Nsyilxcn Inchoatives and their Distributions Across Root Types*

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Abstract: This paper consists of an elicitation-based and corpus-based survey of phonologically strong and weak property concept ('PC') and change-of-state ('CS') roots in Nsyilxcn. It is an investigation of how they are inchoativized, and what patterns of inchoativization emerge within and across semantic and phonological classes. The main findings are that (a) infixal inchoativizer *ʔ* applies synchronically only to phonologically strong property concept roots, and (b) the distinction between weak PC roots and weak CS roots is almost levelled in some cases, resulting in some indeterminacy in semantic class, and the potential for reanalysis across semantic classes for some roots.

Keywords: inchoatives, anti-causatives, distribution, Interior Salish, semantic class

1 Introduction

Nsyilxcn (a.k.a. Okanagan, ISO: 639-3 oka) is a Southern Interior Salish language spoken in south-central British Columbia, and the northern interior of Washington State. There are approximately 81 fluent elder speakers on the Canadian side of the border (FPCC 2022). The examples in this paper come primarily from elicitation work with Delphine Derickson-Armstrong and Dave Michele (Westbank reserve), as well as previously published materials.

This working paper examines the distribution of three different inchoative markers in Nsyilxcn across 48 different roots, which I classify as either property concept ('PC') or change-of-state ('CS') roots.[1] For Nsyilxcn, this is the first such study of inchoativization strategies from a semantic perspective. The markers being surveyed are the infix *<ʔ>,* the suffix *-p*, and C2 'out-of-control' reduplication (cf. Kinkade 1982, van Eijk 1990), all of which are classified by N. Mattina (1996) as anti-causative markers (1).[2] N. Mattina (1996:88) describes inchoative predicates as encoding a single participant, which is "a notional patient." They are formed from either state (i.e. PC) or transition-denoting (i.e. CS) roots or bases, but not from process-denoting roots. PC roots, as state-denoting predicates, express adjectival concepts, while CS roots encode a change-of-state (Lyon 2023). Example (1a) involves a PC root, while (1b,c) arguably involve CS roots.

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[1] Though these terms correspond intuitively to 'adjectival' and 'verbal' roots, respectively, I do not refer to roots using the latter for three reasons: First, I'm primarily concerned with the semantics, as opposed to the syntax. Second, all roots are verbal after they are inchoativized, so my terminological choice is meant to avoid potential confusion. Third, while a noun/verb/adjective distinction is certainly motivated in Nsyilxcn, as in other Salish languages, I remain neutral for now on the question of whether roots are lexically categorized as N, V, A, or whether semantically distinct root classes are assigned a category in the syntax.

[2] I do not discuss developmental *-wilx* in this paper, since it targets morphological stems, as opposed to roots, (Kinkade 1989).

In *Proceedings of the International Conference on Salish and Neighbouring Languages 60*,
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(1) a. **p̓<ʔ>axʷ**.
shine<INCH>
It's lit up. (N. Mattina 1996:89)

b. taʔlíʔ uł **c̓x̌ʷ-ap**.
very and stock-INCH
It's really stocked up. (N. Mattina 1996:89)

c. **c̓k•ak** iʔ sqlaẇ.
count•C2.INCH DET money
The money is counted. (N. Mattina 1996:89)

Kinkade (1989) finds with respect to nxaʔamxčín inchoatives, namely that the distribution of infix *<ʔ>* and suffix *-(a)p* largely correlates with a distinction between phonologically strong and weak roots (see also van Eijk 1987). This pattern also holds, to some extent, for Nsyilxcn strong (2) and weak roots (3).

(2) a.	√c̓ał	'cold'	→	c̓<ʔ>ał	*c̓ał-p	*c̓ł-ap	'get cold'	**strong roots**
b.	√łʕaṫ	'wet'	→	ł<ʔ>ʕaṫ	*łʕaṫ-p	*łṫ-ʕap	'get wet'	

(3) a.	√hm	'damp'	→	*h<ʔ>am	ham-áp		'get damp'	**weak roots**
b.	√c̓s	'empty'	→	*n-c̓<ʔ>as	n-c̓s-áp		'get empty'	

There are two main findings in this paper. First, Kinkade (1989) notes that the pattern illustrated in (2-3) is breaking down, with *<ʔ>* occurring less often than *-(a)p* (cf. N. Mattina 1996:88, Carlson 1993). This seems to be the case for Nsyilxcn, but for what I suggest are, at least partially, semantic reasons. Phonologically strong CS roots do not inchoativize with *<ʔ>* or *-(a)p* (4), only C2 reduplication. Only strong PC roots use *<ʔ>* (2-3).

(4) a.	√nik̓	'cut'	→	*n<ʔ>ik̓	*nik̓p	*nk̓-ap	nik̓•ək̓	'get cut'	**strong CS roots**
b.	√x̌aq̓	'pay'	→	*x̌<ʔ>aq̓	*x̌aq̓p	*x̌q̓-ap	x̌aq̓•əq̓	'get paid'	

For Nsyilxcn, I suggest that *<ʔ>* has been reanalyzed as an inchoativizer of PC roots specifically, in contrast to *<ʔ>* in other Salish languages, e.g. St'át'imcets, where it has been claimed to apply only to verbal roots (van Eijk & Hess 1986; Davis 2024). If inchoativizers can be sensitive to root semantics, this has several clear implications for a syntactic/semantic analysis of inchoatives. I discuss this briefly towards the end and in more detail in a companion paper, also in this volume.

Second, N. Mattina (1996:90) states that it is rare for a base to have more than one inchoative stem. The current survey finds this to be the norm rather than the exception, however. The strong root √c̓aẇ (5a) and the weak root √yṙ (5b), for example, both have more than one inchoative form. Semantically, the alternates appear to be more-or-less interchangeable. (Note that √c̓aẇ patterns as a strong root with *<ʔ>*, and as a weak root with C2 reduplication. This happens for quite a few roots).

(5) a.	√c̓aẇ	'clean'	→	c̓<ʔ>aẇ	*c̓ẇ-ap	c̓ẇ•aẇ	'get clean'
b.	√yṙ	'tangle'	→	*y<ʔ>aṙ	yṙ-ap	yṙ•aṙ	'get tangled'

I assume that when a root has a resultative interpretation with the prefix *əc-*, it is a CS root (i.e. *c-* interpreted as a stativizer rather than an imperfective, see Lyon 2023, this volume). This generally implies that the bare root is not a well-formed predicate in natural speech. There are exceptions to this implication, but interestingly, only with *weak* roots. Such cases pattern very closely to certain kinds of PC roots, which I think opens the door to some indeterminacy regarding root class and possible reanalysis across classes.

This paper is structured as follows. Section 2 provides a table of elicited data involving 48 PC and CS roots, along with a key and highlighting which illustrates the crucial patterns. The patterns are discussed in more detail in section 3. In section 4, I provide additional information from a preliminary corpus study (based on A. Mattina's (n.d.) meltr.org dictionary). In section 5, I introduce the idea of reanalysis/coercion for at least some roots. Section 6 summarizes, outlines future work, and concludes.

2 Elicitation Survey

Below are two tables including 48 roots and information on how they pattern with respect to distributions of the three inchoative markers, additional derivations into positive adjectival forms, the availability of the bare root in natural speech, and whether a stative or imperfective meaning surfaces with the *əc-* prefix. Table 1 consists of 25 PC roots (17 strong/8 weak), while table 2 shows 23 CS roots (8 strong/15 weak).[3] The overwhelming majority of forms in these tables were checked with ɬ̓kmxnalqs Delphine Derrickson-Armstrong and c̓əsqʕákna̓ Dave Michele from stq̓a̓ʔtkʷɬniẇt (Westbank Reserve), while a few come from A. Mattina's (n.d.) online dictionary at meltr.org.

The organization of the roots within the table is meant to highlight emergent patterns. Whether a root is classified as a PC or CS root in the above tables depends on whether prefixing *əc-* to the root has a resulting state interpretation (CS root), only an ongoing (imperfective) state interpretation (PC root), or is ungrammatical (PC root), the idea being that *əc-* foregrounds an end state if the root encodes a transition (Lyon 2023).[4] Further discussion of these tables is given in section 3.

Key:

- a code in the right column groups together items which pattern similarly and will be a point of reference in section 3.
- shaded roots pattern as phonologically strong, non-shaded roots are phonologically weak (B2 cases are indeterminate)
- * indicates ungrammatical judgement, ? indicates marginal judgement
- + indicates an interpretation of inchoativizer *-p* as a distinct lexical suffix *-(i)p* 'end'.
- superscript i 'ⁱ' indicates imperfective interpretation with *əc-*, superscript s 'ˢ' indicates a result state
- translations of positive forms are identical to PC roots (unless otherwise noted), and identical to result states in CS roots (unless otherwise noted)
- translations of inchoative forms are 'get X' or 'become X', where X is the meaning of the root (unless otherwise noted)
- translation of stativized CS roots is 'already X-ed' (unless otherwise noted).
- highlighting is used to help with visualizing grammaticality patterns

[3] Ideally, there should be equal numbers of strong and weak roots, a flaw which future work should remedy.
[4] Exceptions to this are two colour terms *yus* 'purple' (15) and *kʷil* 'red' (9). These are a priori property concepts, yet they show resultative interpretations with *əc-*. Assuming these are in fact PC roots, it is unclear why stativizer *əc-* should coerce a CS root in these cases, but not in others. This requires further work.

Table 1: Property Concept (PC) Roots

	root	bare root used	positive adjective	Inchoative			stative/ipfv əc+√	pat.
				ʔ	-p	C2		
1	√**piq** white	√	*piq-t	p<ʔ>iq, p<ʔ>aq	*piq-p	*piq•əq	*əc-piq	
2	√**nir** smooth, slippery	√	ni•rnr-t nir-t	n<ʔ>ar	*nirp *nrap	*nir•ər	*əc-nir	
3	√**ɬʕaṫ** wet	√	ɬʕaṫ	ɬ<ʔ>ʕaṫ	*ɬʕaṫ-p *ɬṫ-ʕap	ʔɬʕáṫ•əṫ	*əc-ɬʕaṫ	**A**
4	√**qʷas** deep	*	(n)-qʷas-t n-qʷəsqʷas-t (pl)	n-qʷ<ʔ>as	*n-qʷs-ap	*n-qʷas•əs	*əc-nqʷas	
5	√**nʕas** heavy	*	(nəs)•nʕas-t	n<ʔ>ʕas	*nʕas-p	*nʕás•əs	*əc-nʕas	
6	√**ċaɬ** cold	*	ċaɬ-t	ċ<ʔ>aɬ	*ċaɬ-p *ċɬ-ap	ċaɬ•əɬ k-ċaɬ•əɬ-t	*əc-ċaɬ	
7	√**mir** smooth	√	*mir-t	m<ʔ>ir	*mir-p	mir•ər	*əc-mir	
8	√**ḱas** bad	*	ḱas-t	ḱ<ʔ>as 'feel bad'	*ksap	ḱas•əs 'argue'	*əc-ḱas	**B₁**
9	√**kʷil** red	√	*kʷil-t	kʷ<ʔ>il	*kʷlap	kʷil•əl	əc-kʷil ˢ made red	
10	√**x̌ʷup** weak	√	x̌ʷup-t	x̌ʷ<ʔ>up	*x̌ʷəpap	x̌ʷúp•əp	*əc-x̌ʷup əc-x̌ʷupt got weak	
11	√**tʕas** hard	√	(ṫəs)•ṫʕas-t	ṫ<ʔ>ʕas	ṫs-ʕáp	ʔṫʕás•əs	*əc-ṫʕas	
12	√**ċaẇ** clean	√	ċəw•ċáw-t	ċ<ʔ>aẇ	*ċẇ-áp	ċẇ•áẇ	əc-ċaẇ ⁱ	
13	√**x̌ʕal** light/clear	√	x̌ʕal / x̌ə•x̌ʕal x̌əlx̌ʕalt	x̌<ʔ>ʕal	*x̌ʕal-p x̌lap tomorrow	x̌l•ʕal 'get clear'	*əc-x̌ʕal	**B₂**
14	√**x̌as** good	√	(x̌əs)•x̌as-t	*x̌<ʔ>as	*x̌as-p	ʔx̌as•s x̌asəsti?st 'get better'	*əc-x̌as	**C**
15	√**yus** purple	√	*yus-t	*y<ʔ>us y<ʔ>us infected	*yus-p	yús•s	ʔəc-yus ˢ already purple	
16	√**ʔilxʷ** hungry	*	ʔilxʷ-t ʔalʔilxʷt-əlx (pl)	*ʔ<ʔ>ilxʷt	*ʔilxʷp *ʔelxʷáp	*ʔilxʷ•əxʷ	əc-ʔilxʷt ⁱ	
17	√**ʔayx̌ʷ** tired	√	ʔayx̌ʷ-t ʔay•ʔayx̌ʷ tiresome	*ʔ<ʔ>ayx̌ʷt	*ʔayx̌ʷp *ʔəyx̌ʷáp	*ʔayx̌ʷ•əx̌ʷ	*əc-ʔayx̌ʷt	**D**
18	√**ham** damp	√	həm•hám-t	*h<ʔ>am h<ʔ>am respected	ham-áp	*hm•ám	əc-ham ⁱ	**A**
19	√**ċəs** empty	*	*ċəs-t	*(n)-ċ<ʔ>as	(n)-ċs-ap	*ċəsás	*əc-ċas	
20	√**taɬ** √**tiɬ** straight/true	* √	(təɬ)•táɬ-t	*t<ʔ>aɬ	tɬ-ap	tɬ•aɬ	əc-tiɬ ⁱ ʔəc-taɬ	**B₁**
21	√**x̌al** still	√	(x̌əl)x̌al-t	*x̌<ʔ>al	x̌l-ap stop	x̌l•al dead	*əc-x̌al	
22	√**xʷakʷ** clean	√	xʷkʷ•xʷákʷ-t	xʷ<ʔ>akʷ	xʷkʷ-ap	xʷkʷ•akʷ	əc-xʷakʷ ⁱ	
23	√**kim** dark	√	kím•kəm-t	*(n)-k<ʔ>im	(n)-km-áp	(n)-kím•əm *nkmám	əc-kim ⁱ	**B₂**
24	√**xʷal** continuous	√	xʷəl•xʷál-t	*xʷ<ʔ>al	*xʷl-ap	xʷl•ál	*əc-xʷal	**C**
25	√**x̌aʔ** sacred	*	x̌aʔ•x̌áʔ	*x̌<ʔ>aʔ	*x̌aʔp	*x̌aʔ•aʔ	ʔəc-x̌aʔ ⁱ	**D**

Table 2: Change-of-state (CS) Roots

	root	bare root used	positive adjective	Inchoative ʔ	Inchoative -p	Inchoative c2	stative/ipfv c+√	pat.
26	√**nik̓** cut	*	(nək̓)•nik̓-t	*n<ʔ>ik̓	*nik̓-p +	nik̓•ək̓	əc-nik̓ s	
27	√**kʷum** store away	*	kʷəm•kʷum-t	*kʷ<ʔ>um	*kʷum-p	kʷum•əm	əc-kʷum s	
28	√**naq̓ʷ** steal	*	*(nəq̓ʷ)•naq̓ʷ-t	*n<ʔ>aq̓ʷ	*naq̓ʷ-p	náq̓ʷ•əq̓ʷ	əc-naq̓ʷ s	
29	√**p̓iċ** pinch	*	*(p̓əċ)•p̓iċ-t	*p̓<ʔ>iċ	ʔp̓ċ-áp	p̓iċ•əċ	əc-p̓iċ s	**A**
30	√**x̌aq̓** pay	*	*x̌aq̓-t	*x̌<ʔ>aq̓	*x̌áq̓-p	x̌áq̓•əq̓	əc-x̌aq̓ s	
31	√**kʷul** make/fix	*	*(kʷəl)•kʷul-t	*kʷ<ʔ>ul	*kʷul-p	kʷúl•əl	əc-kʷul s	
32	√**miƛ̓** paint	*	məƛ̓•miƛ̓-t	*m<ʔ>iƛ̓	*miƛ̓-p +	miƛ̓•əƛ̓	əc-miƛ̓ s	
33	√**ʔiq̓** scrape	*	(ʔəq̓)•ʔiq̓-t	*ʔ<ʔ>iq̓	*ʔiq̓-p	ʔiq̓•əq̓	əc-ʔiq̓ s	
34	√**q̓ay̓** write	*	*q̓ay̓-t	*q̓<ʔ>ay̓	q̓y̓-áp	q̓y̓•áy̓	əc-q̓ay̓ s	
35	√**c̓axʷ** spill	*	*c̓axʷ-t	*c̓<ʔ>axʷ	c̓xʷ-áp	c̓xʷ•áxʷ	əc-c̓axʷ s	
36	√**laɣ** stuck	*	*laɣ-t	*l<ʔ>aɣ	ləɣ-áp *shot*	ləɣ•áɣ	əc-laɣ s	
37	√**yaṛ̓** tangled	*	ʔyaṛ̓-t	*y<ʔ>aṛ̓	yṛ̓-áp	yṛ̓•aṛ̓	əc-yaṛ̓ s	
38	√**wl** burn	*	*wal-t	*w<ʔ>al	wl-áp	wl•al	*əc-wal	
39	√**k̓at̓** cut off	*		*k̓<ʔ>at̓	kɬ-kt̓-áp	kt̓•at̓	əc-kɬ-kat̓ s	**A**
40	√**kʷaƛ̓** get seen / visible /come apart	*	*kʷaƛ̓-t	*k̓ʷ<ʔ>aƛ̓	k̓ʷƛ̓-ap k̓ʷiƛ̓-p	k̓ʷƛ̓•aƛ̓ 'unstuck'	əc-k̓ʷaƛ̓ s 'unstuck'	
41	√**paṅ̓** bent	*	*paṅ̓-t	*p<ʔ>aṅ̓	pṅ̓-ap	pṅ̓•aṅ̓	əc-paṅ̓ s	
42	√**t̓akʷ** lay down	*	*t̓akʷ-t	t̓<ʔ>ak̓ʷ come to top	n-t̓k̓ʷ-ap burst	t̓k̓ʷ•ak̓ʷ	əc-t̓akʷ s	
43	√**x̌aẇ̓** dry	√	x̌əẇ̓•x̌áẇ̓-t	*x̌<ʔ>aẇ̓	x̌ẇ̓-ap	x̌ẇ̓•aẇ̓	əc-x̌aẇ̓ s	
44	√**ʔil** , √**ʔal** tear/rip	√, √	ʔil-t	*ʔ<ʔ>il	ʔl-ap	ʔl•al	əc-ʔal s	**B₁**
45	√**ʕam** melt	√	ʕəmʕámt 'melts easily'	*ʕ<ʔ>am	ʕam-áp	ʕam•ám	ʔəc-ʕam s	
46	√**tar** unravel	√/?	tar-t	t<ʔ>ar[5]	tr-ap	tr•ar	əc-tar s	**B₂**
47	√**p̓aƛ̓** flattened	*	p̓aƛ̓-t	*p̓<ʔ>aƛ̓	*p̓ƛ̓-ap	p̓ƛ̓•aƛ̓	əc-p̓aƛ̓ s	
48	√**ɬwin** abandon	*	*ɬwin-t	ʔɬ<ʔ>win	*ɬwnáp *ɬwinp	ɬw•win	əc-ɬwin s	**C**

3 Discussion of Elicitation Tables

In tables 1 and 2 above, the rightmost column has a pattern code (e.g. '**A**', '**B**', etc.), which groups together roots with similar inchoativization strategies. These codes are the focal point for the following discussion and are bolded for reader convenience.

The **A pattern** illustrates the main inchoativization strategy across strong and weak roots for both PC and CS roots. For PC roots, this is *<ʔ>* for strong roots and *-(a)p* for weak roots (Kinkade 1989, N. Mattina 1996). For CS roots, this is C2 reduplication for strong roots and either *-(a)p* or C2 for weak roots. Thus, there seems to be a distinction in inchoativization strategies, depending on the semantic class of the root.

The **B pattern** shows roots which illustrate the main strategy in A plus one or more additional inchoativization strategies. For strong and weak PC roots, this means the additional possibility of

[5] There is a similar strong root inchoative form *tar•r* 'be stretched out', which may be relevant for why √*tar* is treated as a strong root here.

C2. There is no B pattern for strong CS roots. Weak CS roots, however, have a B pattern that closely resembles that found in pattern B weak PC roots, particularly with respect to the usability of bare roots, which is exceptional behaviour for CS roots. I return to a discussion of these cases in section 5. B roots across all categories also sometimes show indeterminacy in whether they are weak or strong; such cases are subgrouped as B_2. In terms of inchoativization strategies, whether a root patterns as A or B seems to be lexically idiosyncratic.

Pattern C shows that for some weak and strong PC roots and weak CS roots, C2 is the only inchoative option, similarly to strong pattern A CS roots.

Pattern D shows that with some weak and strong PC roots, there is no overt inchoativization. The strong root cases seem semantically equivalent to inchoative states (Bar-el 2005, Lyon 2023), though it remains unclear at present whether these are genuinely ambiguous between state and inchoative interpretations, or whether a null inchoativizer applies to a state in certain cases. There are no cases of CS roots which do not take at least one overt inchoativizer in this survey, or more broadly, as far as I am aware.

Regarding strong roots, two major observations are that **(a)** *<ʔ>* is limited to strong PC roots (A, B), and **(b)** C2 is the only inchoativization strategy for strong CS roots. While *<ʔ>* does appear to surface in two CS root cases (42,46), these are weak roots, unexpectedly, and they have a meaning different from the expected C2 form. A closer investigation of similar cases in the corpus study (section 4) shows that *ʔ* is typically lexicalized in these cases.[6] Overall, the pattern seems to show that *<ʔ>* is, or is being, reanalyzed as exclusively a property concept inchoativizer. Interestingly, this reflects what already seems to be a strong tendency in nxaʔamxčín: Czaykowska-Higgins's (ms) survey of Kinkade's work with nxaʔamxčín reveals that only 3/35 (8.5%) clear cases of transitional bases (i.e. 'CS roots') involve *<ʔ>,* while 14/48 (29%) clear cases of states (i.e. 'PC' roots) do, with the rest of states predictably taking *-p*. This contrasts with van Eijk & Hess' (1986) observation that St'át'imcets inchoative marker *<ʔ>* that it only targets verbs (cf. Davis 2024), suggesting a reorganization of inchoative systems across Salish.

Regarding weak roots, PC (B pattern) and CS roots (A,B pattern) both allow *-(a)p* to alternate with C2, usually (but not always) with little or no interpretative difference. Since *-(a)p* and C2 occur with both PC and CS roots, *-(a)p* and C2 cannot by themselves be used as a diagnostic for root semantic class, in contrast to *<ʔ>*. The distinction between weak PC and CS roots nearly disappears in their respective B patterns: The only apparent difference between B class PC (20–23) and CS (43–46) roots is that *ə́c-* gives a resultative meaning in the latter but not the former. Other properties which typically help to distinguish the two classes do not hold for the weak B classes: e.g. bare CS roots can be used, and positive forms are easily obtainable. This represents a 'grey area' between the two root classes, and I propose in section 5 that CS roots may in some cases be reanalyzed as PC roots.

4 Corpus Survey

I have completed a partial corpus survey of A. Mattina's meltr.org dictionary to see whether the tables in section 2 are reflective of inchoativization strategies across the wider lexicon. Overall, the results seem supportive: C2 reduplication occurs in this dictionary 4 to 5 times as often as *<ʔ>*, which roughly reflects the frequencies of these inchoativizers as shown in table 1 and 2.

[6] I omit angle brackets around *ʔ* in the prose for cases where it is not clearly infixal.

There are some important discrepancies to note, however. Searching through the root index, I identified 54 distinct CVC roots which take inchoative *<ʔ>,* and follow the CʔVC pattern.[7] Of these 54 roots, 42 (78%) involve inchoatives that either occur in table 1 as property concept inchoatives, or seem clearly to involve a property concept: e.g. *warm, tired, cold, sour, bad, dark, narrow, rotten, slippery, wet, soft, flat, fat, dry, young, dirty, high.* I ignore these below. The remaining 12 roots (22%) might arguably involve a change-of-state, at least based on their English translations. These 12 are discussed below, including √t̓akʷ 'lay down', which I classify as a CS root in the chart above. I checked these roots with fluent speakers to see **(a)** whether they allow bare CVC root uses, and **(b)** whether *əc-* gives rise to a result state reading. The (a) test will help determine whether or not *<ʔ>* has been lexicalized, and (a/b) together help determine whether the CVC and/or reanalyzed CʔVC root is a PC or CS root. Cognate forms are listed along with the roots where available in A. Mattina (n.d.).[8]

Overall, the results indicate either that *<ʔ>* has been partially or fully lexicalized into a CS root and so is no longer analyzable, or that the root is in fact a PC root, dictionary translation notwithstanding. Only one or two of these cases involve a canonical, strong CVC CS root which: (a) disallows bare root uses, (b) gives result state readings with *əc-,* and (c) has a synchronically analyzable inchoativizer. As such, there seem to be very few counterexamples to the generalization that *<ʔ>* applies (synchronically) only to PC roots.

First, my consultants were not familiar with the following 2/12 roots and related derivations (49), so these are not discussed further.

(49) *Not familiar with root or form*
- a. **ɬ<ʔ>uc**. to get soaked (of hard objects, e.g. beans). ⟵ √ɬc 'soak'.
- b. **p<ʔ>uɬ**. to get splashed. ⟵ √pɬ 'splash'; cf. piɬ/puɬ 'splash'; spʔuɬ 'spray' (n).

Next, 4/12 roots show clear lexicalization of *<ʔ>* into a CS root (50). These do not occur in derivations without *ʔ* except under a distinct lexical meaning, indicating lexical drift and reanalysis, and perhaps root homophony. For example, relating to (50a), *əc-p̓aǩ* was judged as having a stative meaning 'already branded' and *əc-p̓ʔaǩ* as 'already healed', while **əc-p̓aǩ* was rejected under the meaning 'already healed'. Additionally, these do not allow bare CVC root uses and only have resultative meanings with *əc-* when *ʔ* is present, not imperfective. This indicates that what may or may not have previously been a PC root has since become lexicalized as a distinct CS root of the shape CʔVC. Still, if one considers the *reanalyzed* root to be CʔVC, then these *are* 'bare roots', which seems rather to contra-indicate that the *<ʔ>* has not been *fully* lexicalized.[9] Note that Spoqínx (Sp) has cognate *ʔ* forms for (50a,b) and Secwepemctsín (Sh) a cognate *ʔ* form for (50d), with the latter having a similar meaning to the CʔVC form in Nsyilxcn. This may indicate borrowing across languages or perhaps a clue regarding the age of the reanalysis. Further work on individual languages is needed to settle these questions. Lastly, the translation of the root for (50a) in Spoqínx

[7] I ignored CVC roots which were analyzed as containing *<ʔ>* but did not conform to the CʔVC pattern and non-CVC roots with *<ʔ>* for which the number was significantly smaller.

[8] A. Mattina (n.d.) often lists Nsyilxcn roots and their cognates in the dictionary with √, as I have done here, but it is not clear in any one case whether or not the bare root is usable as a predicate.

[9] Relatedly, if *<ʔ>* has been fully lexicalized into what has become a CS root, the prediction is that the reanalyzed form should likely also take C2 reduplication. For example, if *ʔ* is lexicalized in *t̓ʔak̓ʷ* 'to surface/come to the top', we'd expect a C2 form like *t̓əʔáʔk̓ʷ* or *t̓áʔəʔk̓ʷ* meaning 'get to the surface'. I have not found evidence for this to date, but it is a question worth following up on.

as ‘well’ hints at a property concept, and that change-of-state ‘to heal’ might better be translated as an inchoativized PC ‘become well’.

(50) *ʔ is lexicalized, no bare root uses, no stative c- (except with ʔ)*

a. **p̓<ʔ>ax̌**. to heal (a wound or scar). ←√p̓x̌ ‘brand/sear’; cf. p̓ix̌•əx̌ ‘get branded’
Sp √p̓ax̌ qt:{healed, well}; p̓ʔáx̌ qt:{he got well}.

b. **m<ʔ>ał**. to have relief from pain; enough (pain). ← √mł ‘rest’; cf. mł•ał ‘be rested’
Sp mʔéł qt:{his injury quit hurting, it eased up}.

c. **ɬ•ɬ<ʔ>ap̓**. to be near the end, dying. ← √ɬp ‘suck in’; cf. ɬip ‘extinguish, disappear’.

d. **t̓<ʔ>akʷ**. to surface; to come to the top. ← √t̓kʷ ‘lay down/place/fall’; cf. t̓kʷ•ak̓ʷ ‘fall down’.
Sh (s-)tʔek̓ʷ qt:{to rise to surface of water}; Li n.ƛ̓ak̓ʷ qt:{to get filled with liquid}.

There are 2/12 cases that involve lexicalization of *<ʔ>* into a PC root (51). These allow neither bare CVC root uses, nor stativizer *əc-,* with or without *ʔ.* The *əc-* prefix here yields an imperfective reading rather than a resulting state meaning. To illustrate, for (51a) the form ***əc-xʷul*** was rejected as meaning either ‘steaming’ (ipfv) or ‘already steamed’ (stat), while *əc-xʷʔul* was judged as meaning ‘steams (habitually)’ (ipfv), not ‘already steamed’ (stat). Likewise, for (51b), ***əc-c̓ax*** was rejected as meaning either ‘get ashamed’ (stat) or ‘ashamed’ (ipfv), while *əc-c̓ʔax* was assigned a habitual interpretation ‘always shy’. Notably, DD makes a point of translating (51b) *c̓ʔax* as ‘shy’ and rejects the inchoative translation ‘get ashamed’ given in the dictionary. State meanings are also reflected in translations of cognate forms, particularly in nxaʔamxčín (Cm) (51b) and nłeʔkepmxcín (Th) (51a). Based on the translations at least, Cm *c̓aʔx* seems to involve a fully lexicalized *<ʔ>,* like Nsyilxcn, while Th *xʷʔul* implies a change-of-state, indicating that the *<ʔ>* has not fully lexicalized. Lastly, the Nsyilxcn form *c̓ixc̓əxt*, which might otherwise suggest that *ʔ* is analyzable, was judged by DD and DM as meaning ‘shameful’ and not ‘ashamed’ as it is translated in the dictionary. While these are two clearly related notions, they are distinct, pointing to lexical drift. Overall, these observations indicate that in Nsyilxcn these cases are non-analyzable PC roots of the shape CʔVC.

(51) *ʔ is lexicalized, no bare root uses, no stative c-, imperfective reading of c- with ʔ*

a. **xʷ<ʔ>ul**. steam; to be steaming. ← √xʷl ‘fog/steam’; cf. sxʷʔul ‘to get to steam’
Th xʷ[ʔ]úl qt:{get hot inside [an enclosure]}.

b. **c̓<ʔ>ax**. to get ashamed. ← √c̓x ‘shame’; cf. c̓ix•c̓əx-t ‘ashamed’, s-cʔax ‘one’s shame’
Sp √c̓eš qt:{bashful, shy, embarrassed}; Cm c̓aʔx qt:{be bashful, shy, ashamed}; c̓a-c̓aʔx-t qt:{be ashamed}; Sh √c̓ex qt:ashamed; Th √c̓éx(ʔ) qt:shame; Li √c̓ax qt:shame.

Next, 1/12 cases (52) seems to have historically involved a single root that has since evolved into a CS root on the one hand, and a separate PC (or possibly process) root with a lexicalized *<ʔ>* on the other hand. The CVC root √pul̓ patterns as a CS root meaning ‘get smoked’, as in the state resulting from an event of smoking meat, fish, etc. This takes the *əc-* stativizer, as expected. *<ʔ>* has been lexicalized into what is now a related but different PC root √pʔul̓, which means ‘smoking’ as in what a fire does after it starts. While *əc-* gives a resultative reading with √pul̓, it gives a lexically distinct imperfective reading with √pʔul̓. This follows if √pul̓ is a CS root, while √pʔul̓, with a lexicalized *ʔ*, has been reanalyzed as a PC (or perhaps a process) root. The cognate CVC roots in Spoqínx (Sp) and Secwepemctsín (Sh) may be CS roots.

(52) *ʔ lexicalization + lexical drift*

p<ʔ>ul̓. to start to smoke. ← √pl̓ ‘smoke’; cf. pl̓ul̓ ‘get smoking’; spʔul̓ ‘smoke ‘(n) Sp √pul̓ qt:{fluff up the dirt}; hi púl̓ qt:{the dirt is fluffed up}; Sh √pal qt:{to smear, smudge}.

The following case involves a clearly analyzable <*ʔ*>. It allows CVC root uses which have the same basic lexical meaning as the *ʔ* form, likely indicating that this is a PC root. For example, relating to (53), *t̓ʔul̓ isx̌num̓t* was translated as ‘My injury got better’, while a state interpretation of the bare root was given in *t̓i t̓ul isnq̓ílis* ‘My toothache is better/calm’. The resultative meaning **əc-t̓ul̓* ‘already gotten better’ was rejected.

(53) *ʔ not lexicalized, bare root uses, PC root*
t̓<ʔ>ul̓. to settle down; to subside. ← from √t̓l̓ ‘subside’.

The last 2/12 examples in the list also clearly involve an analyzable <*ʔ*> but are stronger candidates for being counterexamples to the claim that <*ʔ*> applies only to a PC root. (54a) allows a bare root *q̓ʷil* meaning ‘in a state of being wilted’ (DD, volunteered gloss) but a resultative reading with *əc-q̓ʷil* ‘already dried up’. This patterns very similar to a different root *x̌aw̓* meaning ‘dry’ (43), which I classified as a ‘B class’ CS root (one which allows bare root uses). (54b) is slightly different: bare root *yaʕ̓* was rejected, but the root clearly occurs in many derivations without <*ʔ*>. While *əc-yaʕ̓* occurs in the dictionary with a resultative translation ‘things gathered’, this was rejected by the fluent speakers I worked with as sounding odd. My sense is that the root class in (54b) is already somewhat vague, and that priming my consultants with the form *y<ʔ>aʕ̓* at the outset led to the perception that √yaʕ̓ is a PC root (since <*ʔ*> is analyzable) and hence shouldn’t take stativizer *əc-*.

(54) *ʔ not lexicalized, bare root uses, possible CS roots*

a. **q̓ʷ<ʔ>il**. wilted; to wilt; to dry up. ← from √q̓ʷʔil
Sp qt:hi q̓ʷél the plant is wilted; qt:q̓ʷʔél it became wilted; Sh qt:q̓ʷelx̌ dead branch(es); Th qt:/q̓ʷ[ʔ]íl [of plant] droop, wilt; Li qt: q̓ʷal dead trees, dead bushes.

b. **y<ʔ>aʕ̓**. to gather; to begin to gather ← √yʕ̓ ‘gather’; cf. yaʕ̓•ʕ̓ ‘to gather’, c-yaʕ̓ ‘things gathered’ Sp yiʕaʔp qt:{they all arrived together}; Cr c+yaʕ qt:{all arrived}; Sh c-yʕ-ep qt:{to arrive (from far)}. Cm yaʕ̓-aʕ̓ qt:{to get together (people)}; Cr yaʕ qt:{assemble, crowd, gather}. Sp √yaʕ (yaʔ) qt:{gathered, accumulated}; hec yáʕ̓ qt:{it is everything}; hecyáʕ̓ (ʔecyáʕ̓) cyáʕ̓ qt:{all, everything, everyone}; Cm syáʕ̓-ʕ̓ qt:{gathering, meeting} s-yaʕ̓ʷ-ʕ̓ʷ qt:{to meet, gather}; Cr yaʕ qt:{assemble, crowd, gather}; Th zaʕ, zaʕ•záʕ-t qt:{[of people] assembled, gotten together, having arrived at a place}; zaʕ-m-ə́m qt:{assemble, collect, gather (things) in a particular place}.

It is worth noting that the twelve examples above all involve, or at some prior time involved, strong roots, given the presence of *ʔ*. 3/12 of the cases above, however, have alternative C2 inchoative forms which indicate a *weak* root. This hints that lexical drift and phonology work together, over time, to distinguish one root into two distinct roots, and that lexicalization of <*ʔ*> can act as a further means of distinguishing the two daughter roots. *t̓ʔak̓ʷ* (50d) for example does

not mean ‘to get laid down’ (cf. *t̓k̓ʷak̓ʷ* ‘get laid down’), but rather ‘to float to the surface’. This suggests that at some point during or after <*ʔ*> became lexicalized in a strong root √*t̓ak̓ʷ*, a semantically related but distinct weak root emerged.[10]

Overall, with the possible exception of (54), these twelve examples are not clear counterexamples to the generalization that *ʔ* only applies (synchronically) to PC roots. These cases do however shed light on how and to what extent <*ʔ*> lexicalizes, and whether the reanalyzed form is to be understood as a PC or CS root. With careful comparative work, one might be able to establish a rough chronology of when/how <*ʔ*> was lexicalized or began the process of becoming lexicalized, and whether the semantic class of the root has changed. This awaits further work.

5 Root Reanalysis

Section 3 discussed how the distinction between weak PC roots and weak CS roots almost disappears in B class roots. I propose there is sufficient ambiguity between PC and CS roots for this class to allow CS roots, in some cases, to be reanalyzed (or perhaps coerced) into PC roots.

I tentatively propose a ‘cline of reanalysis’ (table 3) from weak CS root to weak PC root which models how a root might be reanalyzed. Where a root sits on the cline is dependent on which of the morpho-syntactic properties in the columns of tables 1 and 2 it exhibits. This cline could, perhaps, be understood in diachronic terms. Stage 1 represents an unambiguous case of a CS root, stage 2 a CS root that also derives into a positive adjective, stage 3 a CS root that has shifted further towards a PC root by allowing bare root uses (a ‘B class’ CS root), and stage 4 is a root which has completed its transition, where *əc-* no longer gives rise to a resultative reading (‘^{s}’), only a static in-progress or habitual situation (‘^{i}’, with imperfective *c-*). A stage 4 root has “lost” its change-of-state entailment, in other words.

Table 3: Reanalysis: Weak Result -> Weak PC Root

	stative c-	**positive adjective**	**bare root usable**	**imperfective c-**	**Class**
Stage 1 (CS)	√	*	*	*	CS A
Stage 2 (CS)	√	√	*	*	CS A
Stage 3 (CS)	√	√	√	*	CS B
Stage 4 (PC)	*	√	√	√	PC B

Notably, while some strong CS roots also pattern as “stage 2” because strong CS roots do not take *-(a)p,* I suggest that they may not be conflatable with PC roots for fluent speakers and so are not candidates for a full reanalysis as PC roots (i.e. they never make it past stage 2). This means that strong roots are better able to withstand this type of reanalysis than weak roots. In other words, “phonological strength means semantic strength” in this context. This is not to say that strong roots are not reanalyzed, however. The corpus survey in section 4 discussed roots in which <*ʔ*> has been lexicalized, in some cases yielding a root of a different semantic class.

[10] Similarly, the acceptability of *tʔar* for ‘unravelled’ in a weak root √*tar* may influenced by a homophonous but strong root √*tar,* which when inchoativized with C2 reduplication yields *tar•r* ‘stretched out’. This second case is admittedly different than the first, but some bleeding over between homophonous strong/weak root pairs might be expected. As another similar case, PC root (15) √*yus* ‘purple’ derives into *yʔus* ‘infected’ and *yus•əs* ‘become purple’.

6 Conclusion

This study has led to some generalizations and also raised further questions. First, the <*ʔ*> inchoative seems to apply, synchronically, more-or-less exclusively to PC roots. Given that <*ʔ*> is sensitive to the semantics of the root it attaches to, and that inchoativizers which target roots are in complementary distribution with one another,[11] this implies that these three inchoativizers adjoin directly to roots. I analyze these as *v*-heads in a companion paper in this volume (Lyon 2025a), where I demonstrate that inchoativizers differ not only in their sensitivity to change-of-state (or absence thereof in the case of <*ʔ*>), but also that the degree-of-change which they entail is dependent on the kind of root that they combine with.

Second, phonologically strong PC and CS roots are more distinct from one another than phonologically weak PC and CS roots are from each other. The similarity between weak PC and CS roots with respect to a range of tests seems to show that some cases are close to being ambiguous between the two classes. I have proposed that reanalysis may have occurred, or be occurring, in some cases.

Many questions remain. Foremost in my mind is the question of how, and why, inchoative systems have diverged/reorganized across Salish. For example, <*ʔ*> targets verbal (CS) roots in some Salish languages (van Eijk & Hess 1986), though in Nsyilxcn there is an extremely strong tendency for <*ʔ*> to apply to PC roots. There is definite tendency in nxaʔamxčín (Czaykowska-Higgins ms), similar to that seen for Nsyilxcn, for <*ʔ*> to apply to PC roots. It is unclear, at present, to what extent other languages of the Southern Interior apply <*ʔ*> to PC roots as opposed to CS roots, but the cognate forms from across Interior Salish, discussed in section 4, are suggestive of a larger shift within the family. Relatedly, van Eijk (1987:5), discusses possible semantic differences between infixal inchoatives in St'át'imcets and nłeʔkepmxcín on the one hand, and Secwepemctsín on the other.

In closing, van Eijk (1987) discusses some of the difficulties which translations introduce to analysis, and it is worth briefly reiterating that here as well. Much of my discussion in section 4 is conjectural because translations are not very helpful in distinguishing semantic root classes in the best of cases and are misleading at worst. While the stativization, lexicalization, and bare root tests I use in sections 2 and 4 are not perfect, they are grammar-internal diagnostics and thus are a better measure of the intuitions of a fluent speaker than externally assigned translations from a non-fluent linguist, such as myself.

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[11] C2 reduplication can apply to morphological stems as well, not just roots. When it applies to a stem, it can co-occur with <*ʔ*> and *-(a)p* (see also Czaykowska-Higgins, ms, for nxaʔamxčín). When C2 reduplication targets a root, however, it does not.

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