.’

In terms of the derivational sequence, we can show how the internal vs external event mapping takes place. It is important to note that notions of internal vs external event mapping do not correspond to a syntactic notion of internal vs external VP structure.

$$(49) \quad \langle v^4(y_j), \langle v^3(x_i), \langle \langle \langle \sqrt{\text{ROOT}}_{\text{VS}}(x_i, y_j) \rangle, v^1(y_j) \rangle, v^2(x_i) \rangle \rangle \rangle$$

$\underbrace{\hspace{10em}}$ internal → project (y _j)	1
$\underbrace{\hspace{10em}}$ external → project (x _i)	2
$\underbrace{\hspace{10em}}$ external → project (x _i)	3
$\underbrace{\hspace{10em}}$ internal → project (y _j)	4

Our well-formedness principle is satisfied until we reach the final headed projection in $v^4(y_j)$. Here, /ʔilíw_{V.CAUSE}/ ‘fire’ expresses an antecedent orientation with regard to the OBJECT’s TEMPORAL initiation point. In other words, at some time point in time previous to the external event an OBJECT entity was in or on “fire.” Thus, it appears that TEMPORALITY encoding is allowed as a head above an external event specification.

Compare example (49) with (50) below.

$$(50) \quad \langle v^2(x_i), \langle v^1(x_i, y_j), \langle \sqrt{\text{ROOT}}_{\text{VS}}(x_i) \rangle \rangle \rangle \rightarrow \begin{array}{cc} \text{x:SUBJ, y:OBJ} \\ \downarrow \quad \downarrow \\ \text{AGENT PATIENT} \end{array}$$

teqeʔnekéhtse

teqe_{V.DO}-ʔinek_{V.DO}-léht_{VS}-se

quickly-carry-out-IMPERF.PRS.SG

‘Quickly, I am pulling it out.’

Here, the v.DO prefix /teqe/ ‘quickly’ expresses semantic TEMPORALITY. It also heads a v.DO prefix. Thus, our minimal claim is that some property expressing TEMPORALITY encoding, whether it is of the v.DO or v.CAUSE type, can head a complex external event predicate.

Finally, note that a v.DO prefixation can cause a VC $\sqrt{\text{ROOT}}$ to transform into a VS $\sqrt{\text{ROOT}}$. This is indicated by the morphophonological suffix /-se/, as in (51).

$$(51) \quad \langle V^I(x_i, y), \langle \sqrt{\text{ROOT}}(x_i) \rangle \rangle \rightarrow x:\text{SUBJ}$$

↓
AGENT

tá·hawlapsa
 té·_{v.DO}-hawlapí_{VC}-se
 to.feel.good-IMPERF.PRS.SG
 ‘I inspire (mine) by words.’

4.3.2 Encoding of v.CAUSE

The verb affix v.CAUSE typically expresses a form of causation that specifies an entity as participating in or manifesting an internally caused eventuality.

$$(51) \quad \langle V^I(x_i), \langle \sqrt{\text{ROOT}}_{\text{VC}}(x_i) \rangle \rangle \rightarrow x:\text{SUBJ}$$

↓
EXPERIENCER

ʔipnáwysáwna
 ʔipné·-weyé·_{v.CAUSE}-siya·w_{VC}-ne
 3.REFL-as.one.goes-to.be.suspicious/distrustful-PERF
 ‘He was cautious.’

$$(52) \quad \langle V^2(x_i), \langle \langle \sqrt{\text{ROOT}}_{\text{VC}}(x_i) \rangle, v.K^I \rangle \rangle \rightarrow x:\text{SUBJ}$$

↓
EXPERIENCER

ʔilasáʔaykt
 ʔile_{v.CAUSE}-saʔáy_{VC}-k-t
 fire-to.suffer.from.eating-K.ELEMENT-NOMINALIZER
 ‘heat making a person lose appetite’

When verb v.CAUSE and v.DO prefixes serialize, the compositional order of verb prefixes tend to be of $\langle v.DO, \langle \langle v.CAUSE, \langle ___ \rangle \rangle \rangle_{\text{VP}}$.

As noted previously in a similar example (51), the intransitive VC $\sqrt{\text{ROOT}} /p'áy_{VC}/$ is transposed as a transitive.

It is indeed correct to assume that [k] is a fossilized element. However, its syntactic behavior suggests that Nez Perce verbs were undergoing a historical process of fusion with [k] in coda position. The general observation is that this pattern of fusion is found to be more marked among VS $\sqrt{\text{ROOTS}}$ than they are for VC $\sqrt{\text{ROOTS}}$.

- (57) **kuyk** VS ‘to teach lesson, hurt someone’
qíwtk VS ‘to cut (grass)’
tapátk VS ‘to use a weapon’
tapló·sk VS ‘to have a blister’
wí·sank VS ‘to cut, scratch, make incision’
ʔá·lik VS ‘to build fire, light a fire’

4.4 Summary

The consequence of this proposal is that the interpretive effects are compositional and can be directly traced to the sub-event representations of verb affixes and to the type of verb roots they select. What this means is that the sub-event representations can be grammatically separated from the verb via l-syntax (Hale and Keyser 1993), a syntactic system devoted to coding the structural aspects of meaning. However, sub-event representations in Nez Perce are morphologically expressible and tend to place a greater emphasis on how entities or participants in events are entailed under such a system. This is to claim that the well-formedness principles in Nez Perce verb morphology emerge from a compositionality that is syntactically and semantically informed. Thus, the transposition of argument entailments rather than a conversion of argument structure realizations via a post-syntactic operation argues for a distinctive l-syntax mechanism which allows for the combination of semantic representations with morphosyntactic structures.

5.0 Nez Perce Syntax

In Nez Perce, a typical verb stem is modified by the attachment PREFIXES and SUFFIXES that refer to the core participants in discourse. The grammatical system which specifies the referencing of core participants in discourse is called *core case* (Blake 2001)

In Nez Perce, core case encodes the argument positions of intransitive, transitive, and detransitive verbs such as the ergative, obviative, inverse, nominative, accusative case positions. Thus, core-case is minimally realized when a given predicate obligatorily receives a case-marking pronominal prefix on the verb. It is otherwise maximally realized when a given predicate obligatorily receives case marking on both the verb

and its core complements.

Nez Perce is a pronominal argument language. In typological terms, this is a type of concatenating morphology that expresses its syntactic arguments as pronominal elements on a verb stem (Jelinek 1984, 1995). Pronominal prefixes express two main categorical features: PERSON and NUMBER. PERSON features canonically encode the participants of a speech event as 1PERSON (speaker) and as 2PERSON (addressee). Non-participants or topics are encoded as 3PERSON. The feature NUMBER refers the general category SINGULAR and PLURAL.

Nez Perce shows two forms of agreement relations: external AGREEMENT and internal AGREEMENT. At the clausal level, external AGREEMENT specifies an agreement correspondence between the PERSON and NUMBER specification of a pronominal argument or enclitic and any noun phrase representing the same argument. Similarly, at the phrasal level, internal AGREEMENT specifies an agreement correspondence between the PERSON and NUMBER specification of a pronominal argument or enclitic and a finite verb.

5.1 Person

In Nez Perce, the feature system for PERSON is represented by two sets of prefixes: NOMINATIVE and ERGATIVE. The nominative prefixes reference singular PERSON subjects in an intransitive construction.

- (58) NOMINATIVE
1/2NOM → ∅ **tu·qíse** 'I/you smoke.'
3NOM → hi- **hitu·qíse** 'S/he smokes.'

The ERGATIVE case prefixes reference singular/plural PERSON subjects in a transitive construction, however, in contrast to nominatives, they also reference their objects in a SUBJECT→OBJECT configuration.

- (59) ERGATIVE
1/2ERG.SUBJ→3OBJ → ʔe- **ʔeqí·cqce** 'I/you take care of him/her.'
3ERG.SUBJ→3OBJ → pée- **péeqicqce** 'S/he takes care of him/her.'

Alternatively, the ERGATIVE case marking /ʔe-/ triggers genitive promotion in an intransitive construction. In (60), the marked intransitive verb /sú·lke-/ 'to hang' depicts the 3PERSON object as a possessive modifier of the verb.

- (60) **yóx ʔesú·lketese** '...that hers/his just hangs there.'

5.2 Number

The feature system for NUMBER are represented by prefix and suffix elements. Prefixes expressing NUMBER are distinguished in two forms: NOMINATIVE and ERGATIVE.

(61) NOMINATIVE

hipetú·qiye
hi-pe-tú·qi_{VS}-(y)e
3NOM-PL.NOM-to.smoke-PST
'They smoked.'

(62) ERGATIVE

hiné·stu·qitwece
hi-né·s-tú·qi_{VS}-tiwé_{VC}-ce
3NOM-PL.OBJ-to.smoke-be.together-IMPERF.PRS.SG
'He is smoking with them.'

Phrase internally, inflectional suffix features for NUMBER are expressed in two forms: SINGULAR NOMINATIVE and PLURAL NOMINATIVE. These suffix features express agreement relations with the internal subject. Thus, NUMBER features participate in a larger system of inflection termed the Inflectional Suffix Complex (ISC), a complex that includes categories such as TENSE, ASPECT, and MODALITY. Paradigmatically, forms for NUMBER are contrasted in their morphemic base by {-e-} in /-se-/ to indicate SINGULAR agreement and by {-i-} in /-ix-/ to indicate PLURAL agreement.

(63) SINGULAR NOMINATIVE

hitú·qisene
hi-tú·qi_{VS}-se-ne
3NOM-to.smoke-IMPERF.PRS.SG.RMT
'S/he smoked (long ago).'

(64) PLURAL NOMINATIVE

hitú·qisine
hi-tú·qi_{VS}-si-ne
3NOM-to.smoke-IMPERF.PRS.PL-RMT
'They smoked (long ago).'

5.4 Ergativity

A significant feature of a Nez Perce pronominal argument structure is its ERGATIVE system. Typologically, Nez Perce ergativity exhibits a tripartite pattern: Ergative, Nominative, and Objective/Accusative (Mithun 1999:229, Rude 1982, 1988, 1991). More recent analysis argues for a four-way case system (Cash Cash & Carnie under review).

The ERGATIVE pronominal markers discussed in the previous sections thus minimally form the core arguments in an ERGATIVE construction. Nez Perce ergativity, however, is a clause level system. Thus, arguments in a prototypical transitive construction will display two additional morphological case markers to distinguish its arguments: ERGATIVE case and OBJECTIVE case.

(69) Nez Perce Ergative Morphology

- nim** ERGATIVE NP case suffix
- ne** OBJECTIVE (accusative) NP case suffix
- ʔe-** 1/2→3OBJ pronominal prefix
- pée-** 3→3 pronominal prefix asserting “3rd person acting upon a 3rd person”
- nées-** PL.OBJ pronominal (plural direct object) prefix

An ERGATIVE construction in Nez Perce will typically express one or more of the morphological elements identified above. Thus, the morphosyntactic structure by which ergativity is enabled follows from the projection of both internal and external arguments from the verb phrase.

(70) /takáy_{VC}/ ↔ V_{TRANS} [$\ll\ll$ PRON (X_i, y), $\langle\sqrt{\text{ROOT}}(X_i)\rangle_{\text{VP}}$, AspP&TP>, [-NP]]

$\downarrow \downarrow$
 ERG OBJ

ko·níx	ʔiceyé·yenm	pátkayca
kon-níx	ʔiceyéeye-nim	pé·-takáy _{VC} -ce
that-EMPH	coyote-ERG	3→3-to.watch-IMPERF.PRS.SG
from there	Coyote	s/he watched her/him

‘Coyote watched him from across the way.’ (Phinney 1934:286)

$$(71) \quad /ciká \cdot w_{VC}/ \leftrightarrow V_{INTRANS} [\langle PRON (x_i, y_j), \langle \sqrt{ROOT} (x_i) \rangle_{VP}, AspP\&TP \rangle, [+NP (y_j)]]$$

\Downarrow
 \Downarrow
 ERG/EXPERIENCER

\Downarrow
 \Downarrow
 OBJ

laymíwna	ʔacká · wca
laymíw-na	ʔe-ciká · w _{VC} -ce
the.youngest-OBJ	1/2→3OBJ-to.fear-IMPERF.PRS.SG
the youngest one	I/you fear her/him

‘I fear the youngest one.’ (Phinney 1934:321)

6.0 Conclusion

In this paper, we have presented an analysis of Nez Perce verb morphology with the specific purpose of accounting for the combinatory potential of \sqrt{ROOT} s and verb affixes in complex predicate formation. Our analysis is motivated by the theoretical assumption that complex predicate formation is a consequence of:

- the atomic properties contained in the morphosyntactic description of a \sqrt{ROOT} or verb affix, and
- the nature of how such atomic properties are applied as output in the syntactic component via a process known as morphological merger (Halle and Marantz 1993).

Our account proposes that a Nez Perce grammar possesses a set of canonical syntactic forms expressing two distinct conceptual properties in the syntactic output of \sqrt{ROOT} s. These conceptual properties are structurally aligned to semantically recover either an internally and externally caused eventuality. We have suggested that the post-syntactic realization of these two event types are indicated by means of morphophonological markedness and, thus, directly accounts for the “s-class” and “c-class” \sqrt{ROOT} classification as first proposed in (Aoki 1979, 1994). In doing so, we have also identified an unclassified verb type showing high degree of markedness in the form a change of state eventive.

We have presented evidence in support of our claim by showing the compositionality of verb affixes v.DO and v.CAUSE and how they align morphosyntactically to \sqrt{ROOT} s via s-selection and their corresponding argument entailments. We have also shown that a verb stem formative [k] to be a highly specified l-morpheme that s-selects for a material process possessing a contiguity of effect in a cause and effect eventuality. Thus, we conclude that a Nez Perce grammar utilizes a morphosyntactic well-

formedness principle: internal events always take encoding precedence over external events.

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Appendix A

Thematic Verb Prefixes

Thematic verb prefixes constitute a productive class of morphological elements whose combinatory potential allows a verb stem to be variably modified in some fashion. These prefixes express a restricted number of primitive semantic specifications via small *v*. Most all thematic prefixes are accounted for in v_{DO} and v_{CAUSE} (see Sec. 4.3). These semantic primitives are minimally contrastive across the two verb types in Nez Perce.

Regularity in both the semantic information and syntactic structural encoding of verb affixes allows the following classification. It must be stated, however, that this classification is quite preliminary and is open to revision based on a more detailed accounting of the extant data.

Temporal Prefixes

Temporal verb prefixes specify the beginning point in time where an action takes place including its relative duration. The small *v* specification for this type of prefix is v_{DO} plus its temporal semantic content. The action has affected duration when it is a VC verb root or when a VS verb root takes [k].

(1) **mé·y** - in the morning

himéyʔlesece.

hi-méey_{v.DO}-ʔilése_{v.CE}-ce
3NOM-in.the.morning-IMPERF.PRS.SG
'It makes noise in the morning.'

(2) **teqe** - momentarily¹, quickly², idly³

a) **petqekiyúʔ¹.**

pe-teqe_{v.DO}-kúu_{v.S}-(y)úʔ
PL-momentarily-to.go-FUT
'We are going for a while.'

b) **hitqaqí·lawna².**

hi-teqe_{v.DO}-qí·law_{v.CE}-ne
3NOM-quickly-to.turn.one's.head/look.back-PTV
'He suddenly turned around.'

- c) **teqestú·yiksix^{2/3}.**
 teqe_{V.DO}-site_{V.DO}-wé·yik_{VS}-six
 quickly-with.eyes-to.move.across-IMPERF.PRS.PL
 i) ‘We are looking across in a hurry.’²
 ii) ‘We are just vacantly looking across.’³

(3) **té·w** - at night

hitewweyéhnene.
 hi-té·w_{V.DO}-wey_{V.CAUSE}-léhne_{VC}-ne
 3NOM-at.night-snow-down/downward-PTV
 ‘It snowed at night.’

(4) **tok^wala** - in a hurry

patkolaʔsapí·ka.
 pé·-tok^wala_{V.DO}-ʔise·pí_{VS}-k-e
 3→3-in.a.hurry-to.carry.on.back-K.ELEMENT-PST
 ‘She dislodged it quickly.’

(5) **we·** - swiftly

hiwa·láhtoqsa.
 hi-we·_{V.DO}-láhsa_{VS}-toq-se
 3NOM-swiftly-to.go.up-back-IMPERF.PRS.SG
 ‘It is flying straight back up.’

(6) **witi** - while doing something else

péwticepeqicke.
 pé·-witi_{V.DO}-cepé·_{V.DO}-qick_{VS}-e
 3→3-while.doing.something.else-by.pressure-to.grab/catch-PST
 ‘He caught it (while it was doing something else).’

(7) **ʔelíw** - in winter

ʔelweyné·kse.
 ʔelíw_{V.DO}-leylé·k_{VS}-se
 in.winter-into-IMPERF.PRS.SG
 i) ‘I am spending winter.’
 ii) ‘It is getting into winter.’

Locational Prefixes

Locational verb prefixes specify the location or spatial orientation of an action, event, or state in relation to some reference point. The small *v* specification for this type of prefix is minimally *v.DO* and *v.CAUSE* plus its semantic content.

(8) **cimí** - by lying on

ʔecmípeʔqs.

ʔé-cimí_{v.DO}-péʔq_{VS-S}

1/2→3OBJ-by.lying.on-to.break-PERF

‘I just broke it by lying on it.’

(9) **cú·** - in single file

hicú·pńisix.

hi-cú·_{v.DO}-pńí·_{VS-SIX}

3NOM-in.single.file-to.come.out-IMPERF.PRS.PL

‘They are coming out of the forest single file.’

(10) **ni** - leave behind

niwíhnaca.

ni_{v.DO}-wíhne_{VC-CE}

leave.behind-to.go.away-IMPERF.PRS.SG

‘I am leaving (mine) behind.’

(11) **sisé** - in sight

hissáwsisawnima.

hi-(sisé-sáw)_{REDUP.EMPH}-sisé_{v.DO}-sáw_{VC}-n-im-e

3NOM-(in.sight-to.be.missing)-in.sight-to.be.missing-PERF-CISL-PST

‘He felt lonely.’

(12) **temc** - on a pile of dirt

ʔipnatamckilakísa.

ʔipné·-temc_{v.DO}-kilák_{VS-SE}

3.REFL-on.a.pile.of.dirt-to.pick.up-IMPERF.PRS.SG

i) ‘He is picking waste.’

ii) ‘He is scavenging.’

(13) **tiqe** - floating in air or on water

hitiqeléhnece.

hi-tiqe_{V.DO}-léhne_{VC}-ce

3NOM-floating.in.air.or.water-downward-IMPERF.PRS.SG

'It is floating down in the air.'

(14) **tisqi?** - backwards

tisqi?ya · qin.

tisqi?_{V.CAUSE}-?iyá · q_{VC}-(i)n

backwards-to.find/discover-PERF

'I found (mine) while I walked backward.'

(15) **tiwek** – chase, follow

hitwáhyawnanqawnikika.

hi-tiwek_{V.DO}-yéwne_{VC}-n-qáw-nikike

3NOM-chase/follow-to.go.over-PERF-straight.through-TRS.PST

'He went straight on chasing it over the hill.'

(16) **ti?wele** - in rain or snow

ti?weletéhemkse.

ti?wele_{V.CAUSE}-téhem_{VC}-k-se

in.rain/snow-to.be.dark-K.ELEMENT-IMPERF.PRS.SG

'To grow or be dusky by raining.'

(17) **tu ·** - on flat object

tu · liké · cese.

tu · _{V.DO}-liké · ce_{VS}-se

on.flat.object-on.top.of-IMPERF.PRS.SG

'I am lying on (a table).'

(18) **waq** - in arms

a) **waqlá · pta.**

waq_{V.DO}-lé · p_V-te

in.arms-to.hold-IMPERF.PRS.SG

'I am holding it in my arms.'

- b) **waqalpísa.**
 waq(a)_{V.DO}-lipí_{VS}-se
 in.arms-to.seize-IMPERF.PRS.SG
 ‘I am going to hold it in my arms.’
- c) **waqíkaʔykxa.**
 waq(i)_{V.CAUSE}-keʔéy_{VC}-k-se
 in.arms-change.location.or.position-K.ELEMENT-IMPERF.PRS.SG
 ‘I am carrying it in my arms.’

(19) **ʔexewí** - abreast, side by side

hipaʔxawláhtqíya.
 hi-pa-ʔexewí_{V.DO}-láhtqí_{VS}-(y)e
 3NOM-PL-abreast-out.of.water/up.and.out-PST
 ‘They rode up together out of the water.’

Adventive Prefixes

Adventive verb prefixes depict a stationary object’s location in terms of its arrival or manifestation at the site it occupies (Talmy 2000:134). The small *v* specification for this type of prefix is minimally *v.DO* and *v.CAUSE* plus its semantic content.

(20) **tiqí** - in hiding

tiqíʔyó·xoʔsa.
 tiqí_{V.DO}-ʔiyó·xoʔ_{VS}-se
 in.hiding-to.wait-IMPERF.PRS.SG
 i) ‘I am in ambush.’
 ii) ‘You are waiting.’

(21) **temik** – in dirt

temikquqléhtse.
 temik_{V.DO}-ququ-léht_{VS}-se
 in.dirt-protrude-IMPERF.PRS.SG
 ‘I bury (mine) with something sticking out.’

(22) wé·w - into pieces

wá·wkiwkiw.
wé·w_{v.cause}-(kiw)_{redup.asp}-kíw_{vc}
into.pieces-(to.cut)_{REDUP.ASP}-to.cut
'Cut up (into pieces).'

(23) weʔléé - in knots

welé·muʔtkse.
weʔlé·v.cause-muʔt_{vs}-k-se
in.knots-to.tie.hair-k.element-imperf.prs.sg
'I am tying my hair in a bunch near the top of my head.'

(24) wqu - tip over

hiwqulí·kce.
hi-wqu_{v.cause}-lí·k_{vs}-ce
3NOM-tip.over-to.do/act-IMPERF.PRS.SG
'It is turned over.'

(25) ʔipux - plant, stand

ʔipú·xletese.
ʔipux_{v.do}-leté·vs-se
plant/stand-into-IMPERF.PRS.SG
'I am sticking something (needles) into something (basket).'

Instrumental Prefixes

Instrumental verb prefixes specify an instrument in carry out an action. The small *v* specification for this type of prefix is minimally *v.DO* and *v.CAUSE* plus its semantic content.

(26) céw - with shell or bead-like object (fused cé·w_{v.cause} + tiwé·vc 'be together')

cáwtiwa·ca.
cáwtiwa·vc-ce
to.decorate.with.shell.or.bead.like.object-IMPERF.PRS.SG
'I am decorating myself with shells.'

(27) **cú·** - with pointed object

cú·himkse.

cú·_{v.DO}-himik_{VS}-se

with.pointed.object-to.loosen.usually.by.shaking-IMPERF.PRS.SG

‘I loosen with a pointed instrument.’

(28) **cú·ye** - with implement, “working on a mechanism” (Cf. cé·p + weye)

co·yaláhsasa.

cú·ye_{v.DO}-láhsa_{VS}-se

with.implement-to.go.up-IMPERF.PRS.SG

‘I am opening (e.g., a window) by lifting it.’

(29) **qi** - with sticky matter (fused qi_{v.CAUSE} + sé·q?)

qisé·qin.

qisé·q_{VC}-(i)n^{1/2}

to.open.one’s.mouth-IMPERATIVE¹/NOMINALIZER²

i) ‘Open your mouth!’

ii) ‘opening of mouth’

(30) **tiwé** - with stick or pointed object

tiwétu·leylé·kse.

tiwé_{v.DO}-tu·le-leylé·k_{VS}-se

with.stick.or.pointed.object-throw-into-IMPERF.PRS.SG

‘I rake it into something.’

(31) **tiwəc** - with a bark-like object

tiwəcá·psa.

tiwəc_{v.DO}-xá·p_{VC}-se

with.a.bark.like.object-to.scrape-IMPERF.PRS.SG

‘I scrape (bark of pine).’

(32) **tú·ke** - with cane-like object

hitú·kekeʔykse.

hi-tú·ké_{v.CAUSE}-keʔéy_{VC}-k-se

3NOM-with.cane.like.object-move/change.location.or.position-K.ELEMENT-IMPERF.PRS.SG

‘He goes limping with a cane.’

(33) **we** - with stick-like object

waláyksa.

$w_{V,CAUSE}$ -láy_V-k-se

with.stick.like.object-with.a.resounding.noise-K.ELEMENT-IMPERF.PRS.SG

‘I am hitting (something) making noise.’

(34) **wisele** - with paddle

wiselewé · yikse.

$wisele_{V,DO}$ -wé · yik_{VS} -se

with.paddle-to.move.across-IMPERF.PRS.SG

‘I am paddling across.’

(35) **wíte** - with clay

cá · wítalahsasa.

cé · $p_{V,DO}$ -wíte_{V,CAUSE}-láhsa_{VS}-se

apply.pressure-with.clay-to.go.up-IMPERF.PRS.SG

‘I press things up with clay.’

(36) **ɽip** - with blunt instrument

ɽipćó · qsa.

$ɽip_{V,DO}$ -ćó · q_{VS} -se

with.blunt.instrument-to.pound.(meat)-IMPERF.PRS.SG

‘I am pounding (e.g., meat).’

(37) **ɽipé** · - with blunt instrument

ɽeɽipé · xćuyks.

$ɽe$ -ɽipé · v_{CAUSE} -xíćú · y_{VC} -k-s

I/2→3OBJ-with.blunt.instrument-to.make.a.dent-K.ELEMENT-PERF

‘I poked it and made a dent.’

(38) **ɽis** - with knife (plural objects)

ɽiswí · sise.

$ɽis_{V,DO}$ -wí · si_{VS} -se

with.knife→PL.OBJ-to.cut.to.dry-IMPERF.PRS.SG

‘I am cutting (e.g., fish) to dry.’

(39) **ɹise** - with knife (single object)

peɹseqú·lilke.

pé·-ɹise_{V.CAUSE}-qú·l_V-il-k-e

3→3-with.knife→SG.OBJ-to.cut.throat-completely-K.ELEMENT-PST

‘He cut around the neck.’

Corporeal Instrumental Prefixes

Corporeal verb prefixes specify a corporeal instrument in carry out an action. The small *v* specification for this type of prefix is minimally *v*._{DO} and *v*._{CAUSE} plus its semantic content. It is possible that in some corporeal instruments prefixes *v*._{DO} and *v*._{CAUSE} specifications may alternate. Further research is needed to verify this possibility.

(40) **himke** - with mouth

himka^hpá^hlaca.

himke_{V.CAUSE}-pá·l_{VC}-ce

with.mouth-to.dislike-IMPERF.PRS.SG

‘It tastes bad.’

(41) **ké**· - with teeth

pá·kakiwqawcana.

pé·-ké·_{V.DO}-kíw_{VC}-qaw-cene

3→3-with.teeth-to.cut-straight.through-IMPERF.SG.RMT.PST

‘He cut it straight through with his teeth.’

(42) **mis** - with ear

mis^hqulé·yce.

mis_{V.DO}-qulé·yn_{VC}-ce

with.ear-to.make.mistake-IMPERF.PRS.SG

i) ‘I am using a wrong word.’

ii) ‘I am making a mistake.’

(43) **nim** - with eyes

ɹaná·snimtaksa.

ɹe-né·s-nim_{V.DO}-ták_{VS}-se

1/2→3OBJ-PL.OBJ-with.eyes-to.do.something.as.one.passes.by-IMPERF.PRS.SG

‘I see them passing by.’

(44) **niké·** - with hand (often in connection with fiber or hide)

nikemeḷqsi·se.

niké·_{V.DO}-meḷqes_{N-Í}·-se

with.hand-skin-object.with-DENOMINATIVE-IMPERF.PRS.SG

‘I am skinning by pulling.’

(45) **nimé·** - to see with the eyes

hipené·snimekunis.

hi-pe-né·s-nimé·_{V.DO}-kuni_{VS-S}

3NOM-PL-PL.OBJ-to.see.with.the.eyes-to.see.someone.or.something.coming-PERF

‘They saw us coming.’

(46) **nú·x̣c** - with nose

hinó·x̣cḷpínix̣ḷpínix̣naqana.

hi-nú·x̣c_{V.CAUSE}-(pínix̣)_{REDUP}-pínix̣_{VC}-n-e-qana

3NOM-with.nose-(to.sniff)-to.sniff-PERF-PST-HAB.RMT

‘He sniffed.’

(47) **sepú·** - blow of breath

sapó·tpolisa.

sepú·_{V.DO}-tpoli_{VS-se}

blow.of.breath-to.inflate/stretch-IMPERF.PRS.SG

‘I blow up (e.g., a balloon).’

(48) **sil** - eye

silí·semtukse.

sil_{V.CAUSE}-hí·semtuk_{VS-se}

eye-to.mark/make.a.marker-IMPERF.PRS.SG

‘I am making a marker for someone to see.’

(49) **silé·w** - look

ḷeslé·wqitwece.

ḷe-silé·w_{V.DO}-qí·twe_{VC-ce}

1/2→3OBJ-look-to.pay.attention/be.attentive-IMPERF.PRS.SG

‘I am watching it.’

(50) **silím** - with eyes

ʔeslímipe · cwise.

ʔe-silím_{V.DO}-ʔipé · wí_{VS}-ʔipéc-wi-se

1/2→3OBJ-with.eyes-to.look.for-DESIDERATIVE-V-IMPERF.PRS.SG

‘I am searching with my eyes.’

(51) **sité** - with eyes

sitó · yiksiqa.

sité_{V.DO}-wé · yik_{VS}-siqa

with.eyes-to.move.across-IMPERF.PST.RC.PL

‘We were looking across.’

(52) **tukwé · p** - with fingernail

toká · playksa.

tukwé · p_{V.CAUSE}-láy_V-k-se

with.fingernail-with.a.resounding.noise-K.ELEMENT-IMPERF.PRS.SG

‘I am making noise with my fingernails.’

(53) **tuk^wé · p** - with lower arm or hand

hitkú · ptewyekse.

hi-tuk^wé · p_{V.CAUSE}-téwyek_{VS}-se

3NOM-with.lower.arm.or.hand-to.feel/sense-IMPERF.PRS.SG

‘He feels with his hand.’

(54) **tuk^wé · y** - with forehead

hitkú · ytiqelike.

hi-tuk^wé · y_{V.CAUSE}-tiqé · _{VC}-lí · k-ee

3NOM-with.forehead-to.spread.out-INCEP-PST

‘He stumbled and fell.’

(55) **tú · le** - with foot

tolá · tátksa.

tú · le_{V.CAUSE}-tát_{VC}-k-s-ee

with.foot-to.tear/rip-K.ELEMENT-IMPERF.PRS.SG

‘I tear (it) with my foot.’

(56) **toxpi** - with leg

hitqatxpíwayika.

hi-teqe-toxpi_{V.DO}-wé·yik_{VS}-e
3NOM-quickly-with.leg-to.move.across-PST
'He quickly stretched his leg across.'

(57) **we** - with eyes

wakálksa.

we-*k*alakí_{VC}-k-se
with.eyes_{V.CAUSE}-to.block-k.element-imperf.prs.sg
I close (my) eyes.

(58) **we** - with mouth

walámítayksa.

we_{V.CAUSE}-lamítáy_{VC}-k-se
with.mouth-be.the.end-k.element-imperf.prs.sg
'I finished a song.'

(59) **we·p** - with hand or paw

waptamáwca.

we·p_{V.DO}-tamáw_{VC}-ce
with.hand.or.paw-to.go.to.an.extreme-IMPERF.PRS.SG
'I murder.'

(60) **wexnú** - with seat, by sitting

waxtó·tiyakálksa.

wexnú·*v*.DO-tiyé·*v*.CAUSE-*k*alakí_{VC}-k-se
with.seat/sitting-in.an.obstructive.manner-to.block-K.ELEMENT-IMPERF.PRS.SG
i) 'I stop (mine) by sitting.'
ii) 'I take over someone else's seat.'

(61) **wewte** - pertaining to one's head

wáwtalhsasa.

wewte_{V.CAUSE}-láhsa_{VS}-se
pertaining.to.one's.head-to.go.up-IMPERF.PRS.SG
'I have my head in an up position.'

(62) **wí·cim** - on knees

hitqewí·cimlehte.
hi-teqe_{V.DO}-wí·cim_{V.DO}-léht_{VS-e}
3NOM-quickly-on.knees-out-PST
'She rushed out on her knees.'

(63) **wicle** - with hair

wiclataʔpaláhsasiñ.
wicle_{V.DO}-teʔpe_{V.DO}-láhsa_{VS-s-iñ}
with.hair-to.throw-to.go.up-IMPERF-STAT
'Hair Tossed Up.' (a man's name)

(64) **wixtiʔ** - on one's haunches

hiwixtiʔlá·nɣ.
hi-wixtiʔ_{V.DO}-(lixnik_{VS}>lá·nɣ_{VS})
hi-wixtiʔ-lá·nɣ_{VS}
3NOM-on.one's.haunches-(to.move.around.IMPERF.PRS.SG)
'He is pushing himself about on his haunches.'

Entity-Elemental Prefixes

Entity-Elemental verb prefixes designate a referential entity or element in a composite predicate profile. The small *v* specification for this type of prefix is mostly of the *v.CAUSE* type plus its semantic content.

(65) **hiyú·m** - bear, grizzly bear

hiyú·mtemiyene.
hiyú·m_{V.CAUSE}-té·m-ii-(y)-e-ne
grizzly.bear-meat-denominative-pst-rmt
'I took the grizzly bear meat from the roasting pit.'

(66) **sepé·** - wind, air

hisepé·witise.
hi-sepé·_{V.CAUSE}-witi_{VS-se}
3NOM-wind/air-downstream-IMPERF.PRS.SG
'It (wind) blows downstream.'

(67) **taw** - meat

pitawtá · kácix.

pí · -taw_{V.CAUSE}-té · ké_{VC}-cix

RECIP-meat-to.distribute.(food)-IMPERF.PRS.PL

‘They distributed meat.’

(68) **té · m** - meat

té · mkitwise.

té · m_{V.CAUSE}-kitíwi_{VS}-se

meat-to.leave.out.in.sharing.food-IMPERF.PRS.SG

‘I am leaving (mine) out from eating meat.’

(69) **tew** - ice

tewýé · wikse.

tew_{V.CAUSE}-?iyé · -wik_{VS}-se

ice-in.water-down.stream-IMPERF.PRS.SG

‘I am drifting down pushed by ice.’

(70) **te · x̣** – cold, freeze

te · xtínkse.

te · x̣_{V.CAUSE}-tínukí_{VC}-se

cold/freeze-to.die-IMPERF.PRS.SG

I am freezing to death.

(71) **teḡ** - sound, echo

hitḡsáwksa.

hi-teḡ_{V.CAUSE}-saw_{VC}-k-se

3nom-shoot-to.be.missing-k.element-imperf.prs.sg

‘It is making noise.’

(72) **tilé · w** - design

tílewtińece.

tilé · w_{V.CAUSE}-tí · mē_{VC}-ce

design-to.make.mark-IMPERF.PRS.SG

‘I put a design (e.g.. on moccasins, parfleche).’

(73) **tiʔn** - sun, moon

hitińéhtse.

hi-tiʔn_{V.CAUSE}-léht_{VS}-se
3nom-sun/moon-out-imperf.prs.sg
'It (sun or moon) is rising.'

(74) **wey** - snow

hiweyéhnece.

hi-wey_{V.CAUSE}-léhne_{VC}-ce
3NOM-snow-downward-IMPERF.PRS.SG
i) 'Snow is coming down.'
ii) 'It is snowing.'

(75) **wey** - with wife

weyńekixnikse.

wey_{V.DO}-ńinek_{V.DO}-lixnik_{VS}-se
with.wife-accompany-to.move.around-IMPERF.PRS.SG
'I am going around with my wife.'

(76) **wilé** - wind

pa · wiwlaspítkima.

pé · -wi-wilé · _{V.CAUSE}-sispít · ti_{VS}-k-im-e
3→3-DIST-wind-to.be.bent.down-K.ELEMENT-CISL-PST
'The wind began to bend down (a tree).'

(77) **yex** - liquid

yáxhawlapsa.

yex_{V.DO}-hawlapí_{VC}-se
liquid-to.feel.refreshed/active-IMPERF.PRS.SG
'I am refreshing with water.'

(78) **ńile** – fire, light, heat

hińlemú · łmulcem.

hi-ńile_{V.CAUSE}-mú · łmul_{VC}-c-em
3NOM-fire/heat-to.sizzle-IMPERF-CISL
'It is sizzling and dripping fat from heat.'

(79) ṛiliw - in fire

ṛawlíwa · siqataqawtaca.

ṛe(w)-ṛiliw_{V.CAUSE}-we-siqé · te_{VS}-qaw-te · -ce

1/2 → 3OBJ-in.fire-swiftly-to.step.over-straight.through-move.away.to-IMPERF.PRS.SG

‘I go to skip over him in burning.’

(80) ṛilw - fire, flame

hiṛlwéhtse.

hi-ṛilw_{V.CAUSE}-léht_{VS}-se

3NOM-fire/flame-out-IMPERF.PRS.SG

‘The flame is coming out.’

(81) ṛipé · - pretaining to smoke, clouds

hiṛpé · tehemkse.

hi-ṛipé · _{V.CAUSE}-tehém_{VC}-k-se

3NOM-pretaining.to.smoke/clouds-K.ELEMENT-IMPERF.PRS.SG

‘It is dark from the fog.’

(82) ṛipce - “pipe”

ṛipceletesí · x.

ṛipce_{V.CAUSE}-leté · _{VS}-six

pipe-into-imperf.prs.pl

‘We put tobacco in the pipe.’

(83) ṛiple - mate

hiṛpló · pciyawna.

hi-ṛiple_{V.DO}-wé · p_{V.DO}-ciyaw_{VC}-ne

3NOM-mate-with.hand.or.paw-to.beat-PERF

‘He beat his wife.’

(84) ṛiple - meat

ṛipleṛnpíse.

ṛiple_{V.CAUSE}-ṛinipí_{VS}-se

meat-to.take.hold.of/hold-IMPERF.PRS.SG

‘I go to get meat.’

(85) **ḡiptí** - grass

ḡiptilú·se.

ḡiptí_{V.CAUSE}-lú·_{VS}-se

grass-to.be.underwater/soak-IMPERF.PRS.SG

i) 'I am putting grass into the water.'

ii) 'I am wetting grass for camas baking.'

Fish Prefixes

Fish prefixes specify a generic fish species or fishing related activity in a composite predicate profile. The small *v* specification is the same as the Entity-Elemental prefixes.

(86) **lé·w** - pertaining to fish

hilé·wtekece.

hi-lé·w_{V.CAUSE}-té·k_{VC}-ce

3NOM-pertaining.to.fish-to.distribute.food-IMPERF.PRS.SG

'He distributes fish.'

(87) **tukí** – fish species

tukíwtelikin.

tukí_{V.CAUSE}-wite-lí·k_{VC}-in

fish.species-spread-to.move/proceed-NOMINALIZER

'Fish.'

(88) **tuq^wele** - fish

tuqlí·kse.

tuq^wele_{V.CAUSE}-lí·k_{VS}-se

fish-to.move/proceed-IMPERF.PRS.SG

'I am trapping fish.'

(89) **waw** - fish

hiwáw'atka.

hi-waw_{V.CAUSE}-tát_{VC}-k-e

3NOM-fish-to.tear/rip-K.ELEMENT-PST

'He stripped fish by cutting off its sides.'

Motion Prefixes

Motion verb prefixes depict a subsidiary motion that an entity manifests concurrently with its main action or state. The subsidiary motion can be alternatively manifested physically (Talmy 2000:40). The small *v* specification for this type of prefix is minimally *v*.DO and *v*.CAUSE plus its semantic content.

(90) **cú·se** - to get up

ʔiné·cu·sekeʔykse.

ʔiné·-cú·se_{v.CAUSE}-keʔéy_{VC}-k-se

1SG.RFLEX-to.get.up-change.location.or.position-K.ELEMENT-IMPERF.PRS.SG

‘I am lifting myself up.’

(91) **hicilw** - climb

hicilwáhsasa.

hicilw_{v.DO}-láhsa_{vS}-se

climb-to.go.up-IMPERF.PRS.SG

‘I am climbing up.’

(92) **lqí** - lift

hiwaʔalqíkaʔykse.

hi-wá·wá_{v.DO}-lqí_{v.CAUSE}-keʔéy_{VC}-k-se

3nom-with.hook.and.line-lift-k.element-imperf.prs.sg

‘He is lifting a fishing pole.’

(93) **nikit, niktéh** - drag

niktéhyekse.

niktéh_{v.DO}-léhyek_{vS}-se

drag-upstream-IMPERF.PRS.SG

‘I am dragging (something) upstream.’

(94) **ququ** - protrude

ʔeqquléhtse.

ʔe-ququ_{v.CAUSE}-léht_{vS}-se

1/2→3OBJ-protrude-out-IMPERF.PRS.SG

‘(His) is sticking out.’

(95) **ququ·** - gallop

hiqqúwelikepese.

hi-ququ·_{V.CAUSE}-wé·-liké·pe_{VS}-se

3NOM-gallop-run-into.the.bushes-IMPERF.PRS.SG

‘He is galloping into the bushes.’

(96) **seki, siki** - soar, circle in the air (fused se- CIRCUMFERENCE + ki- DIR)

hiskalálayca.

hi-sakalálay_{VC}-ce

3NOM-to.soar-/circle-IMPERF.PRS.SG

‘It (e.g. eagle) is soaring around.’

(97) **siwí** - swim

hiswilá·nqaqa.

hi-siwí_{V.DO}-lixnik_{VS}>lá·n_{XVS}

hi-siwí-lá·n_{VS}-qaqa

3NOM-swim-to.move.around-PST.REC.HAB

‘He swam around.’

(98) **su·ye** - push

sú·yeylekse.

su·ye_{V.DO}-leylék_{VS}-se

push-into-IMPERF.PRS.SG

i) ‘I slip in.’

ii) ‘I fit.’

(99) **té·m** - to put, place

temí·semtukse.

té·m_{V.DO}-hí·semtuk_{VS}-se

to.put/place-to.make.a.marker-IMPERF.PRS.SG

‘I am making a marker for them.’

(100) **té·m** - throw (PLURAL)

ʔepeté·mpeʔqs.

ʔe-pe-té·m_{V.DO}-péʔq_{VS}-s

1/2→3OBJ-PL-throw-to.split/crack/break-PERF

‘We just split it by throwing (rocks).’

(101) **temé·** - throw (SINGULAR)

temé·peṛqe.

temé·_{V.DO}-peṛ_{VS}-e

throw-to.split/crack/break-PST

'I broke it by throwing (a rock).'

(102) **temé·** - lie down, sit down

hipetemé·yexci·lpe.

hi-pe-temé·_{V.DO}-yex_{VS}-cí·lp_{VS}-e

3NOM-PL-lie/sit.down-sit-to.encircle-PST

'They sat around in a circle.'

(103) **te·mqi** - throw (object)

tamqiṛlá·twisa.

té·mqi_{V.CAUSE}-ṛlá·twi_{VS}-se

throw-to.be.weak/tired/unable-IMPERF.PRS.SG

'I am (e.g.. my arm is) tired from throwing.'

(104) **teṛpe** - cast, throw

pé·teṛpelu·ṛeýsene.

pé·-teṛpe_{V.DO}-lú·_{VS}-ṛeý-sene

3→3-cast/throw-to.be.underwater-BENF-IMPERF.PST.RMT.SG

'He threw them in the water (for their own benefit).'

(105) **tip** - cover

hitipliké·cese.

hi-tip_{V.DO}-liké·ce_{VS}-se

3NOM-cover-on.top.of-IMPERF.PRS.SG

'It is sitting on top of (protecting the young with its wing).'

(106) **tiwé·p** - wave or hold

tiwepíxnikse.

tiwé·p_{V.DO}-lixnik_{VS}-se

wave.or.hold-to.move.around-IMPERF.PRS.SG

'I wave it (e.g. a torch) around.'

(107) **tiʔn** – walk (fused element)

hitińéhyeksine.

hi-tińéhyek_{VS}-sine

3NOM-to.go.hunting.on.foot.in.winter-IMPERF.PST.REC.PL

‘They went winter hunting on foot.’

(108) **tuk^weme** - crawl, move dragging something (on the ground)

tó·kamacpatksa.

tuk^weme_{V.CAUSE}-capatí_{VC}-k-se

crawl-to.lie.or.move.lengthwise-K.ELEMENT-IMPERF.PRS.SG

‘I am crawling along (as a snake).’

(109) **tulé·** - throw

tu·liké·pese.

tulé·_{V.DO}-liké·pe_{VS}-se

throw-into.the.bushes-IMPERF.PRS.SG

‘I throw it into the bushes.’

(110) **tuq^wele** - swim, dive underwater

hitquléhyekuʔ.

hi-tuq^wele_{V.DO}-léhyek-uʔ

3NOM-swim-upstream/upriver-FUT

‘It (a Chinook Salmon) will swim upriver.’

(111) **wat** - step

po·tkó·paʔnya.

pé·-wat_{V.CAUSE}-kúp_{VC}-eʔny-e

3→3-step-to.break-BENF-PST

‘He stepped on and broke someone else’s stick-like object.’

(112) **we·²** - in flying

hiwe·teqí·kse.

hi-we·_{V.DO}-teqí·k_{VS}-se

3NOM-in.flying-to.come.down.from.sky-IMPERF.PRS.SG

‘It is landing.’

(113) **wew** - split, hit

wáwćaksa.

wew_{V.DO}-ćák_{VC}-se

split/hit-split/cut.deep-IMPERF.PRS.SG

'I am splitting into pieces (e.g. wood).'

(114) **wé·wqi** - hack away, strike

wewqiláhsasa.

wé·wqi_{V.DO}-láhsa_{VS}-se

strike-to.go.up-IMPERF.PRS.SG

'I beat (mine) upward.'

(115) **wekím** - whip

ʔu·kímsitkse.

ʔe-wekím_{V.DO}-sitk_{VS}-se

1/2→3OBJ-whip-to.wind.around-IMPERF.PRS.SG

'I whip.'

(116) **wet** - wade

watkaʔáyksa.

wet_{V.CAUSE}-keʔéy_{VC}-k-se

wade-move/change.location.or.position-K.ELEMENT-IMPERF.PRS.SG

'I am wading over.'

(117) **wile·** - run, move quickly

hiwlé·keʔyke.

hi-wile·_{V.CAUSE}-keʔéy_{VC}-k-e

3NOM-run/move.quickly-change.location.or.position-K.ELEMENT-IMPERF.PRS.SG

'He ran.'

(118) **wise** - row (a canoe)

pewsetwéhkeʔykenixne.

pe-wise_{V.CAUSE}-tiwék_{V.CAUSE}-keʔéy_{VC}-k-enixne

PL-row-chase-move/change.location.or.position-K.ELEMENT-HAB.RMT

'They used to chase them in a canoe.'

(119) **weyé·** - in moving, in flying

weyeq̄uyímkse.

weyé·_{V.CAUSE}-q̄uyím-k-se
in.moving/flying-go.up-K.ELEMENT-IMPERF.PRS.SG
'I fly up.'

(120) **wí·** - stretch

wí·q̄papt.

wí·_{V.DO}-q̄apap_{VS-t}
stretch-to.tighten-NOMINALIZER
'Epileptic fit, convulsion.'

(121) **wiye·** - as one goes

hiwyáʔalwisa.

hi-wiye·_{V.CAUSE}-ʔá·lwa_{VS-se}
3NOM-as.one.goes-to.limp/walk.lamely-IMPERF.PRS.SG
'He was limping along.'

(122) **wú·l²** - ride

wó·laʔyaqin.

wú·_{V.CAUSE}-ʔiyá·q_{VC-in}
ride-to.find/discover-PERF
'I just found as I was riding (a horse).'

(123) **yeq** - toss

ʔawíyaq̄to·skayika.

ʔe-wí·-yeq_{V.DO}-tó·sk_{VS-eyik-e}
I/2→3OBJ-DIST-toss-to.put.out.fire-mover.in.order.to-PST
I went around putting out each (fire).

(124) **ʔinek** - carry

ʔiná·ʔnakacsa.

ʔiné·-ʔinek_{V.DO}-ʔá·c_{VS-se}
ISG.REFL-carry-to.go.in-IMPERF.PRS.SG
'I am taking myself in.'

(125) **ɲiptek** - carry (food)

paɲptakáhtqíya.
pé·-ɲiptek_{V.DO}-láhtqí_{VS}-(y)e
3→3-carry-up.and.out-PST
'He took it out.'

(126) **ɲiptqi** - pierce, spear

ɲiptqíkeɲkuɲ.
ɲiptqi_{V.CAUSE}-keɲéy_{VC}-k-uɲ
spear-change.location.or.position-K.ELEMENT-FUT
'I will spear.'

(127) **ɲipsqi** - on foot, walking

hiɲpsqiléhyekse.
hi-ɲipsqi_{V.DO}-léhyek_{VS}-se
3NOM-on.foot/walking-upstream-IMPERF.PRS.SG
'He is walking upstream.'

(128) **ɲiyé·** - afloat, swim, pole a canoe

ɲiyelilqémise.
ɲiyé·_{V.CAUSE}-lilqémí_{VS}-se
swim-to.be.rheumatic-IMPERF.PRS.SG
'I get rheumatic from swimming.'

(129) **ɲiyele** - flow

ɲiyelelú·se.
ɲiyele_{V.CAUSE}-lú·_{VS}-se
flow-to.be.underwater-IMPERF.PRS.SG
'It (the repeated motion of water) washes the shore.'

(130) **ɲiyemí** - run

ɲiyemléhyeksix.
ɲiyemí_{V.DO}-léhyek_{VS}-six
run-upstream-IMPERF.PRS.PL
'We are running upstream.'

Manner Prefixes

Manner prefixes specify the way in which an action or event occurs. Manner prefixes can also specify a corporeal reference with which the action or event is related. The small *v* specification for this type of prefix is minimally *v.DO* and *v.CAUSE* plus its semantic content.

(131) **hí·** - “exert intended state”

hí·cýawksa.

hí·_{v.CAUSE}-cýaw_{VC}-k-se

exert.intended.state-to.kill/be.out.of-K.ELEMENT-IMPERF.PRS.SG

i) ‘I exterminate.’

ii) ‘I annihilate.’

iii) ‘I kill.’

(132) **hí·tem** - dance

hí·temweᶇpse.

hí·tem_{v.DO}-we-ᶇinipí_{VS}-se

dance-with.mouth-to.take.hold.of-IMPERF.PRS.SG

‘I am dancing and singing.’

(133) **kipí** - trace (of animals), track

kipíᶇyaqin.

kipí_{v.DO}-ᶇiyaq_{VC}-in

trace/track-to.find/discover-PERF

‘I found it by tracking.’

(134) **kiwéw** - eat

ᶇekwéwtiwe·ce.

ᶇe-kiwéw_{v.DO}-tiwé·_{VC}-ce

1/2→3OBJ-eat-be.together-IMPERF.PRS.SG

‘I am eating with him.’

(135) **láv** - aimlessly, carelessly

hiláwtimsa.

hi-láv_{v.CAUSE}-tim_{VS}-se

3NOM-aimlessly-to.talk/speak-IMPERF.PRS.SG

‘He is just talking.’

(136) **lew** - build, construct, frame up

ʔaláwlimqsa.

ʔe-lew_{V.DO}-limq_{VS}-se

1/2→3OBJ-build-to.repair-IMPERF.PRS.SG

‘I am repairing it.’

(137) **múx̣c** - swallow, gulp

mó·x̣cyaqin.

múx̣c_{CV.CAUSE}-ʔiyá·q_{VC}-in

swallow/gulp-to.find/discover-PERF

‘I found (it) by swallowing.’

(138) **qisím** - in anger

ʔeqsímewye.

ʔe-qisím_{V.DO}-ʔewí·vs-(y)e

1/2→3OBJ-in.anger-to.shot.with.an.arrow-PST

‘I shot it in anger.’

(139) **sqi** - head down

taqaʔpá·sqilahsaya.

teqe_{V.DO}-ʔipé·v.do-sqi_{V.CAUSE}-láhsa_{VS}-(y)e

suddenly-stand-head.down-to.go.up-PST

‘I suddenly fell head first.’

(140) **sux̣** - become dirty, soiled

ʔiyésux̣li·kse.

ʔiyé·v.cause-sux̣_{V.CAUSE}-lí·k_{VS}-se

in.water-to.become.dirty-to.do/act-IMPERF.PRS.SG

‘I get dirty from (dirty) water.’

(141) **sú·x̣** - enclose, corral

ʔene·ssú·x̣eylekse.

ʔe-né·s-sú·x̣_{V.DO}-leylé·k_{VS}-se

1/2→3OBJ-PL.OBJ-enclose-into-IMPERF.PRS.SG

‘I am enclosing them.’

(I42) **té·** - by voice

ʔipné·tepinmikime.

ʔipné·-té·_{V.CAUSE}piním_{VS}-k-ime

3SG.REFL-by.voice-to.be.asleep-K.ELEMENT-PST.CISL

‘He cried himself to sleep.’

(I43) **telewýé·x** - slander

telewýé·xtimse.

telewýé·x_{V.DO}-tim_{VS}-se

slander-to.talk/speak-IMPERF.PRS.SG

i) ‘I am bad-mouthing.’

ii) ‘I am slandering.’

(I44) **té·lke** - be in control, lead (people, animals)

ʔené·stelkekeʔykse.

ʔe-né·s-té·lke_{V.CAUSE}keʔéy_{VC}-k-se

I/2→3OBJ-PL.OBJ-be.in.control-change.location.or.position-K.ELEMENT-IMPERF.PRS.SG

‘I am leading them.’

(I45) **té·m** - roast

té·mtekeyise.

té·m_{V.DO}-té·keyi_{VS}-se

roast-to.spread-IMPERF.PRS.SG

‘I spread things (e.g., camas roots for roasting).’

(I46) **te·x** - be cold, freeze

te·xwuqumlí·kse.

te·x_{V.CAUSE}wuqumí_{VC}-lí·k-se

be.cold-be.stooping-assume.a.state-IMPERF.PRS.SG

‘Cold weather makes me bunch up.’

(I47) **telé·** - sick

ʔetelekté·ce.

ʔe-telé·_{V.CAUSE}heki_{VC}-té-ce

I/2→3OBJ-sick-to.see-go.away.to.do.something-IMPERF.PRS.SG

‘I am going (away) to visit the sick.’

(148) **teqelwe** - strand, desert

teqeɽlwetíyekime.

teqelwe_{V.CAUSE}-tíyek_{VS}-k-im-e

strand/desert-to.land.on.something-K.ELEMENT-CISL-PST

‘I was forced to disappear.’

(149) **teqe** - bathe, swim

teqelú · tenu?

teqe_{V.DO}-lú · vs-té-nu?

bathe/swim-to.be.underwater-go.away.to.do.something-FUT

i) ‘I will go to bathe.’

ii) ‘I will go to swim.’

(150) **teɽ** - heated

taxtamtiqá · pasa.

teɽ_{V.CAUSE}-té · m_{V.DO}-tiqá · pa_{VS}-se

heated-to.put/place-to.sit.with.one’s.back.against-IMPERF.PRS.SG

‘I am forced to sit with my back toward the fire to warm myself.’

(151) **teɽén** - in hunting

teɽénwewitisix.

teɽén_{V.DO}-wewití_{VS}-six

in.hunting-to.go.downstream-IMPERF.PRS.PL

‘We return from hunting on foot.’

(152) **til** - in war

tilwewí · tise.

til_{V.DO}-wewití_{VS}-se

in.war-to.go.downstream-IMPERF.PRS.SG

‘I am going downstream on the warpath.’

(153) **típsim** - “night hunting”

típsimleylé · kt.

típsim_{V.DO}-leylé · k_{VS}-t

night.hunting-into-NOMINALIZER

‘Night hunting on a lake.’

(154) **tiqi** - in hiding

hinastiqiɽyó·xoɽya.

hi-né·s-tiqi_{V.DO}-ɽiyó·xoɽ_{VS}-(y)e
3NOM-PL.OBJ-in.hiding-to.wait-PST
'He waited in hiding for them.'

(155) **tiwék** – in following

pá·tʷahlaklayka.

pé·-tiwék_{V.CAUSE}-lakaláy_{VC}-k-e
3→3-in.following-to.go.across.hillside-K.ELEMENT.PST
'He chased him along the hillside.'

(156) **tiwí**· - lead of warriors

tiwí·yewnece.

tiwí·_{V.DO}-yéwne_{VC}-ce
lead.of.warriors-to.go.over.a.hill-IMPERF.PRS.SG
'I am leading the warriors over the divide.'

(157) **tiyé**· - in obstructive manner

hipatiyá·q̣papa.

hi-pe-tiyé·_{V.DO}-q̣apap_{VS}-e
3NOM-PL-in.obstructive.manner-to.squeeze/tighten-PST
'They squeezed you.'

(158) **toḵ^wala** - in a hurry, carelessly, quickly

hitkolayaqí·ka.

hi-toḵ^wala_{V.CAUSE}-yeqí·ki_{VS}-k-e
3NOM-carelessly-to.spill-K.ELEMENT-PST
'He poured (it) carelessly.'

(159) **tu** - drop, fall

sepé·tu·leylekse.

sepé·-tu_{V.CAUSE}-leylé·k_{VS}-se
CAUS.SG-drop/fall-into-IMPERF.PRS.SG
i) 'I drop it.'
ii) 'I let it fall.'

(160) **tú·** - in a subconscious state

tóɣaɣin.

tú·_{V.CAUSE}-ɣiyá·q_{VC}-in

in.a.subconscious.state-to.find/discover-PERF

i) 'I just hypnotized (mine).'

ii) 'trance, coma'

(161) **weckú·** - to change or alter

hiweckú·li·kse.

hi-weckú_{V.DO}-lí·k_{VC}-se

3NOM-to.change.or.alter-to.move/proceed-IMPERF.PRS.SG

'He changes.'

(162) **wele** - in check

walaɣá·qin.

wele_{V.CAUSE}-ɣiyá·q_{VC}-in

in.check-to.find/discover-PERF

'I just found while in captivity.'

(163) **wepe** - dressed

ɣu·pelí·kce.

ɣe-wepe_{V.CAUSE}-lí·k_{VC}-ce

I/2→3OBJ-dressed-to.move/proceed-IMPERF.PRS.SG

'I am dressing it.'

(164) **wé·tx** - loudly, in anger

po·txqilawkó·ya.

pé·-wé·tx_{V.DO}-qí·law_{VC}-(y)e

3→3-in.anger-to.turn.one's.head.around-PST

'He angrily turned around toward him.'

(165) **wé·w** - meet

wéwkunise.

wé·w_{V.DO}-kuni_{VS}-se

meet-to.forsee/anticipate/see.someone.coming-IMPERF.PRS.SG

'I meet (mine).'

(166) **wé·win** - pertaining to sickness

hiwé·wintime.

hi-wé·win_{V.DO}-tím_{VS}-e

3NOM-pertaining.to.sickness-to.talk-PST

‘He moaned.’

(167) **wewkimí·** - insult, to make insulting remarks by referring to the genitals

wewkimí·timse.

wewkimí·v.do-tím_{VS}-se

insult-to.talk/speak-IMPERF.PRS.SG

‘I call (someone) names.’

(166) **wex̄tú·** - sit

wax̄tó·tiyakalksa.

wex̄tú·v.do-tiyé·v.cause-ʔalaki_{VC}-se

sit-in.obstructive.manner-be.in.somebody’s.way-IMPERF.PRS.SG

i) ‘I stop (mine) by sitting.’

ii) ‘I take over someone else’s seat.’

(167) **wic̄x̄** - defecate

wic̄x̄tálqt.

wic̄x̄_{V.DO}-talaqí_{VS}-t

defecate-to.stop-NOMINALIZER

‘Stop defecating.’

(168) **wis** - travel, camp, pack or unpack for traveling

hiwspe·léykse.

hi-wis_{V.CAUSE}-pe·léy_{VC}-k-se

3NOM-travel-to.be.wrong-K.ELEMENT-IMPERF.PRS.SG

‘He is taking the wrong trail.’

(169) **wisēh** - wander

wisēhlix̄niksix.

wisēh_{V.CAUSE}-lix̄nik_{VS}-six

wander-to.move.around-IMPERF.PRS.PL

‘I am wandering about.’

(170) **wistuk** - shoot

wistukpe·lé·ykse.

wistuk_{V.CAUSE}-pe·lé_{VC}-k-se
shoot-to.be.wrong-k.element-imperf.prs.sg
'I shoot and lose (the arrow).'

(171) **wixcuʔ** - sit

wixcuʔúpinmiks.

wixcuʔ(ú)_{V.DO}-piním_{VS}-lí·k-s
sit-to.be.asleep-assume.acertain.state-PERF
'I fell asleep while sitting down.'

(172) **wyá·x** - deceive, find fault with

talawyaxtimípac.

tele_{V.DO?}-wyá·x_{V.DO}-tím_{VS}-t-ʔípec
belief-find.fault.with-to.talk-DENOMINALIZER-having.a.tendency
i) 'cunning, deceiving.'
ii) 'somebody who says something bad about someone.'

(173) **xé·ley** - "with jocularly"

xé·leytimse.

xé·ley_{V.DO}-tím_{VS}-se
with.jocularly-to.talk/speak-IMPERF.PRS.SG
'I am joking.'

(174) **ʔelíw** - in starvation

heʔlíwtińkcix.

hi-ʔelíw_{V.CAUSE}-tińukí_{VC}-cix
3NOM-in.starvation-to.die-IMPERF.PRS.PL
'They are starving.'

(175) **ʔext** - swallow

ʔextéylekeʔs.

ʔext_{V.DO}-leylé·k_{VS}-eʔs
swallow-into-an.object.for
'Throat (a thing for swallowing).'

(176) ɲil - in loud voice

hitqaɲlwá · xwaxnaqana.
hi-teqe_{V.DO}-ɲil_{V.CAUSE}-wá · xwaq_{VC}-qana
3NOM-suddenly-in.aloud.voice-HAB.RMT
'He suddenly cried out.'

(177) ɲilc – burn through

hiɲlcyá · qáqtato.
hi-ɲilc_{V.CAUSE}-yá · qáq_{VS}-te · tu
3NOM-burn,through-to.crumble-HAB.PRS
'It (wood) used to crumble to charcoal.'

(178) ɲile - in talking

ɲilaɲáta.
ɲile_{V.DO}-ɲá · t_{VS}-e
in.talking-to.go.out-PST
'I went out as I was talking to someone.'

(179) ɲilé · - make noise

hiɲlé · ce.
hi-ɲilé · v_{.CAUSE}-hí_{VC}-ce
3NOM-make.noise-to.say-IMPERF.PRS.SG
i) 'It is making noise.'
ii) 'He is talking.'

(180) ɲilec - “glow from heat”

hiɲleckemké · mise.
hi-ɲilec_{V.CAUSE}-(kem)_{REDUP.EMPH}-ké · m_V-is-e
3NOM-glow.from.heat-(to.be.red.hot)-to.be.red.hot-object.with-PST
'It is glowing red-hot.'

(181) ɲilelim - cry, sing

ɲilelímteq̄elu · se.
ɲilelim_{V.DO}-teq̄e-lú · vs-se
sing-bathe/swim-to.be.underwater/soak-IMPERF.PRS.SG
'I am singing as I swim.'

(182) **ɲilé·p** - speak apologetically, defensively

ɲilá·pyalwaca.

ɲilé·p_{V.CAUSE}-yalwá·_{VC}-ce

speak.apologetically-not.have.confidence.in.something-IMPERF.PRS.SG

‘It is not good enough (to give you, but. . .).’

(183) **ɲilí·l** - repeatedly

ɲilí·lciqcix.

ɲilí·l_{V.DO}-cí·q_{VC}-cix

repeatedly-to.speak-IMPERF.PRS.PL

‘We are talking about troubles over and over.’

(184) **ɲilíw** - burn

ɲawlíwa·siqataqawtaca.

ɲe(w)-ɲilíw_{V.CAUSE}-siqé·te_{VS}-qaw-te·-ce

1/2→3OBJ-burn-to.step.over-straight.through-move.away.to-IMPERF.PRS.SG

‘I go to skip over him in burning.’

(185) **ɲiló·tkola** - in pain

ɲilo·tkolawíhnaca.

ɲiló·tkola_{V.CAUSE}-wíhne_{VC}-ce

in.pain-go.away-IMPERF.PRS.SG

‘I am leaving in pain.’

(186) **ɲils** - in burning

hiɲlsqú·ppupin.

hi-ɲils_{V.CAUSE}-(qup)_{REDUP.EMPH}-qú·p_{VC}-in

3NOM-in.burning-(to.shorten).to.shorten-PERF

‘It burned.’

(187) **ɲilx** - much

ɲilxtimse.

ɲilx_{V.CAUSE}-tím_{VS}-se

much-to.talk/speak-IMPERF.PRS.SG

i) ‘I am grumbling.’

ii) ‘I am talking incessantly.’

iii) ‘I keep talking.’

(187) **ɹimle** - dig roots

ɹimlaláhsasa.

ɹimle_{V.DO}-láhsa_{VS}-se

dig.roots-to.go.up-IMPERF.PRS.SG

I am digging uphill. (láhsa VS)

(188) **ɹipt** - crack, crumble

ɹiptmú·ceykse.

ɹipt_{V.CAUSE}-mú·ćey_{VC}-k-se

crack/crumble-to.stuff.food.into.mouth/gorge-K.ELEMENT-IMPERF.PRS.SG

‘I am crumbling (mine) by stuffing it in my mouth.’

(189) **ɹí·tem** - dance

hiɹítamcaptksa.

hi-ɹité·m_{V.CAUSE}-capatí_{VC}-k-se

3NOM-dance-to.lie.or.move.lengthwise-K.ELEMENT-IMPERF.PRS.SG

‘He is dancing along a line.’

(190) **ɹiwé·l** - pertaining to scalp dance

hiɹwé·lwe·cesix.

hi-ɹiwé·l_{V.DO}-we·cé·vs-six

3NOM-pertaining.to.scalp.dance-to.dance-IMPERF.PRS.PL

‘They are scalp-dancing.’

(191) **ɹiwil** - urinate

ɹiwilćáɹksa.

ɹiwil_{V.CAUSE}-ćáɹ_{VC}-k-se

urinate-to.fit/be.exactly.right-K.ELEMENT-IMPERF.PRS.SG

‘I am urinating in exactly the same place.’

(192) **ɹiy** - float

ɹiyéh necix.

ɹiy_{V.CAUSE}-léhne_{VC}-cix

float-down-IMPERF.PRS.PL

‘We float down.’

Non-Human Manner Prefixes

Non human prefixes specify the non-human manner in which an action or event occurs.

(193) **mu·** - with four (or more) legs

himu·lí·kce.
hi-mu·_{V.DO}-lí_{VC}-ce
3NOM-with.four.legs-to.move-IMPERF.PRS.SG
'It is walking (of animals and insects).'

(194) **té·l** - run (of hoofed animals)

hipatá·laylaxqawna.
hi-pe-té·_{l.V.DO}-leylé·_{kVS}-qaw-ne
3NOM-PL-run.of.hoofed.animals-into-straight.through-PST.RMT
'They galloped in straight through.'

(195) **wé·w** - eat grass

hitqewé·wkupsix.
hi-teqe_{V.DO}-wé·_{w.V.CAUSE}-kú·_{pVC}-six
3NOM-suddenly-eat.grass-to.break-IMPERF.PRS.PL
'They ate grass.'

(196) **wú·l** - walk (of quadruped)

wó·laʔyaqin.
wú·_{l.V.CAUSE}-ʔya·_{qVC}-in
walk.of.quadruped-to.find/discover-PERF
'I just found as I was riding (a horse).'

(197) **yoᵾ** – “manner of canine breathing”

hiwawyoᵾtámsa.
hi-we·_{w.V.DO}-yoᵾ_{V.CAUSE}-tam_{VS}-se
3NOM-split-manner.of.canine.breathing-(egressive.airstream)-IMPERF.PRS.SG
'He is whistling.'

Thematic Verb Suffixes

The class of thematic suffixes treated in this section deal only with the morphological

suffix type: directives/directional suffixes. The characteristic patterns associated with this suffix complex are the transposed movements of entities or elements within and across space. The dynamics of this transposition from one locatum to another can also index the internal spatial properties of the entities and elements themselves, including their arrangement in space.

Directives/Directionals

(198) **á·t** - as the object passes by

hiwahná·tksix.

hi-wehí(n)_{VC}-á·t-six

3NOM-to.bark.of.dogs-as.the.object.passes.by-IMPERF.PRS.PL

'They are barking as we went by.'

(199) **će** - over the object

watikća·sa.

watikí_{VS}-će-se

to.step-over.the.object-IMPERF.PRS.SG

'I am stepping on (something).'

(200) **eník** - trail behind

hipení·kse.

hipí_{VS}-eník-se

to.eat-trail.behind-IMPERF.PRS.SG

'I eat after others.'

(201) **é·pe** - into brush

wú·lelikepese.

wú·l(e)_{V.DO}-lí·k_{VC}-é·pe-se

walk.of.quadruped/ride-to.move-into.bushes-IMPERF.PRS.SG

'I am riding into the bushes.'

(202) **e·yi** - move in order to..., move around

hiwe·letpé·yikse.

hi-we·_{V.DO}-letpé_{VS}-é·yi-k-se

3NOM-by.hitting-against-move.around-K.ELEMENT-IMPERF.PRS.SG

'He is bumping around.'

(203) **kik** - away from here

ʔetwíxníkike.

ʔe-tiwí·k_{VC}-(ni)kik-e

1/2→3OBJ-to.go.with-away.from.here-PST

‘I followed it on.’

(204) **té·** - go away to

ʔipé·tése.

ʔipé·te_{VS}-te-se

to.scrape-go.away.to-IMPERF.PRS.SG

‘I go to scrape.’

(205) **ú·** - toward

hipaynó·sa.

hi-pá·y_{VS}-(n)ú·-se

3NOM-to.arrive-toward-IMPERF.PRS.SG

‘He comes to see someone.’

(206) **wi** - return from

ʔimíwise.

ʔimí_{VC}-wi-se

to.camp.for.digging.roots-return.from-IMPERF.PRS.SG

‘I am returning from digging roots.’