# nłeʔkepmxcín Somatic Suffixes*

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**Abstract:** Like all Salish languages, **nłeʔkepmxcín** (ISO 639-3: thr) has about 100 noun-like suffixes (e.g. *-inek* 'star' and *-aqs* 'nose'), which refer to concrete entities, but do not necessarily resemble freestanding nouns with similar meanings. In the literature on Salish languages, these suffixes are called **lexical suffixes** (Kinkade 1998, Hinkson 1999). Lexical suffixes are often divided into two subclasses: non-somatic suffixes, which typically refer to common objects, and somatic suffixes, which always refer to body parts inalienably possessed by an argument of the verb (Kuipers 1967, Davis 1997). This paper provides a novel analysis of somatic suffixes in which they compose with an intransitive or transitive suffix prior to combining with the predicate.

**Keywords**: nłeʔkepmxcín, lexical suffix, non-somatic, somatic, medio-reflexive, autonomous

## 1. Introduction

### 1.1 About the language

nłeʔkepmxcín (aka nlaka'pamux, Thompson River Salish, ISO 639-3: thp) is a Northern Interior Salish language spoken in the lower part of the Thompson River Gorge, the Fraser River Canyon, and the Nicola River Valley (Thompson & Thompson 1996: ix). The most recent First People's Cultural Council (FPCC) *Report on the Status of BC First Nations Languages* estimates there are about 100 fluent first-language speakers (Gessner, Herbert, and Parker 2022), most of whom are elderly.

Over the past three years, I have been working with three first-language speakers of nłeʔkepmxcín: Bev Phillips (BP), c̓úʔsinek Marty Aspinall (CMA), and kʷałtèzetkʷuʔ Bernice Garcia (KBG). Bev speaks the l̓q̓əmcín (Lytton) dialect. c̓úʔsinek speaks the scwèxmxcín (Nicola Valley) dialect, with influence on her father's side from the Stó:lō dialect of Halkomelem (Coast Salish, iso 639-3: hur).[1] kʷałtèzetkʷuʔ speaks the c̓eɬétkʷu (Coldwater) dialect. All three dialects are mutually intelligible.

### 1.2 Lexical suffixes (LS)

Like all Salish languages, nłeʔkepmxcín has about 100 suffixes with lexical as opposed to grammatical content. In the literature on Salish, Wakashan, and Chemakuan languages, these suffixes are appropriately called **lexical suffixes** (LS's): the term originates with Kinkade (1963: 352).

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[1] I use the spelling from Thompson and Thompson (1996: 45), but c̓úʔsinek spells it *scew̓exmxcín* and others spell it *scwexmxcín*.

Prior literature on Salish observes that lexical suffixes have semantic content similar to nouns (e.g. Sapir 1911: 251, Reichard 1938: 608, Kinkade 1998, Hinkson 1999). Many lexical suffixes refer to body parts (e.g. nłeʔkepmxcín *-us* 'face' and *-xn* 'foot') while others refer to common objects (e.g. *-éwíl* 'canoe' and *-ełp* 'plant').[2] However, unlike typical cases of noun incorporation and noun-verb compounding (see Mithun 1984), lexical suffixes need not resemble free-standing words with the same meanings (compare LS *-eyeq*$^{w}$ 'tree' to *syép* 'tree', or LS *-ełx*$^{w}$ 'house' to *cítx*$^{w}$ 'house').

In diachronic terms, lexical suffixes are old: many can be reconstructed to V(erb)+N(oun) and N+N compounds in Proto Salish (Kinkade 1998). The semantic extensions of each suffix vary cross-linguistically (Hinkson 1999), but the compositional grammar is largely consistent across the family.

In contemporary speech, lexical suffixes have become less productive; similar meanings are usually expressed syntactically, with obliques or prepositional phrases (PPs) (Thompson & Thompson 1992: 112). However, conservative speakers will often prefer lexical suffixed forms when they are available, judging them "more correct" or "more advanced" than analytic alternatives. When a supplied word contains a lexical suffix, speakers do have judgements about how that word behaves.

A comprehensive list of lexical suffixes in nłeʔkepmxcín can be found in Appendix B of the Thompson & Thompson (T&T) dictionary (1996: 531-543).

### 1.3 Somatic and non-somatic suffixes

In much of the literature on Salish, lexical suffixes are divided into two groups: non-somatic suffixes and somatic suffixes. The first to make this distinction is Kuipers (1967: 110, 118-119), who observes that lexical suffixes that refer to body parts often pattern differently than those that do not. He calls the non-body-part lexical suffixes **non-somatic** and calls the body-part lexical suffixes **somatic.**

Davis uses these terms in a slightly different way (1997: 58). A somatic suffix is strictly a body-part suffix with a medio-reflexive (self-directed) reading (discussed in more detail in Section 2). A non-somatic suffix is any lexical suffix without this reading. This distinction is small, but significant: it predicts that non-somatic suffixes can refer to body parts, too, so long as the predicate does not have a medio-reflexive reading. Under this definition, all lexical suffixes can be non-somatic, but only certain body-part suffixes can access a somatic reading.

## 2 Differentiating somatic suffixes

A somatic suffix can be distinguished from a non-somatic suffix based on its relationship with the predicate that hosts it. Non-somatic suffixes modify their host. Somatic suffixes are inalienably possessed by one of the predicate's arguments.

The inalienable possessor of the body part depends on the formal (in)transitive morphology of the predicate. With unaccusative predicates, which are marked by a variety of intransitive morphemes, somatic suffixes are possessed by the internal argument of the predicate (2.1). With unergative predicates, which are marked by the middle suffix *-m*, somatic suffixes are possessed by the external argument of the predicate (2.2). With control transitives, which are marked by *-n-t-*, somatic suffixes are typically possessed by the internal argument; with relational transitives, which are marked by *-min-t-*, somatic suffixes are typically possessed by the external argument (2.3). All somatic suffixes can also be used non-somatically (2.4).

### 2.1 Differentiating somatic suffixes on unaccusative predicates

[2] In the literature on Salish, lexical suffixes are often written with a double hyphen, e.g. *=us* and *=ełp* (e.g. Kinkade 1998, Thompson & Thompson 1992). I do not adopt this convention, since the double hyphen is standardly reserved for clitics (Comrie et al 2008). When referencing lexical suffixes in text, I do not mark stress unless Thompson & Thompson (1996) include it in the underlying representation.

Somatic and non-somatic suffixes pattern differently in unaccusative predicates: non-somatic suffixes are modifiers; somatic suffixes refer to a body part inalienably possessed by the internal argument.

Unaccusative predicates have one internal argument, usually a theme/patient (the undergoer of an event) or an experiencer (the undergoer of a mental or sensory state), but never the agent (the causer of an event). In nɬeʔkepmxcín, unaccusative verbs are marked with one of several morphemes: change-of-state COS ('out of control') reduplication (1) (T&T 1992: 99); the change-of-state ('immediate') suffix *-t* (2) (T&T 1992: 92); the stative prefix *ʔes-* STAT (3) (T&T 1992: 94); or the inchoative INCH morpheme, which is realized as an infix *<ʔ>* on strong (full vowel) roots (4) and a suffix *-p* on weak (schwa-only) roots (5) (T&T 1992: 97).[3]

Non-somatic suffixes on unaccusative predicates modify the verb. In (1-5), a non-somatic suffix affixes to an unaccusative predicate, and the relationship between the verb and its argument does not change. In the (a) examples, the subject is the patient or experiencer of the predicate. In the (b) examples, a non-somatic suffix is added, and the thematic role of the subject does not change.[4]

(1) Change-of-state predicate with non-somatic suffix

a. *ʔéx nukʷ x̱ʷúsəs heʔpíyə nɬə típəl*

| ʔéx=Ø=nukʷ | x̱ʷús~**əs** | [e]=eʔ-píyə | n=łə=típəl |
|---|---|---|---|
| IPFV=3SBJ=SENSE | foam~**COS** | DET=2SG.POSS-beer | on=DET=table |

'Your beer is foaming on the table.' (sf | KBG 14 Jan 2024)

b. *ʔéx nukʷ x̱ʷúsəsetkʷuʔ heʔpíyə nɬə típəl*

| ʔéx=Ø=nukʷ | x̱ʷús~**əs-etkʷu** | [e]=eʔ-píyə | n=łə=típəl |
|---|---|---|---|
| IPFV=3SBJ=SENSE | foam~**COS-water** | DET=2SG.POSS-beer | on=DET=table |

'Your beer is foaming on the table.' (sf | KBG 14 Jan 2024)

(2) change-of-sate-suffixed predicate with non-somatic suffix[5]

a. *níḵ̓t e sɣəp*

| níḵ̓-**t**=Ø | e=sɣə́p |
|---|---|
| cut-**COS**=3SBJ | DET=tree |

'The tree got cut.' (sf | KBG 18 Dec 2024)

b. *níḵ̓eyqʷ e sɣəp*

| níḵ̓-Ø-**eyqʷ**=Ø | e=sɣə́p |
|---|---|
| cut-**COS-tree**=3SBJ | DET=tree |

'The tree got cut.' (sf | KBG 7 Jan 2024)

(3) Stative predicate with non-somatic suffix

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[3] It may be more accurate to call strong roots 'accented' and weak roots 'unaccented', but I use 'full vowel' and 'schwa only' here to account for cases like (9).

[4] Abbreviations: BP Bev Phillips, CMA c̓úʔsinek Marty Aspinall, KBG kʷałtèzetkʷuʔ Bernice Garcia, sf supplied form, vf volunteered form. Glossing abbreviations not found in the Leipzig Glossing Rules (Comrie et al. 2008): AUG = augmentative, CHR = characteristic reduplication, COMPL = completive, COS = change of state, CTR = control pre-transitivizer, CTR.MID = control middle, D/C = determiner/complementizer, INCH = inchoative, INS = instrumental IMM = immediate, ITJ = interjection, LC.MID = limited control middle, PROSP = prospective aspect, RDR = redirective applicative, RLT = relational applicative, RPRT = reportative evidential, SENSE = sensory evidential, STAT = stative, WN = weak necessity modal. The first line of the gloss is intended to represent how the sentence is pronounced, and so it may contain epenthesized segments that do not appear in the second line.

[5] For unknown reasons, the immediate suffix is not pronounced in lexical-suffixed predicates, although I assume it remains interpretable in the semantics. The null allomorph of the immediate is discussed in more detail in Section 4.3.

a. ***ʔes****cáqʷ ɬ kéwəc*[6]
**ʔes-**cáqʷ=Ø ɬ=kéwəc
**STAT-**red=3SBJ DET=carrot
'The carrots are red.' (sf | KBG 18 Dec 2024)

b. ***ʔes****cáqʷ****se?*** *ɬ zelkʷúʔ*
**ʔes-**cáqʷ-**[u]se?**=Ø ɬ=zəlkʷúʔ
**STAT-**red-**berry**=3SBJ DET=chokecherry
'The chokecherries are red.' (sf | KBG 18 Dec 2024)

(4) Inchoative-infixed predicate with non-somatic suffix

a. *k̓ʔéx e kéwəc*
k̓**<ʔ>é**x=Ø e=kéwəc
dry<INCH>=3SBJ DET=carrot
'The carrots have dried.' (sf | KBG 18 Dec 2024)

b. *k̓e****ʔxúseʔ*** *e spəqpáq*
k̓e**<ʔ>**x-**úseʔ**=Ø e=s-pəq~páq
dry**<INCH>-berry**=3SBJ DET=NMLZ-AUG~white
'The saskatoons have dried.' (sf | KBG 18 Dec 2024)

(5) Inchoative-suffixed predicate with non-somatic suffix

a. *cʕ****ə́p*** *eʔnƛ̓píc̓eʔ*
cʕ**-ə́p**=Ø [e]=eʔ-nƛ̓píc̓eʔ
rip-**INCH**=3SBJ DET=2SG.POSS-shirt
'Your shirt is torn.' (sf | KBG 21 Jan 2025)

b. *caʕ****píc̓eʔ*** *xéʔe tk kepú*
cəʕ**-p-íc̓eʔ**=Ø xéʔe t=k=kepú
rip-**INCH-covering**=3SBJ DEM OBL=DET=coat
'That coat is torn.' (sf | KBG 21 Jan 2025)

In contrast, somatic suffixes on unaccusative predicates must be inalienably possessed by the internal argument. In (6)-(10), the body part belongs to the subject, which is marked by intransitive subject agreement clitics.

(6) Change-of-state predicate with somatic suffix

*tíʕ̓ʷ****ʕ̓ʷxn*** *kʷ*
tíʕ̓ʷ**~ʕ̓ʷ-xn**=kʷ
free**~COS-foot**=2SG.SBJ
'Your shoe is untied.'
Lit. 'Your feet are free (from being bound).' (sf | KBG 5 March 2025)

(7) Change-of-state-suffixed predicate with somatic suffix

*p̓aʕ****cín*** *kn tłə kápi*
p̓aʕ-Ø-**cín**=kn tu=ɬ=kápi

[6] Here, I follow KBG's pronunciation *kéwəc*. Thompson & Thompson (1992: 82) spell it *káləc*.

burn.flesh-COS-**mouth**=1SG.SBJ from=DET=coffee
'My mouth got burned by the coffee.' (sf | KBG 4 Dec 2024)

(8) Stative predicate with somatic suffix

***ʔes**kəɬkəɬ**xə́n***
**ʔes-**kəɬ~kəɬ-**xə́n**=Ø
**STAT-**AUG~remove-**foot**=3SBJ
'She has her shoes off.'
Lit. 'Her feet are removed.' (T&T1992:83)

(9) Inchoative-infixed predicate with somatic suffix[7]

*c̓éɬkstme wɬe qʷúʔ ʔe keʔs ceʔk**ékst***
c̓éɬ-[e]kst-m-e=Ø w=ɬ=qʷúʔ ʔe=Ø
cold-hand-CTR.MID-IMP=3SBJ to=DET=water COP=3SBJ
k=eʔ=s=ce**<ʔ>**k-**ékst**
D/C=2SG.POSS=NMLZ=cool**<INCH>-hand**
'Put your hands in cool water so that your hands will cool off.' (T&T1996:18)

(10) Inchoative-suffixed predicate with somatic suffix

*nq̓uʔ**pékst** kʷ n̓*
n-qw̓**-p-ékst**=kʷ=n̓
LOC-break**-INCH-hand**=2SG.SBJ=Q
'Did you break your arm?' (vf | BP 20 Feb 2025)

This relation of inalienable possession is unique to somatic suffixes; it does not occur in the non-somatic examples (1-5).

## 2.2 Differentiating somatic suffixes on unergative predicates

A similar pattern holds of unergative predicates: non-somatic suffixes are modifiers, whereas somatic suffixes refer to a body part possessed by the *external* argument.

Unergative predicates are morphological intransitives (i.e. they take intransitive subject clitics) whose subject is the agent of the event. In nɬeʔkepmxcín, unergative predicates are marked with the control middle CTR.MID suffix *-m* (T&T 1992: 102).[8]

Although middle-marked predicates are morphologically intransitive, they do have an internal (patient) argument. This argument is not accompanied by object agreement, which only appears on formally transitive predicates. If the internal argument is unspecified, the patient is implied (11a). If the internal argument is specified, it is preceded by an oblique marker *t=* (Kroeber 1997: 380) (11b). In the literature on Salish, this oblique-marked patient is often referred to as an **oblique object** (from Hukari 1979: 158).

(11) Unergative predicate (no lexical suffixes)

a. *cwə́m seʔ kn*

[7] Brent Hall (p.c.) notes that the inchoative infix may have been reanalyzed as a weak root in this example.
[8] Thompson & Thompson also describe a limited control middle *-nwéɬn* LC.MID (T&T 1992: 106); see Nederveen (2022) on the cognate *-nwelln* in Secwepemctsín (aka Shuswap, ISO 639-3: shs). However, *-nwéɬn* occasionally occurs after the control middle, which would be unexpected if both morphemes were middles, e.g. *cw-əm-nwéɬn* 'manage to get a job, manage to work' (T&T 1996: 42), *pun-m-nwéɬn* 'find s.t. that was lost' (T&T 1996: 247). I leave the status of the limited control middle to future research.

cw-ə́m=seʔ=kn
make-CTR.MID=WN=1SG.SBJ
'I should work.'
Lit. 'I should be making (things).' (T&T1992:141)

b. *cwə́m ekʷu te stéʔ teʔ*

| | | |
|---|---|---|
| cw-m=Ø=ekʷu | t=e=s-téʔ | teʔ |
| make-CTR.MID=3SBJ=RPRT | OBL=DET=NMLZ-what | DEM |

'They said he made something there.' (T&T1992:217)

Non-somatic suffixes in unergative predicates modify the verb. They do not change the relationship between the predicate and its external argument (12a), nor do they change the relationship between the predicate and its internal argument (12b).

Note that lexical suffixes in nłeʔkepmxcín always precede the middle. This is evidence that lexical suffixes attach to predicates before an agent is introduced.[9]

(12) Unergative predicate with non-somatic suffix

a. *xʷúy̓ kʷn̓ cw**étkʷume***[10]

| | |
|---|---|
| xʷúy̓=kʷ=n̓ | cw-**étkʷu-m** |
| PROSP=2SG.SBJ=Q | make-**water-CTR.MID** |

'Are you gonna make homebrew?' (sf | KBG 7 Jan 2024)

b. *xʷúy̓ kʷn̓ cw**étkʷuʔme** te scáqʷm*

| | | |
|---|---|---|
| xʷúy̓=kʷ=n̓ | cw-**étkʷuʔ-m** | t=e=s-cáqʷm |
| PROSP=2SG.SBJ=Q | make-**water-CTR.MID** | OBL=DET=NMLZ-saskatoon |

'Are you gonna homebrew saskatoons?' (sf | KBG 7 Jan 2024)

By contrast, somatic suffixes on unergative predicates refer to a body part that must be possessed by the external argument (the agent) (see Kuipers 1967: 119, Davis 1997: 65, 70). This results in a **medio-reflexive** reading, in which the agent directs the action toward their own body (Davis 1997: 70).

(13) Unergative predicates with somatic suffixes

a. *ʔéx kn c̓éw̓**kstm***

| | |
|---|---|
| ʔéx=kn | c̓éw̓-[**e**]**kst-m** |
| IPFV=1SG.SBJ | wash-**hand-CTR.MID** |

'I'm washing my (own) hands.' (sf | BP 21 Nov 2024)

b. *xʷél**kstme***

| |
|---|
| xʷél-**[e]kst-m**-e |
| raise-**hand-CTR.MID**-IMP |

'Lift your (own) arm up.' (sf | CMA 14 Aug 2024)

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[9] This is not necessarily the case in other Salish languages; in Nxaʔamcín, lexical suffixes can also occur *after* the middle (Czaykowska-Higgins, Willett, & Bart 1996). In some cases, the LS refers to a location, consistent with some non-somatic suffixes (p. 14 ex. 41). But when the LS *-ált* 'child' follows the middle (p. 8-9 ex. 17-21), it refers to the agent, rather than the patient. What's particulary surprising about these cases is that the subject seems to refer to the possessor of the child. Unfortunately, this cannot be tested, but if this were the case, it could be argued that Nxaʔamcín *-ált* 'child' is a unique kind of somatic suffix (i.e. it changes the predicate's argument structure) which does not refer to a body part. The Nxaʔamcín cases are beyond the scope of this paper.

[10] The control middle suffix may surface as *-me* after a post tonic open syllable ending in a resonant or laryngeal, or one without a coda (T&T 1992: 102).

c. *xʷúẏ̓ kʷ ṅ ʔíqʷ**cnme***
xʷúẏ̓=kʷ=ṅ ʔíqʷ-**c[i]n-m**
PROSP=2SG.SBJ=Q scrape-**mouth-CTR.MID**
'Are you gonna shave?'
Lit. 'Are you gonna scrape your (own) mouth?' (sf | KBG 13 Nov 2024)

Crucially, the medio-reflexive reading is not pragmatically determined: it is strictly entailed by the predicate. If context demands that the body part belongs to someone other than the agent, the sentence is rejected.

(14) Context: A parent calls their kid to dinner from the other side of the house, but the kid is busy washing the baby's face.
*# ʔéx kn ċéẇ**usm***
# ʔéx=kn ċéẇ-**[u]s-m**
IPFV=1SG.SBJ wash-**face-CTR.MID**
Intended: 'I'm face-washing (them)' (sf | CMA 2024 Aug 21)
CMA: 'Whose face are they washing?'

Judgements like the one in (14) are unique to somatic suffixes. Non-somatic suffixes do not entail inalienable possession on unergative predicates (see 11-12).

### 2.3 Differentiating somatic suffixes on transitive predicates

On transitive predicates, non-somatic suffixes are modifiers, whereas somatic suffixes refer to body parts inalienably possessed by an argument of the verb. The exact argument that inalienably possesses the body part depends on the transitivizing morphology, and varies somewhat between dialects.

Transitive predicates agree with two arguments: an object argument and an ergative (transitive subject) argument. In nłeʔkepmxcín, transitives are derived via the transitivizing TR suffix *-t* (T&T 1992: 61) and one of several pre-transitivizers, which define the relationship between the transitive verb and its arguments: these include the control CTR suffix *-n* (15) (T&T 1992: 62, 65), the causative CAUS suffix *-s* (16) (T&T 1992: 70), the redirective RDR suffix *-xi* (17) (T&T 1992: 71), and the relational RLT suffix *-min* (18) (T&T 1992: 73).

Non-somatic suffixes are not sensitive to the transitive morphology of the predicate. Irrespective of the pre-transitivizer, a non-somatic suffix modifies the verb without changing its relationship to its arguments. In (15a-18a), the pre-transitivizer specifies the semantic role of each argument. In (15b-18b), a non-somatic suffix is added, and the role of each argument does not change.

Note that lexical suffixes in nłeʔkepmxcín always precede transitivizing morphology. This is further evidence that lexical suffixes attach to predicates before an agent is introduced.

(15) Control transitive predicate with non-somatic suffix[11]

a. *ʔécqʷ**e**s e páy te zelkʷúʔ*
ʔécqʷ-**n-[t]**-Ø-[e]s=Ø e=páy
bake-**CTR-TR**-3OBJ-3ERG=3SBJ DET=pie
t=e=zəlkʷúʔ
OBL=DET=chokecherry
'She baked a pie with (unpitted) chokecherries.' (sf | KBG 24 Jan 2025)

[11] Transitives in nłeʔkepmxcín take an expletive third-person subject enclitic, in addition to subject and object agreement suffixes (see Davis 1998). In the possessive and subjunctive paradigms, the third-person subject clitic is overt. In the indicative paradigm, the third-person subject clitic is phonologically null.

b. *ʔecqʷ**úseʔ**s e scáqʷm*
ʔecqʷ-**úseʔ-n-[t]**-Ø-[e]s=Ø e=s-cáqʷm
bake-**berry**-**CTR-TR**-3OBJ-3ERG=3SBJ DET-NMLZ-saskatoon
'She baked saskatoons.' (sf | KBG 24 Jan 2025)

(16) Causative transitive predicate with non-somatic suffix

a. *c̓aʔq̓ʷ**st**és*
c̓a<ʔ>q̓ʷ-**s-t-**Ø-és=Ø
get.wet<INCH>**-CAUS-TR**-3OBJ-3ERG=3SBJ
'They get it wet.' (T&T1996:48)

b. *c̓aʔq̓ʷ**éytxʷst**xʷ eʔqəpqín*
c̓a<ʔ>qʷ-**éytxʷ**-s-t-Ø-[e]xʷ=Ø e=[e]ʔ-qəpqín
get.wet<INCH>**-fur-CAUS-TR**-3OBJ-2SG.ERG=3SBJ DET=2SG.POSS-kerchief
'You got your kerchief wet.' (T&T1996:48)

(17) Redirective transitive predicate with non-somatic suffix

a. *níḱ**x**cn tk eʔ súypm*
níḱ-**x[i]-t-**s[i]-n=Ø t=k=eʔ-súypm
cut-**RDR-TR**-2SG.OBJ-1SG.ERG=3SBJ OBL=DET=2SG.POSS-Firewood
'I cut some firewood for you.' (vf | KBG 22 Jan 2025)

b. *nwén̓ ʔesníḱ**sypx̓**cn tk eʔ súypm*
nwén̓=Ø ʔes-níḱ-**úsyep̓-x[i]-t**-s[i]-n
already=3SBJ STAT-cut-**firewood-RDR-TR**-2SG.OBJ-1SG.ERG
t=k=eʔ-súypm
OBL=DET=2SG.POSS-firewood
'I cut some firewood for you.' (vf | KBG 22 Jan 2025)

(18) Relational transitive predicate with non-somatic suffix

a. *ʔu níɬm̓ ʔesʔep̓**mín**s e kás tułə nx̌̓píc̓eʔs*
ʔu níɬm̓ ʔes-ʔep̓-**mín-[t]**-Ø-[e]s=Ø e=ká-s
oh ITJ STAT-wipe-**RLT-TR**-3OBJ-3ERG=3SBJ DET=car-3POSS
tu=ɬ=nx̌̓píc̓eʔ-s
from=DET=Shirt-3POSS
'Oh níɬm̓![12] He's wiping his car with his shirt!' (vf | KBG 22 Jan 2025)

b. *ʔep̓**yetxʷmín**sn̓ e ká tułə nx̌̓píc̓eʔs*
ʔep̓-**yetxʷ-mín-**[t]-Ø-[e]s=Ø=n̓ e=ká
wipe-**fabric-RLT-TR**-3OBJ-3ERG=3SBJ=Q DET=car
tu=ɬ=nx̌̓píc̓eʔ-s
from=DET=shirt-3POSS
'Is he wiping the car with his shirt?' (sf | KBG 21 Jan 2025)

By contrast, somatic suffixes are sensitive to the predicate's pre-transitivizer, which determines which argument inalienably possesses the body part. The exact alternations vary between dialects.

[12] *níɬm̓* indicates "surprise and recognition of a situation" (T&T 1992: 219).

In the ƛ̓q̓əmcín dialect, somatic suffixes on control transitive predicates are inalienably possessed by the object (19), and somatic suffixes in relational transitive predicates are inalienably possessed by the subject (20). This is the same pattern that occurs in St̓át̓imcets (Van Eijk 1985: 118-120).

(19) Control transitive predicates with somatic suffixes

a. *c̓éw̓kstne ƛ̓əm̓ sander*
c̓éw̓-**[e]kst-[n]-[t]**-Ø-[e]ne=Ø=ƛ̓əm̓ [e]=*sander*
wash-**hand-CTR-TR-**3OBJ-1SG.ERG=3SBJ=2CL DET=sander
'I washed Sander's hands.' (vf | BP 29 May 2025)

b. *c̓éw̓kstne e sander*
c̓ew̓-[**e]kst-[n]-[t]**-Ø-[e]ne=Ø e=*sander*
wash-**hand-CTR-TR-**3OBJ-1SG.ERG=3SBJ DET=sander
'I washed Sander's hands.' (sf | CMA 3 February 2025)

c. *ʔeł naʕʔíp neʔ ʔesntəq**cín**ne xéʔe tk rúm ʔéy*[13]
ʔeł naʕʔíp=Ø neʔ ʔes-n-təq-**cín-[n]-[t]**-Ø-[e]ne
and always=3SBJ DEM STAT-LOC-close-**mouth-CTR-TR-**3OBJ-1SG.ERG
xéʔe t=k=rúm ʔéy
DEM OBL=DET=room yes
'I always close that room.' (vf | CMA 29 Sep 2023)
Lit. 'I always close that room's mouth.'

(20) Relational transitive predicates with somatic suffixes

a. *cukʷ us k skł**ékstm**nxʷ*
cukʷ=us k=s=kł-**ékst-m[i]n-[t]**-Ø-[e]xʷ
finish=3SBJV D/C=NMLZ=remove-**hand-RLT-TR-**3OBJ-2SG.ERG
'Don't let go of it.' (vf | BP 27 Feb 2025)

b. *ʔuu gee teʔ k sqʷn**ekstmt**íyxs nke*
ʔuu *gee* teʔ=Ø k=s=qʷn-**ekst-m[in]-t**-Ø-íyxs=nke
oh gee NEG=3SBJ D/C=NMLZ=poor-**hand-RLT-TR-**3OBJ-3PL=3SBJ=INFER
'They didn't have pity on her.'
Lit. 'Their hands weren't poor for her.' (vf | KBG 29 Sep 2023)

The readings in (19)-(20) are the only ones available in the ƛ̓q̓əmcín dialect. Somatic suffixes in control transitives cannot be inalienably possessed by the subject (21b), and somatic suffixes in relational transitives cannot be inalienably possessed by the object (22b). [14]

(21) Context: I hand my friend a rope, and I do not want him to let go. I say:

a. *cukʷ us k skłékstmnxʷ e x̣ʷíʔləm*

[13] In this example, the lexical suffix is grammatically somatic, i.e. it changes the argument structure such that the subject is an inalienable possessor; however, the LS undergoes metaphorical extension, i.e. it is no longer literally interpreted as a body part..

[14] Judgements sometimes vary between elicitation sessions, e.g. when (22) was re-elicited on 7 Aug 2025, the same consultant commented " I don't know. It sounds good," and accepted a supplied translation "I washed Sander's hands." This suggests that judgements on somatic-suffixed transitives are beginning to weaken, and the ƛ̓q̓əmcín dialect is transitioning into a pattern more similar to the scwə̀xmxcín dialect. However, this transition is not complete; since rejections like (22b) can still be elicited.

cukʷ=us k=s=kɬ-**ékst-m[i]n-[t]**-Ø-[e]xʷ e=x̱ʷíʔləm
finish=3SBJV D/C=NMLZ=**remove-hand-RLT-TR**-3OBJ-2SG.ERG DET=rope
'Don't let go of the rope.'
Lit. 'Don't release your hand from the rope.' (sf | BP 29 May 2025)

b. *# cukʷ us k skɬ**ékst**nxʷ e x̱ʷíʔləm*
# cukʷ=us k=s=kɬ-**ékst-n-[t]**-Ø-[e]xʷ e=x̱ʷíʔləm
finish=3SBJV D/C=NMLZ=**remove-hand-CTR-TR**-3OBJ-2SG.ERG DET=rope
BP: "No." (sf | 29 May 2025)

(22) Context: Sander is sick, and so I wash his hands for him.

a. *c̓éw̓**kst**ne ɬ sander*
c̓éw̓**-[e]kst-[n]-[t]**-Ø-[e]ne=Ø ɬ=sander
wash-**hand-CTR-TR**-3OBJ-1SG.ERG=3SBJ DET=sander
'I washed Sander's hands.' (vf | BP 20 Feb 2025)

b. *# c̓éw̓**kstm**ne ɬ sander*
# c̓éw̓-**[e]kst-m[i]n-[t]**-Ø-[e]ne=Ø ɬ=sander
wash-**hand-RLT-TR**-3OBJ-1SG.ERG=3SBJ DET=sander
BP: "I don't know if you'd go with that. *c̓éw̓kstne*." (sf | BP 20 Feb 2025)

The scwèxmxcín dialect allows additional readings. In (23), the context demands that the body part belongs to the subject, and both relational and control marking are permitted. In (24), the context demands that the body part belongs to the object, and the relational is volunteered.

(23) Context: A mother hands her kid something fragile, and wants to warn him not to drop it.

a. *cukʷ us k skɬékstmnxʷ*
cukʷ=us k=s=kɬ-**ékst-m[i]n-[t]**-Ø-[e]xʷ
finish=3SBJV D/C=NMLZ=release-**hand-RLT-TR**-3OBJ-2SG.ERG
'Don't let go of it.' (sf | KBG 4 Jun 2025)
KBG: "*ʔey* 'yes'."

b. *cukʷ us k skɬékstnxʷ*
cukʷ=us k=s=kɬ-**ékst-n-[t]**-Ø-[e]xʷ
finish=3SBJV D/C=NMLZ=release-**hand-CTR-TR**-3OBJ-2SG.ERG
'Don't let go of it.' (sf | KBG 4 Jun 2025)
KBG: "Yep, that's better."

(24) *qʷnóx̱ʷ sander ʔe meɬ neʔ sc̓éw̓kstmne*
qʷnóx̱ʷ=Ø [e]=sander ʔe=Ø=meɬ neʔ
sick=3SBJ DET=sander COP=3SBJ=2CL DEM
[e]=s=c̓éw̓-**[e]kst-m[in]-[t]**-Ø-[e]ne
D/C=NMLZ=wash-**hand-RLT-TR**-3OBJ-1SG.ERG
'Sander is sick and so I wash his hands.' (vf | CMA 2 Jun 2025)

Somatic suffixes on redirective predicates with *-x(i)-t* pattern like somatic suffixes on control transitives: the body part is inalienably possessed by the object argument, which denotes the goal/recipient.

(25) *c̓éw̓**kstx**ne ɬ sander*
c̓éw̓-**[e]kst-x[i]-t**-Ø-[e]ne ɬ=sander

wash-**hand-RDR-TR**-3OBJ-1SG.ERG DET=sander
'I washed Sander's hands.' (sf | BP 20 Feb 2025)

(26) *kɬ**ékn̓x**cme*
kɬ-**ékn̓-x[i]-t**-s[e]m-e
remove-**back-RDR-T**R-1SG.OBJ-IMP
'Take my pack off!' (T&T1996:95)
Lit. 'Remove (it) from my back for me!'

Across unaccusative, unergative, and transitive predicates, somatic suffixes can be consistently distinguished from non-somatic suffixes. In all three predicate types, non-somatic suffixes modify the verb without regard for the predicate's (in)transitive morphology. By contrast, somatic suffixes *are* sensitive to the predicate's (in)transitive morphology, which determines the body part's inalienable possessor.

### 2.4 Non-somatic and somatic body-part suffixes

Although all somatic suffixes refer to body parts, not all body-part lexical suffixes are somatic. Non-somatic body-part suffixes can be found on unaccusative predicates (27), unergative predicates (28) and transitive predicates (29).

Non-somatic body-part suffixes differ from somatic suffixes in three ways: (i) they refer to non-specific body parts, not inalienably possessed body parts; (ii) they may refer to a location or instrument instead of a core argument of the verb; and (iii) they are more likely to undergo semantic broadening via metaphorical extension (see Hinkson 1999), although metaphorical extension of somatic suffixes is attested, e.g. (19c). All three differences are exemplified in (27-29). In (27b), the lexical suffix *-xn* 'foot' undergoes metaphorical extension from 'foot' to 'shoe'.[15] In (28b), the lexical suffix *-ekst* 'hand' refers to an instrument. In (29b), the lexical suffix *-aqs* 'nose' undergoes metaphorical extension from 'nose' to 'pointed object' to 'gun' *and* refers to an instrument. None of these three examples entail inalienable possession.

(27) Unaccusative

a. *cíyci e máʔxetn*
cíy~ci=Ø e=máʔxetn
new~CHR=3SBJ DET=moon
'The moon is new.' (T&T1996:33)

b. *cicyéleʔ**xn** e síɬc̓uʔs*
ciy~cy-éleʔ-**xn** e=síɬc̓uʔ-s
new~CHAR-CONN-**foot** DET=shoe-3POSS
'His shoes are new.' (T&T 1996: 30)

(28) Unergative

[15] The suffix *-éleʔ* is likely a vestigial compound connective left over from Proto Salish, when lexical suffixes were full nouns productively compounded with predicates (see Kinkade 1998). Thompson and Thompson gloss it as a 'formative' or 'stem extender' (1996: 553); however, I use the same label as the compound connective *-ɬ-* CONN for clarity. Henry Davis (p.c.) suggests that *-éleʔ+xn* could have specialized to mean 'shoe', similar to Stʼatʼimcets *-al+us* 'eye' from CONN+face, or *-la+kaʔ* 'tool' from CONN+hand. However, there are certainly cases where the connective is meaningless, e.g. *ch-éleʔ-xn-me* 'arange one's own feet or legs''(T&T 1996: 28), *siʔh-éleʔ-xn* 'right foot' (T&T 1996: 80).

a. *ʔéx kʷn̓ cwə́m tn nzéwmn*[16]
ʔéx=kʷ=n̓ cw-m
IPFV=2SG.SBJ=Q make-CTR.MID
t=[e]=n-zéw-m[i]n
OBL=DET =LOC-fish.with.dipnet-INS
'Are you making a dipnet?' (vf | KBG 17 Dec 2024)

b. *cw**ékst**m nukʷ n̓ te c̓y̓é*
cw-**ékst**-m=Ø=nukʷ=n̓ t=e=c̓y̓é
make-**hand**-CTR.MID=3SBJ=SENSE=Q OBL=DET=basket
'Was the basket made by hand? (vf | KBG 13 Nov 2024)

(29) Transitive

a. *nés cúłxc kʷə́ƛ̓uʔ włe sɣép ł nk̓əm̓qíns*
nés=Ø cúł-x[i]-t-Ø-[e]s kʷə́ƛ̓uʔ w=łe=sɣə́p
go=3SBJ point-RDR-TR-3OBJ-3ERG that's.why to=DET=tree
ł=n-k̓əm̓-qín-s
DET=LOC-surface-head-3POSS
'He pointed it over to the tree top.' (T&T1996:40)

b. *cúł**qs**xtxʷ*
cúł-[**a]qs**-x[i]-t-Ø-[e]xʷ=Ø
point-**nose**-RDR-TR-3OBJ-2SG.ERG=3SBJ
'You point a gun at him.'
Lit. 'You point a nose at him.' (T&T 1992:22)

All somatic suffixes can access non-somatic readings, sometimes on the same predicate. In (30), the lexical suffix is ambiguous between a non-somatic reading (30a) and two somatic readings (30b-c). In the non-somatic reading (30a), the lexical suffix refers to an indefinite body part, undergoing metaphorical extension from 'head' to a classifier for grain. In the somatic readings (30b-c), the body part must be inalienably possessed.

(30) *ƛ̓əxʷqínm*
ƛ̓əxʷ-qín-m=Ø
shake-head-CTR.MID=3SBJ

a. 'thresh wheat'
Lit. 'shake a head' (T&T1996:177)

b. '[of a horse] shake [*its own*] head' (ibid:177)

c. '[of a person] brush [*one's own*] hair' (ibid:177)

Typically, when an ambiguous lexical suffix can have non-somatic and somatic readings on the same predicate, the non-somatic reading is lexicalized. In (31a), the non-somatic reading has lexicalized to refer to a specific cultural practice of adjusting a baby's nose shortly after birth. In this case, a somatic reading

[16] What I have transcribed as *tn nzéwmn* is pronounced with a double n. It could be the case that KBG volunteered it with a first person singular possessive proclitic *n=* which precedes the locative, but this is not reflected in the translation and is not included in the gloss.

is still accessible in a clear enough context (31b), but is outcompeted by the lexicalized non-somatic reading (see consultant's comment).

(31) a. Context: A father asks an elder if they fixed the baby's nose yet:
*nwéṅ ncw**áqs**m kʷṅ*
nwéṅ n-cw-**áqs**-m=kʷ=ṅ
already LOC-fix-**nose**-CTR.MID=2SG.SBJ=Q
'Did you already fix the nose?' (sf | BP 31 Oct 2024)

b. Context: An action-movie hero breaks their nose, but snaps it in place:
*ʔ c̓q̓áqs ʔiɬ cw**áqs**m us*
ʔ c̓q̓-Ø-áqs=Ø ʔiɬ cw-**áqs**-m=us
get.hit-COS-nose=3SBJ before fix-**nose**-CTR.MID=3SBJV
'He got hit on the nose, and then he fixed it.' (sf | BP 31 Oct 2024)
BP: "Is that term for babies or for everybody? I guess if it's a term usable for everything, then you probably could say that. But if it's a specific term for fixing a baby's nose, then no you can't."

The ambiguity between somatic and non-somatic body-part suffixes results in regular, productive alternations like (32), where the lexical-suffixed predicate can select either an inalienable possessor or a more specific version of the body part denoted by the lexical suffix. In (32a) and (33a), the lexical suffix *-ekst* 'hand' is somatic, so the first or second-person subject is interpreted as the inalienable possessor. In (32b) and (33b), the same lexical suffix is non-somatic, so the third-person subject is not interpreted as the inalienable possessor. The non-somatic pattern is only permissible when the lexical suffix is vague on its own (see comments on 33b).

(32) a. *ném péw**kst kn***
ném péw-Ø-**ekst**=**kn**
very swell-COS-**hand**=**1SG.SBJ**
'My hand is very swollen.' (sf | KBG 4 Dec 2024)

b. *ném péw**kst** nkéykix*
ném péw-Ø-**ekst=Ø** n-kéykix
very swell-COS-**hand**=**3SBJ** 1SG.POSS-hands
'My hands are very swollen.' (sf | KBG 4 Dec 2024)

(33) a. *níḵ**ekst kʷ***
níḵ-Ø-**ekst**=**kʷ**
cut-COS-**hand**=**2SG.SBJ**
'Your hand got cut.' (sf | BP 29 May 2025)

b. *níḵ**ekst** eʔkéykiyx*
níḵ-Ø-**ekst=Ø** eʔ-kéykix
cut-COS-**hand**=**3.SBJ** 2SG.POSS-hands
'Your hands got cut.' (sf | BP 29 May 2025)
BP: "I don't know if you'd have to say *kéykix,* because *-ekst* is already about your hand, but you could, I guess."
RS: "If you wanted to specify your hand from your arm, could you say *níḵekst eʔkéykiyx*?"
BP: *"níḵekst eʔkéykiyx*. Yes."

This is strong evidence that somatic suffixes are only a *subset* of body-part-denoting lexical suffixes. All somatic suffixes refer to body parts, but not all body-part-denoting lexical suffixes are somatic.

To summarize this section, there are necessarily two subclasses of lexical suffixes: somatic suffixes and non-somatic suffixes. Somatic suffixes refer to a body part inalienably possessed by an argument of the verb, as determined by the predicate's (in)transitive morphology. By contrast, non-somatic suffixes are predicate modifiers, which need not be inalienably possessed. All lexical suffixes can access non-somatic readings; only some body-part lexical suffixes can access somatic readings.

## 3. Existing approaches to somatic suffixes

In the literature on Salish, there are two main approaches to modeling the semantics of somatic suffixes. One approach argues that somatic suffixes select an inalienable possessor argument (Wiltschko 2009). For ease of reference, I call this the **inalienable possession hypothesis** (Section 3.2.1). The other approach argues that the possessive semantics come from reflexive allomorphs of the (in)transitive morpheme (Gerdts & Hukari 1998, Gerdts 2000b, 2003). I call this the **reflexive middle hypothesis**.

Both approaches make significant contributions to the literature on lexical suffixes, and my proposal borrows from both of them. However, as written, neither approach can generalize to all environments in nłeʔkepmxcín.

### 3.1 Inalienable possession hypothesis

In her treatment of Halkomelem (ISO 639-3: hur), Wiltschko suggests somatic suffixes select an inalienable possessor argument (2009: 215). I formalize this as a function of type <e,et> (i.e. a relation between two individuals), as in (34). The function selects two arguments: an individual x, which is a hand, and an individual y, which inalienably possesses x.

(34) $[\![\text{-}ekst]\!] = \lambda x_e \lambda y_e.\text{Hand}(x) \wedge \text{InalPoss}(x)(y)$
'Take an individual x and an individual y. Return TRUE iff x is a hand inalienably possessed by y'

The challenge with a denotation like (34) is composing the somatic suffix with the predicate. Wiltschko (2009: 213-214) suggests that somatic suffixes compose via an operation called Predicate Restriction, or simply Restrict (Chung & Ladusaw 2004). In formal terms, Restrict works by intersecting a function of type <e,t> with a predicate such that the internal argument of the predicate is a member of the characteristic function of that set (Chung & Ladusaw 2004: 6, 18). This approach does work for many *non-somatic* suffixes, e.g. (5b), repeated here as (35).

(35) *caʕpíc̓eʔ xéʔe tk kepú*

| | | |
|---|---|---|
| cəʕ-p-**íc̓eʔ**=Ø | xéʔe | t=k=kepú |
| rip-INCH-**covering**=3SBJ | DEM | OBL=DET=coat |

'That coat is torn.' (sf | KBG 21 Jan 2025)

The semantics of (35) can be formalized as in (36). Step (i) introduces the stem *caʕp* 'get ripped' represented as a function of type <e,vt>, where *v* is the type of events. Step (ii) introduces the non-somatic suffix *-íc̓eʔ* 'outer covering' represented as a function of type <e,t>. Step (iii) combines the non-somatic suffix with the predicate via Restrict.

(36) Patient modifier reading via Restrict

(i) $[\![caʕp]\!] = \lambda x_e \lambda e_v.\text{Rip}(e) \wedge \text{Patient}(x)(e)$
'A ripping event *e* has a patient *x*.'

(ii) ⟦-*íc̓eʔ*⟧ = $\lambda x_e$.Covering(x)
'*x* is an outer covering.'

(iii) Restrict (⟦*caʕp*⟧,⟦-*íc̓eʔ*⟧) = $\lambda x_e \lambda e_v$.Rip(e)∧Patient(x)(e)∧Covering(x)
'A ripping event *e* has a patient *x* which is an outer covering'

However, Restrict cannot generalize to somatic suffixes under the inalienable possession hypothesis. As formalized in (34), somatic suffixes are of type <e,et>. But Restrict is defined as "a binary operation that composes a predicate directly with a property to yield a predicate without changing the degree of unsaturation" (Chung & Ladusaw 2004: 6), with a 'property' treated as a function of type <e,t> (e.g. Chung & Laduslaw 2004: 5, 18, 19, 21). Restrict is formulated to compose predicates with functions of type <e,t>, not with functions of type <e,et>.

One solution, which this paper does not adopt, would be to use an alternative mode of composition that *does* compose predicates with functions of type <e,et>. This mode of composition would equate the internal argument of the predicate to the internal argument of the somatic suffix, leaving the inalienable possessor argument of the somatic suffix available for saturation. This hypothetical mode of composition is formalized as "Restrict2" in (37a). Applying Restrict2 to the somatic suffix in (34) would yield a denotation like (37b), and applying that denotation to *ník* 'get cut', the predicate in (33a), would yield a denotation like (37c).[17]

(37) "Restrict2" for functions of type <e,et> (for illustrative purposes only)

a. Restrict2 = $\lambda Q_{<e,et>} \lambda P_{<e,vt>} \lambda y_e \lambda e_v. \exists x_e$[P(x)(e)∧Q(x)(y)]
'Take a function Q of type <e,et>, a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e is true, and Q applied to x and y are true.'

b. Restrict2(⟦-*ekst*⟧) = $\lambda P_{<e,vt>} \lambda y_e \lambda e_v. \exists x_e$[P(x)(e)∧Hand(x)∧InalPoss(x)(y)]
'Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e is true, and x is a hand inalienably possessed by y.'

c. Restrict2(⟦*nik̓*⟧, ⟦*ekst*⟧) = $\lambda y_e \lambda e_v. \exists x_e$[Cut(e)∧Patient(x)(e)∧Hand(x)∧InalPoss(x)(y)]
'Take an individual y and an event e. Return TRUE iff there exists an individual x such that e is a cutting event whose patient is x, and x is a hand inalienably possessed by y.'

While a function like Restrict2 may be independently useful for instances of Type II (case-manipulating) noun incorporation in other languages (Mithun 1984), it cannot generalize to all predicates in nɬeʔkepmxcín. If all somatic suffixes compose with the predicate via the same mode of composition (e.g. Restrict2), and if this mode of composition always has the same denotation (e.g. 37a), then the inalienable possessor argument should consistently correspond to the next argument introduced.

But this is not the case in nɬeʔkpemxcín: recall that in the l̓q̓əmcín dialect, which most closely resembles the pattern in other Salish languages, somatic suffixes are inalienably possessed by the transitive object in control transitives, and by the transitive subject in relational transitives. Restrict2, or a similar mode of composition, cannot account for these alternations: it occurs before the control middle and

[17] The semantics of Restrict2 could alternatively be formalized as part of the lexical suffix itself, as in (i). Note that the denotation is identical to (37b).

(i) ⟦-ekst⟧ = $\lambda P_{<e,vt>} \lambda y_e \lambda e_v. \exists x_e$[P(x)(e)∧Hand(x)∧InalPoss(x)(y)]

transitive suffixes are introduced, and so it's blind to the argument structure of the predicate. To account for all predicate types, the semantics of the relevant (in)transitive morphology must be taken into account.

### 3.2 Reflexive (in)transitivizer hypothesis

The reflexive (in)transitivizer hypothesis derives somatic readings from the semantics of the (in)transitive morphology rather than the somatic suffix itself. The formalization here draws from Gerdts and Hukari (Gerdts & Hukari 1998, Gerdts 2000b, 2003).[18]

In their work on Halkomelem, Gerdts and Hukari treat the middle suffix *-əm* as a reflexive suffix (Gerdts & Hukari 1998: 173). This is based in part on the observation that predicates with somatic suffixes are not reflexivized in the same way as other predicates. In all Salish languages, reflexives are derived from transitive stems using a reflexive suffix descended from Proto-Salish **-sut* REFL (Kroeber 1999: 32). The resulting predicate is intransitive: its subject is both the agent and the patient, as in the nɬeʔkepmxcín data below.

(39) *łiƛ̓est kn*
łiƛ̓-n-t-s[u]t=kn
sprinkle.water-CTR-TR-REFL=1SG.SBJ
'I sprinkle water on myself.' (T&T1992:77)

(40) *miʔxecút*
miʔx-n-t-sút=Ø
kick-CTR-TR-REFL=3SBJ
'She kicks herself.' (T&T1996:201)

However, predicates with somatic suffixes are typically incompatible with the reflexive marker, as shown by Gerdts and Hukari for Halkomelm; this is also the case in nɬeʔkepmxcín, as shown in (41-42).[19]

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[18] The exact approach employed by Gerdts (2003) treats somatic suffixes as instances of saturating noun incorporation, in which the somatic suffix is a DP argument incorporated into an underlyingly transitive verb root. I've adapted the phrasing in this paper to make the analysis compatible with other theories of Salish verb roots (e.g. Davis 1997, Davis & Demirdache 2000).

[19] Contrary to Gerdts' findings for Halkomelem (2003), somatic-suffixed transitive reflexives are not strictly ill-formed for all speakers of nɬeʔkepmxcín, although they're always dispreferred. In a contrastive context like (ii), some speakers can marginally accept both a somatic medio-reflexive (iia) and a somatic transitive-reflexive (iib). These examples suggest that the reason somatic transitive reflexives are rejected is that they're outcompeted by the medio-reflexive constructions.

(ii) Context: Sander has been sick and needed help washing his hands, but now I see Sander washing his own hands without help:

a. *cunwéɬn e sc̓éw̓kstms nsnúk̓ʷeʔ*
cw-nwéɬn=Ø e=s=c̓éw̓-[**e**]**kst-m**=s
do-LC.MID=3SG.SBJ D/C=NMLZ=wash-**hand-CTR.MID**=3POSS
n-s-núk̓ʷeʔ
1SG.POSS-NMLZ-friend
'My friend can wash his own hands.' (vf | KBG 5 March 2025)

b. ? *cunwéɬn e sc̓éw̓kstecuts nsnúk̓ʷeʔ*
? cw-nwéɬn=Ø e=s=c̓éw̓-[**e**]**kst-n-t-sut**=s
do-LC.MID=3SG.SBJ D/C=NMLZ=wash-**hand-CTR-TR-REFL**=3POSS
n-s-núk̓ʷeʔ
1SG.POSS-NMLZ-friend
'My friend can wash his own hands.' (sf | KBG 5 March 2025)

(41) a. *c̓éw̓**kstm** kʷ*
c̓éw̓-[**e]kst-m**=kʷ
wash-**hand-CTR.MID**=2SG.SBJ
'You're washing your own hands.' (vf | BP 27 Feb 2025)

b. ?/* *c̓ew**kste**cút kʷ*
?/* c̓ew̓-**[e]kst-n-t**-súṭ=kʷ
wash-**hand-CTR-TR-REFL**=2SG.SBJ
Intended: 'You're washing your own hands.' (sf | BP 27 Feb 2025)
BP: "I don't know. I've never heard anyone say that, but if you had to say it that's how you'd say that."

(42) a. *ʔép̓**sm** kʷ*
ʔép-**[u]s-m**=kʷ
wipe-**face-CTR.MID**=2SG.SBJ
'You're wiping your own face.' (vf | BP 27 Feb 2025)

b. ?/* *ʔép̓**se**cut kʷ*
?/* ʔép-**[u]s-n-t**-sut=kʷ
wipe-**face-CTR-TR-REFL**=2SG.SBJ
Intended: 'You're wiping your own face.' (sf | BP 27 Feb 2025)
BP: "I'd know what you meant, but I don't know if it's correct."

Gerdts argues that the middle in somatic-suffixed unergatives is an allomorph of the reflexive suffix *-θət* (2003: 355). The transitive-reflexive allomorph *-θət* would surface on predicates without lexical suffixes, and the middle allomorph *-əm* would surface on predicates with lexical suffixes.[20]

A reflexive denotation of the middle is independently supported in predicates without lexical suffixes. Many Salish languages, including nłeʔkepmxcín, have a small class of middle-suffixed unergative predicates with a medio-reflexive reading, in which the agent acts upon themselves (Davis 1997: 68-71). Examples from nłeʔkepmxcín are provided in (44)-(46).

(44) *séxʷm kt*
séxʷ-m=kt
bathe-CTR.MID=1PL.SBJ
'We bathe (ourselves), take a bath.' (T&T1992:103)

(45) *twépm kn*
twép-m=kn
back.up-CTR.MID=1SG.SBJ
'I go backwards, back up.' (T&T1992:103)

(46) *c̓k̓ʷəm*
c̓k̓ʷ-m=Ø
propel-CTR.MID=3SG.SBJ
'He pushes, propels himself.' (T&T1992:103)

[20] Gerdts says *-əm* surfaces on predicates whose derived object is coreferent with the subject (2003: 355); however, this phrasing is based on the assumption (which this paper does not adopt) that lexical suffixes are underlying objects of transitive roots. I have adapted the phrasing above to make it compatible with other theories of Salish roots (e.g. Davis 2024, Nederveen 2024, etc.).

If all Salish roots are intransitive and patient-oriented (following Davis 1997, Davis 2024), then the self-directed reading cannot come from the root. Instead, the self-directed reading must come from the middle.

Contra Gerdts (2003), however, the medio-reflexive middle cannot be an exact allomorph of the transitivizer and reflexive suffixes *-t-sut* in nłeʔkepmxcín. If it were, then the medio-reflexive middle suffix -m and the transitive reflexive suffixes *-t-sut* would differ only in phonological form. However, they do not have the same semantics. The transitive reflexive entails that the external argument refers to the same individual as the internal argument. If this were true of the medio-reflexive middle, then the lexical suffix would refer to both arguments, which incorrectly predicts readings like *'a face washes itself' or *'a mouth scrapes itself'.

Instead, the medio-reflexive middle needs it own semantic representation. One possible representation is provided in (47). The function entails that the internal argument of the predicate P is inalienably possessed by the external argument (the agent). This function can only select a predicate that bears a [+somatic] feature.

(47) Medio-reflexive middle with inalienable possession (for illustrative purposes only):
$[\![\textit{-m}]\!] = \lambda P_{[+somatic]}\lambda y_e\lambda e_v.\ \exists\, x_e[P(x)(e) \wedge InalPoss(x)(y)] \wedge Agent(y)(e)$
'Take a somatic-suffixed predicate P, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e is true, and x is inalienably possessed by y, and y is the agent of e.'

Encoding inalienable possession in the middle rather than the somatic suffix does predict the correct semantics, as shown in (48). Step (i) introduces a lexical-suffixed predicate *c̓éw̓-kst* 'wash-hand'. Step (ii) introduces the denotation in (47). Step (iii) combines the predicate with the middle via function application.

(48) (for illustrative purposes only)

(i) $[\![\textit{c̓ew̓kst}]\!] = \lambda x_e\lambda e_v.Wash(e) \wedge Patient(x)(e) \wedge Hand(x)$
'Take an individual x and an event e. Return TRUE iff x is e is a washing event whose patient is x, and x is a hand.'

(ii) $[\![\textit{-m}]\!] = \lambda P_{[+somatic]}\lambda y_e\lambda e_v.\ \exists\, x_e[P(x)(e) \wedge InalPoss(x)(y)] \wedge Agent(y)(e)$
'Take a somatic-suffixed predicate P, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e is true, and x is inalienably possessed by y, and y is the agent of e.'

(ii) $[\![\textit{-m}]\!]([\![\textit{c̓ew̓kst}]\!]) = \lambda y_e\lambda e_v.\ \exists\, x_e[Wash(e) \wedge Patient(x)(e) \wedge Hand(x) \wedge InalPoss(x)(y)] \wedge Agent(y)(e)$
'Take an individual y and an event e. Return TRUE iff there exists an individual x such that e is a washing event whose patient is x, and x is a hand inalienably possessed by y, and y is the agent of e.'

Medio-reflexive predicates *without somatic suffixes* (e.g. (44)-(46)) can be derived using an unpronounced somatic suffix meaning 'body'.

(49) Medio-reflexive middle with inalienable possession without a lexical suffix (for illustrative purposes only)
$[\![\textit{-m}]\!]([\![\textit{sex}^{w}\textit{-}\emptyset]\!]) = \lambda P_{<e,vt>}\lambda y_e\lambda e_v.\ \exists\, x_e[Bathe(e) \wedge Patient(x)(e) \wedge Body(x) \wedge InalPoss(x)(y)] \wedge Agent(y)(e)$
'Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that e is a bathing event whose patient is x, and x is a body that is inalienably possessed by y, and y is the agent of e.'

Although this approach does predict the correct semantics, it does not explain where the inalienable possession comes from. Under the inalienable possession hypothesis, inalienable possession stems from the semantics of body parts. But under the formalization in (47), inalienable possession is entirely encoded in the middle with no independent justification.

Another drawback to this approach is that there is very little difference between somatic and non-somatic suffixes. The only difference between a somatic-suffixed predicate and a non-somatic suffixed predicate is an arbitrary [± somatic] feature, which does little to explain why all somatic suffixes are body parts, and why all non-body lexical suffixes are non-somatic.

Both these drawbacks are inherent to a middle that itself entails inalienable possession. The proposal outlined in Section 4 resolves these issues by combining the somatic suffix with the middle prior to composing the resulting combination with the predicate.

## 4. Proposal: Somatic suffixes combine with (in)transitive affixes

This section combines the two approaches outlined in section 3. I argue that somatic suffixes do not combine directly with the predicate itself; they first combine with the relevant (in)transitive morpheme.[21]

Following the inalienable possession hypothesis (Section 3.1), I model somatic suffixes as relational nouns that select an inalienable possessor, as in (33), repeated here as (50).

(50) $[\![\text{-}ekst]\!] = \lambda x_e \lambda y_e.\text{Hand}(x) \wedge \text{InalPoss}(x)(y)$
'Take an individual x and an individual y. Return TRUE iff x is a hand inalienably possessed by y.'

Because somatic suffixes are of type <e,et>, they cannot combine with the predicate via Restrict (see 3.1). Instead, an (in)transitive affix determines how the arguments of the somatic suffix relate to the rest of the predicate. I begin with unergative predicates, since this is where the proposal has the most independent support (4.1). I extend this analysis to transitive predicates (4.2), and indicate the complications that would arise if this analysis were extended to unaccusative predicates (4.3).

### 4.1 Somatic suffixes combine with the middle

In unergative predicates, it is the medio-reflexive middle that determines how the somatic suffix relates to the predicate. I formalize the medio-reflexive middle as in (51a): it equates the internal argument of the somatic suffix to the predicate, and the external argument of the somatic suffix to the agent. Note that the middle itself does not entail inalienable possession; it only relates the somatic suffix to the predicate, as in (51c).

(51) a. $[\![\text{-}m]\!] = \lambda LS_{<e,et>} \lambda P_{<e,vt>} \lambda y_e \lambda e_v.\ \exists x_e[P(x)(e) \wedge LS(x)(y)] \wedge \text{Agent}(y)(e)$
'Take a lexical suffix LS of type <e,et>, a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e is true, and LS applied to x and y is true, and y is an agent of e.'

b. $[\![\text{-}ekst]\!] = \lambda x_e \lambda y_e.\text{Hand}(x) \wedge \text{InalPoss}(x)(y)$
'Take an individual x and an individual y. Return TRUE iff x is a hand inalienably possessed by y.'

c. $[\![\text{-}m]\!]([\![\text{-}ekst]\!]) = \lambda P_{<e,vt>} \lambda y_e \lambda e_v.\ \exists x_e[P(x)(e) \wedge \text{Hand}(x) \wedge \text{InalPoss}(x)(y)] \wedge \text{Agent}(y)(e)$

[21] This proposal stems from Henry Davis' (p.c.) suggestion that somatic suffixes form a constituent with the middle.

'Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e is true, and x is a hand, and y is the inalienable possessor of x and the agent of e.'

Non-somatic suffixes will not compose in this manner if they are of type <e,t>, which is independently necessary if they compose with the predicate via Restrict (Chung & Ladusaw 2004) as suggested by Wiltschko (2009). This means no [± somatic] feature is necessary. Assuming there are no other nouns of type <e,et> available to compose with the verb at this stage in the derivation, no [± LexicalSuffix] feature is necessary, either.

Recall that a medio-reflexive denotation of the middle is independently supported by a small class of medio-reflexive unergative predicates, e.g. (44)-(46), repeated here as (52)-(54).

(52) *séx$^{w}$**m** kt*
séx$^{w}$-**m**=kt
bathe-**CTR.MID**=1PL.SBJ
'We bathe (ourselves), take a bath.' (T&T1992:103)

(53) *twép**m** kn*
twep-**m**=kn
back.up-**CTR.MID**=1SG.SBJ
'I go backwards, back up.' (T&T1992:103)

(54) *c̓k̓$^{w}$**ə́m***
c̓k̓$^{w}$-**m**=Ø
propel-**CTR.MID**=3SBJ
'He pushes, propels himself.' (T&T1992:103)

The denotation in (51) can be extended to these predicates by assuming an unpronounced somatic suffix meaning 'body', which combines with the middle as in (55a). This derives reflexive-like semantics, in which the agent acts upon their own body (55b).

(55) a. $[\![\text{-}m]\!]([\![\text{-}\emptyset]\!])= \lambda P_{<e,vt>}\lambda y_e\lambda e_v.\ \exists\, x_e[P(x)(e) \wedge \text{Body}(x) \wedge \text{InalPoss}(x)(y)] \wedge \text{Agent}(y)(e)$
'Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applies to x and e is true, and x is a body inalienably possessed by y, and y is the agent of e.'

b. $[\![\text{-}\emptyset\text{-}m]\!]([\![sex^{w}]\!]) = \lambda y_e\lambda e_v.\ \exists\, x_e[\text{Bathe}(e) \wedge \text{Patient}(x)(e) \wedge \text{Body}(x) \wedge \text{InalPoss}(y)] \wedge \text{Agent}(y)(e)$
'Take an individual y and an event e. Return TRUE iff there exists an individual x such that e is a bathing event whose patient is x, and x is a body inalienably possessed by y, and y is the agent of e.'

Independent support for this approach comes from the autonomous suffix *-iyx* AUT (T&T 1992: 101). The autonomous suffix has nearly identical semantics to the medio-reflexive middle in (55): it derives a self-directed unergative predicate. Typically, it occurs in intransitive predicates of bodily posture or motion.

(56) a. *q̓əmx̣$^{w}$**ə́m***
q̓əmx$^{w}$-**m**
sphere-**CTR.MID**
'make (s.t.) into a ball' (T&T1996:280)

b. *qʼəmx̣ʷ**íyx***
qʼəmx̣ʷ-**íyx**
sphere-**AUT**
‘(of person, animal) make one’s self into a ball’ (T&T1996:280)

(57) *qʷéc**yx** e nsqáqx̣aʔ*
qʷec-**[i]yx**=Ø e=n-s-qáqx̣aʔ
warm-**AUT**=3SBJ DET=1SG.POSS-NMLZ-dog
‘My dog is warming herself.’ (sf | KBG 18 Dec 2024)

In the literature on Northern Interior Salish, the autonomous suffix has been treated both as a lexical suffix and as an intransitive suffix. In Kuipers' work on Secwepemctsín (1974: 66) and van Eijk’s work on Stʼatʼimcets (1985: 248, 2013: 434), the autonomous is treated as a somatic suffix meaning ‘body’. In Thompson & Thompson's work on nłeʔkepmxcín (1992: 101) and Davis' work on Stʼatʼimcets (1997: 66) the autonomous gets treated as a medio-reflexive suffix.

The latter approach is well-supported in Stʼatʼimcets, since the autonomous suffix *-ilx* is incompatible with other intransitive suffixes (Davis 1997: 66). The same facts hold for the ƛ̓qʼəmcín dialect of nłeʔkepmxcín. When a control middle is introduced after the autonomous, the sentence is rejected.

(58) a. *pʼikʼ**íyx** e skʼʷúkʼʷmiʔt*
pʼykʼ-**íyx**=Ø e=s-kʼʷú<kʼʷ>m-[e]yt
roll-**AUT**=3SBJ DET=NMLZ-small<DIM>-person
'The baby rolled around.' (vf | BP 27 Feb 2025)

b. **pʼikʼ**íyxm** e skʼʷúkʼʷmiʔt*
*pʼykʼ-**íyx-m**=Ø e=s-kʼʷú<kʼʷ>m-iʔt
roll-**AUT-CTR.MID**=3SBJ DET=NMLZ-small<DIM>-person
Intended: 'The baby rolled around.'
BP: “I don't know. Never used or heard it.” (sf | BP 27 Feb 2025)

(59) a. *qʷec**íyx** e nsqáqx̣aʔ*
qʷec-**íyx**=Ø e=n-s-qáqx̣aʔ
warm-**AUT**=3SBJ DET=1SG.POSS-NMLZ-dog
'My dog warmed herself.' (vf | BP 27 Feb 2025)

b . **qʷec**íyxm** e nsqáqx̣aʔ*
*qʷec-**íyx-m**=Ø e=n-s-qáqx̣aʔ
warm-**AUT-CTR.MID**=3SBJ DET=1SG.POSS-NMLZ-dog
Intended: 'My dog warmed herself.' (vf | BP 27 Feb 2025)

However in the c̓ełétkʷu dialect it is marginally possible to elicit the autonomous suffix before the medio-reflexive middle, in the same position as a somatic suffix. Such cases are virtually absent from volunteered speech; aside from (60c), I have never heard the autonomous spontaneously volunteered in the same predicate as the middle.

(60) a. *pʼikʼ**íyx** e élowis*
pʼikʼ-**íyx**=Ø e=ʔélowiz
roll-**AUT**=3SBJ DET=Eloise
‘Eloise (my dog) is rolling.’ (sf | KBG 18 Dec 2024)

b. *p̓ik̓**íyxm** e élowis*
p̓ik̓-**íyx-m**=Ø e=ʔélowiz
roll-**AUT-CTR.MID**=3SBJ DET=Eloise
'Eloise is rolling.' (sf | KBG 18 Dec 2024)

c. *p̓ik̓**íyxm***
p̓ik̓-**íyx-m**=Ø
roll-**AUT-CTR.MID**=3SBJ
'(of a tiny baby) rolling in his sleep' (vf | KBG 18 Dec 2024)

(61) a. *q$^{w}$ec**íyx** e nsqáqx̣aʔ*
q$^{w}$ec-**íyx**=Ø e=n-s-qáqx̣aʔ
warm-**AUT**=3SBJ DET=1SG.POSS-NMLZ-dog
'My dog is warming herself.' (sf | KBG 18 Dec 2024)

b. *q$^{w}$ec**íyxm** e nsqáqx̣aʔ*
q$^{w}$ec-**íyx-m**=Ø e=n-s-qáqx̣aʔ
warm-**AUT-CTR.MID**=3SBJ DET=1SG.POSS-NMLZ-dog
'My dog is warming herself.' (sf | KBG 18 Dec 2024)

This difference between the ƛ̓əqm̓cín and c̓ełétk$^{w}$u dialects can be explained by first assuming that the autonomous suffix is formed from a somatic suffix *-iyx* meaning 'body' and a phonologically null medio-reflexive middle. In the ƛ̓q̓əmcín dialect, the somatic suffix and the null medio-reflexive are analyzed as a single autonomous suffix. This explains why it cannot co-occur with a medio-reflexive middle.

(62) ƛ̓əqm̓cín autonomous suffix:
$[\![\text{-}iyx]\!] = \lambda P_{<e,vt>}\lambda y_e\lambda e_v.\ \exists\, x_e[P(x)(e) \wedge \text{Body}(x) \wedge \text{InalPoss}(x)(y)] \wedge \text{Agent}(y)(e)$
'Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e are true, and x is a body inalienably possessed by y, and y is the agent of e.'

In the c̓ełétk$^{w}$u dialect, however, *-iyx* is analyzable separate from the null medio-reflexive. It typically combines with a null medio-reflexive middle (63a), but is not barred from combining with an overt middle (63b). In any case, the semantics are the same.

(63) a. $[\![\text{-}\emptyset]\!]\,([\![\text{-}iyx]\!]) = \lambda P_{<e,vt>}\lambda y_e\lambda e_v.\ \exists\, x_e[P(x)(e) \wedge \text{Body}(x) \wedge \text{InalPoss}(x)(y)] \wedge \text{Agent}(y)(e)$
''Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that x and e are arguments of P, and x is a body inalienably possessed by y, and y is the agent of e.'

b. $[\![\text{-}m]\!]([\![\text{-}iyx]\!]) = \lambda P_{<e,vt>}\lambda y_e\lambda e_v.\ \exists\, x_e[P(x)(e) \wedge \text{Body}(x) \wedge \text{InalPoss}(x)(y)] \wedge \text{Agent}(y)(e)$
''Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that x and e are arguments of P, and x is a body inalienably possessed by y, and y is the agent of e.'

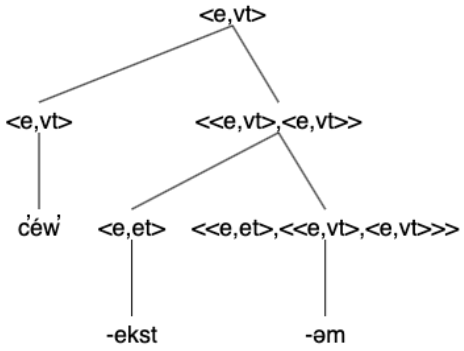
Under this approach, all medio-reflexives are composed of two parts: a somatic suffix and a medio-reflexive middle. Somatic medio-reflexives (64) are composed of any overt somatic suffix and an overt medio-reflexive middle. Unmarked medio-reflexives (65) are composed of a covert somatic suffix and an overt medio-reflexive middle. Autonomous medio-reflexives (66) are composed of an overt somatic suffix *-iyx*

'body' and a covert medio-reflexive middle. To illustrate the composition, I provide type-annotated trees below each formula.

(64) Somatic Medio-Reflexive

$[\![\text{-}m]\!]([\![\text{-}ekst]\!]) = \lambda P_{<e,vt>}\lambda y_e\lambda e_v \exists x_e[P(x)(e) \wedge \textbf{Hand}(x) \wedge \text{InalPoss}(x)(y)] \wedge \text{Agent}(y)(e)$

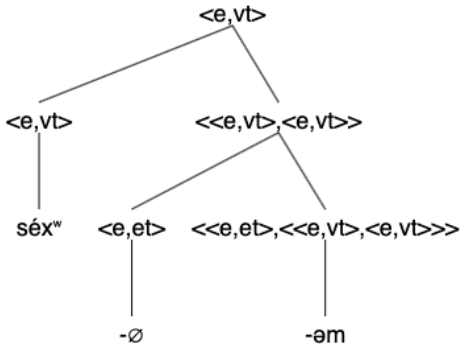
''Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e is true, and x is a **hand** inalienably possessed by y, and y is the agent of e.'




(65) Unmarked Medio-Reflexive

$[\![\text{-}m]\!]\ ([\![\emptyset]\!]) = \lambda P_{<e,vt>}\lambda y_e\lambda e_v \exists x_e[P(x)(e) \wedge \textbf{Body}(x) \wedge \text{InalPoss}(x)(y)] \wedge \text{Agent}(y)(e)$

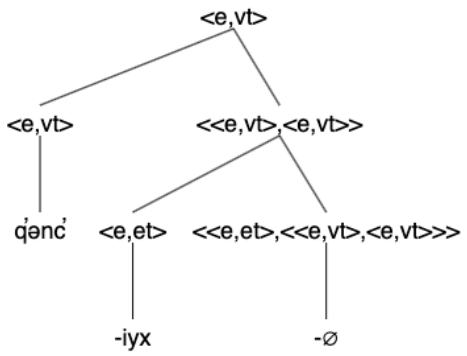
''Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e is true, and x is a **body** inalienably possessed by y, and y is the agent of e.'




(66) Autonomous Medio-Reflexive

$[\![\emptyset]\!]\ ([\![\text{-}iyx]\!]) = \lambda P_{<e,vt>}\lambda y_e\lambda e_v \exists x_e[P(x)(e) \wedge \textbf{Body}(x) \wedge \text{InalPoss}(x)(y)] \wedge \text{Agent}(y)(e)$

''Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e is true, and x is a **body** inalienably possessed by y, and y is the agent of e.'




Not only does this approach explain how somatic suffixes work, but it unites all medio-reflexive predicates under a single semantic representation.

### 4.2 Somatic suffixes combine with transitivizers

To extend the proposal in 4.1 to transitives, the control transitivizer and the relational transitivizer each must have two denotations. The first denotation is a standard non-somatic one, which occurs in predicates without somatic suffixes. The non-somatic denotation of pre-transitivizing morphology will not be explored further in this paper. The second denotation is a somatic one.

The somatic control transitive is formalized in (67a). It entails that the internal argument of the somatic suffix corresponds to the internal argument of the predicate (the patient), and that the external argument of the somatic suffix corresponds to the object of the transitive (67b).

(67) Somatic Control Transitive

a. $[\![\text{-}n\text{-}t\text{-}]\!] = \lambda LS_{<e,et>}\lambda P_{<e,vt>}\lambda x_e\lambda y_e\lambda e_v.\ \exists z_e[P(z)(e) \wedge LS(z)(x)] \wedge Agent(y)(e)$
'Take a lexical suffix LS of type <e,et>, a predicate P of type <e,vt>, an individual x, an individual y, and an event e. Return TRUE iff there exists an individual z such that P applied to z and e is true, and z and x are arguments of LS, and y is the agent of e.'

b. $[\![\text{-}n\text{-}t\text{-}]\!]([\![\text{-}ekst]\!]) = \lambda LS_{<e,et>}\lambda P_{<e,vt>}\lambda x_e\lambda y_e\lambda e_v.\ \exists z_e[P(z)(e) \wedge Hand(z) \wedge InalPoss(z)(x)] \wedge Agent(y)(e)$
'Take a predicate P of type <e,vt>, an individual x, an individual y, and an event e. Return TRUE iff there exists an individual z such that P applied to z and e is true, and z is a hand inalienably possessed by x, and y is the agent of e.'

The somatic relational transitive is formalized in (68a). It entails that the internal argument of the somatic suffix corresponds to the internal argument of the root. The external argument of the somatic suffix corresponds to the external argument of the predicate.

(68) Somatic Relational Transitive

a. $[\![\text{-}min\text{-}t\text{-}]\!] = \lambda LS_{<e,et>}\lambda P_{<e,vt>}\lambda x_e\lambda y_e\lambda e_v.\ \exists z_e[P(z)(e) \wedge LS(z)(y)] \wedge Agent(y)(e) \wedge Relat(x)(e)$
'Take a lexical suffix LS of type <e,et>, a predicate P of type <e,vt>, an individual x, an individual y, and an event e. Return TRUE iff there exists an individual z such that P applied to z and e is true, and z and y are arguments of LS, and x is related to e.'

b. $[\![\text{-}min\text{-}t\text{-}]\!]([\![\text{-}ekst]\!]) = \lambda LS_{<e,et>}\lambda P_{<e,vt>}\lambda x_e\lambda y_e\lambda e_v.\ \exists z_e[P(z)(e) \wedge Hand(z)$

$\wedge$InalPoss(z)(y)]$\wedge$Agent(y)(e) $\wedge$Relat(x)(e)
'Take a lexical suffix LS of type <e,et>, a predicate P of type <e,vt>, an individual x, an individual y, and an event e. Return TRUE iff there exists an individual z such that P applied to z and e is true, z is a hand inalienably possessed by y, and x is related to e.'

These denotations are necessary for the inalienable possessor argument of a somatic suffix to correspond the external argument of a relational transitive. But these denotations alone do not explain the additional alternations in the scwèxmxcín dialect.

There are several possible explanations for these additional alternations, which I leave to future testing. One possible explanation is that the scwèxmxcín dialect has additional lexical entries: a control transitivizer which entails that the inalienable possessor corresponds to the transitive subject argument, and a relational transitivizer which entails that the inalienable possessor corresponds to the object argument. Another possible explanation is that the unexpected cases are non-somatic, such that they refer to a location, kind, or manner, but get approximated into English as possessives. Locative non-somatic body-part suffixes exist independently in the language, but there is not yet independent evidence that these cases are non-somatic. Further research is needed to explain the scwèxmxcín alternations.

### 4.3 Unsolved puzzle: Somatic suffixes on unaccusative predicates

Although this proposal accounts for somatic-suffixed unergatives and transitives, as well as medio-reflexives and the autonomous suffix, there is significant morphophonological evidence that it does not extend to unaccusative predicates. For this proposal to extend to unaccusative predicates, nłeʔkepmxcín would need a somatic version of each unaccusative morpheme: a somatic change-of-state suffix, a somatic stative prefix, and somatic inchoative morpheme, and somatic change-of-state reduplication.

There is no barrier to this in the semantics: all these morphemes have the same basic argument structure, exemplified here by the inchoative suffix. These entries are schematic, and do not include the aspectual contribution of the morpheme (Davis & Nederveen 2025).

(69) A somatic inchoative suffix (for illustrative purposes only)

a. $[\![\text{-}p]\!] = \lambda LS_{<e,et>}\lambda P_{<e,vt>}\lambda y_e\lambda e_v.\ \exists\, x_e[P(x)(e) \wedge LS(x)(y)]$
'Take a lexical suffix LS of type <e,et>, a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x is true, and LS applied to x and y is true.

b. $[\![\text{-}p]\!]([\![\text{-}ekst]\!]) = \lambda P_{<e,vt>}\lambda y_e\lambda e_v.\ \exists\, x_e[P(x)(e) \wedge Hand(x) \wedge InalPoss(x)(y)]$
'Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that P applied to x and e is true, and x is a hand inalienably possessed by y.

Although the semantics work, this approach comes with numerous morphophonological complications involving lexical-suffixed bare roots, the stative prefix, the inchoative infix, and change-of-state reduplication.

The most obvious complication is that somatic suffixes routinely appear on roots that have no apparent unaccusative morphology. If there is no unaccusative morpheme to combine with the somatic suffix, then somatic readings should not be possible.

Although lexical-suffixed bare roots seem to be a counter-example to this paper's proposal, they can be explained simply by stipulating a phonologically null allomorph of the change-of-state suffix, which only surfaces on lexical-suffixed stems. There is some independent support for this: bare roots are otherwise not attested in nłeʔkepmxcín (Nederveen 2024), and some speakers routinely reject overt change-of-state

suffixation on lexical-suffixed stems.[22] A null change-of-state suffix has been independently suggested by Davis & Nederveen (2025) and Lyon (2023, 2025a).

(70) a. *níḱt kʷ*
níḱ-t=kʷ
get.cut-COS=2SG.SBJ
'You got cut.' (sf | BP 3 Oct 2024)

b. *níḱ**xn** kʷ*
níḱ-**∅**-**xn**=kʷ
get.cut-**COS**-**foot**=2SG.SBJ
'Your foot got cut.' (sf | BP 3 Oct 2024)

c. **níḱt**xn** kʷ*
*níḱ-t-**xn**=kʷ
get.cut-COS-**foot**=2SG.SBJ
Intended: 'Your foot got cut.' (sf | BP 3 Oct 2024)

However, lexical-suffixed bare roots are not the only morphophonological complication; there are also complications involving linear adjacency. If somatic suffixes combine with unaccusative morphemes, they should appear linearly adjacent to them. Lexical suffixes are indeed adjacent to the inchoative suffix, but they are not adjacent to the stative prefix (e.g. (8), repeated here as (71)) or the inchoative infix (e.g. (9), repeated here as (72)).

(71) ***ʔes**kəɬkəɬ**xə́n***
**ʔes**-kəɬ~kəɬ-**xə́n**=∅
**STAT**-AUG~remove-**foot**=3SBJ
'She has her shoes off.'
Lit. 'Her feet are removed.' (T&T1992:83)

(72) Inchoative-infixed predicate with somatic suffix:
*ċéɬkstme wɬe qʷúʔ ʔe keʔ sceʔk**ékst***
ċéɬ-[e]kst-m-e w=ɬ=qʷúʔ ʔe=∅
cold-hand-CTR.MID-IMP to=DET=water COP=3SBJ
k=eʔ=s=ce**<ʔ>**k-**ékst**
D/C=2SG.POSS=NMLZ=cool**<INCH>-hand**
'Put your hands in cool water so that your hands will cool off.' (T&T1996:18)

Change-of-state reduplication poses a similar analytical challenge. Change-of-state reduplication is sensitive to the predicate's phonology: it copies the vowel with primary stress and the immediately following consonant, and inserts the copy after that consonant (T&T 1992: 99). If primary stress falls on the root, the root undergoes reduplication (73a). If primary stress falls on the lexical suffix, however, the

[22] Although BP usually rejects lexical-suffixed immediate stems, she has volunteered one on exactly one occasion.

(i) *pewtékst kn*
pew-**t-ékst**=kn
swell-**COS-hand**=1SG.SBJ
'My hand is swollen.' (vf | BP 29 May 2025)

Further testing is needed to determine how much variation there is across dialects.

lexical suffix undergoes reduplication (73b). See Mellesmoen (2025: 210-212) on similar variation in Sṯáṯimcets.

(73) a. *qʷúpəpqn*
qʷúp~**əp-qin**=Ø
fluffy~**COS-head**=3SBJ
'[One's] hair braids come apart.' (T&T1996:301)

b. *spiyq̓**qínn***
s-pyq̓**-qín~n**
NMLZ-turn.opposite**-head<COS>**
'Generation.' (T&T1996:259)

These morphophonological complications might be explainable under a two-step lexical insertion process (e.g. Mellesmoen 2025, Svenonius 2012). The stative prefix, inchoative infix, or change-of-state reduplication would form a constituent with the lexical suffix in the syntax, but be realized in a different linear position after lexical insertion. However, pursuing such an account would be far beyond the scope of this paper.

The number and complexity of morphological complications strongly suggest that somatic suffixes do not combine with unaccusative morphemes in the manner outlined for unergative and transitive predicates. The obvious question, then, is how somatic readings in unaccusative predicates are possible. This paper does not offer a definite solution, but makes two suggestions for future research.

One hypothesis stipulates that unaccusative predicates allow composition via the modified version of Restrict entertained in (36), repeated here as (74). As discussed in Section 3, Restrict2 cannot generalize to all predicates, but it does predict the correct results for unaccusative predicates.

(74) Somatic unaccusatives using Restrict2 (for illustrative purposes only)

a. $\text{Restrict2} = \lambda Q_{<e,et>}\lambda P_{<e,vt>}\lambda y_e\lambda e_v.\ \exists\, x_e[P(x)(e) \wedge Q(x)(y)]$
'Take a function Q of type <e,et>, a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that x and e are arguments of P, and x and y are arguments of Q.'

b. $\text{Restrict2}([\![\textit{-xn}]\!]) = \lambda P_{<e,vt>}\lambda y_e\lambda e_v.\ \exists\, x_e[P(x)(e) \wedge \text{Foot}(x) \wedge \text{InalPoss}(x)(y)]$
'Take a predicate P of type <e,vt>, an individual y, and an event e. Return TRUE iff there exists an individual x such that x and e are arguments of P, and x is a hand inalienably possessed by y.

c. $\text{Restrict2}([\![\textit{nik̓-xn}]\!]) = \lambda y_e\lambda e_v.\ \exists\, x_e[\text{Cut}(e) \wedge \text{Patient}(x)(e) \wedge \text{Foot}(x) \wedge \text{InalPoss}(x)(y)]$
'Take an individual y and an event e. Return TRUE iff there exists an individual x such that e is a cutting event whose patient is x, and x is a hand inalienably possessed by y.

If this hypothesis is correct, we would expect Restrict2 to be independently available in transitive predicates. This predicts that somatic suffixes in relational transitives can be inalienably possessed by either (a) the subject argument via the somatic relational transitivizer, or (b) the object argument via Restrict 2. This prediction does hold in the scwèxmxcín dialect, but it does not hold in the ƛ̓q̓əmcín dialect, which has fewer argument structure alternations (see 2.3).

Another hypothesis stipulates that unaccusative predicates do not take somatic suffixes at all. This stipulation makes it more complicated to explain the alternations in (32), repeated here as (75). In (75a), the lexical suffix refers to a body part inalienably possessed by the subject. In (75b), the lexical suffix refers

to the same individual as the subject. If both cases involve non-somatic suffixes, why is this alternation so robust?

(75) a. *ném péw**kst kn***
ném péw-Ø-**[e]kst**=**kn**
very swell-COS-**hand**=**1SG.SBJ**
'My hand is very swollen.' (sf | KBG 4 Dec 2024)

b. *ném péw**kst** nkéykix*
ném péw-Ø-**[e]kst=Ø** n-kéykix
very swell-COS-**hand=3SBJ** 1SG.POSS-hands
'My hands are very swollen.' (sf | KBG 4 Dec 2024)

My untested hypothesis is that the lexical suffix in cases like (75a) might not involve inalienable possession at all, and only get translated that way in English. It remains to be tested if the lexical suffix in (75a) could refer to a bodily location (literally 'I'm swollen on the hand'), or a kind or manner of event (lit. 'I'm hand-swelling' or 'I'm swelling hand-ly'). To my knowledge, there is no conclusive evidence that lexical suffixes can refer to kinds or manners, but locative non-somatic body-part suffixes are independently attested across Salish (Kinkade 1998). More research on the semantics of non-somatic suffixes is necessary to determine whether this hypothesis is plausible or empirically supported. Until then, I offer no conclusive explanation for somatic-like readings in unaccusative predicates.

## 5 Conclusion

To summarize, this paper offers a formal treatment of nłeʔkepmxcín somatic suffixes in unergative and transitive predicates. I distinguish two kinds of lexical suffixes: somatic suffixes and non-somatic suffixes (following Kuipers 1967, Davis 1997, van Eijk 2013). Somatic suffixes are a subclass of lexical suffixes that refer to a body part inalienably possessed by an argument of the predicate. The argument that inalienably possesses the body part is determined by the (in)transitive morphology: in unaccusative predicates, the inalienable possessor is always the subject (Section 2.1); in unergative predicates, the inalienable possessor is always the subject (the agent) (Section 2.2); in control transitive predicates, the inalienable possessor is the object, and in relational transitive predicates, the inalienable possessor is the subject (the agent), with some dialect variation (Section 2.3). Non-somatic suffixes are predicate modifiers, which do not require inalienable possession. All lexical suffixes, including those that refer to body parts, can be non-somatic (Section 2.4).

Somatic suffixes pose an analytical challenge because they refer to a body part that must be inalienably possessed by an argument of the predicate, which may not be the nearest syntactic argument. Some approaches encode inalienable possession entirely from the somatic suffix itself (Section 3.1). Other approaches encode it in the (in)transitive morphology (Section 3.2). Each approach has analytical drawbacks.

This paper argues that the semantics of somatic suffixes arise from the combination of these components, i.e. somatic suffixes form a constituent with the relevant (in)transitive morpheme. This approach is independently supported in unergative predicates (Section 4.1) and generalizes to transitive predicates (Section 4.2). It does not generalize to unaccusative predicates, which present morphophonological complications (Section 4.3).

This proposal has consequences for the treatment of somatic suffixes in other Salish languages and more broadly for the treatment of reflexives and compounds in linguistic theory.

### 5.1 Consequences for Salish

Although this paper is specific to nłeʔkepmxcín, the proposed approach can likely extend to any Salish language. Somatic and non-somatic suffixes can be reconstructed to Proto Salish with the same basic alternations described in this paper (Kinkade 1998, Hinkson 1999).

The most direct impact of this paper is that lexical suffixes do not require transitive roots. In some of the literature on Salish (e.g. Gerdts 2003), lexical suffixes are treated as syntactic arguments. This approach predicts that lexical suffixes reduce the valency of their host predicate. Lexical suffixed intransitives, then, would require transitive roots. However, this paper provides direct evidence against such an approach: I show that non-somatic suffixes do not reduce the valency of their host predicate, and that somatic suffixes need not saturate a syntactic argument to change the predicate's argument structure. This supports the hypothesis that all Salish verb roots are unaccusative (Davis 1997, Davis 2024).

Beyond the root, the approach outlined in this paper requires that many (in)transitive morphemes have two semantic representations: one for predicates without somatic suffixes and one for predicates *with* somatic suffixes (see section 4). In many Salish languages, there is independent support for two semantic representations of the middle: an implied-object middle and a medio-reflexive middle (Davis 1997). The only major change that I have proposed to the middle is that its medio-reflexive reading is preceded by an unpronounced somatic suffix meaning 'body.' For this proposal to extend to transitives, there must also be two versions of the control and relational pre-transitivizers, respectively: one for predicates without somatic suffixes and one for predicates with somatic suffixes. Extending this proposal to unaccusative predicates, however, opens several morphophonological complications, and requires that each unaccusative suffix has two lexical entries. This is hardly parsimonious, and may indicate that body-part suffixes in unaccusative predicates differ from those in unergative and transitive predicates in ways that have yet to be explored in existing literature.

Another consequence of this proposal is that in Northern Interior languages, all medio-reflexive morphemes have the same underlying structure of a somatic suffix combined with a middle. In somatic medio-reflexives, any somatic suffix can be productively combined with the medio-reflexive middle (e.g. Proto NIS *-*us*-*m* -face-MID). Unmarked medio-reflexives (i.e. medio reflexives without an overt somatic suffix) are the combination of an unpronounced somatic suffix and a medio-reflexive middle (i.e. *-∅+*m* -body+MID). Autonomous medio-reflexives are the combination of an overt somatic suffix and an unpronounced medio-reflexive middle (i.e. *-*ilx*+∅ -body+MID).

### 5.2 Consequences for linguistic theory

This approach to somatic suffixes is relevant to theories of reflexivity, compounds, and noun incorporation.

Cross linguistically, semantic reflexives often grammaticalize from body parts possessed by the agent of the event (Kouteva et al. 2019). nłeʔkepmxcín might help explain why. If a body-part morpheme needs a possessor to be semantically interpretable (as in Vergnaud and Zubizarreta 1992), and if it occurs adjacent to a morpheme that introduces a new argument, then it is easy for a speaker to interpret the new (semantic) argument as the body part's missing possessor. Over time, speakers reanalyze the body part and the argument structure morpheme as constituents, which results in medio-reflexive semantics. This sketches a path for the grammaticalization of semantic (medio-)reflexives without the use of anaphoric binding (in the sense of Chomsky 1981).

Most importantly, nłeʔkepmxcín presents possible evidence against a "possessor stranding" account of Type II noun incorporation (Baker et al. 2005). In many languages with Type II (case-manipulating) noun incorporation, a predicate with an incorporated patient may select a possessor as its object argument (Mithun 1984).

(74) Nahuatl Type II Noun Incorporation:
neč-ikši-wite'-ki
(it)me-foot-hit-PST
'It hit me on the foot.' (Mithun 1984: 860)

Standard syntactic approaches to noun incorporation argue that the incorporated noun moves from its in-situ position to adjoin to the verbal head, which leaves the possessor argument stranded in the object position (e.g. Baker et al 2005). However, there is little synchronic evidence of this in Salish, since lexical suffixes often bear no phonological resemblance to free-standing nouns with similar meanings (Kinkade 1998). This paper provides an alternative account which makes no use of head movement.

Are lexical suffixes (non-saturating) incorporated nouns? This question has been debated since Kroeber (1908) and Sapir (1911), and continues to this day (Kinkade 1998, Gerdts 2003, Wiltschko 2009). On the one hand, lexical suffixes do meet many of the typological criteria described by Mithun (1984). On the other hand, lexical suffixes do not need to correspond to a free-standing nominal, which makes them distinct lexical items. The unsatisfying answer is that it depends on how incorporated nouns are defined. If incorporated nouns are defined broadly as conjuncts in a V+N compound, then lexical suffixes are incorporated nouns. If incorporated nouns are defined by a specific mode of composition, then non-somatic suffixes may be incorporated nouns, but somatic suffixes are not. If incorporated nouns are defined by head movement from an argument position to the verb, then no lexical suffix is an incorporated noun.

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