

Bare Roots or a Lack Thereof in Interior Salish*

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Abstract: This paper builds on previous work by Davis (1996, 2021) and Lyon (2023), who show that there is variation in whether change of state roots can be used in bare form. Davis (1996, 2021) shows that in St’át’imcets, bare roots can freely surface, whereas Lyon (2023) shows that the same cannot be said for Nsyilxcn. In this paper, I show that in Nl̓eʔkepmxcín, bare roots are illicit. In addition to its empirical contribution, this paper provides a critical discussion on the semantic profile of roots in Interior Salish and provides an initial analysis of change of state roots that predicts the natural occurrence of bare roots in St’át’imcets and simultaneously rules out bare verb roots in Nl̓eʔkepmxcín and Nsyilxcn.

Keywords: bare roots, change of state, event structure, semantics, Interior Salish

1 Introduction and Background

This paper shows that change of state (CoS) roots in Nl̓eʔkepmxcín are illicit when used in their bare form — i.e., without any inflectional morphology. This is in contrast with St’át’imcets, in which bare roots are amply attested (Davis 1996, 2021; Lyon and Davis 2022). The following twelve roots in (1) are from Davis (2021), and present only a small sample of the roots that have been recorded in naturally occurring discourse:

(1) Bare root examples from St’át’imcets (Davis 2021:5)

<i>zalkw</i>	‘get wrapped around’	<i>mał</i>	‘get mixed in’
<i>pək^w</i>	‘get poured out’	<i>kəl</i>	‘get removed, taken off’
<i>lum</i>	‘get attached’	<i>nik</i>	‘get cut’
<i>xał</i>	‘get taken out of liquid’	<i>łup</i>	‘get twisted’
<i>ciq</i>	‘get poked, stabbed’	<i>pum</i>	‘get smoked (e.g., hide)’
<i>x^wik</i>	‘get butchered’	<i>caw</i>	‘get washed, baptized’

* This work would not have been possible without elders who have shared their language with me: *Kuk^wscéyp* to *k^wəłtèzetk^w?* Bernice Garcia (KBG), *ćú?sinék* Marty Aspinall (CMA), Gene Moses (GM), and Bev Phillips (BP). Bernice wishes it to be acknowledged that she is a Kamloops Indian Residential School speaker, who is re-learning her language. She introduces herself thus: *ʔes ʔúmæcms k^wəłtèzetk^wu? təw te ćələtk^wu wé?e ncitx^w. łu? wé?ec ʔex netíxs scwewíxmx, łu? tékm xé?e ne nleʔkepmx e tmix^ws*, ‘My traditional name is *k^wəłtèzetk^wu?*, my home is in Coldwater of ‘Nicola’ of Nlaka’pamux lands.’ I would moreover like to thank Ryan Bochnak, Henry Davis, Lisa Matthewson, Bruce Oliver, Ella Hannon, Brent Hall, and other members of the Secwepemctsín Research Group and Nlab for feedback and discussions. This research was funded by the Kinkade Grant *Agent Control and Aspect in Secwepemctsín and Nl̓eʔkepmxcín* (Nederveen, PI), and the Phillips Fund for Native American Research *Agent Control, Aspect and Transitivity in Secwepemctsín and Nl̓eʔkepmxcín* (Nederveen, PI). Last, but not least, I would like to thank the *Citxw Nlaka’pamux Assembly* for supporting this work and facilitating in-person work with fluent speakers. All errors are my own.
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Since bare roots are freely available in St’át’imcets, they have provided a clear picture of the semantic profile of roots, and Davis (1996, 2021), as well as Davis and Matthewson (2009) extend the findings from St’át’imcets and hypothesize that the following two generalizations hold across the Salish language family (from Davis 2021:1):¹

1. All verb roots are *unaccusative*: they systematically *lack* an external argument even when the meaning of the verb entails an agent.
2. All verb roots are *eventive* and *culminate* (they have the aspectual profile of *achievements*).

In this paper, I show that, unlike in St’át’imcets, verb roots cannot appear uninflected in the Interior Salish language Nl̓eʔkepmxcín. Based on these new empirical findings, I then reflect on whether Davis’ (1996, 2021) generalizations regarding the semantic profile of roots should be extended throughout the entire language family.

Before I present the data on bare roots, I briefly introduce some background on the language under study in this paper, Nl̓eʔkepmxcín.

1.1 Languages and Methodology

Nl̓eʔkepmxcín is a Salish language belonging to the Northern Interior branch of the family. It is spoken in British Columbia, Canada. Nl̓eʔkepmxcín has approximately 105 remaining L1 speakers (Gessner et al. 2022). As a result, the language is in need of further documentation to support ongoing and active community revitalization initiatives.

The Nl̓eʔkepmxcín consultants for this paper speak multiple dialects. Two consultants are Coldwater (čelétkʷu) dialect speakers, one is a speaker from Shulus (sulús), and another speaker speaks the Lytton (łəq̓mcín) dialect. However, their judgments on bare CoS roots are consistent.

In terms of fieldwork methodology, unless otherwise indicated, the data from Nl̓eʔkepmxcín given here are drawn from fieldwork by the author. Data collection took place both virtually through Zoom and through face-to-face elicitation, employing standard fieldwork methodologies (Bochnak and Matthewson 2020; Matthewson 2004). Nearly all elicitation tasks involved speaker judgment of sentences within particular contexts of use.

1.2 Defining Change of State

For the purposes of this paper, I only discuss the properties of bare CoS roots. In defining CoS, I follow Dowty (1979):

(2) *Change of State* (adapted from Dowty 1979:141)

ϕ undergoes a change of state iff (i) there is an interval J containing the initial bound of I such that $\neg\phi$ is true at J , (ii) there is an interval K containing the final bound of I such that ϕ is true at K , and (iii) there is no non-empty interval I' such that $I' \in I$ and conditions (i) and (ii) hold for J as well as I .

¹ It’s worth noting that this generalization is supported by research on several Central Salish languages, including Halkomelem (Gerds 2006), Lushootseed (Beck 2007), and ʔayʔajuθəm (Andreotti 2018), all of which have amply attested cases of bare roots with unaccusative semantics; it likely holds throughout the Central branch of the Salish language family.

Informally, (2) states that there is a CoS when the smallest interval which contains a subinterval in which ϕ is not true is followed by a subinterval in which ϕ is true. That is, there is a CoS from $\neg\phi$ to ϕ . CoS verbs may be achievements and therefore instantaneous, or may involve gradual change, and thus qualify as accomplishments. This paper shows that bare roots of CoS verbs are illicit in Nl̥əʔkepmxcín.

2 The Absence of Bare Roots in Nl̥əʔkepmxcín

If bare roots exist in Nl̥əʔkepmxcín, my baseline assumption would be that they have the semantics that has been attested for bare roots in other Salish languages (Andreotti 2018; Beck 2007; Davis 2021; Gerdts 2006). Based on this assumption, the environments to test their (non-)existence would be the ones Davis (2021) lists as ones that typically accommodate their pragmatic profile. Davis (2021) points out that due to the absence of an external argument in the lexical representation of CoS roots, it is challenging to find the right discourse circumstances for their felicitous use. Nevertheless, he identifies the following discourse circumstances in which bare roots typically occur (see Davis and Matthewson 2009; Gerdts and Hukari 2006):

1. Speaker does not know, care about, or wish to reveal the identity of the agent
2. Instructional contexts in which the agent is generic
[e.g., *‘First, the cars get cleaned. Then they get polished.’*]

In this paper, all of the data fall in the first category, where there is no reference to an agent in the context, and in which the identity of the agent is irrelevant for the situation.^{2,3} Below follows a sequence of examples from Nl̥əʔkepmxcín in contexts where the agent is backgrounded and where the bare root is illicit. In all cases where a bare form was rejected, volunteered alternatives (marked as ‘vf correction’) primarily involved the stative marker *ʔes-*, the inchoative *-ʔ-* or *-əp*, or the immediate morpheme *-t*.^{4,5,6}

² Instructional contexts are lacking from this paper, because I was unable to elicit instructional contexts with (i) bare roots, or (ii) with minimal inflection. All elicited instructional contexts involved either the imperative (e.g., ‘Do x!’), or constituted first person narratives from the past (e.g., ‘Then, we would do x.’)

³ If the agent is known or if the agent would have been prominent in the context, I expect a passive construction to be used.

⁴ The immediate marker is somewhat mysterious, and its precise meaning is not fully understood. However, (Thompson and Thompson 1992:92) describe immediate marking as follows: “[the immediate form] refers to states and actions which have just gone into effect. The point of reference may be some time in the past, so that an immediate form can indicate some state of affairs in the past. The emphasis is on the state of affairs, rather than on the change implied.”

⁵ Abbreviations: ADD = additive, CAUS = causative, CTR = control, D/C = determiner/complementizer, DEM = demonstrative, DET = determiner, ERG = ergative, EXCL = exclusive, FUT = future, IMM = immediate, INCH = inchoative, INFER = inferential, IPFV = imperfective, NEG = negative, NMLZ = nominalizer, POSS = possessive, PREP = preposition, SBJ = subject, SBJV = subjunctive, SG = singular, STAT = stative, TR = transitive.

⁶ In the Nl̥əʔkepmxcín examples, I use the practical orthography of the language in the top line, which results in some clitics being presented as free morphemes. The gloss line includes detailed morpheme boundaries. Material which is underlyingly present but has been deleted by a regular phonological process is marked by square brackets [...] in the gloss line. Clitics are indicated with equal signs (=), and suffixes with hyphens (-). Furthermore, ‘vf’ stands for volunteered form by the consultant, ‘sf’ stands for suggested or supplied form by

- (3) *Context: There used to be some bread on the counter, but it's gone, except for a few crumbs.*
- a. *ʔúp(i) ʔə seplíl. Nlɛʔkepmxcín
 ʔúp(i) ʔə=seplíl
 get.eaten DET=bread
Intended: 'The bread got eaten.' (BP | sf | 05.14.2024)
- b. ʔesʔúp(i) ʔə seplíl. Nlɛʔkepmxcín
 ʔes-úp(i) ʔə=seplíl
 STAT-get.eaten DET=bread
 'The bread got eaten.' (BP | vf correction | 05.14.2024)
- c. upáp ʔə seplíl. Nlɛʔkepmxcín
 up-áp ʔə=seplíl
 get.eaten-INCH DET=bread
 'The bread got eaten.' (BP | vf correction | 05.14.2024)
- (4) *Context: There was lots of snow but now it's been warm for a couple days and the snow disappeared.*
- a. *zɛx^w ʔə swúx^{wt}. Nlɛʔkepmxcín
 zɛx^w ʔə=s-wúx^{wt}
 get.melted DET=NMLZ-SNOW
Intended: 'The snow got melted.' (BP | sf | 02.26.2024)
- b. zʔɛx^w ʔə swúx^{wt}. Nlɛʔkepmxcín
 z<ʔ>ɛx^w ʔə=s-wúx^{wt}
 <INCH>melt DET=NMLZ-SNOW
 'The snow got melted.' (BP | vf correction | 02.26.2024)
- (5) *Context: When you walk along the road you see a snake that's totally flat. When it looks like that, you know it got run over by a car.*
- a. *kíp̣ ʔə sméyx. Nlɛʔkepmxcín
 kíp̣ ʔə=s-méyx
 get.trampled DET=NMLZ-snake
Intended: 'The snake got trampled.' (KBG/CMA | sf | 02.21.2024)
- b. kíp̣t ʔə sméyx. Nlɛʔkepmxcín
 kíp̣-t ʔə=s-méyx
 get.trampled-IMM DET=NMLZ-snake
 'The snake got trampled.' (KBG/CMA | vf correction | 02.21.2024)
- c. ʔeskíp̣ ʔə sméyx. Nlɛʔkepmxcín
 ʔes-kíp̣ ʔə=s-méyx
 STAT-get.trampled DET=NMLZ-snake
 'The snake got trampled.' (KBG | vf correction | 02.21.2024)

the elicitor. Examples that have been elicited by the author are marked with (i) the date that these data points were elicited, and (ii) the initials of the consultant who provided the example.

(6) *Context: There's a pile of clothes on the ground in the sun that were wet when you last saw it, and now they're bone dry.*

a. *k'éx ?ə x^wəpít. Nlə?kepmxcín
 k'éx ?ə=x^wəpít
 get.dried DET=clothing
 Intended: 'The clothes got dried.' (CMA | sf | 02.14.2024)

b. ?esk'éx ?ə x^wəpít. Nlə?kepmxcín
 ?es-k'éx ?ə=x^wəpít
 STAT-get.dried DET=clothing
 'The clothes got dried.' (CMA | vf correction | 02.14.2024)

(7) *Context: You see a branch on the ground next to a tree. You can see a cutting pattern on the tree so you know the branch did not fall but instead got cut.*

a. *ník ?ə keyxméke?. Nlə?kepmxcín
 ník ?ə=keyx-méke?
 get.cut DET=hand-branch
 Intended: 'The branch got cut.'
 CMA comment: "This is an incomplete statement." (GM/BP/CMA | sf | 01.23.2024)

b. ?esník ?ə keyxméke?. Nlə?kepmxcín
 ?es-ník ?ə=keyx-méke?
 STAT-get.cut DET=hand-branch
 'The branch got cut.' (GM/BP/CMA | vf correction | 01.23.2024)

c. níkt ?ə keyxméke?. Nlə?kepmxcín
 ník-t ?ə=keyx-méke?
 get.cut-IMM DET=hand-branch
 'The branch got cut.' (GM/BP/CMA | vf correction | 01.23.2024)

In all the examples above, the agent gets backgrounded in some way, although one apparent objection against these particular examples may be that the discourse contexts fail to accommodate a bare root. That is, bare roots only have an internal argument and no agent, and perhaps the contexts above still fail to background the agent sufficiently. However, in examples (8) and (9) below, the discourse contexts are constructed in such a way that the agent is either a generic causer, or in which there simply is no agency involved in causing a CoS. Therefore, we may conclude that, contrary to St'át'imcets, bare CoS roots are illicit in Nlə?kepmxcín.⁷

(8) *Context: Fat gets melted in a pan (by whoever would melt the fat).* **Generic agentive causer**

a. #z'ex^w ?ə q^wtél n lkép. Nlə?kepmxcín
 z'ex^w ?ə=q^wtél n=lkép
 get.melted DET=fat PREP=pot
 Intended: 'Fat gets melted in a pan.' (BP | sf | 05.30.2024)

⁷ There is an additional interesting finding that results from (8), namely that inchoative marking in Nlə?kepmxcín is licit in contexts where there is a potential agent, albeit a generic one. This is different from St'át'imcets, where the inchoative is typically used when the CoS involves no potential human agency (Davis 1996:83).

- b. zʔéx^w ʔə q^wtél n lkép. Nlɛʔkepmxcín
z<ʔ>éx^w ʔə=q^wtél n=lkép
get.melted<INCH> DET=fat PREP=pot
‘Fat gets melted in a pan.’ (BP | vf correction | 05.30.2024)

- (9) *Context: Fat melts in warm environments, if not kept cool.* **No agency involved**
a. #zʔéx^w ʔə q^wtél ʔə témus téʔe k səcéls. Nlɛʔkepmxcín
zʔéx^w ʔə=q^wtél ʔə=tém=us téʔe k=sə-cél-s
get.melted DET=fat DET=NEG=3SBJV NEG D/C=NMLZ-cold-3POSS
Intended: ‘Fat melts if it is not kept cool.’ (BP | sf | 05.30.2024)

- b. zʔéx^w ʔə q^wtél ʔə témus téʔe k səcéls. Nlɛʔkepmxcín
z<ʔ>éx^w ʔə=q^wtél ʔə=tém=us téʔe k=sə-cél-s
get.melted<INCH> DET=fat DET=NEG=3SBJV NEG D/C=NMLZ-cold-3POSS
‘Fat melts if it is not kept cool.’ (BP | vf correction | 05.30.2024)

Given the inability for bare roots to surface independently in Nlɛʔkepmxcín, questions arise about the lexical semantic representation of bare CoS verb roots. Recall from the introduction that Davis (2021) argues that in Salish, all verb roots culminate and have the aspectual profile of an achievement. An alternative proposal for Salish CoS roots by Lyon (2023) is based on findings from the Southern Interior Salish language Nsyilxcn. Following Kratzer (2000), Lyon (2023) proposes that bare verb roots contain both an eventive and stative component, and must compose with other aspectual morphology in order to have an interpretable surface form.

In the next section, I present a brief discussion of the semantic profile of CoS roots in Interior Salish and highlight areas for further research.

3 Questions about the Semantic Profile of Verb Roots in Interior Salish

Based on the evidence provided in the previous section, combined with evidence from other Salish languages, I follow Davis (1996, 2021) and adopt the view that verb roots are syntactically unaccusative. However, there are a number of avenues one can take to analyze the semantics of unaccusative CoS roots. Below, I discuss how several analyses fail to account for Nlɛʔkepmxcín.

3.1 Analyzing the Salish CoS Verb Root: Davis (2021) and Lyon (2023)

In addition to the unaccusativity hypothesis, Davis (2021) argues that the aspectual profile of verb roots is like that of achievements, and adopts the following denotation from Bar-el et al. (2005):

- (10) a. $\lambda x \lambda e \lambda w. P(x)(e)(w)$
b. $[[\text{mays}]^w = \lambda x \lambda e [x \text{ gets fixed in } w(e)]$

If we adopt the semantics in (10), we predict that bare roots can felicitously be used as long as the event argument and individual argument (of the object) are saturated. While this is the desired outcome for St’át’imcets, this cannot be the correct semantics for bare CoS roots in Nlɛʔkepmxcín. That is, if CoS roots in Nlɛʔkepmxcín have (10) as their semantics, we would predict that bare roots

are felicitous, just like in St’át’imcets. This is not the case. Instead, there should be something in the semantics of CoS roots in Nl̥eʔkepmxcín that prevents them from surfacing in their bare form.

Lyon (2023) proposes a more complex semantics for CoS roots in Nsyilxcn, a language in which bare CoS roots are typically illicit, just like in Nl̥eʔkepmxcín.⁸ Lyon (2023) adopts Dowty’s (1979) BECOME and CAUSE predicates, where BECOME is defined as in (2), such that the P-event *e* causes a change of state. CAUSE specifies that the target state *s* is caused by the event *e*. The full denotation for CoS roots proposed by Lyon (2023) is given in (11):

$$(11) \quad \lambda x \lambda s \lambda e \lambda w [\text{BECOME}(P(x)(e)(w)) \wedge \text{CAUSE}(e,s)(w)]$$

Lyon (2023) makes an ontological distinction between states of type *s* and events of type *e* (Kratzer 2000). It is this ontological distinction that ultimately prohibits bare roots to surface: since an unmodified root has both stative and eventive arguments open, the bare root leaves it entirely open whether a reference time should target the eventive portion or the target state. This, Lyon (2023) claims, rules out using the bare root, which must be resolved through further composition with other aspectual morphology, such as the stative.

Lyon’s (2023) semantic analysis of CoS roots in Nsyilxcn predicts that CoS roots cannot surface in their bare form. While there are no objections against this analysis based on Lyon’s account of CoS roots, when we look further into the derivation of morphologically complex VPs, we may wish to reevaluate whether (11) allows us to explain other derivations of CoS verbs. Specifically, problems arise when we look at the derivation of non-culminating accomplishments (NCAs; Bar-el et al. 2005, also Nederveen 2024). An example of an NCA is given in (12), where (12a) shows that a telic predicate cannot freely be used in a discourse context that lacks an endpoint, and where (12b) shows that explicit cancelation of culmination is nevertheless allowed.

(12) *Context: I worked on roasting a deer but it’s a time-consuming process. So the roast isn’t done yet.*

a. #ḡ^weyténe ʔə smíyc. Nl̥eʔkepmxcín
 ḡ^wey[-n]-t-éne ʔə=smíyc
 roast-CTR-TR-1SG.ERG DET=deer
 ‘I roasted deer.’ (BP/KBG | sf | 09.29.2022)

b. ḡ^weyténe ʔə smíyc k̄mél tətéʔe k scúk^wsne Nl̥eʔkepmxcín
 ḡ^wey[-n]-t-éne ʔə=smíyc k̄mél tətéʔe k=s=cúk^w-s[-t]-ne
 roast-CTR-TR-1SG.ERG DET=deer however NEG D/C=NMLZ=finish-CAUS-TR-1SG.ERG
 yíʔ.
 yíʔ
 yet
 ‘I roasted deer, I haven’t finished it yet.’ (BP/KBG | sf | 09.29.2022)

In order to account for (12), Lyon appeals to an analysis based on inertia worlds (2023:280; based on Bar-el et al. 2005). The result is a set of problematic predictions. Without going into the precise details of the semantic composition, Bar-el et al. (2005) account for non-culminating accomplishments

⁸ There are some exceptions, although Lyon (2023) follows Davis (1996) and assumes that these roots are not bare, but instead are inflected with null middle morphology.

in both *Skwxwú7-mesh* and *St'át'imcets* through the use of inertia worlds, drawing on a modalized approach to progressives (see e.g., Dowty 1979; Landman 1992; Portner 1998). Inertia worlds are worlds that have the same history as the utterance world up to and including the reference time, after which they may branch off. In their analysis of NCAs, Bar-el et al. (2005) explain default culmination by enforcing event culmination in all inertia worlds. Since the utterance world normally is an inertia world as well, the default interpretation of an NCA predicate is one of culmination. However, the utterance world need not be an inertia world, and so culmination is cancelable.

This is effectively a modal analysis, and by invoking modality in an aspectual analysis, we must now grapple with the modal predictions that follow with respect to material that is always licensed by modal operators. By introducing inertia worlds on the semantics of control morphology, the control morpheme effectively becomes a modal operator. As a result, it should license morphology that is normally licensed by other modal operators.

Matthewson (1998) shows that the *St'át'imcets* determiner *ku=* should always be licit when scoping under a modal (13), and this extends to the *Nl̥eʔkepmxcín* determiner *k=* in (14).⁹

- (13) *wa7*(kelh) mámt'eq kents7á ku plísmen.* St'át'imcets
wa7=(kelh) mámt'eq ken-ts7á ku=plísmen
 IPFV=FUT walk(redup) around-here ku=policeman
 'There *is/might be a policeman walking around here.'
 (Possibility modal licensing *ku=* | Matthewson 1998:203)

- (14) *Context: The speaker sees a bear in the woods.*
 a. *wʔéx*(nke) ʔéluʔ neʔ k spéʔec.* Nl̥eʔkepmxcín
wʔéx(=nke)=ʔéluʔ=neʔ k=spéʔec
 reside=INFER=ADD=DEM k=bear
 'Bears are here too.' (Inferential modal licensing *k=* | Littell and Mackie 2011:9)

However, in *St'át'imcets* and *Nl̥eʔkepmxcín*, when there are no other modals present in the clause, these determiners cannot be used under control transitive verbs, regardless of whether the event culminates (15, 16).^{10,11}

- (15) **ʔqʷuʔténe k swéte (ʔuʔ tətéʔe k scúkʷsne).* Nl̥eʔkepmxcín
ʔqʷuʔ[-n]-t-éne k=swéte (ʔuʔ tətéʔe k=s=cúkʷ-s[-t]-ne)
 sew-CTR-TR-1SG.ERG DET=sweater but NEG D/C=NMLZ-finish-CAUS-TR-1SG.ERG
Intended: 'I knit a sweater (but I didn't finish it).' (BP | sf | 06.19.2024)

⁹ The gloss from (14) has been updated according to current glossing conventions. For the original gloss, see (Littell and Mackie 2011:9).

¹⁰ The determiner *ku=* in *St'át'imcets* is a 'non-assertion of existence' determiner, such that it does not assert that the NP complement exists in the utterance world. As a result, DPs headed by *ku=* — or its counterpart in *Secwepemcstín* and *Nl̥eʔkepmxcín* — that refer to entities that exist in the utterance world are infelicitous on independent grounds. To circumvent this issue, I only use sentences with creation verbs and whose culmination is denied. As a result all DPs headed by *ku=* or *k=* refer to not-yet-existing entities, and should, if Bar-el et al. (2005) are correct, be felicitous in (15).

¹¹ Thanks to Carl Alexander (CA) and Henry Davis for the *St'át'imcets* example.

- (16) *k'ul'-ún'lhkan ku ts'lá7 (t'u7 ay t'u7 kw stsúkwsan). St'át'imcets
 k'ul'-ún'=lhkan ku=ts'lá7 (t'u7 ay=t'u7 kw=s=tsúkw-s-an)
 make-CTR.TR=1SG.SBJ DET=basket but NEG=EXCL D/C=NMLZ=finish-CAUS.TR-1SG.ERG
 Intended: 'I made a basket (but I didn't finish it).' (CA | sf)

Analyses in which the culmination inference of control transitive predicates follows from culmination in all inertia worlds (Bar-el et al. 2005) make the incorrect prediction that control marking should license material that is only licit under modal operators. We find that in Nl̥eʔkepmxcín and St'át'imcets, control transitive marking does not license the (modally licensed) irrealis determiner *k=/ku=*.

While the objections outlined above are predominantly against an inertia-world analysis of non-culmination, they are relevant for understanding bare roots. Davis (1996, 2021) and Lyon (2023) have fundamentally different analyses of CoS roots. However, both St'át'imcets and Nsyilxcn have non-culminating accomplishments, just like every other Salish language (Davis and Matthewson 2009). This means that CoS roots in St'át'imcets and Nsyilxcn both undergo derivations that yield NCAs. The semantic pieces that roots compose with in order to arrive there, however, will strongly differ based on which analysis for CoS roots is adopted. Thus, while neither analysis of CoS roots is incorrect for the respective language it explains CoS roots for, there is something unsatisfying about the stark contrast between the two analyses.

3.2 Salish CoS Roots Revisited

The previous section outlined issues with extant analyses of verb roots in Interior Salish, highlighting the need to revisit the analytical approach to capture the semantic profile of telic, unaccusative CoS roots in Salish.

Simply put, the analysis by Davis (2021) assumes a fairly straightforward semantics of roots that is similar to an achievement, whereas Lyon (2023) proposes a more fully specified representation of CoS roots, which is so rich that without further derivation, it cannot yield an interpretable output.

Based on the evidence from St'át'imcets that roots are telic and unaccusative (Davis 1996, 2021), and despite the lack of bare roots in Nl̥eʔkepmxcín and Nsyilxcn, there are similarities in the representation of CoS roots across the three languages. In particular, roots do not include an agent. This fact underscores that there is a clear semantic similarity between roots in all three Interior Salish languages.

In the proposal I present here, the eventive part of the root is identical across Salishan: here I follow Davis (1996, 2021) in the claim that the root is telic and entails culmination. The difference between St'át'imcets on the one hand, and Nl̥eʔkepmxcín and Nsyilxcn on the other, is simple: whereas in St'át'imcets, the semantics of the root comes pre-equipped with an individual argument and is of type $\langle e, \langle v, t \rangle \rangle$, roots in Nl̥eʔkepmxcín and Nsyilxcn come equipped only with an event argument and are of type $\langle v, t \rangle$. In other words, roots in Nl̥eʔkepmxcín and Nsyilxcn need to undergo further derivation, for example through composition with stative, inchoative, or immediate marking, in order to introduce the internal argument to the derivation.

For St'át'imcets, then, the semantics proposed by Davis (2021) — from Bar-el et al. (2005) — can be retained (omitting world arguments for the sake of simplicity):

- (17) a. $\lambda x \lambda e. P(x)(e)$
 b. $\llbracket \text{mays} \rrbracket = \lambda x \lambda e [x \text{ gets fixed}(e)]$

For Nłeʔkepmxcín and Nsyilxcn, the internal argument is lacking from the verb root:

- (18) a. $\lambda e. P(e)$
 b. $\llbracket \text{nik} \rrbracket = \lambda e [\text{cut}(e)]$

This analysis explains how in St'át'imcets, bare roots are self-contained: they are fully equipped with the semantics to describe an action on an internal argument. It moreover explains why in Nłeʔkepmxcín and Nsyilxcn, CoS roots cannot surface in their bare form. The only way they could appear would be without an argument, which would normally leave them uninterpretable. At the same time, the root cannot compose with an internal argument, as this would result in a type clash. Instead, the root needs to compose with other functional morphology that introduces the internal argument to the derivation, in particular with stative, inchoative, or immediate marking.

This analysis presents an interesting starting point for future research not only in the area of bare CoS roots, but also for understanding the nature of derivational morphology such as stative, inchoative, or immediate marking. A more complete understanding of all these particular component parts is needed to better evaluate the merits of this analysis; I leave this for future work.

4 Conclusion

This paper contributes to understanding the empirical landscape of Salish languages, showing that within the Interior Salish branch, there is substantial variation as to the felicity of bare verb roots. It proposes a somewhat informal sketch of the semantics of CoS roots that derives the difference between bare roots in St'át'imcets on one side of the coin, and Nłeʔkepmxcín and Nsyilxcn on the other. By highlighting the variation within the branch of Interior Salish, and by tentatively proposing an analytical avenue to understand this variation, I hope this paper furthers the research program in this area.

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