

RECONSTRUCTING ASPECT IN SALISHAN LANGUAGES

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0. Introduction. The 23 Salishan languages are (or were) spoken in the Pacific Northwest from the Rocky Mountains in Montana to the Pacific Coast, and from the Northern Oregon coast to central British Columbia. The family is usually conceived of as consisting of five branches: Bella Coola, Central Salish (10 languages), Tsamosan (4 languages), Tillamook, and Interior Salish (7 languages). Bella Coola and Tillamook are noncontiguous outliers to the north and south, respectively, of the main body of the family. Only a handful of the languages still has more than a hundred speakers, and several are already extinct or very nearly so.

Most features of the language are clearly cognate among the languages, and, once sound correspondences are known, many roots are reconstructible, as are many parts of the grammatical morphology. Lexical suffixes, like roots, show regular correspondences, as do important affixes such as subject, object, and possessive markers, a causative suffix, a non-control suffix, applicative suffixes, and transitivity suffixes, some prepositions, and several clitics and particles. Even certain morphological processes, such as reduplication patterns and epenthesis patterns can be reconstructed to Proto-Salish. Aspect, however, presents problems.¹

Aspect and person marking are the two most important morphosyntactic categories in Salishan languages. Pronominal systems have been compared and reconstructed several times (Reichard 1958-60, Newman 1977, 1979a, 1979b, 1980, Hoard 1971, Kuipers 1978),² but aspect has received no such treatment, either in part or as a whole system. At first glance, there seems to be little that can be done about reconstructing any Salishan aspectual category except 'stative', but a more careful examination of the data pertaining to aspect and Aktionsart marking leads to the possible reconstruction of two additional basic categories. In general, I will not distinguish here between aspect and Aktionsart, but will call on inflection or other marking of either to propose my reconstructions.

The basic aspectual contrast, which is to be found in all Salishan languages, is between perfective and imperfective. As will be seen below, this opposition has been given a large number of labels, but these various labels can be viewed as being more or less equivalent to what is generally understood by

¹ The contents of this paper were presented originally at the Sixth Spring Workshop on Theory and Methods in Linguistic Reconstruction, held at the University of Pittsburgh on March 22-24, 1996. I am submitting the written form of the paper to the ICSNL in order to present my findings to Salishanists in general and to get their response to these proposals about aspect in Salish. I have added an afterword about an additional possible reconstructible aspect which I had proposed earlier (Kinkade 1988), but forgot about in the preparation of this paper.

² I disagree with all these reconstructions of pronominal forms in several points, although they are at least adequate, and present the data necessary to deduce alternative reconstructions. Some of my disagreements stem from considering patterned changes throughout Salishan languages, not just within pronominal systems.

'perfective/imperfective'. I will refer to these as primary aspects. Secondary to this opposition are two other categories, which I will label 'stative' and 'unrealized', again found in all Salishan languages. Beyond these four, a number of aspectual categories can be found (which I will refer to as tertiary aspects) in all the languages, but these do not show much correlation between languages, and point to no further reconstructions among themselves at a family level. An exception is 'inchoative/inceptive', which does seem to be indicated everywhere, but in such a variety of ways that a morpheme for the category cannot be reconstructed; it will, however, be seen to be of relevance to other reconstructions. 'Stative', 'unrealized', and other secondary or tertiary aspectual categories may cooccur with 'perfective' and 'imperfective' marking in various ways, although this is not relevant to reconstructions.

1. Perfective/Imperfective. The basic aspectual opposition throughout Salish is one of 'perfective' vs. 'imperfective'. Other categories cooccur with one or the other of these two basic possibilities. This opposition is not always well identified or described in grammatical treatments of Salishan languages, but it is easily possible to determine that the opposition exists. 'Imperfective' forms are the ones usually marked by an overt morpheme. As can be seen in (1), the category has been given a large variety of names in attempts to label it in a way that best captures its functions; besides 'imperfective', we find 'imperfect', 'non-perfective', 'continuative', 'actual', 'progressive', 'present progressive', 'iterative', 'inchoative-purposive', 'durative', 'frequentative', 'augmentative', and others.³

In Salishan aspect systems, 'perfective' is always the unmarked category vis à vis 'imperfective' (although one or two languages do have a way of marking 'perfective', e.g. Cowlitz, Upper Chehalis, Lushootseed, and Bella Coola). Since it is the default category in the absence of other aspect marking, there is nothing to reconstruct. 'Imperfective', however, is indicated in a variety of ways—with prefixes, infixes, or suffixes, by reduplication, by stress shifts, by vowel changes or losses, with particles, or combinations of these, as seen in (1).

(1) [see Table 1]

Some languages appear to mark 'imperfective' in a fairly simple way. Lushootseed, Twana, and perhaps Lower Chehalis and Quinault simply use a prefix, while Comox, Pentlatch, Sechelt, and Squamish (and perhaps Nooksack)⁴ rely on C₁V₁-reduplication. Bella Coola is the only language to use a suffix to create imperfectives, but it also uses an enclitic and reduplication of various sorts. Halkomelem, Straits, and Klallam use C₁V- reduplication, -ʔ- infix, stress shifts, or a combination of these; Tillamook uses the first two of these, although Egedal and Thompson (1995) consider them distinct categories, and label the reduplication as 'continuative' and the infix as 'actual' (L. Thompson's 'actual', applied to several languages, is usually equivalent to my 'imperfective'). The northern Interior languages, Lillooet, Thompson, and Shuswap, use an auxiliary (cognate across the three languages, and also found in Squamish). Columbian, Okanagan, Kalispel, and Coeur d'Alene require a choice of prefixes and (usually) a suffix. Upper Chehalis and Cowlitz require a prefix in direct quotations (but not otherwise) and a special set of subject suffixes

³ I have myself changed my usage from 'completive/continuative' to 'perfective/imperfective'.

⁴ The situation in Nooksack and Quinault is unclear due to lack of adequate descriptions of these languages; Nooksack does use C₁ reduplication and Quinault a prefixed ʔ- for 'imperfective' at least part of the time.

Table 1. imperfective aspect

Comox-Sliammon	C ₁ V ₁ •	'imperfect(ive)'
Pentlatch	C ₁ V ₁ •	'imperfective'
Sechelt	C ₁ V ₁ •	'progressive'
Squamish	C ₁ V ₁ •	'durative, frequentative, intensive'
Nooksack	C ₁ V ₁ •	'augmentative'
Halkomelem	C ₁ V ₁ •	'actual'
Straits	C ₁ V ₁ •	'actual'
Klallam	C ₁ V ₁ •	'actual'
Tillamook	C ₁ V ₁ •, C ₁ i•	'continuative, frequentative'
Halkomelem	[?]	'actual'
Straits	[?]	'actual'
Klallam	[?]	'actual'
Tillamook	[?]	'actual'
Halkomelem	stress shift	'actual'
Straits	stress shift	'actual'
Klallam	stress shift	'actual'
Bella Coola	-a	'present-progressive'
Bella Coola	č'n	'imperfective' (vs. č' 'perfective')
Chilliwack (Halkomelem)	hé-, hə-	'continuative'
Lushootseed	lə-	'progressive'
Twana	bi-	'present progressive'
Lower Chehalis	ʔi-	'imperfective'
Quinault	ʔi-	'imperfective'
Lillooet	weʔ	'to be (busy with, involved in)'
Thompson	(w)ʔex	'actual'
Shuswap	(w)ʔex	'actual'
Squamish	wa	'continuous, iterative'
Columbian	sac-, sc-	'imperfective'
Okanagan	sac-, sc-	'actual, customary, progressive'
Kalispel	sc-	'participial'
Coeur d'Alene	ic-	'continuative'
Upper Chehalis	s-	'imperfective, continuative'
Cowlitz	s-	'imperfective, continuative'
Quinault	s-	'imperfective, continuative' (?)
Quinault	ʔs-	'imperfective (1pl, 2pl)'
Columbian	s-	'imperfective'
Okanagan	s-	'non-perfective'
Coeur d'Alene	s-	'continuative'
Columbian	-mix, -əx ^w	'imperfective'
Okanagan	-(m)ʔx, -aʔx	'non-perfective, inchoative purposive'
Kalispel	-mí, -i	'continuative'
Spokane	-mí, -i	'continuative'
Coeur d'Alene	-əmš	'continuative'
Nooksack	ʔey (?)	'imperfective'

which have the phonological effect of allowing vowel retentions that do not occur in perfective forms; this, along with other regular phonological changes, results in a quasi-concordial system depending on this aspectual choice in these two languages.

There are at least eight subgroups of languages identifiable according to the general way imperfectives are marked (prefix only, particle, reduplication, etc.); I put Tillamook in a separate subgroup, although it is not essentially different from Straits. These imperfective subgroups (discussed following examples 2 through 9) do not necessarily correspond to the standard divisions into genetic subgroups of Salishan languages, and it should be kept in mind that there are significant differences in the ways 'imperfective' is marked even within these typological subgroups. To illustrate the great variety of ways in which the 'perfective/imperfective' contrast is indicated, examples are given in (2) through (9) from a language from each subgroup.⁵

(2) Lushootseed [Central Salish] (Hess and Hilbert 1978)

lə-ʔúx ^w	vs.	ʔu-ʔúx ^w
IMPF-go		PERF-go
'he is going'		'he went'

(3) Squamish [Central Salish] (Kuipers 1967)

s-tí•taʔ	vs.	tʰ-táʔ	(C ₁ V ₁ -reduplication)
s-IMPF•be.located		DIRECTION-be.located	
'covering, being on'		'land onto'	
na wa háʔt	vs.	na háʔt	(wa)
be.there IMPF good		be.there good	
'he is (feeling) well'		'he is good'	

(4) Saanich (Straits) [Central Salish] (Montler 1986)

ʔi[ʔ]•əŋ	vs.	ʔiʔ•əŋ	(ʔ infix)
get.dressed[IMPF]-MDL		get.dressed-MDL	
'he's getting dressed'		'he got dressed'	
kʷi•wən'-təʔ	vs.	kʷi'n-təl	(C ₁ V ₁ -reduplication)
IMPF•fight-RECIP		fight-RECIP	
'they are fighting'		'they fought'	
ʔkʷə-t	vs.	ʔkʷ-t	(stress shift)
extinguish-TR		extinguish-TR	
'he is putting it (a fire) out'		'he put it out'	

⁵ Orthographies and abbreviations have been changed from originals where necessary to make the examples compatible. Conventions used are the following: • (bullet) indicates reduplication; [x] (brackets) surround an infix; = (equals sign) sets off lexical suffixes; hyphens set off other affixes. Abbreviations used are: AFF = affective; ART = article; AUG = augmentative; AUT = autonomous; CAUS = causative; CONT = continuative; CTL = control; DRV = derivational; EP = established-past; FUT = future; IMMED = immediate; IMPF = imperfective; INCH = inchoative; INTR = intransitive; LCL = localizer; MDL = middle voice; NCTL = non-control; NOM = nominalizer; O.C. = out-of-control; OBJ = object; PASS = passive; PERF = perfective; PL = plural; POSS = possessive; PRP = proportional; PUR = purposive; QUOT = quotative; RECIP = reciprocal; RED = reduplication; REFL = reflexive; REP = repetitive; RLT = relational (transitivizer); SG = singular; ST = stative aspect; SUBJ = subject; TR = transitive; UNR = unrealized. Branch affiliations are given in brackets after the language name.

(5) Tillamook (Egesdal and Thompson 1995)

de c-wáxʷən[ʃ] ART ST-CRY[IMPF] 'He is crying.'	vs.	de c-wáxʷən-áwi-n (actual) ART ST-CRY-RLT-DRV 'He made him cry.'
ci gʷu gʷə·gʷəh-əs-wí-t-š ... if FUT CONT?·call-PUR-1PL.OBJ-2SG.SUBJ 'If you call us ...'	vs.	ci gʷu gʷəh-əs-i (continuative) if FUT call-PUR-1SG.SUBJ 'I am going to call him.'

(6) Thompson [Northern Interior Salish] (Kinkade class notes)

uʔəx kn ʔaʔxáns IMPF 1SG.SUBJ eat 'I am eating'	vs.	ʔaʔxáns kn (intr.) eat 1SG.SUBJ 'I ate'
uʔəx təq-t-és IMPF touch-TR-3SUBJ 'he's touching it'	vs.	təq-t-éne (tr.) touch-TR-1SG.SUBJ 'I touched it'

(7) Columbian [Southern Interior Salish] (Kinkade field notes)

s(c)-kʷiy-míx IMPF-hunt-IMPF 'he is hunting'	vs.	kʷiy-m (intr; weak root) hunt-MDL 'he hunted'
sac-kʷiʷ-əxʷ IMPF-pray-IMPF 'he is praying'	vs.	kʷiʷ-m (intr; strong root) pray-MDL 'he prayed'
c-ʔəm-stú-m-n ST-feed-CAUS-2SG.OBJ-1SG.SUBJ 'I am feeding you (sg.)'	vs.	ʔəm-cí-nn (tr.) feed-2SG.OBJ-1SG.SUBJ 'I fed you (sg.)'
c-xəs-nú-st-m-n ST-lose-NCTL-CAUS-2SG.OBJ-1SG.SUBJ 'I am losing you (sg.)'	vs.	xəs-nún-c-n (tr.) lose-NCTL-2SG.OBJ-1SG.SUBJ 'I lost you (sg.)'

(8) Upper Chehalis [Tsamosan] (Kinkade field notes)

s-tukʷli-lit-anš IMPF-dream-AUT-1SG.SUBJ.IMPF 'I am dreaming'	vs.	ʔit túkʷli-š čn (intr.) PERF dream-AUT 1SG.SUBJ.PERF 'I dreamed'
s-ʔíkʷtaqi-t-stawt IMPF-steal-TR/3OBJ-1PL.SUBJ.IMPF 'we are stealing it'	vs.	ʔit ʔíkʷtaq-n čt (tr.) PERF steal-TR/3OBJ 1PL.SUBJ.PERF 'we stole it'

(9) Bella Coola (Davis and Saunders 1980)

ka-istux-im c'n UNR-skin-PASS IMPF 'he's going to be skinned'	vs.	ʔistux-im c' skin-PASS PERF 'they were skinned'
ʔxʷ-m-a-kʷ c'n flee-MDL-3PL.SUBJ-QUOT IMPF 'they were running from it'	vs.	s-ʔxʷ-m-aw s-flee-MDL-3PL.SUBJ 'when they ran away from it'

Bella Coola (Nater 1983:87, 140-144)

tx-a-c cut-INTR/IMPF-1SG.SUBJ 'I am cutting things'	vs.	tx-i-c cut-3OBJ-1SG.SUBJ 'I will cut it'
mnck-m-c count-INTR/IMPF-1SG.SUBJ 'I am counting'	vs.	mnck-i-c count-3OBJ-1SG.SUBJ 'I will count them'
s-cux·cux-m s-IMPF·thin.layer-INTR/IMPF 'salmon is jumping'	vs.	s-cux-m s-thin.layer-INTR 'fish jumps (once)'
pum·puus IMPF·grow 'to keep growing'	vs.	pus grow 'to grow'

The Lushootseed forms in (2) use simple prefixes to mark the contrast between 'imperfective' and 'perfective'. (The *ʔu-* on the perfective form is not obligatory in the absence of other aspectual prefixes.) A simple (but not cognate) prefix is also used to create imperfectives in Twana

Squamish uses both $C_1\check{V}$ -reduplication and the particle *wa* to mark imperfectives, and either can be used along with a stative prefix. They are, however, not the same aspectual category, since either can be used with the same root with slightly different meanings, and they can cooccur.⁶ It is not yet possible to state just what the distinction between them is, although both morphemes have cognates in neighboring languages. Similar reduplication patterns are also used in Sechelt, Pentlatch, and Comox-Sliammon to mark imperfectives, and as one of the imperfective markers in Halkomelem, Straits, Klallam, and Tillamook. It is likely that *wa* is borrowed from neighboring Lillooet.

The examples in (4) represent the three principal ways of indicating 'imperfective' in Straits (with analogous morphemes occurring in Klallam and Halkomelem). These three are largely phonologically conditioned: stress shift is used when the root is underlyingly vowelless (historically weak roots in terms of stress assignment), $C_1\check{V}$ -reduplication is used with CVC roots containing vowels, and *-ʔ-* is used in other root types.⁷ The stress shift variant has the surface appearance of metathesis, but this can be seen as stress

⁶ Personal communication from Peter Jacobs.

⁷ The alternation in example (6) of *kʷ* and *w* is fairly regular in Straits and Klallam: roughly, *w* occurs between vowels and *kʷ* occurs at syllable edges (the same type of alternation occurs with *y* and *č*). Montler's rule for *-ʔ-* insertion is as follows: "In monosyllabic stems with roots of the shapes CV, CVVC, or CVCC or in multi-syllabic stems where an underlying stressed vowel is followed by either *ʔi/* or one or no consonants, *ʔi/* is inserted after the stressed vowel and */ə/* is replaced by */é/*" (1986:124).

shift on the assumption that there is an underlying *a* on either side of *C*₂ of the root, and the unstressed one is deleted.

Contrastive examples of infixed *-ʔ-* in Tillamook are difficult to come by. Edel (1939) tends not to indicate glottal stops at all, and only a few instances of this 'actual' morpheme (or 'continuative' reduplication, for that matter) occur in Egesdal and Thompson (1995), which focuses on other issues. Additional examples of this Tillamook morpheme are given in (10).

(10) Tillamook imperfective (Egesdal and Thompson 1995)

ye[ʔ]-g^wat-i-w^{šš}-š
cause[IMPF]-know-ʔ-1sg.OBJ-2sg.SUBJ
'You know me.'

de c-siqⁱ-w^{ya}[ʔ]ləh
ART ST-walk-MDL-2PL.SUBJ[IMPF]
'you folks [two] are walking.'

Unlike the *-ʔ-* infix of Saanich, the Tillamook infix is not always inserted into the root, but may also occur within affixes; the conditions determining its location are not clear. Note, however, that it surfaces as glottalization of an adjacent resonant (as in 5), and that resonants in Saanich (and Halkomelem) appear glottalized in imperfective forms in addition to other imperfective marking that is present.

The 'imperfective' particle (actually an auxiliary) in Thompson, shown in (6), has no effect on other morphology, although as an auxiliary it attracts a subject clitic to it when it is in clause-initial position. Subject suffixes on transitive forms, however, stay with the main verb of the clause. Lillooet and Shuswap use cognate particles to mark 'imperfective'.

Imperfective marking in Columbian, illustrated in (7), is not as complex as it may initially appear. Much of the variation that occurs is phonologically conditioned, although some of the phonological changes involved are quite unusual. Intransitive imperfectives require a prefixed *s-* or *sac-* (the vowel of which is lost when there is not a stressed vowel following the first consonant of the stem to which it is attached) and a suffixed *-mɪx* (which appears as *-mɪx* following a stem ending in a stressed vowel or as *-a^w* following stems with stress somewhere earlier in that stem). Transitive imperfectives require the erstwhile 'stative' prefix *ʔac-* (which reduces to *c-* under the same circumstances as *sac-* to *sc-* just noted) and the erstwhile 'causative' suffix *-stu-*; it is the 'causative' suffix that calls for the *-m-* variant of '2sg.obj.' (or '1sg.obj.'), not aspect. Such forms are neither stative nor causative. Similar constructions for 'imperfective' are found in Okanagan, Kalispel, and Coeur d'Alene (although Coeur d'Alene does not use the *-mɪx* suffix for this purpose).

The Upper Chehalis examples in (8) show that imperfectives have different subject marking from perfectives. Imperfectives also have a prefixed *s-*, but only in direct quotations, while perfectives are preceded by one of the articles, usually *ʔit*. The alternation shown in the 'autonomous' suffix is irregular, but other vowel deletions (in these examples) are not—unstressed vowels are usually deleted in closed syllables, but retained in open syllables (and all imperfective subject suffixes count as open syllables). The Cowlitz system is virtually the same as that in Upper Chehalis.

Aspect marking in Bella Coola does not appear to be as distinctive as in other Salishan languages, and analysts do not appear to be in complete agreement as to how perfective/imperfective is regularly marked. Davis and Saunders (1980) consistently label the clause-final clitics *c'* and *c'n* as, respectively, 'perfective' and 'imperfective', but Nater (1983:165) simply identifies an enclitic *c'(n)* as 'now, already'. The *-a* and *-m* that contrast aspect in the examples in (9) are really multiply-nuanced suffixes in which aspect

is only one of the components of meaning. No indication is given in Nater (1983) as to how commonly reduplication indicates 'imperfective', but Nater identifies seven types of reduplication, and indicates that any of the seven can mark 'imperfective'; the two examples given in (9) represent the two reduplication types for which Nater gives most examples, although it is not indicated whether or not any type is productive for marking aspect.

As can be seen in (1) and in the examples in (2) through (9), there is little similarity among all these imperfective morphemes, and where cognates do occur, they are among a very small number of neighboring languages. Based just on this evidence, the most promising reconstructions of an 'imperfective' morpheme to Proto-Salish involve an infixed *-ʔ-* and *C₁V*-reduplication. I return to possible reconstructions below following the discussion of additional aspects which use *-ʔ-* infixes and *C₁V*-reduplications.

2. Stative. All Salishan languages have a stative aspect category, and it is marked by cognate prefixes in every language except Comox and Bella Coola. The forms are given in (11).

(11) [see Table 2]

Even the glosses given by various researchers are consistent, with 'customary', 'resultive', 'continuative', and 'active' used in only a few instances. Kuipers (1967) gives a periphrastic gloss, although this can easily be equated with 'stative'. This aspect marker in the various Salishan languages generally indicates a state of affairs (hence 'stative', 'static', 'customary'), and is often used with predicates to indicate 'have X'.

Given the clear cognacy of these forms, reconstruction should be straightforward, but is only partly so; the most likely reconstruction is **ʔac-*. The final consonant of the prefix is *c* in most of the Tsamosan branch, in Tillamook, and in the southern Interior languages and Shuswap. Other northern Interior languages and all Central languages have *s*. The change of Proto-Salish **c* to *s* is regular in Straits, but **c* became *θ* in Halkomelem, Comox, Pentlatch, and Saanich. Assuming that all instances of *s* that appear in this prefix in Central Salishan languages derive from **c*, perhaps from its weak position in an unstressed prefix, the change of **c* to *θ* must have occurred later, after the change in this particular prefix. In the Interior, Shuswap can have either *c-* or *s-*, and Columbian has *ʔac-* or *c-* except before *c*, *c'*, *t*, or *t'*, where it has *ʔas-* or *s-*, and may have either before *l*, *ʔ*, *ʔ'*, or *n*, showing that *c* and *s* may alternate synchronically it at least some languages of the family. If the glottal stop is original, it has been lost in several languages (unsurprisingly): Tillamook, Halkomelem, Saanich (but apparently not Songish, another dialect of Straits), Sechelt, Pentlatch, and Shuswap.⁸ The Columbian alternate without the glottal stop or vowel is phonologically determined by the following stem shape. Lillooet also has only *s-* for 'stative', but there is another morpheme *ʔas-* in the language (meaning 'have, own') which may also be derived from the Proto-Salishan stative morpheme. The *h* on the Spokane form is more problematical; it suggests a vowel-initial morpheme to which an epenthetic *h* has been added. It is unclear why Spokane would have lost the initial glottal stop, but it seems unlikely that the Proto-Salish morpheme was vowel-initial, and that only Spokane retained that shape. All the languages that have a vowel in this morpheme point to **a* as the original vowel; the development to *e* in Kalispel-Spokane, Thompson, and Nooksack is regular, and reduction of unstressed vowels to schwa (as in Klallam, Straits, Squamish, and Quinault, and the alternate forms in Lower Chehalis, Lushootseed, and Lillooet) is common. The *e* in Coeur d'Alene has to derive from **a*, not **a*.

The Bella Coola form *ʔat-* may or may not be related; I know of no way to account for the *ʔ*. There is another morpheme in Bella Coola which may be related however: *ʔas-* 'to have, contain, use' (which Nater 1983:125 identifies as a verbalizer); these are meanings often found associated with 'stative' in Salishan languages.

⁸ The absence of an initial glottal stop in Coeur d'Alene and Kalispel probably only reflects the failure of Reichard (1938) and Vogt (1940) to write word-initial glottal stops.

Table 2. stative aspect

Upper Chehalis	ʔac-	'stative'
Cowlitz	ʔac-	'stative'
Lower Chehalis	ʔac-, ʔəc-	'stative'
Columbian	ʔac-, c-	'stative'
Coeur d'Alene	ec-	'customary'
Spokane	hec-	'actual'
Okanagan	əc-	'customary, stative'
Tillamook	c-	'stative'
Shuswap	c-, s-	'state'
Twana	ʔas-	'stative'
Nooksack	ʔes-	'stative'
Thompson	ʔes-	'stative'
Kalispel	es-	'resultive, continuative'
Klallam	ʔəs-	'stative'
Quinault	ʔəs-	'stative'
Squamish	ʔəs-	'one which X-es, one which is X-ed'
Songish (Straits)	ʔəs-, ʔəʃ-	'stative'
Saanich (Straits)	(ə)s-	'stative'
Lushootseed	(ʔ)əs-, as-	'stative'
Cowichan (Halkomelem)	s-	'static'
Chilliwack (Halkomelem)	s-	'stative'
Lillooet	s-	'stative'
Pentlatch	s-	'stative' (?)
Sechelt	s- ...[V]	'stative'
Comox-Sliammon	[i]	'stative' (infix before last C of stem)
Bella Coola	ʔat-	'stative-progressive'
Bella Coola	ʔas-	'to have, contain, use' (verbalizer)
Lillooet	ʔəs-	'have, own'

The only language which has no cognate for PS *ʔac- 'stative' is Comox-Sliammon. In this language, 'stative' is indicated by infixing -i- before the last consonant of the stem. The source of this morpheme is unknown, but the reason for the replacement is clear. Comox allows no prefixes whatever (a trait borrowed from neighboring Kwak'wala), and thus had to find some way to indicate this aspect without using a prefix.

3. **Unrealized.** The other secondary aspect category is used to indicate future activity or states, events that have not yet come into being or which are hypothetical. The concept is often labelled 'future', although what is involved is aspect marking, not tense. In order not to imply tense, I will label this aspect 'unrealized'. Relevant forms are given in (12).

(12) [see Table 3]

Not all languages are included in this list—it is not clear what the appropriate morpheme is in several languages (Comox, Pentlatch, Sechelt, Squamish, Nooksack, Quinault, Lower Chehalis, and Tillamook). Salishan languages generally have a particle or affix available to indicate future time in a way that is not aspectual, and it is not always obvious which is which to a non-specialist. Some of these 'future' morphemes are given in (13); a few of these may belong in the 'unrealized' list.

(13) future

Sechelt	-skʷa	'future'
Comox	-səm	'future'
Squamish	ʔaqʰ	'future'
Squamish	ʔitʰ	'future'
Nooksack	kʷəm	'future'
Tillamook	sia-	'future'
Tillamook	ga-	'future'
Upper Chehalis	x'a	'future'
Cowlitz	x'a	'future'
Quinault	naʔ	'unrealized, future'
Columbian	naʔ, naʔsuʔ	'future'

These do not appear to form any kind of cognate sets, and will not be discussed further.

The arrangement of morphemes indicating 'unrealized' aspect given in (12) suggests that it is possible to reconstruct a particle (or clitic) *k(a)ʔ. This morpheme usually ended up as either a proclitic or a prefix, but in Lillooet it is an enclitic. The Kalispel-Spokane form with *q* is unexplained, unless the morpheme was borrowed into Kalispel from Okanagan. Since Kalispel, like Coeur d'Alene, has changed PS *k to č, the expected cognate would have č; however, if the form is borrowed from Okanagan, the *k* may have been borrowed as *q* after the change of *k* to č.

To explain the forms in Bella Coola, Thompson, Shuswap, Halkomelem, Straits, and Klallam on the one hand, and those in Lushootseed, Twana, Upper Chehalis, and Cowlitz on the other, it is necessary to assume the Proto-Salish *k(a)ʔ was split, the first group of languages retaining only *k*, and the second group retaining only ʔ. (The development of PS *k to *c* in Halkomelem and Klallam, and to *s* in Straits is regular.) It is not clear that the vowel that occurs in several languages is original, but it is probably simplest to assume that it is, and that the vowel was *a (since development of *a to ə is more likely in Salish than the reverse change), even though only Columbian and Bella Coola directly suggest this vowel. The glottal stop in Cowichan, Straits, and Klallam is unexplained.

Table 3. unrealized aspect

Lillooet	kaʔ	'remote future, possibility'
Columbian	kaʔ-	'unrealized'
Okanagan	kaʔ-	'unrealized'
Kalispel	qʔ-, qe-	'subjunctive'
Spokane	qʔ-	'unreal'
Coeur d'Alene	čəʔ	'unrealized, future'
Bella Coola	ka	'hypothetical, irrealis, future'
Thompson	k	'unrealized'
Shuswap	k	'hypothetical-indeterminate'
Cowichan (Halkomelem)	ceʔ	'future'
Klallam	cəʔ	'future'
Saanich, Songish (Straits)	səʔ	'future'
Saanich (Straits)	s	'unrealized'
Lushootseed	tu-	'anticipation, future, irrealis'
Twana	t-	'expective, unrealized'
Upper Chehalis	t	'unrealized, future'
Cowlitz	t	'unrealized, future'

There are, however, more serious problems with this proposed reconstruction. It is not entirely clear that the Thompson form belongs with this set. The meaning in Thompson is relevant, but it precedes arguments, not predicates, with which 'unrealized' is associated in other languages. Furthermore, in this position it is in opposition to *t* 'established-past', which, given its opposite meaning, does not seem likely to be related to the proposed PS **k(a)ʔ*. Examples of these two Thompson particles are given in (14).

- (14) Thompson unrealized, established-past [Northern Interior Salish] (Thompson and Thompson 1992:149-150)

k[ʔiʔk'eʔ]t k s-n-ʔwʔtəqʔ-s
near[ʔPRP] UNR NOM-LCL-boil-3POSS
'it is close to boiling'

piʔ-p-s-t-éne t n-qʔwís-qn
lose-INCH-CAUS-TR-1SG.SUBJ EP 1SG.POSS-axe
'I lost my axe [and have not found it]'

Similar reservations apply to Shuswap *k* 'hypothetical-indeterminate'.

The other problem with this reconstruction is what happens to this morpheme in Coeur d'Alene, Columbian, Kalispel, and Okanagan vis à vis the first and second possessive prefixes. The possessive "prefixes" are probably proclitics, and take different positions in regard to the 'unrealized' morpheme in the four languages. In Coeur d'Alene, *čəʔ* precedes the possessive prefixes (and subject clitics), and in Okanagan and Kalispel the order is the opposite. However, in Columbian, the possessive markers occur between the two consonants of the 'unrealized' morpheme, appearing as *i* replacing the *a* (the *n* of the possessive morphemes in Columbian is lost before *t* or an *s* that often replaces the *t*). Furthermore, in each of these languages the *t* of 'unrealized' is lost before *s*, whether this *s* is a prefix or part of the following stem. These three possible locations of possessives in the four southern Interior languages are shown in (15).

- (15) Coeur d'Alene unrealized [Southern Interior Salish] (Reichard 1938:666)

čəʔ kʔup s-t'əxʔ-p
UNR 2PL.SUBJ s-die-INCH
'you may die (go ahead and die then if you like)'

ačəʔ isinʔacʔacineʔ (ec-čəʔ in-s-hin-ʔac-ʔac-ineʔ)
ST-UNR 2SG.POSS-NOM-ON-PL-ear
'made to be thy ear ornaments'

Kalispel unrealized [Southern Interior Salish] (Vogt 1940:27)

či qʔ-ilmixʔm
1SG.SUBJ UNR-chief
'I am going to be chief'

i-qʔ-ilmixʔm
1SG.POSS-UNR-chief
'he is going to be my chief'

Okanagan unrealized [Southern Interior Salish] (Mattina and Mattina 1995)

kʷ kʷ-ilmixʷəm
2SG.SUBJ UNR-chief
'you have a chief'

kʷ k-s-ilmixʷ-aʔx
2SG.SUBJ UNR-NOM-chief-IMPF
'you will be chief'

ixiʔ a-kʷ-cqʷilən, uʔ xixiʔ a-k-s-kʷist
this 2SG.POSS-UNR-arrow and this 2SG.POSS-UNR-NOM-name
'this will be your arrow, and this will be your name'

Columbian unrealized [Southern Interior Salish] (Kinkade field notes)

kaʔ-wəs-xn-álqʷ
UNR-tall-foot-tall.thing
'he'll be tall, he's going to be tall'

ka-s-ḥawʷiy-n-cá-s lx kaʔ-yəl-mixʷ-m
UNR-IMPF-WORK-TR-1SG.OBJ-3SUBJ 3PL UNR-chief=people-MDL
'They're going to make me a chief.'

k[i]-s-na-púlʷ kn
UNR[1SG.POSS]-IMPF-in-camp 1SG.SUBJ
'I'm going to bed in there.'

All this suggests that the *k* and *ʔ* may simply be two separate morphemes (see Mattina, 1996). This would not rule out reconstructions to Proto-Salish, given the forms from the Coast, but there would then be two morphemes instead of one, although with unclear meanings, and the status of the vowel is unclear (i.e. which of the two morphemes does it belong to?).

4. Tertiary aspects. Many other aspects are indicated in Salishan languages by all the means seen above (prefixes, infixes, suffixes, reduplication, clitics, particles). These often cooccur with primary and secondary aspects. Labels give to these morphemes are extremely diverse, as are the forms themselves. There is very little cognacy among these morphemes, other than in limited regional groupings (especially in Interior Salish), and no other aspectual categories can be reconstructed to Proto-Salish with any degree of confidence. A few sets are suggestive, however, and some have bearing on the reconstruction of 'imperfective'.

4.1. Inchoative. The most widely found tertiary aspectual category is 'inchoative' (also labelled 'inceptive', 'developmental', 'resultative', etc.). Known morphemes indicating 'inchoative' are given in (16); the absence of a language in this list does not mean that the category is lacking, only that an attestation is unavailable to me. One interesting distribution among these is for the suffix in Sechelt, Chilliwack Halkomelem, Lushootseed, and Tillamook, which may represent a Proto-Salishan (or at least Proto-Coast Salishan) **-il*.

(16) [see Table 4]

Of greater interest, however, are the 'inchoative' morphemes from Interior Salish. These are quite uniform, and vary primarily as to where the glottal stop variant of the morpheme occurs in relation to the stressed vowel of the word. In general (although with a number of exceptions), the *-p* suffix follows weak

Table 4. inchoative aspect

Sechelt	-əl, -il	'inchoative, inceptive'
Chilliwack (Halkomelem)	-i-l, -əl	'inceptive'
Lushootseed	-il	'inchoative'
Tillamook	-il	'developmental'
Tillamook	•(V)C ₂	'inchoative'
Twana	•aC ₂	'inchoative'
Upper Chehalis	-áw-	'inchoative'
Cowlitz	-aw-, -u-	'inchoative'
Lower Chehalis	-y'əq-	'inchoative'
Comox	?ut	'inceptive'
Bella Coola	-lx, -anm	'inchoative'
Lillooet	-p	'inchoative'
Thompson	-p	'inchoative'
Shuswap	-ep	'arrived into a state'
Okanagan	-p	'mutative'
Columbian	-p	'inchoative'
Kalispel	-p	'without interference of the subject'
Spokane	-p	'lack of control'
Coeur d'Alene	-p	'involuntary'
Lillooet	[?]	'inchoative'
Thompson	[?]	'inchoative'
Shuswap	[?]	'state, process'
Okanagan	[?]	'inchoative'
Columbian	[?]	'inchoative'
Kalispel	[V?]	'inchoative'
Spokane	[?]	'development to a state or quality'
Coeur d'Alene	[?]	'inchoative, resultative'

roots (i.e. roots that yield stress to strong or variable suffixes), and the *-ʔ-* infix is inserted within strong roots (i.e. roots that retain stress; once strong roots have this infix inserted they become weak). This distribution of morphological variants is odd, and it is not evident that there is any historical connection between them. I return to this infix below in 4.2.2.

4.2. Repetitive. A morpheme labelled 'repetitive' was first identified by Carlson (1980) in Spokane. Cognates have subsequently been noted in Thompson (Thompson and Thompson 1992), Columbian, and in Lillooet (where it is very infrequent). In Spokane the morpheme occurs in two patterns: (1) when stress falls to the right of *C*₂ (i.e. on a suffix) and the vowel of the root (if there is one) is deleted, an *e* is infixed after *C*₁ of the root; (2) if stress remains on the root (i.e. on the vowel between *C*₁ and *C*₂, *C*₁ is reduplicated and *e* is inserted after this reduplicated consonant. These variants are both accompanied by glottalization of all resonants in the word. These variants are illustrated in (17):

(17) Spokane repetitive [Southern Interior Salish] (Carlson 1980:80, 82)

f[e]ʔ-n'-t-én'	vs.	lě-n-t-én
tie[REP]-CTL-TR-1SG.SUBJ		tie-CTL-TR-1SG.SUBJ
'I tied it over and over'		'I tied it'
n[e]•n'íč-n'-t-x ^w	vs.	níč-n-t-x ^w
RED[REP]•cut-CTL-TR-2SG.SUBJ		cut-CTL-TR-2SG.SUBJ
'you kept cutting'		'you cut it'

The formation of 'repetitive' in Columbia is essentially the same as in Spokane, except that in at least two instances the added vowel is accompanied by a glottal stop. The examples in (18) contrast *C*₁-reduplicated forms with and without this glottal stop.

(18) Columbian repetitive [Southern Interior Salish] (Kinkade field notes)

kat-w[aʔ]•wáx-m'-s	vs.	kat-wáx-m-n
on.top-RED[REP]•?step-RLT-3SUBJ		on.top-?step-RLT-1SUBJ
'he stepped back and forth over him'		'I stepped over him'
w[a]•wáí•í	vs.	wáí-n
RED[REP]•tilt•O.C.		tilt-1SG.SUBJ
'boat rocking in the wind'		'I tilted it'

In Okanagan, an infix with a glottal stop is the norm, as seen in (19).

(19) Okanagan repetitive [Southern Interior Salish] (A. Mattina, p.c.)

ʔ[aʔ]í'-p-mn-cút	vs.	ʔí'-p-mn-cút
jump[REP]-INCH-RLT-REFL		jump-INCH-RLT-REFL
'jump here and there'		'jump'
m[aʔ]•múlx	vs.	múlx
RED[REP]•dip		dip
'dip for water repeatedly'		'dip water'

The vowel in these Okanagan forms is not the *i* that is expected as a cognate for Spokane *e* and Columbian *a*. Okanagan *a* normally derives from **a* (or from **a* before a retracted consonant, but that is not the case in these forms). An explanation might be that Okanagan actually lost the original vowel of the infix, then

inserted an epenthetic *a* before the glottal stop (a regular process), and it would be lowered to *a* by regular sound shift and/or by regular lowering of *a* before a glottal stop.

Judging from the Thompson cognate, this infix and the accompanying reduplication in Spokane, Columbian, and Okanagan apparently represent the fusion of two separate morphemes, one the infix and the other the reduplication, since in Thompson they can occur separately and the infix occurs in a different position. Thompson and Thompson label the infix 'repetitive' (1992:116-118) (illustrated in 20) and the reduplication 'affective' (1992:115-116) (illustrated in 21). Both 'repetitive' and 'affective' are accompanied by glottalization of resonants.

(20) Thompson repetitive [Northern Interior Salish] (Thompson and Thompson 1992:117)

sən•[eʔ]sén'-t	
AUG•[REP]fall.over-IMMED	
'[drunk person] staggers, keeps falling'	
n-cəq•c'q[eʔ]-qín'-m	
LCL-AUG•hit[REP]-head-MDL	
'spiker on railroad crew (he keeps hitting [spike] on the head)'	

This 'repetitive' infix is inserted "directly before the consonant which begins the stressed syllable of the base" (Thompson and Thompson 1992:116). In Thompson 'repetitive' only infrequently lacks the glottal stop portion of the morpheme.

These four Interior languages suggest reconstructing *-*aʔ-* to Proto-Interior Salish, with vowel loss (and then replacement) in Okanagan, and glottal stop loss in Spokane and (usually) Columbian.

4.2.1. Affective. The Thompson 'affective' reduplication *C*₁*e*• includes the vowel *e* (sometimes reduced to *a*), and is described as "connoting special attitudes ranging from familiarity, perhaps with overtones of nostalgia, to extreme specialization" (Thompson and Thompson 1992:115). It is not a productive morpheme in Thompson.

(21) Thompson affective [Northern Interior Salish] (Thompson and Thompson 1992:115-116)

ʔes-ʔ'e•ʔúp	vs.	ʔúp-e-s
ST-AFF•twist		twist-CTL-3SUBJ
'it is twisted'		'she twists it'
wə•wík-m'	vs.	wík-m
AFF•see-MDL		see-MDL
'he has hallucinations'		'he sees [someone]'

Thompson and Thompson say of this reduplication that "[h]istorically it is clear that affectives represent old diminutives" (1992:116), since the historical diminutive pattern in Salish is reduplication of *C*₁. However, most of the examples cited in Thompson and Thompson do not involve diminutive notions, but most *do* involve some sort of continuous or repetitive activity: 'scattered', 'weep', 'have a varicolored pattern', 'pattern', 'pleated', '[ghost] follows', 'sleep erratically', etc. These glosses, then, relate this reduplication pattern to the reduplication + infix pattern seen in Spokane, Columbian, and Okanagan.

This conclusion is supported by the few "initial reduplication" patterns given for Shuswap (Kuipers 1974:39). *C*₁(*a*)-reduplication is apparently not common in Shuswap, but Kuipers notes that some cases "have a vaguely continuative meaning", as in (22).

(22) Shuswap C₁-reduplication [Northern Interior Salish] (Kuipers 1974:39)

cə•č'éc-m RED•ashamed-MDL 'be ashamed'	vs.	c'[?]éx ashamed[INCH] 'ashamed'
x"ə•x"l-p-ús-m RED•spin-INCH=face-MDL 'look in all directions'	vs.	x"l-ép spin-INCH 'to spin around'

Lillooet also has a few instances of this reduplication pattern, but a cognate of Thompson [e?] 'repetitive' is quite rare there.

4.2.2. Imperfective again. It should be recalled that one of the morphemes used to indicate 'imperfective' in Halkomelem, Straits, Klallam, and Tillamook is a glottal stop infix. I suggest that either the Interior Salish 'inchoative' infix or the Interior Salish 'repetitive' infix is cognate with this Coast Salish 'imperfective' infix, and that this allows us to reconstruct an infixed *-ʔ- as the Proto-Salishan morpheme for 'imperfective'. The change from 'imperfective' to 'inchoative' is not a great one, although the resulting odd distribution of the two 'inchoative' forms in Interior Salish is unexplained, as is the origin of the -p variant there. Alternatively, the 'repetitive' morpheme can easily be seen as a possible cognate of the coastal 'imperfective' glottal stop. In either case, there do seem to be cognate glottal stop infixes in Interior Salish, Central Salish, and Tillamook.⁹

There are yet other infixed glottal stop morphemes in some languages, although it is not clear how (or if) they might be related to a proposed 'imperfective' *-ʔ-. Upper Chehalis and Cowlitz affix -a? following C₂ of roots or stems as one way of forming plurals; it is usually an infix, but may be a suffix if the root ends at C₂. Kalispel indicates the plurality of third persons (subjects, objects, or possessors) by infixing a glottal stop (Vogt 1940:63). A connection between plurality and aspect is not unreasonable, and such a connection occurs throughout Salish in C₁VC₂-reduplication; this pattern is ordinarily simply labelled 'plural', but it is usually noted that it encompasses notions of repetition and distributivity (see, for example, Kinkade 1995).

It is also worth noting the addition of glottalization to resonants in various languages. In Halkomelem, this accompanies 'imperfective' aspect, and in Interior Salish it accompanies 'repetitive' and the Thompson 'affective' reduplication, as well as 'diminutive' reduplication throughout Interior Salish. However, it is not evident that this is connected with glottal stop infixes.

Another of the 'imperfective' morphemes that occurs in several coast languages is C₁V-reduplication. As a productive pattern, this variant is concentrated in languages from Straits to Comox. It was also noted as occurring in Tillamook, but identified as a different morpheme from the infixed glottal stop, and in Bella Coola. Now we can see similar reduplication in most Interior Salish languages (unattested only in Coeur d'Alene), where it indicates some sort of continuing activity but is not a basis for forming 'imperfective' aspect. It should, however, be considered cognate with the coast pattern, and can therefore be reconstructed to Proto-Salish.

The leaves us with two morphemes that might be associated with 'imperfective' in Proto-Salish: *-ʔ- and *C₁V-reduplication. Both create imperfectives in Halkomelem and Straits, but have different functions elsewhere; it is therefore likely that they had different functions in Proto-Salish, but merged as

⁹ The 'inchoative' and 'repetitive' glottal stops might even be the same, with different functions assigned to the different places they are inserted.

conditioned variants of 'imperfective' in Halkomelem and Straits. It is not clear how they were distinguished in Proto-Salish. It should further be noted that the distribution of -ʔ- and C₁V-reduplication in Straits is determined largely by root shape, while the occurrence of C₁V-reduplication for 'repetitive' is determined by stress location. These distributional differences are not relevant to the reconstruction of these morphemes because stress shifts and vowel reductions have affected morpheme shapes in independent ways.

4.3. -t. All seven Interior Salishan languages have a -t suffix that occurs quite commonly and is an important aspect marker of some sort (see 23). Although some are labelled 'stative', the use of this suffix is distinct from the stative prefix (see 2 above); in order to distinguish them I will label these 'state'.

(23) state

Lillooet	-t	'continued state'
Thompson	-t	'immediate'
Shuswap	-t	'state'
Okanagan	-t	'stative'
Columbian	-t	'stative'
Spokane	-t	'stative'
Kalispel	-t	'adjective'
Coeur d'Alene	-t	'characteristic'
Saanich	-t	'stative' (unproductive)

However, this morpheme does not appear to be particularly productive, in that it cannot be added freely to stems. Saanich also has a -t suffix which Montler identifies as 'stative'. He says of it that it is "rare and probably not productive" (1986:58). This may or may not be cognate with the -t that occurs in the Interior; t is such a common element in suffixes in general that evidence would be needed from other coastal languages to support cognacy.

4.4. Mutative. One other affix has sufficiently wide distribution to suggest reconstruction, although only at an intermediate level. It is attested in only six languages (see 24), three from Tsamosan and three from Central Salish; the range encompasses most of the coastal languages (except the outliers Bella Coola and Tillamook).

(24) mutative

Squamish	təx"-	'toward, becoming'
Saanich	tx"-	'mutative'
Songish	tx", txə	'become, towards, comparison'
Lushootseed	dx"- (?tx"-)	'to, toward'
Upper Chehalis	tx"-	'get, become'
Cowlitz	tx"-	'get, become'
Lower Chehalis	tx"-	'get, become'

Meanings given are quite varied, but Montler's label 'mutative' (1986:48) seems to be an appropriate cover term for them all. This prefix can be reconstructed to a Coast Salish level (excluding Bella Coola, Tillamook, and Interior Salish) as *tx"-.

5. Conclusions. In spite of extreme variations in the expression of basic aspects in Salishan languages, it has been possible to show that four aspect morphemes can be reconstructed to Proto-Salish, although difficulties remain with all the reconstructions. Two forms compete for reconstruction as 'imperfective': *-ʔ- and *C₁V-reduplication. Only one was 'imperfective', but the other also represented some aspectual

category. Of secondary aspects, both *ʔac- 'stative' and *k(a)ʔ 'unrealized' can be reconstructed. No tertiary aspects can be reconstructed to Proto-Salish, but they have been shown to be crucial in determining the shape of 'imperfective'.

These conclusions should be considered tentative. There is still much to be learned about aspect in Salishan languages, and further study is needed to determine which categories and which morphemes warrant comparison. The extremely diverse terminology used by researchers, as well as gaps in available data leave a number of questions unanswered. Syntactic evidence of the use of aspects is also important, but that sort of study is still in its infancy in Salish.

6. **Afterword.** In Kinkade (1988) I suggested that ablaut of Proto-Salishan *a or *i (and, analogically, *u) with *ə might represent an active-stative contrast, with meanings such as 'become black, blacken' vs. 'be black'. I would now modify this to propose an ablaut of any true Proto-Salishan vowel (i.e. *a, *i, *u) with zero, but without stress shift, with the stress then requiring an epenthetic schwa (since I am no longer convinced that schwa should be reconstructed to Proto-Salish).

It is not entirely clear that this active-stative contrast is truly an aspectual contrast, and if it is, how it fits in with the aspectual morphemes and system presented in this paper, particularly since the proposal concerning ablaut was based exclusively on color terms. In any case, much further study of ablaut in Salish is needed, both for the kind discussed in Kinkade (1988) and for ablaut between full vowels, especially that between *a and *i.

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