The SENĆOŦEN Resultive Construction*

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The resultive and actual (imperfective) aspects in SENĆOŦEN (Saanich), a dialect of North Straits Salish, have been previously considered to contain two separate actual and resultive morphemes (Montler 1986). In contrast, it is argued here that the SENĆOŦEN resultive construction is a complex construction, built on an actual base by prefixation of stative [s-]. Both morphophonological evidence and morphosyntactic evidence for this claim are considered: resultives and actuals exhibit the same non-concatenative allomorphy, and they appear to be in complementary distribution with respect to argument structure. This paper also considers the semantic aspectual properties of resultives, and suggests that the morphologically complex resultive is semantically compositional: it contains a [durative] feature contributed by the actual morpheme and a [static] feature contributed by the stative prefix.

KEYWORDS: Saanich; Salish; SENĆOŦEN; aspect; resultative; imperfective

1. Introduction.

This paper provides a description of the SENĆOŦEN *resultive* construction. The main proposal put forth is that the resultive construction is morphologically complex, consisting of a *stative* prefix and a predicate in the *actual* (imperfective) aspect. All previous work on SENĆOŦEN and other North Straits Salish languages has assumed two separate morphemes: *actual* and *resultive*. In contrast, this paper provides arguments that resultives contain actual morphology and that the only morphological difference between an actual and a resultive is that the resultive additionally contains a stative prefix [s-].

1.1. SENĆOŦEN resultives and actuals.

The SENĆOŦEN resultive expresses the resultant state of the patient participant of an event. To date, three different non-concatenative *actual* allomorphs have been found to form resultives from the morphologically unmarked perfective. Example (1b) exhibits CV-reduplication, (2b) ablaut with suffixation of "durative" [-əɬ], and (3b)

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metathesis/stress shift.[1] Throughout this paper, perfective forms are given in (a) and corresponding resultives or actuals are given in (b). When all three are compared, actuals are given in (b) and resultives in (c).

(1) a. LIḰ TŦE X̱I,LEM[2]
líq^{w} tθə x̌^{w}íl̓əm
loosen DET rope
'The rope loosened; the rope slackened.'[3]

b. SLI,LEḰ TŦE X̱I,LEM
s-lí-l̓əq^{w} tθə x̌^{w}íl̓əm
ST-ACT-loose DET rope
'The rope is slack.'

(2) a. LEƛ LE, TŦE LEPOT
lə́t̓^{θ} lə^{ʔ} tθə ləpát
fill PST DET cup
'The cup was filled.'

b. SLÁƛEŁ TŦE LEPOT
s-lét̓^{θ}-əł tθə ləpát
ST-fill(ACT)-DUR DET cup
'The cup is full.'

(3) a. ṮPEX
x̌̓pə́x̌
'scatter'

[1] This might be better described as a change from CCəC to CəCC, as neither metathesis nor stress shift fully covers all examples which are formed by this interesting allomorph (as discussed in section 3 and by Leonard & Turner (2006)).

[2] Unless otherwise noted, all examples result from fieldwork with two Saanich elders in May 2006. SENĆOŦEN examples are given in both Dave Elliott Sr.'s alphabet (line 1) and the American Phonetic Alphabet (line 2). A conversion chart is given in appendix A.

[3] 1sgsu=1st person singular subject pronoun; 1sgposs=1st person singular possessive pronoun; 1plsu=1st person plural subject pronoun; 1ss=1st person subordinate subject; 2su=2nd person subject pronoun (used for singular and plural in SENĆOŦEN); 2poss=2nd person possessive pronoun; 3erg=3rd person ergative agreement; 3poss=3rd person possessive pronoun; 3sgmasc=3rd person singular masculine independent pronoun; acc=accusative; act=actual; aux=auxiliary; caus=causative; contemp=contemporaneous*; c.tr=control transitive; det=determiner; dim=diminutive; dur=durative; fut=future; group=group (indicates that the utterance is addressed to all present); inf=informative*; lim=limiting*; mid=(control) middle; mut=mutative*; nom=nominaliser; obl=oblique; pass=passive; persis=persistent*; pl=plural; pres=present tense; prog=progressive; pst=past; q=yes/no question particle; real=realised*; recip=reciprocal; refl=reflexive; res=resultative; st=stative; = (equals sign)=lexical suffix boundary; tr=transitive; -(dash)=any other morpheme boundary; (-x-)=x is an infix; _ (underscore)=attaches clitic to host (in Montler's (2003) notation). Please see Montler (1986) for definitions of asterisked terms.

b. STEPX
s-ƛ̓ə́px̌
ST-scatter(ACT)
'scattered'

The same three actual allomorphs are used in non-resultive actual constructions. The SENĆOŦEN actual is an imperfective morpheme expressing such meanings as events in progress, events with longer duration, repetitive events, and the resultant state of an event. Examples of actuals formed by reduplication, ablaut plus suffixation, and metathesis/stress shift are given in (4b), (5b), and (6b), respectively.

(4) a. DILEM ŦE Janet
t̓íləm θə Janet
sing DET Janet
'Janet sang (a song).' (Turner 2005:252)

b. DEDI,LEM, ŦE Janet
t̓ə-t̓íl̓əm̓ θə Janet
ACT-sing DET Janet
'Janet's singing.' (Turner 2005:252)

(5) a. BEȻ TŦE MO,EḰ
p̓ə́kʷ tθə máʔəqʷ
rise.to.surface DET duck
'The duck floated to the surface.' (Turner 2005:248)

b. BÁȻEȽ
p̓ékʷ-əɬ
rise.to.surface(ACT)-DUR
'rising to the surface now and then [as in a buoy]'

(6) a. ŦQET SEN LE, TŦE X̱I,LEM
θk̓ʷ-ə́t sən ləʔ tθə x̌ʷíl̓əm
stretch-C.TR 1SGSU PST DET rope
'I stretched out the rope.'

b. ŦEQT SEN LE, TŦE X̱I,LEM
θə́k̓ʷ-t sən ləʔ tθə x̌ʷíl̓əm
stretch(ACT)-C.TR 1SGSU PST DET rope
'I was stretching out the rope.'

In addition, post-stress resonants are glottalised in all actual and resultive forms, regardless of the allomorph used, as in (1b), (4b), and (7b).

There is also a fourth allomorph of the actual, which has not yet been found in resultive forms: infixation of a glottal stop following the stressed vowel.

(7) a. W̱ITEN̲
xʷít-əŋ
jump-MID
'jump'

b. I W̱I,TEN̲,
ʔi xʷí-ʔ-t-əŋ'
AUX jump(-ACT-)-MID
'He's jumping.'

I believe that the absence of resultives formed by glottal infixation is a gap in the corpus of data, and that there may well be resultives formed in this way.

Although actuals and resultives are formed by at least three of the same non-concatenative morphological processes, the resultive construction has not previously been recognised as built on an actual base, but rather has been assumed to contain a resultive morpheme distinct from the actual morpheme. There are two main reasons for this. First, some actuals seem to express a resultant state, and have been previously classified as resultives (Montler 1986).

(8) a. NEĆ ŦE K̲AK̲
nə́qʷ θə qéq
fall.asleep DET baby
'The baby fell asleep; the baby's sleeping.'

b. NOĆEŁ ŦE K̲AK̲
náqʷ-əł θə qéq
fall.asleep(ACT)-DUR DET baby
'The baby is asleep.'

These actuals belong to the class of inchoative states, previously identified in Sḵwx̱wú7mesh (Central Salish) by Bar-el (2003a, 2005) and discussed in section 4.

The second reason actuals and resultives have been treated as separate morphemes is that only one actual/resultive minimal pair and one near minimal pair have been documented so far. The actual in (9b) differs from the resultive (9c) only in that the resultive has a stative prefix.

(9) a. K̲ES
qə́s
'It fell in the water.'

b. YOŦ OL, K̲ÁSEŁ TŦE SƛOƛŁE E TŦE ĆO,
yáθ ʔaḷ qés-əł tθə s-i̓θáti̓θłə ʔə tθə qʷáʔ
always LIM fall.in.water(ACT)-DUR DET NOM-leaf OBL DET water
'The leaf is always falling in the water.'

c. SḴÁSEŁ
s-qés-əł
ST-fall.in.water(ACT)-DUR
'He's/It's in the water.'

In this paper, I will argue that the scarcity of minimal pairs does not mean that there are contrastive resultive and actual morphemes. Instead, it results from the near complementary distribution of resultives and actuals, in terms of the predicate bases on which they are formed.

1.2. The SENĆOŦEN language.

SENĆOŦEN [sənčáθən] is the language of the Saanich people, and is called *Saanich* in some previous linguistic literature (e.g., Montler 1986). The traditional territory of the Saanich people includes W̱SÁNEĆ [xʷsénəč] (the Saanich Peninsula of Vancouver Island) and many of the surrounding Gulf and San Juan Islands (Elliott 1983:5). SENĆOŦEN is linguistically considered to be a dialect of North Straits Salish, a language of the Central branch of the Salish language family. The other North Straits dialects are Sooke, Songish, Lummi, Samish, and Semiahmoo.

SENĆOŦEN is a seriously endangered language; there are estimated to be fewer than twenty speakers (Czaykowska-Higgins & Kinkade 1998:65). However, active efforts are being made in the Saanich community to revitalise the language.

1.3. Language data.

Most of the examples provided in this paper result from fieldwork undertaken in 2004–2006. Examples cited as Turner (2005) were elicited in the fall of 2004 and the spring of 2005 and those with no citation were elicited in May 2006. Fieldwork was carried out with fluent SENĆOŦEN speaking elders who wish to remain anonymous. Many of the examples collected during fieldwork are based on forms found in Montler (1986, 1989, 1991), checked for current accuracy, and usually put into sentences. Thus, this paper is greatly indebted to those three sources. Some new examples of resultives and actuals are also provided in this paper. All forms from Turner (2005) and from fieldwork in 2006 are listed in appendix B.

I have listed forms in both Dave Elliott Sr.'s SENĆOŦEN alphabet, which is in use in the Saanich community, and the American Phonetic Alphabet (APA), which is used by most linguists working on Salish languages and by some members of the Saanich community. A key to Dave Elliott Sr.'s alphabet and the APA, with IPA equivalents, is given in appendix A. Examples from sources other than my own fieldwork were only provided in the APA in the original sources. The transliteration into Dave Elliott Sr.'s alphabet, in these cases, represents my attempt to make the language examples more accessible to SENĆOŦEN speakers. The spelling of those examples has not been checked with a native speaker, and I, as a learner, am likely to have made some spelling mistakes.

A list of the morphological abbreviations used in the morpheme by morpheme glosses is found on page vii. Please note that Montler (1986, 1989) did not always provide full glosses, so the glosses found with examples from these sources are often

mine. I have also made minor changes to abbreviations used in other sources' glosses for consistency.

1.4. Outline of the paper.

The rest of the paper is organised as follows. Section 2 provides a review of relevant literature on SENĆOŦEN and other Salish languages, as well as some theoretical background in the areas of unaccusativity/unergativity, event structure, and aspect. Section 3 provides an overview of the form of resultives and actuals, summarises previous analyses of actuals, and provides morphological arguments for the proposal that resultives contain actual and stative morphemes. Section 4 has two focuses. First, it provides arguments that actuals and resultives are in complementary distribution in that resultives are found so far only on bases which appear to be unaccusative, while actuals are found on transitive bases and bases which seem to be unergative. These arguments are preliminary, as only a few roots have been tested for the properties of unaccusative and unergative, and for the ability to take resultive and actual. However, the complementary distribution found so far accounts for the scarcity of minimal actual/resultive pairs. Section 4 also argues that the meaning of resultives is compositional, containing elements contributed by the actual morpheme, by the stative prefix, and by the predicate base. Section 5 summarises the arguments of the paper, and considers further avenues for research on this topic.

2. Literature review.

In this section, a literature review of relevant work to this paper is provided. The outline of this section mirrors the outline of the paper in that the first section discusses literature relevant to section 3, the Form of Resultives and Actuals, while the second section discusses literature relevant to section 4, the Morphosyntax and Semantics of Resultives and Actuals. Both sections review previous work on SENĆOŦEN and relevant work on other Salish languages. Section 2.2 also discusses theoretical background literature.

2.1. Previous work on the form of resultives and actuals .

This section, which focusses on literature relevant to an analysis of the form of resultives, is split into two subsections. Section 2.1.1 focusses on previous work on SENĆOŦEN actuals and resultives, and section 2.1.2 focusses on previous work on North Straits, and its closest neighbouring Salish languages, Klallam and Halkomelem.

2.1.1. Previous accounts of SENĆOŦEN actuals and resultives.

The most comprehensive linguistic work on SENĆOŦEN is Montler's (1986) *Morphology and Phonology of Saanich, North Straits Salish.* In this descriptive work, the resultive and actual are analysed as two separate morphemes, outlined in the section called *Radical Morphological Processes* (pp. 111–133). Montler's discussion of resultives is restricted to a few pages, since not many resultives occur in his corpus of data. He states that the resultive is formed by either regressive (prefixing) reduplication or ablaut, and that it often, but not always, co-occurs with stative [s-] and durative [-əɬ]. In contrast, I argue in section 3 that all resultives have a stative prefix, and that the "durative" suffix is phonologically predictable. Several of the forms considered

resultive in Montler (1986) are argued in section 3 to be actuals. Therefore, the corpus of resultives in Montler (1986), and thus in any previous linguistic literature on SENĆOŦEN, is even smaller than originally thought. In this paper, a few more resultives are provided, based on fieldwork with Saanich elders. These are listed in appendix B and appear as examples throughout the paper.

Although few resultives appear, there are a number of actual forms documented in Montler (1986), and it is in this work that the first account of the many different processes used to form the actual appears. The actual allomorphs outlined by Montler are progressive (infixing) reduplication, metathesis/stress shift, and glottal infixation, and he describes two accompanying processes of actual formation: alternation between [kʷ] and [ẘ] and [č] and [ẏ], and resonant glottalisation.

Montler (1986) provides a preliminary analysis of actuals, where he observes that both reduplication and metathesis/stress shift involve a shift leftward in stress. This observation does not hold, however, since many of both reduplicated and supposed "stress-shifted" actuals do not involve a shift in stress. Also, a large number of actuals are formed by glottal stop infixation, which never involves a shift in stress.

Montler (1989) provides a more comprehensive and plausible account of actuals. He argues that the underlying form of the actual consists of "an abstract C_CC frame for the stressed vowel of the stem" (p. 93). Each allomorph is a strategy to reach this optimal shape for the actual.

The analyses of Stonham (1994) and Kurisu (2002) follow Montler (1989) by attempting a unified analysis of actuals, but use different theoretical frameworks. Stonham (1994) argues that the allomorphs are different strategies to add a mora to the base form. Kurisu (2002) provides an Optimality Theoretic (OT) analysis of the actual, based around a constraint called *Realise Morpheme* (RM).

Caldecott (1999) shows results of a phonetic study of resonant glottalisation in SENĆOŦEN and an Interior Salish language, St'át'imcets (Lillooet), and focusses on the glottalisation of SENĆOŦEN actuals in section 5.4 of her thesis. She does not attempt to analyse the different non-glottal allomorphs, as her focus is the phonetic properties of resonant glottalisation.

In section 3, I will describe and compare these analyses of the actual in more detail, and conclude that Montler (1989) provides the most comprehensive, accounting for the greatest number of different actual shapes.

2.1.2. Selected previous work on Salish actuals and resultives.

In this section, both the North Straits dialects other than SENĆOŦEN, and closely related Central Salish languages Klallam (or Clallam) and Halkomelem will be considered. The traditional Klallam-speaking area borders North Straits to the South, covering the North coast of the Olympic Peninsula in Washington (Thompson & Thompson 1969). Klallam and the North Straits dialects (including SENĆOŦEN) form the actual aspect in very similar ways.

Thompson & Thompson's (1969) article on Klallam metathesis provided the first linguistic analysis of the actual aspect and has influenced subsequent work on North Straits. Thompson & Thompson argue that metathesis is used in Klallam as a "grammatical device"; that is, it is used to form actuals from non-actuals (perfectives).

	perfective	*actual*
(10)	čšú-t	čúš-t
	'throw'	'throwing'

(Thompson & Thompson 1969:217)

It is possible to extend this analysis to account for some of the SENĆOŦEN actuals. However, only a subset of actuals in SENĆOŦEN differ from their perfectives in such a way as to suggest metathesis, and all subsequent analyses of actuals in North Straits Salish dialects have argued against metathesis and attempted to provide a unified account of all actual processes.

Demers (1974) analyses the actual in Lummi, one of the North Straits Salish dialects, and argues that all actuals are formed by glottal infixation. He provides various phonological rules, at play in the language as a whole, which cause the appearance of metathesised actuals. Montler (1986) argues that Demers's analysis cannot be used for SENĆOŦEN, since not all of the phonological rules Demers suggests exist in SENĆOŦEN.

Work on the other North Straits dialects has been more descriptive than analytic in nature. Efrat (1969) provides examples of continuatives (actuals) in Sooke formed by glottal stop infixation and a change from CCV to CVC (metathesis/stress shift allomorph). She also gives examples of resultives in Sooke formed by ablaut. Raffo (1971) provides examples of actuals in Songish formed by metathesis, glottal stop infixation, reduplication, and ablaut. Raffo (1972) additionally provides examples of resultives formed by an –e-/-a- infix (ablaut allomorph). Galloway (1990) provides Samish examples of continuatives (actuals) formed by ablaut, reduplication, glottal stop infixation, and metathesis.

None of the previous work identifies the cases of ablaut and suffixation of [-əɬ], as in example (11b), as cases of the actual; they have always been analysed as containing resultive ablaut co-occurring inexplicably with the durative suffix.

(11) a. Ḵ̱ES
qə́s
'It fell in the water.'

b.

YOŦ	OL,	Ḵ̱ÁSEȽ	TŦE	SȾOȾȽE	E	TŦE	ḰO,
yáθ	ʔal̓	qés-əɬ	tθə	s-t̓ᶿát̓ᶿɬə	ʔə	tθə	qʷáʔ
always	LIM	fall.in.water(ACT)-DUR	DET	NOM-leaf	OBL	DET	water

'The leaf is always falling in the water.'

In section 3, I provide more examples of actuals formed by ablaut and durative suffixation, and show that the occurrence of the durative suffix is phonologically predictable.

All of the previous work on North Straits Salish aspect considers the resultive and actual to be different morphemes. Therefore, this paper is unique in claiming that there is no resultive morpheme in SENĆOŦEN, and that resultives are built on actual forms. Galloway, in the (1977) version of his grammar of Upriver Halkomelem (a dialect

of Halkomelem), considers the resultive in that language to be built on the actual.[4] However, in Galloway (1993, p. 283), he re-analyses the two as separate actual and resultive morphemes, following the claims of Suttles (1984, published as Suttles (2004)) in work on hən̓q̓əmin̓əm̓, the Musqueam dialect of Halkomelem.

Although it does not seem possible to claim that the Halkomelem resultive is built directly on the actual, the SENĆOŦEN evidence supports a claim that in SENĆOŦEN this is the case. There appears to be a fundamental difference between Halkomelem and North Straits Salish: in Halkomelem, actuals are productively found on unaccusative (patient oriented intransitive) forms, allowing dozens of actual and resultive pairs formed on the same base. These forms are sometimes identical except for the stative prefix, but more often they are not, as in the actual and resultive in (12).

	perfective	*actual*	*resultive*
(12)	məq̓	həm̓q̓	səm̓íq̓
	'get full'	'be getting full'	'full'

(Suttles 2004:184)

In contrast, North Straits Salish literature contains very few contrastive pairs of actual and resultive formed on the same base, as actuals of unaccusative bases have not been documented (see 4.1). Therefore, the claims of this paper are not meant to extend to the actual and resultive equivalents in Halkomelem.

2.2. The semantics and morphosyntax of resultives and actuals.

This section outlines literature relevant to a study of the morphosyntactic and semantic properties of resultives and actuals. It is split into two subsections: section 2.2.1 focusses on literature relevant to morphosyntactic restrictions of resultives and actuals based on the verb classes of unergative and unaccusative (see 4.1). Section 2.2.2 focusses on literature relevant to the semantic compositionality of resultives (see 4.2).

2.2.1. Literature relevant to the morphosyntax of resultives and actuals.

This section discusses literature relevant to section 4.1, which argues that resultives are formed on unaccusative (patient-oriented intransitive) bases, while actuals are formed on unergative (agent-oriented intransitive) and transitive bases. The correlation of resultive with unaccusativity is also considered, and shown to be consistent with previous analyses of the event structure of Salish languages.

Section 2.2.1.1 defines the unaccusative/unergative distinction, and summarises work on the criteria for distinguishing these classes in Salish languages. Section 2.2.1.2 provides background on Pustejovsky's (1991, 1995) event structure model, and its applications to Salish languages.

[4] Several different terms have been used to refer to the Halkomelem cognate to the actual: Jones (1976) and Leslie (1979) use *actual*, Hukari (1978) uses *imperfective*, Suttles (2004) uses *progressive*, and Galloway (1993) uses *continuative*. All terms refer to the same morpheme, which appears to have similar functions and morphology to the North Straits "actual", so I use that term here for consistency. Similarly, *resultive* in some North Straits sources (including this paper) is equivalent to the more common *resultative*.

2.2.1.1. Verb classes: Unaccusativity and unergativity.

In the first part of this section (2.2.1.1.1), the terms *unaccusative* and *unergative* are introduced, and in the second part (2.2.1.1.2), the unaccusative/unergative distinction in Salish languages is discussed.

2.2.1.1.1. Background literature on unaccusativity and unergativity.

Unaccusatives and unergatives are two types of *intransitive* predicate. A basic distinction is made between transitive and intransitive predicates, where transitive predicates have two core arguments, a grammatical subject and a grammatical object, and intransitive predicates have only one, which is usually a grammatical subject.

Within the class of intransitive predicates of a language, a distinction is often made between *unergative* predicates and *unaccusative* predicates (terms first used in relational grammar; see Pullum (1991)). The syntactic argument of an unergative predicate is more agent-like, more subject-like, and more likely to have independent control over the event, while the syntactic argument of an unaccusative predicate is more patient-like, less likely to have control, and more likely to be expressed as an object in some languages.

The unergative/unaccusative distinction was first noticed because of its effect on syntactic behaviour in many languages, which led to the formulation of the Unaccusative Hypothesis (UH) (Perlmutter 1978, Rosen 1984, Burzio 1986, and others), which was first argued for with respect to a Salish language (Halkomelem) by Gerdts (1988a). In general, the UH states that the surface subject of an unaccusative and the object of a transitive originate in the same structural position. There are also languages where more agent-like participants have subject case marking in intransitives, but more patient-like participants of intransitives have object case marking (Mithun, 1991).

Membership in the class of unaccusatives or unergatives, if a language makes such a distinction, cannot be predicted based on semantic criteria alone, and verbs differ among languages with respect to the class to which they belong (Rosen, 1984). For this reason, morphosyntactic criteria used by Gerdts (1988b, 1991) and Gerdts & Hukari (2001) to distinguish between these classes in Halkomelem are discussed in the next subsection. There are also certain semantic properties that are more likely to be found in unaccusative subjects than in unergative subjects and vice versa, namely, more patient-like and more agent-like properties, respectively.

Dowty (1991) provides important work on the semantic roles of agent and patient, and their mapping to syntactic arguments. His basic proposal is that each predicate entails certain properties of its arguments, and, for transitive constructions, the argument with more prototypically agentive or *proto-agent* properties will be subject, while that with more patient-like or *proto-patient* properties will be object. (Dowty 1991:576).

Dowty (1991) suggests that we can determine whether a predicate is unaccusative or unergative by looking at which semantic properties are required of its subject. The proto-patient properties are the following: the participant undergoes a change of state, is an incremental theme (undergoes change in increments), is causally affected by another participant, and is stationary relative to the movement of another participant (p. 572). The subject of an unaccusative is thus likely to have more of these properties than the subject of an unergative. The subject of an unergative will more

likely be required to have proto-agent properties: volition, sentience/perception, causation of an event or change of state in another participant, and movement (p. 572). In section 4, I will use these semantic criteria to compare subjects of resultives, which appear to be unaccusative, with subjects of actuals, which are usually transitive or unergative.

2.2.1.1.2. Verb classes in Salish.

Roots are generally syntactically intransitive in Salish languages, transitive predicates being derived by means of suffixation of one of several transitivising suffixes. Davis (1997) and Davis & Demirdache (2000) argue that all roots in St'át'imcets (Lillooet; Interior Salish) are unaccusative, an argument Davis (1997) suggests can be extended to all Salish languages and language universally. In this view, unergative predicates are derived by suffixation of "intransitive" suffixes.

In contrast to the view of pervasive unaccusativity offered in the above sources, Gerdts (1988a, 1988b, 1991) and Gerdts & Hukari (2001) argue for a distinction between unergative and unaccusative roots in Halkomelem. These sources provide several syntactic and semantic tests to distinguish between the two classes. In general, unaccusatives can take the control transitive suffix /-t/, while unergatives usually cannot. Unergatives can take the causative suffix /-stəxʷ/, while unaccusatives usually cannot. Unergatives have the sense of 'want' when taking the desiderative /-əlmən/, while unaccusatives, if they allow this suffix at all, express a "natural, unavoidable future" (Gerdts 1988b:848).

In this paper, it is assumed that there is an unaccusative/unergative distinction among roots in SENĆOŦEN. This assumption allows the following observation to be made in section 4: so far, it appears that resultives are always formed on unaccusative roots, and actuals are formed on unergative roots.[5] Due to the relatively limited linguistic documentation of SENĆOŦEN, and time constraints with respect to fieldwork, only the test concerning the control transitive suffix has been considered, and I have only been able to test a few roots. However, all three of the suffixes used in the tests are found in SENĆOŦEN, so further testing is possible.

In more recent work, Gerdts & Hukari (2006) and Gerdts (2006) show that very few roots in Halkomelem behave as canonical unaccusatives or canonical unergatives. These sources also argue that a distinction should be made between semantically transitive and semantically intransitive roots. Perhaps it will be useful to look at the distribution of SENĆOŦEN resultives and actuals in terms of this transitive/intransitive distinction. This is left to future research.

2.2.1.2. Event structure.

Important previous literature on statives (resultives) in Salish languages (Burton & Davis 1996; Bar-el 2003b) has worked within the framework of Pustejovsky's (1991, 1995) model of the event structure of predicates. These analyses constitute the only previous formal semantic analyses of resultives in Salish languages, and, in 4.1.2, they are used to show a formal correlation between resultives and unaccusativity. In

[5] Actuals, and not resultives, are also formed on derived unergative and transitive bases.

section 2.2.1.2.2, I will outline these analyses, but first, in 2.2.1.2.1, Pustejovsky's (1991, 1995) model is described.

2.2.1.2.1. Background literature on event structure.

The basis of Pustejovsky's (1991, 1995) event structure model is that the events which predicates describe are not primitive; they have an internal structure and can be broken down into smaller subevents. Pustejovsky argues for three different event type structures, *states*, *processes*, and *transitions*.

A state consists of a single event. A process consists of several identical events in succession. A transition consists of an event "evaluated relative to its opposition"; the subevents in a transition can theoretically be of any event type. For example, in figure (1c), the event described is a transition from the state of the door not being closed to the state of the door being closed. In figure (1d), the transition is one from the state of the door not being closed, and John acting to close the door, to the state of the door being closed.[6] The diagrams in figure 1 show the event structures of different event types, along with the lexical conceptual structure (LCS) (Jackendoff 1983) of each event.

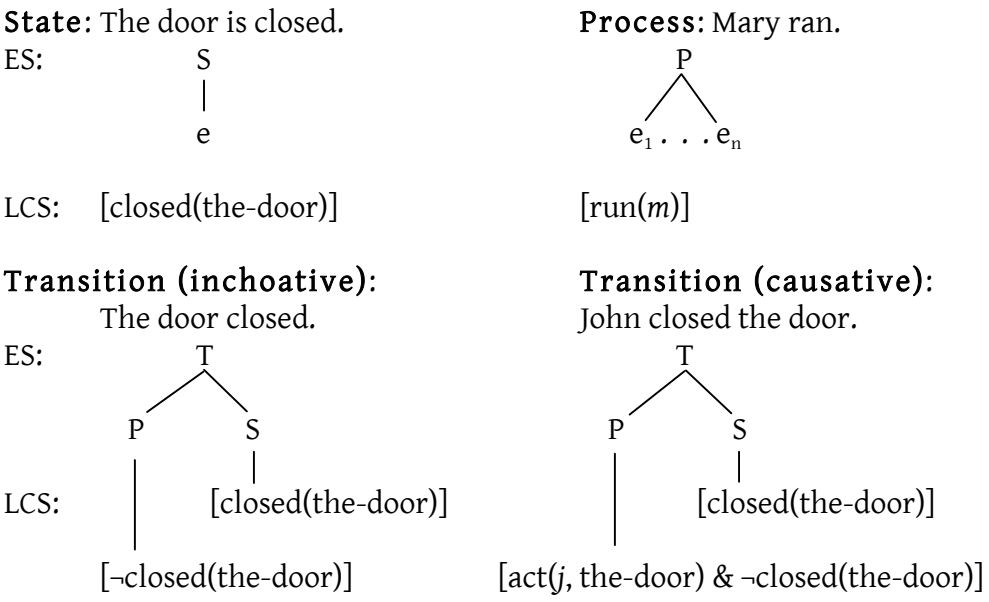


Figure 1. Pustejovskyan event structures (Pustejovsky 1991:57–58).

In the next section, the application of this model to Salish languages, and, in particular, to analyses of resultives, will be examined.

[6] The initial subevent in (c) and (d) is given as a P (process) in Pustejovsky's (1991) diagrams. However, the subevents given in the examples appear to be states, not processes. Note Pustejovsky's words in the paragraph below his diagrams: "These two structures suggest that *close*...is a transition from one state to another" (p. 58).

2.2.1.2.2. Event structure in Salish.

Burton & Davis (1996) and Bar-el (2003b) provide a Pustejovskyan event structure analysis of the stative prefix in St'át'imcets and Sḵwx̱wú7mesh (Squamish; Central Salish), respectively. Both papers argue that the stative prefix removes the initial subevent of a transition predicate, leaving the final event (which is a state) to be expressed by a form containing the stative prefix. Figure 2 represents this analysis, which I have adapted to the Pustejovskyan diagrams shown in figure 1.

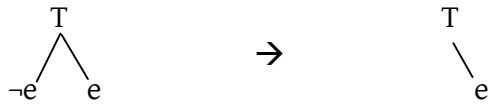


Figure 2. The effect of the stative prefix on event structure.

Davis & Demirdache (2000) argue that the event structure of all Salish predicates is underlyingly semantically causative.

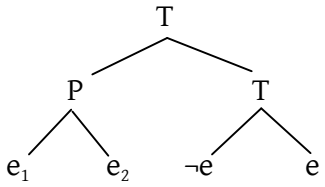


Figure 3. Salish event structure (Davis & Demirdache 2000:116).

Recall that Davis & Demirdache (2000) also argue that all predicate roots are syntactically unaccusative. They propose that a verb which is unmarked morphologically highlights the final transition of the event structure given in figure 3. An unergative, which they contend is always derived, highlights the initial process. A transitive, which is always derived by addition of transitive morphology, highlights the whole event.

An event structure analysis of resultives and actuals in SENĆOŦEN is not attempted in this paper. However, these important previous works will be considered further in section 4.1, since they can be used to provide a formal representation of the observation that resultives seem always to be formed on unaccusative bases.

2.2.2. Literature relevant to the semantics of resultives: Aspect.

The semantic compositionality of resultives is considered in section 4.2, where it is argued that resultives are composed of the *actual* morpheme, which contributes the feature [durative] (which is somehow related to duration in time), and the stative prefix, which contributes the feature [static]. These features are based on Smith's (1991) account of aspectual classes, which, in turn, draws on a large body of literature on aspect. In section 2.2.2.1, relevant background literature on aspect is outlined, with particular focus on Smith's (1991) model. In section 2.2.2.2, literature on Salish aspectual classes is considered.

2.2.2.1. Background literature on aspect.

The term *aspect* refers to the description of "the internal temporal constituency of a situation" (Comrie, 1976:3). It differs from *tense*, which describes the temporal properties of a situation in relation to the time of the utterance or in relation to some other time of reference (Comrie, 1976:2). For example, the distinction between *Mary walked to school* and *Mary was walking to school* is one of aspect. The distinction between *Mary is walking to school* and *Mary was walking to school* is one of tense.

It is useful to make a distinction between two different levels of the aspect system of a language: temporal properties of predicate classes (sometimes called Aktionsarten), and temporal properties added or highlighted by morphosyntactic processes. Smith (1991) provides a model of the interaction of these distinct levels of aspect, which she calls situation type and viewpoint, respectively. Her model of aspect is adopted in this paper, and will provide a frame for the discussion of aspect in the following subsections, the first on situation type and the second on viewpoint.

2.2.2.1.1. Situation type.

Four of the classes of situation type described by Smith (1991) were proposed by Vendler (1967), who, building on work in philosophy dating back to Aristotle, introduced *states*, *activities*, *accomplishments*, and *achievements*. Many linguists have assumed or argued for Vendler's classes, or variations thereof (e.g., Dowty 1979; Mourelatos 1981; Carlson 1981; Bach 1986; Pustejovsky 1991, and many others). Some authors also include a fifth class, semelfactives. Smith (1991) distinguishes these five situation types by the values a predicate in each bears with respect to three properties: telicity, durativity, and stativity.

Stativity is used to distinguish *states* from all other situation types. States are static (unmoving), and all other types of predicates are dynamic (or [-static]) (Smith, 1991, p. 28). English examples of states are *know, love,* and *be tired*.

Telicity distinguishes *accomplishments* and *achievements* from all other situation types. Accomplishments and achievements are telic, meaning that they have a natural conclusion (Smith, 1991, p. 29). For example, an accomplishment like *mow the lawn* has an endpoint that will be reached eventually if the event continues. Once the lawn is finished being mown, the event has reached its natural conclusion. Similarly, an achievement like *reach the top* reaches a natural conclusion in the instant in which it occurs. It is not possible to keep reaching the top once the top has been reached. *States*, *activities*, and *semelfactives*, on the other hand, are atelic, because they have no natural conclusion (Smith, 1991:29). An activity like *run* can be stopped (and likely will be), but there is no point at which running is finished. Of course there is a natural endpoint to *run a kilometre*, but that predicate is an accomplishment. Thus, situation type is a property of predicates; in some languages (e.g., English) not just the verb is relevant for determining situation type (Smith, 1991:7).

Durativity distinguishes accomplishments from achievements, and activities from semelfactives. Accomplishments and activities are durative, they persist for some conceptually recognisable period of time, however short. States are also durative. Achievements and semelfactives, on the other hand, are instantaneous. Although they may scientifically take up a measurable unit of time, they are generally conceived to be

instantaneous (Smith, 1991:29). Classic English examples of achievements include *reach the top* and *win the race*. Semelfactives include *sneeze, blink,* and *jump*.

Smith (1991) uses temporal schemata to represent these different situation types and their interaction with viewpoint. In the diagrams, *I* represents the initial point (or start) of the event, and *F* represents the final point. F_{Nat} is a natural endpoint, characteristic of telic predicates, and F_{Arb} is an arbitrary endpoint, found with atelic predicates. *R* indicates a resultant state, shown in parentheses because it is only optionally expressed by telic predicates. The solid line used for states shows that states have stable, homogeneous internal structure, representing the property of stativity. Dotted lines are used for dynamic events. The [-durative] events have overlapping initial and final points, since they describe conceptually instantaneous situations. Table 1 shows the schema of each situation type, along with its features.

	STATIVITY	DURATIVITY	TELICITY	SCHEMA
STATES	[+static]	[+durative]	[-telic]	(I)——(F)
ACTIVITIES	[-static]	[+durative]	[-telic]	I ..... F_{Arb}
ACCOMPLISHMENTS	[-static]	[+durative]	[+telic]	I ..... $F_{Nat\ (R)}$
ACHIEVEMENTS	[-static]	[-durative]	[+telic]	..... I (R) .... F
SEMELFACTIVES	[-static]	[-durative]	[-telic]	I F

Table 1. Situation types (based on Smith (1991)).

2.2.2.1.2. Viewpoint aspect.

The second component of the aspect system of a language consists of morphosyntactic processes which affect the temporal properties of predicates, or the domain of viewpoint aspect. One of the earliest comprehensive works on viewpoint aspect is Comrie (1976), which draws mostly on language-specific analyses of aspect, largely those of various European languages. He makes a basic contrast between perfective and imperfective, which is also used in later works, such as Dahl (1985) and Smith (1991). Comrie (1976) argues that the fundamental difference between these two viewpoint aspects is that perfective views a situation as a whole, while imperfective views the situation internally (p. 16).

A slightly different characterisation is given by Smith (1991:93–95): perfectives view an event as a whole, showing both endpoints, while imperfectives show neither endpoint, and focus on a portion of the event that is neither initial nor final. The difference between perfective and imperfective is shown in the following schemata, where the slashes represent how much of the event is "seen".

Perfective schema
I F
///////

Imperfective schema
I../////..F

Figure 4. Viewpoint schemata

For example, the English sentence *Mary walked to school* is perfective, because it is viewed as a whole (p. 95). We know that Mary started to walk, and finished walking to school, but we do not view any part of the walk to school itself. The sentence *Mary was walking to school* focusses on the event of walking, and does not mention the start or finish of her walk (p. 95). In fact, it is possible that Mary never got to school.

Languages often have a distinction between imperfective and perfective, but differ in which is morphologically unmarked. In Salish languages, perfective is the unmarked category (Mattina 1993; Bar-el 2005). The actual aspect of SENĆOŦEN is some kind of imperfective.

In addition to the basic distinction between perfective and imperfective,[7] there are also subcategories and more marked types of viewpoint aspect. Resultatives (including the SENĆOŦEN resultive) view not an internal portion of an event, but the resulting state of an event. Smith (1991) considers these to be a type of marked imperfective, which view a portion after the final point of an event, rather than an internal portion of an event. Comrie (1976, 1981) and Dahl (1985) link them to perfects, which describe a present situation in terms of the events leading up to that situation.

Another type of imperfective is the progressive, which tends typologically to differ from a general imperfective in that it is often used with all tenses, it is often not used with states, and it is often not used in a habitual sense (Dahl 1985). Bar-el (2005:246) shows that both progressive and imperfective exist in Sḵwx̱wú7mesh, and differ in that the imperfective can have a habitual meaning, while progressive cannot. Imperfective is an auxiliary while progressive is indicated morphologically by reduplication.

SENĆOŦEN does not appear to make a distinction between general imperfective and progressive. Further research is required to determine which of these two types of imperfective best describes the actual aspect. For this reason, and also to maintain consistency with all previous work on SENĆOŦEN, I have chosen to continue using the term *actual* in this paper to refer to the SENĆOŦEN morpheme, and to restrict the use of *imperfective* to refer to the cross-linguistic category of imperfective.

2.2.2.2. Aspectual classes in Salish.

Smith (1991) argues that the situation types outlined in 2.2.1.1 are universal. However, there have been recent studies challenging this claim to universality, including some which look at situation type in Salish languages (Matthewson 2004; Bar-el at al. 2006; Kiyota 2004, 2005; Turner & Urbanczyk 2006).

Matthewson (2004) and Bar-el et al. (2006) consider St'át'imcets and Sḵwx̱wú7mesh predicates. Recall that Smith (1991) argued for five universal situation types: states, activities, accomplishments, achievements, and semelfactives. Matthewson (2004) and Bar el et al. (2006) diagnose three situation types at the verb root level in the two Salish languages which they consider: accomplishments/achievements, activities, and (inchoative) states. Both papers argue that telicity is not entailed by the putatively universally telic class of accomplishments and that accomplishments are derived from underlying telic achievements.

[7] Smith (1991) makes a three-way distinction, adding the category of *neutral* viewpoint, which will not be considered here. She uses this category to account for languages with aspectless surface forms, forms that are neither perfective nor imperfective and contrast with both.

Achievements are argued to be unaccusative in the two languages, and accomplishments are derived through addition of a transitive suffix. A St'át'imcets example is below.

(13) a. mays ta káoh-a
get.fixed DET car-DET
'The car got fixed.'

b. máys-en-lhkan ta káoh-a
get.fixed-TR-1SGSU DET car-DET
'I fixed the car.' (Bar-el et al. 2006:12)

What follows from such analyses is that the difference between accomplishments and achievements is one of transitivity rather than one of duration, where achievements have a single argument and accomplishments have two arguments. This is similar to Pustejovsky's (1991:59) distinction that accomplishments have agents and patients while achievements have only patients.

In addition to the argument that accomplishments are morphologically derived from achievements, Bar-el et al. find that accomplishments and achievements behave identically with respect to certain tests, tense given for out-of-the-blue translations, readings with *wa7* progressive, and readings with *plan* 'already' and progressive. These three tests distinguish between situation types in St'át'imcets and Sḵwx̱wú7mesh, and transitive accomplishments and intransitive achievements are not distinguished. As a consequence, Bar-el et al. (2006) argue for three aspectual classes in the two Salish languages: states, activities, and accomplishments. The two papers do not consider semelfactives to form a separate class.

The class of "states", as argued for by Bar-el et al., consists of predicates previously called *inchoative states* by Bar-el (2003a). It is somewhat misleading to refer to this class as "states" here since its members do not share the properties of Smith's (1991) states outlined above. In its morphologically unmarked form, an inchoative state has the reading of a change of state. When the progressive marker is added, the predicate expresses a state.

Sḵwx̱wú7mesh:

(14) a. chen t'ayaḵ' kwi s-es tl'iḵ ta John
1SGSU angry DET NOM-3POSS arrive DET John
'I got angry when John arrived.'

b. chen wa t'ayaḵ' kwi s-es tl'iḵ ta John
1SGSU PROG angry DET NOM-3POSS arrive DET John
'I was angry when John arrived.' (Bar-el 2003a:5)

Parallel SENĆOŦEN examples to the Sḵwx̱wú7mesh example in (14) are shown in section 4.

Following this work on Salish aspectual classes, Kiyota (2004, 2005) investigates the existence of the various classes of situation type in SENĆOŦEN. He provides several

empirical tests to determine whether or not Smith's (1991) five classes are distinguished in SENĆOŦEN. He argues that accomplishments and achievements form a single class and that activities and semelfactives form a single class, concluding the existence of the same three classes argued for by Matthewson (2004) and Bar-el et al. (2006): accomplishments/achievements, activities, and (inchoative) states.

The first test used by Kiyota (2004, 2005) is the translation of "out-of-the-blue" utterances. He found that inchoative states[8] and activities were consistently translated in the present tense by his consultant, while achievements, accomplishments, and semelfactives were translated in the past tense. However, other SENĆOŦEN speakers translate out-of-the-blue utterances with different tenses from the ones found by Kiyota (2004, 2005) (S. Urbanczyk, p.c.). Therefore, it seems that this test is not completely reliable.

The second test outlined in Kiyota (2004, 2005) is the interpretation with the particle *kʷɬ*. Montler (1986:190) calls the particle *kʷɬ* "realised" and notices that it is often translated as "already", something also evident in my own fieldwork. However, the interpretation of this morpheme seems to depend on the situation type of the predicate to which it is attached. Kiyota (2004, 2005) shows that it is only with telic predicates, accomplishment and achievement-like predicates, that the particle is translated as "already". With inchoative states, it is translated as "getting" and with activities and semelfactives as "start to". Example (15) shows each of these types of translation: (a) is an inchoative state, (b) is an activity, and (c) is an achievement.

(15) a. kʷɬ łčíkʷəs tə Jack
REAL be.tired DET Jack
'Jack is getting tired/Jack began to feel tired.'

b. ləʔə tə kʷɬ čéy tiʔə nəsnə́xʷəł
there DET REAL work DET my.car
'He started to work on my car.'

c. kʷɬ téčəl sən
REAL arrive 1SGSU
'I (already) arrived.' (Kiyota 2004:262–263)

Kiyota's (2004, 2005) third test involves the compatibility of the stative prefix with a predicate. The stative prefix may be attached to achievement-like and accomplishment-like verbs, but not to any other situation types. Example (16a) shows the stative prefix with an achievement-like verb, and (16b) and (16c) show the unavailability of the stative prefix with the inchoative state *łčíkʷəs* 'get tired' and the activity/semelfactive *q̓ʷíiliš* 'dance', respectively.

[8] Kiyota (2004, 2005) uses the term "states" rather than "inchoative states", but here I will continue using "inchoative states" to avoid confusion.

(16) a. s-tákʷ-əł tə sčéyaʔ
ST-break(ACT)-DUR DET stick
'The stick is broken.'

b. *s-łčíkʷəs kʷs Jack

c. *s-q̓ʷíiliš tiʔə Jack (Kiyota 2004:264–265)

This distribution probably falls out of the generalisation in section 4 that resultives can only be formed on unaccusative predicates. It is argued in this paper that the purpose of the stative prefix is to form resultives. Activity/semelfactives and inchoative states are usually unergative verbs, according to the criteria for unergatives outlined in this paper. There are unergative achievements as well, and they are not able to form resultives either (i.e. not able to take the stative prefix, as in, e.g., (91b) *shiʔələŋ).

Kiyota (2004, 2005) finds no distinction between accomplishments and achievements based on the tests just described. This finding supports the proposal of Matthewson (2004) and Bar-el et al. (2006) that accomplishments are derived from achievements by the addition of morphology (namely, the control transitive suffix) in other Salish languages.

Kiyota (2004, 2005) also argues that activities and semelfactives form a single class in SENĆOŦEN, despite their different translations with respect to tense in out-of-the-blue utterances. An important morphological similarity between activities and semelfactives is noted: the majority of both types of verb take the middle suffix (Kiyota, 2005, p. 17). This collapse of activities and semelfactives into one class is also consistent with the assumptions of Matthewson (2004) and Bar-el et al. (2006), who do not distinguish between activities and semelfactives.

In more recent work on aspect in Salish, Bar-el (2005) distinguishes between accomplishments and achievements. The achievements from which accomplishments are derived are generally unaccusatives, but the achievements listed in Bar-el (2005) are unergative achievements with translations such as *arrive*, *win*, and *find*.

Bar-el (2005) frames her discussion of aspect in Sḵwx̱wú7mesh in a theory of initial points and final points, rather than a feature-based theory such as Smith's (1991) or an event structure based theory such as Pustejovsky's (1991, 1995). She finds that the difference between accomplishments and achievements is that accomplishments do not have intrinsic initial points or intrinsic final points, while achievements do.[9] Bar-el thus distinguishes between four situation types in Sḵwx̱wú7mesh: accomplishments, achievements, activities, and inchoative states.

More recently still, Turner & Urbanczyk (2006) challenge the idea, entailed by Smith's universal situation types, that durativity is used to distinguish predicates at the level of situation type in SENĆOŦEN. They argue that Smith's [durative] feature is, instead, added at the level of viewpoint aspect by the actual morpheme. Evidence for this proposal comes from the previous work outlined in this section and from translations and native speaker's descriptions of SENĆOŦEN actuals (see section 4.2). Durativity is the feature which, in Smith's (1991) model, distinguishes activities from

[9] The absence of intrinsic final points explains why telicity is not entailed by accomplishments.

semelfactives and accomplishments from achievements. Notice that none of the previous sources of work on Salish situation type have found any evidence to distinguish between activities and semelfactives. Also, none of the sources distinguish between accomplishments and achievements based on durativity. Matthewson (2004) and Bar-el et al. (2006) distinguish them on the basis of transitivity, and Bar-el (2005) on the basis of initial and final points.

Lack of durativity at the situation type level would also account for the lack of stage-level (temporary) states at the root level in SENĆOŦEN, since states are also [durative] in Smith's model. All stage-level states are derived in SENĆOŦEN at the level of viewpoint aspect; they are either actuals of inchoative states, or resultives of unaccusative achievements. Following recent proposals of morphosyntactic feature geometries (e.g. Harley & Ritter 2002; Cowper 2005), Turner & Urbanczyk (2006) formalise this proposal in an aspectual feature geometry, which will be considered in 4.2.

Based on the previous work considered here, it seems that there is a relevant distinction between four aspectual classes in Salish languages, which I will assume in this paper: activity/semelfactives, accomplishments, achievements, and inchoative states.

2.3. Conclusion: Assumptions for this paper.

This section has outlined previous literature in the morphology of actuals and resultives in SENĆOŦEN and other Salish languages, in the verb classes of unergative and unaccusative, in the event structure of predicates, and in aspect. The major assumptions made about SENĆOŦEN, based on this literature, are summarised here.

1) There is one actual morpheme with several different allomorphs: reduplication, ablaut plus suffixation, metathesis/stress shift, and glottal stop infixation.
2) There are at least two classes of verb root, unaccusative and unergative. A test that will be used for SENĆOŦEN is that unaccusatives can generally take the control transitive suffix and unergatives generally cannot.
3) Predicates unmarked morphologically for aspect are in the perfective, while the actual and the resultive are imperfectives of some kind.
4) There are four situation types: activity/semelfactives, accomplishments, achievements, and inchoative states.

3. The form of resultives and actuals.

The central argument of this paper is that a SENĆOŦEN resultive is a combination of an unaccusative predicate base with actual morphology and a stative prefix. In this section, I will give evidence to support this proposal by showing that the morphological processes (besides the stative prefix) which distinguish resultives from perfectives (reduplication, metathesis/stress shift, and ablaut plus suffixation of /-əɬ/) also distinguish actuals from perfectives. I will also consider the actual allomorph which is not found in any resultive forms, namely glottal stop infixation. Since the choice of allomorphs is phonologically conditioned, it is predicted that a resultive could exhibit glottal infixation, if it were formed on the right base shape.

This section begins with an outline of the form of resultives in 3.1, focussing on its two component parts, the actual morpheme and the stative prefix. Section 3.2

provides a description of the actual allomorphs in 3.2.1 and a summary of phonological analyses of the allomorphy by Montler (1986, 1989), Stonham (1994), Caldecott (1999), and Kurisu (2002) in 3.2.2. Lastly, in 3.3, Montler's (1986) analysis of resultives will be compared with the analysis put forth in this paper.

3.1. The form of SENĆOŦEN resultives.

In this section, I will outline the form of SENĆOŦEN resultives. In subsection 3.1.1, the three actual allomorphs found in resultive constructions are described. Each of these allomorphs is also found in actual constructions (3.2), and is conditioned by the same base shape for both actual and resultive forms. Subsection 3.1.2 considers the role of the stative prefix, arguing that the prefix is always and only found in resultive constructions.

3.1.1. Actual allomorphy in resultive forms.

The four actual allomorphs are phonologically conditioned. In this paper, the perfective form, which is unmarked morphologically for aspect, is considered to be the base from which actuals are formed by the various allomorphs. The perfective base minimally includes a predicate root, but may also contain one or more suffixes. The entire perfective base provides the conditioning environment determining which allomorph is used. So far, resultives have only been found on monomorphemic bases (roots), although actuals are often found on suffixed bases.

Of the four actual allomorphs, three have been found with resultive forms so far. Reduplication occurs with CVC and CVCəC bases. Ablaut plus suffixation occurs with CC roots with no suffix (CəC monomorphemic bases). Metathesis/stress shift occurs with CCəC bases. Examples of these three types of resultives will be given in 3.1.1.1, 3.1.1.2, and 3.1.1.3, respectively.

3.1.1.1. Reduplication.

Bases of the shape CVC and CVCəC form their resultives using the actual allomorph of CV- (prefixing) reduplication. There is a regular process of reduction in SENĆOŦEN, whereby unstressed full vowels surface as schwas (Montler 1986:28), so that, for example, the reduplicated /s-lí-liq^{w}/ surfaces as [s-lí-l̓əq^{w}]. Examples (17) and (18) are of resultives formed on CVC bases, and example (19) is of a resultive formed on a CVCəC base. I have given a perfective form of each root in the (a) examples for comparison.

(17) a. LIḰ TŦE X̱I,LEM
líq^{w} tθə x̌^{w}íl̓əm
loosen DET rope
'The rope loosened; the rope slackened.'

b. SLI,LEḴ TŦE X̱I,LEM
s-lí-l̓əqʷ tθə x̌ʷíl̓əm
ST-ACT-loose DET rope
'The rope is slack.'

(18) a. x̌̓am
'enough' (Montler 1991:49)

b. ʔəẇ s-x̌̓á-x̌̓əm̓ sxʷ
CONTEMP ST-ACT-enough 2SU
'You're right.' ['enough/good enough for you'][10] (Montler 1986:45)

(19) a. ŦIMO,T[11]
θíma?-t
freeze-C.TR
'Freeze it.' (Turner 2005:249)

b. SŦEŦI,MO,
s-θə-θíḿaʔ
ST-ACT-freeze
'It's frozen.' (Turner 2005:249)

3.1.1.2. Ablaut plus "durative" suffixation.

The majority of resultives found in Montler (1986) and Turner (2005) are formed by the actual allomorph of ablaut to [a] or [e] and suffixation of [-əɬ], with the addition of the stative prefix [s-]. Perfective bases consisting of CC vowelless roots with no suffix form their resultives in this way. Roots with a labial consonant usually take [a] as their ablaut vowel, and all other roots take [e] (Montler 1986:140). Perfectives of vowelless roots surface as CəC. Examples (20) through (22) show ablaut to [e], and examples (23) through (25) ablaut to [a].

(20) a. X̱ES
qə́s
'It fell in the water.'

[10] Bracketed translation suggested by a current SENĆOŦEN speaker.

[11] Example (19a) looks like a CVCVC perfective, but the unstressed [a] may be a schwa which has been affected by the following glottal stop. Schwa followed by glottal stop often sounds like [a], and in this case is written with the SENĆOŦEN letter "O". However, this example is transcribed with a schwa in Montler (1986:131): [sθəθiḿəʔ] . See also (ia) in appendix A, where the past tense /1əʔ/ is written with "O" and transcribed phonetically with [a].

b. SḴÁSEŁ
s-qés-əł
ST-fall.in.water(ACT)-DUR
'He's/It's in the water.'

(21) a. LEƛ LE, TɬE LEPOT
lə́t̓$^{\theta}$ ləʔ tθə ləpát
fill PST DET cup
'The cup was filled.'

b. SLÁƛEŁ TɬE LEPOT
s-lét̓$^{\theta}$-əł tθə ləpát
ST-fill(ACT)-DUR DET cup
'The cup is full.'

(22) a. XEL,ET TɬEN, SNÁ
x̌ə́l̓-ət tθən̓ s-né
write-C.TR DET-2POSS NOM-name
'Write your name.' (Turner 2005:248)

b. ȻŁ SXÁL,EŁ TɬE NE SNÁ
k^{w}ł s-x̌él̓-əł tθə nə s-né
REAL ST-write(ACT)-DUR DET 1SGPOSS NOM-name
'My name is already written down.' (Turner 2005:248)

(23) a. QSEN̰
k̓^{w}s-ə́ŋ
count-MID
'count' (Turner 2005:251)

b. ȻŁ SQOSEŁ TɬE XEƛXOLES
k^{w}ł s-k̓^{w}ás-əł tθə x̌ət̓$^{\theta}$x̌=áləs
REAL ST-count(ACT)-DUR DET egg=eye
'The eggs are already counted.'

(24) a. TḰET
tq^{w}-ə́t
tighten-C.TR
'tighten it' (Turner 2005:258)

b. STOḰEŁ
s-táq^{w}-əł
ST-tighten(ACT)-DUR
'It's tight.' (Turner 2005:258)

(25) a. BEȻ TŦE MO,EḰ
ṗə́kʷ tθə mə́ʔəqʷ
rise.to.surface DET duck
'The duck floated to the surface.' (Turner 2005:248)

b. SBOȻEŁ TŦE MO,EḰ
s-ṗə́kʷ-əł tθə mə́ʔəqʷ
ST-rise.to.surface(ACT)-DUR DET duck
'The duck has surfaced.'

The suffix [-əł] found in the resultives in this section is called the *durative* suffix in Montler (1986) and in other sources on North Straits. It is found with all actuals and resultives of CəC bases and also in several forms containing the [-i] *persistent* suffix, as in (26).

(26) pəḵʷ-í-ŋ-əł łtə
smoke-PERSIS-MID-DUR 1PLSU
'We smoked (hides, fish, etc).' (Montler 1986:56)

A suffix which may be the durative suffix is also used to express the concept of belonging to or originating from (Montler 1986:57). Montler glosses the suffix as durative, although he suggests it may be a homophonous suffix. He also notes that native speakers feel the two are the same suffix (p. 58).

(27) s-xʷənítəm-əł s-ṯíləm
ST-white.person-DUR? NOM-sing
'It's modern music.' (Montler 1986:57)

Further research is required to understand properly the function of the durative suffix. However, it is predictably used on all actuals and resultives formed by ablaut; its use is, in part, phonologically conditioned. It may be used, in this case, to cause the resultives/actuals formed by ablaut to conform to the shape of other resultives/actuals: CVCC, or in this case CVCəC. This idea will be examined further in section 3.2.2.

3.1.1.3. Metathesis/stress shift.

Perfective bases of the shape CCəC form their actuals and resultives by a process which has been described both as metathesis and as stress shift. Although neither of these terms fully accounts for this process, I use both terms to refer to the allomorph for the sake of convenience. It appears that the metathesis/stress shift allomorph always results in an actual of the basic shape CəCC, which Montler (1989) suggests fills an actual template of CVCC. The analysis of this allomorph is considered further in section 3.2. One resultive formed by this allomorph has been found so far.

(28) a. T̲PEX
ƛ̓pə́x̌
'scatter'

b. ST̲EPX
s-ƛ̓ə́px̌
ST-scatter(ACT)
'scattered'

This allomorph of the actual rarely occurs with resultives; only one clear example has been found so far. Since this allomorph is productively used with bases of the shape CCəC, it is almost always used with transitive or middle suffixed forms. Such suffixes do not occur with resultives due to morphosyntactic reasons, which will be discussed in section 4. Therefore, the only bases which will take metathesis/stress shift with their resultive are those containing CCəC *roots.*

3.1.1.4. Glottal stop infixation.

It should be possible to have resultives with a glottal stop infix, which is the actual allomorph found with all other base shapes. I suggest that the absence of such resultives shows a gap in the data. Both Montler (1986) and I elicited many resultives of CC roots (CəC bases), but not many of other base shapes, and none of the base shapes which always take glottal infixation.[12]

There is one form which may be an example of a glottal infixed resultive.

(29) a. híləqʷ
'be glad (happy)' (Montler 1991:66)

b. s-hi-ʔə-ləqʷ
ST-happy(-ACT-)[13]
'He's happy.' (Montler 1986:44)

However, it is unclear at this point whether the form in (29b) is an example of reduplication or glottal infixation. Word-medial [h] is extremely rare in SENĆOŦEN (Montler 1986:13), so it may be that this is a reduplicated resultive with the [h] in the reduplicant surfacing as a glottal stop. Tom Hukari (p.c.) analyses such imperfectives (actuals) in Halkomelem as reduplicated. In that language, only [h] and glottal stop initial forms surface with an apparent glottal infix.

There are definitely actuals formed by glottal infixation in SENĆOŦEN, so it is possible that (29b) is an example of a glottal infixed resultive. The shape of (29a) is CVCəC, and some bases of that shape take reduplication in the actual while some take glottal stop infixation. This form is an unusual resultive, since the perfective appears to already have a stative meaning. Further fieldwork is required to determine the status of

[12] I believe that this is due to the clearly recognisable resultive of CC roots (CVCəł), not to a greater percentage of CC roots in the language.
[13] The notation (-ACT-) is used to show that the actual morpheme is infixed into the morpheme "happy".

(29) and also to see if the resultives of other roots take the glottal infix allomorph of the actual.

Section 3.1.1 has provided a description of the different actual allomorphs used in resultive formation. Table 2 summarises the possible shapes of resultives and their perfective bases. The total number of resultives of each shape is given in the last column; this number reflects clear examples of resultives found in Montler (1986, 1989), Kiyota (2004, 2005), and those listed in appendix B.

	PERFECTIVE	RESULTIVE	TOTAL NUMBER OF RESULTIVES OF THIS SHAPE
REDUPLICATION	C_1VC_2	s-C_1V-C_1əC_2	3
	C_1VC_2əC	s-C_1ə-C_1VC_2əC	1
ABLAUT PLUS DURATIVE SUFFIXATION	CəC	CéC-əł	10
	CəC	CáC-əł	14
METATHESIS/STRESS SHIFT	C_1C_2əC_3	C_1əC_2C_3	1
GLOTTAL INFIXATION?	hVCəC	hV-ʔə-CəC	1
TOTAL NUMBER OF DOCUMENTED RESULTIVES			30

Table 2. Actual allomorphs in resultive forms.

3.1.2. Resonant glottalisation.

All actual forms are accompanied by glottalisation of post-stress resonants (Montler 1989, Caldecott 1999). As one would expect, based on the proposal that resultives contain actual morphology, resultives also show resonant glottalisation. Not many of the stems for which resultives are documented have the right environment for glottalisation, i.e., post-stress plain resonants in the perfective; however, the following examples of resultives do have the expected glottalised resonants.

(30) a. ẖ̓am
'enough' (Montler 1991:49)

b. ʔəẇ s-ẖ̓á-ẖ̓əm̓ sx^{w}
CONTEMP ST-ACT-enough 2SU
'You're right.' (Montler 1986:45)

(31) a. ŦIMO,T
θíma^{ʔ}-t
freeze-C.TR
'Freeze it.' (Turner 2005:249)

b. SŦEŦI,MO,
s-θə-θím̓aʔ
ST-ACT-freeze
'It's frozen.' (Turner 2005:249)

(32) a. LIḰ TŦE X̲I,LEM
líqʷ tθə x̌ʷíl̓əm
loosen DET rope
'The rope loosened; the rope slackened.'

b. SLI,LEḰ TŦE X̲I,LEM
s-lí-l̓əqʷ tθə x̌ʷíl̓əm
ST-ACT-loose DET rope
'The rope is slack.'

3.1.3. The stative prefix.

My proposal in this paper is that SENĆOŦEN resultives are formed by the addition of a stative prefix to an actual form. If this proposal is correct, it may no longer make sense to speak about the stative and the resultive as if they were different morphemes. All resultives have a stative prefix. If every instance of the stative prefix is also found in a resultive construction, then we could call the *stative* prefix a *resultive* prefix, which can only be used with actual forms.

It may indeed be true that the stative prefix is only used in resultive constructions. All examples of statives, except one, that are listed in Montler (1986) look as though they contain actual morphology. Most are obvious examples of reduplication or ablaut. The following two forms are not obvious examples of resultives, but (33) may be a metathesised/stress shifted form, based on a CCəC root, and (34) may be a glottal infixed form, based on a CVCəC root. Neither root is given in Montler (1986, 1989, 1991).

(33) s-c̓̌əpx̌
ST-filthy(ACT?)
'It's filthy.' (Montler 1986:44)

(34) s-máy̓əʔ
ST-cheap(ACT?)
'It's cheap.' (Montler 1986:44)

The only form containing a stative prefix which appears to be in the perfective aspect is (35).

(35) a. ʔiɬən
'eat' (Montler 1991:64)

b. tx^{w}-əs-ʔíɬən sən səʔ
MUT-ST-eat 1SGSU FUT
'I'm going to eat first (before I go).' (Montler 1986:44)

As the translation of (35b) does not suggest stativity, this form and its uses require further investigation.

It appears that the stative prefix is generally used to form resultives from actuals. I will continue to speak of the stative prefix and the resultive construction, but it is important to note that *stative* appears to be nothing but the prefix used to form a resultive from an actual. Therefore, I suggest that there is no separate *stative construction* in SENĆOŦEN. There is only a resultive construction, which has the "stative" prefix as one of its necessary components.

This section has outlined the form of resultives, which always contain both a stative prefix and one of the non-concatenative allomorphs of reduplication, ablaut plus suffixation, or metathesis/stress shift. In the next section, I show examples of plain actuals (actuals with no stative prefix) formed by the same non-concatenative allomorphs in the same conditioning environments. The fact that resultives and actuals are formed by the same allomorphs in the same environments supports my proposal that resultives contain actual morphology. This proposal and its alternative are discussed in 3.3.

3.2. The form of actuals.

As stated in 3.1, there are four main allomorphs of the actual in SENĆOŦEN: CV-reduplication, metathesis/stress shift, ablaut plus suffixation, and glottal stop infixation. In addition, all allomorphs are accompanied by resonant glottalisation. Two other processes affect actuals but no documented resultives: some actuals exhibit an alternation between glides and obstruents, and a group of glottal infixed actuals show a change from [ə] to [e]. Montler's (1989) templatic approach provides the most comprehensive analysis of actual formation, and his analysis has served as the basis for subsequent analyses of actuals. This will be outlined in detail in 3.2.2. First, I will provide a description of the actual allomorphy and accompanying processes.

3.2.1. Allomorphy of actuals and accompanying processes.

This section provides a description of the base shapes on which the four actual allomorphs are formed, along with examples of each. The base shapes of each allomorph are the same as that of resultives, but since there is a greater number of documented actuals, and actuals have a wider distribution, there is a greater variety of base shapes to consider in this section than in 3.1.1. Reduplication occurs with CVC and CVCəC bases, and CVC roots with a consonant initial suffix, which are usually of the form CVC-CəC (Montler 1989:95). Ablaut plus suffixation occurs with CC roots with no suffix (CəC monomorphemic bases). Metathesis/stress shift occurs with CC (or CəC) roots with a -əC suffix, and with CCəC roots (Montler 1989:96), i.e. any CCəC(C) base. A glottal stop infix occurs elsewhere. Reduplication is outlined in 3.2.1.1, ablaut in 3.2.1.2, metathesis/stress shift in 3.2.1.3, and the glottal infix in 3.2.1.4. Resonant glottalisation (3.2.1.5), glide hardening in perfectives, which is made transparent in some actuals

(3.2.1.6), and the change from [ə] to [e] before a glottal infix (3.2.1.7), are considered in the last three subsections of 3.2.1.

3.2.1.1. Reduplication.

In section 3.1.1, we saw that CV- (prefixing) reduplication is used to form resultives on CVC and CVCəC bases. Actuals of these base shapes are also formed by CV- reduplication, although some actuals of CVCəC bases are formed by glottal stop infixation (see section 3.2.1.4). Reduplicated actuals are also found of bases of the shape CVC-CəC. The shapes of actuals formed by reduplication are shown in table 3. The "number of actuals" column reflects all clear examples of reduplicated actuals found in SENĆOŦEN linguistic sources.

PERFECTIVE	ACTUAL	EXAMPLES	NUMBER OF ACTUALS
C_1VC_2	$C_1V\text{-}C_1əC_2$	36–37	8
$C_1VC_2əC$	$C_1ə\text{-}C_1VC_2əC$	38–39	8
$C_1VC_2\text{-}CəC$	$C_1V\text{-}C_1əC_2\text{-}CəC$	40–41	4
$C_1C_2VC_3$	$C_1əC_1C_2Vˀ əC_3$		2

Table 3. Actuals formed by reduplication.

In (36) through (41), examples of reduplication of the different base shapes are given. In all examples, perfective forms are given in (a) and actuals in (b).

C_1VC_2 → $C_1V\text{-}C_1əC_2$:

(36) a. QA̓ SEN
ḵʷéy sən
get.hungry 1SGSU
'I got hungry.' (Turner 2005:250)

b. QÁ,QI, SEN LE,
ḵʷé-ḵʷəy̓ sən ləˀ
ACT-get.hungry 1SGSU PST
'I was hungry.' (Turner 2005:250)

(37) a. ȻŁ YÁ, ȻO DOQ ŦE Janet
kʷł yeˀ kʷə ṯáḵʷ θə Janet
REAL go INF go.home DET Janet
'Janet went home (already); Janet's gone home.' (Turner 2005:250)

b. YÁ, SEN I DODEQ
yeʔ sən ʔi ṯá-ṯəḵʷ
go 1SGSU AUX ACT-go.home
'I'm going/on my way home.' (already walking)
(Turner 2005:250)

$C_1VC_2əC \rightarrow C_1ə\text{-}C_1VC_2əC$:

(38) a. ȻÁĆEN̲, ŦE Janet
kʷéčəŋ' θə Janet
yell DET Janet
'Janet yelled.' (Turner 2005:252)

b. ȻEȻÁĆEN̲, ŦE Janet
kʷə-kʷéčəŋ' θə Janet
ACT-yell DET Janet
'Janet is yelling.' (Turner 2005:252)

(39) a. DILEM ŦE Janet
ṯíləm θə Janet
sing DET Janet
'Janet sang (a song).' (Turner 2005:252)

b. DEDI,LEM, ŦE Janet
ṯə-ṯíl̓əm̓ θə Janet
ACT-sing DET Janet
'Janet is singing.' (Turner 2005:252)

$C_1VC_2\text{-}CəC \rightarrow C_1V\text{-}C_1əC_2\text{-}CəC$:[14]

(40) a. ŁIQSEN
łíḵʷ=sən
hook=foot
'trip' (Turner 2005:246)

b. ŁIŁEQSEN,
łí-łəḵʷ=sən
ACT-hook=foot
'tripping' (Turner 2005:246)

[14] It is surprising that the actuals of both of these bases exhibit initial stress, when penultimate stress is the preferred pattern in SENĆOŦEN (Montler 1986, Kiyota 2003, Leonard 2006). This may be the result of some lexical stress in SENĆOŦEN, or it could be the result of Halkomelem influence on stress. In Halkomelem, three syllable actuals formed by reduplication have initial stress. For example, the Halkomelem word for 'sing' is the same as the SENĆOŦEN (as in (39)), *ṯíləm*, but the actual form is *ṯíṯəl̓əm̓* 'singing', with initial stress (Suttles 2004:143).

(41) a. ȻINTEL
kʷín-təl
fight-RECIP
'They fought.' (Montler 1986:117)

b. ȻI,WEN,TEL,[15]
kʷí-ẇəṅ-təl̓
ACT-fight-RECIP
'They're fighting.' (Montler 1986:117)

3.2.1.2. Ablaut plus "durative" suffixation.

Ablaut plus suffixation of [-əɬ] was shown in 3.1.2 to be a productive actual allomorph used in resultive formation. Actuals formed with this allomorph have been previously analysed as containing ablaut resultive morphemes and an independent "durative" suffix (Montler 1986; Galloway 1990; Efrat 1969). However, I argue that ablaut plus durative suffixation, like all non-concatenative morphology associated with resultives, is an actual allomorph. There are three examples of actual constructions taking this allomorph found in the linguistic documentation of SENĆOŦEN.

(42) a. NEḰ ŦE ḴAḴ
nə́qʷ θə qéq
fall.asleep DET baby
'The baby fell asleep; the baby's sleeping.'

b. NOḰEŁ ŦE ḴAḴ
náqʷ-əɬ θə qéq
fall.asleep(ACT)-DUR DET baby
'The baby is asleep.'[16]

(43) a. ḴES
qə́s
'It fell in the water.'

b. YOŦ OL, ḴÁSEŁ TŦE SƮOƵŁE E TŦE ḰO,
yáθ ʔal̓ qés-əɬ tθə s-t̓θát̓θɬə ʔə tθə qʷáʔ
always LIM fall.in.water(ACT)-DUR DET NOM-leaf OBL DET water
'The leaf is always falling in the water.'

[15] This form exhibits the glide-obstruent alternation outlined in 3.2.1.6.
[16] Although (42b) expresses a resultant state, I will argue that it is an actual form. The predicate in (42) patterns with a class of predicates called *inchoative states*, whose actuals express resultant states of agent-like participants (see section 4.2).

(44) a. BEȻ TŦE MO,EḰ
ṗə́kʷ tθə mə́ʔəqʷ
rise.to.surface DET duck
'The duck floated to the surface.' (Turner 2005:248)

b. BÁȻEŁ
ṗékʷ-əł
rise.to.surface(ACT)-DUR
'surfaces every now and then'

A table of actuals formed by ablaut plus suffixation is included here.

PERFECTIVE	ACTUAL	EXAMPLES	NUMBER OF ACTUALS
CəC	CaCəł	42	1
CəC	CeCəł	43, 44	2

Table 4. Actuals formed by ablaut plus suffixation.

The form in (44b) is interesting, since it contrasts with the resultive [sṗákʷəł] (25b), so that the resultive and actual take different ablaut vowels. There is a labial [ṗ] in this form, which allows the ablaut vowel [a], but does not seem to require [a] in all cases (c.f. [sq̓éṗəł] 'gathered', appendix B (viiib)). Perhaps the contrast between actual and resultive is being enhanced by the use of a different ablaut vowel. It has been suggested that phonological differences can be used to enhance and maintain contrast between two morphologically distinct forms (Czaykowska-Higgins & Urbanczyk 2001; Urbanczyk 2005; Lee & Urbanczyk 2006; Czaykowska-Higgins 2006). In SENĆOŦEN, the motivation for such an enhancement does not often exist, since there are only two documented bases on which both resultive and actual occur (as discussed in 4.1). The other base is [qəs], which takes the resultive and actual found in examples (20b) and (43b), respectively. This does not have the option for enhancement, since it has no labial and cannot take [a] as its ablaut vowel.

3.2.1.3. Metathesis/stress shift.

Actuals of CC-əC and CCəC-C bases are formed by the metathesis/stress shift allomorph, which creates actual forms with the shape CəCC(C).

(45) a. ŦQET SEN LE, TŦE X̱I,LEM
θk̓ʷ-ə́t sən ləʔ tθə x̌ʷíl̓əm
stretch-C.TR 1SGSU PST DET rope
'I stretched out the rope.'

b. ŦEQT SEN LE, TŦE X̲I,LEM
θə́k̓ʷ-t sən ləʔ tθə x̌ʷíl̓əm
stretch(ACT)-C.TR 1SGSU PST DET rope
'I was stretching out the rope.'

(46) a. SKET TŦE PIPE
sq̓-ə́t tθə pípə
tear-C.TR DET paper
'Tear the paper.'

b. SEKT SW̲ TŦE PIPE
sə́q̓-t sxʷ tθə pípə
tear(ACT)-C.TR 2SU DET paper
'You're tearing the paper.'

(47) a. T̲PEXT
x̌̓pə́x̌-t
scatter-C.TR
'scatter it'

b. T̲EPXT
x̌̓ə́px̌-t
scatter(ACT)-C.TR
'scattering it'

Examples (45)-(47) have shown how metathesis/stress shift affects obstruent-only roots. In (48) and (49), roots with resonants are shown. Notice that an epenthetic schwa occurs in (48a) and in (49b).

(48) a. MELEJT TŦE ḰŁƛ
mə́ləč̓-t tθə qʷłéy
roll.over-C.TR DET log
'Roll the log over.'

b. MEL̓JT TŦE ḰŁƛ
mə́l̓č̓-t tθə qʷłéy
roll.over(ACT)-C.TR DET log
'rolling the log over'

(49) a. QSEN̲
k̓ʷs-ə́ŋ
count-MID
'count' (Turner 2005:251)

b. QESEN̲,
ḵʷə́s-əŋ'
count(ACT)-MID
'counting' (Turner 2005:251)

There is a phonotactic constraint in SENĆOŦEN against tautosyllabic CR clusters (where C is any consonant and R is any resonant) (Montler 1989:102). Montler (1986) analyses the bases taking metathesis/stress shift as underlyingly vowelless. Thus, the underlying form of (48a) is /mlč̓/ and that of (49a) is /ḵʷs-ŋ/. A schwa is epenthesised to avoid the CR clusters in (48a) and (49b).

The effect of metathesis/stress shift on base shape is shown in the following table. In this table only, I make a distinction between obstruents (T) and resonants (R), where C represents either an obstruent or a resonant.

PERFECTIVE	ACTUAL	EXAMPLES	NUMBER OF ACTUALS
TTəT	TəTT	45–47	16
TTəR	Tə́TəR	48	4
Cə́RəT	Cə́RT	49	11
other			2

Table 5. Actuals formed by metathesis/stress shift.

3.2.1.4. Glottal stop infixation.

The fourth actual allomorph in SENĆOŦEN is a glottal stop infix, usually inserted immediately after the stressed vowel, but in some forms inserted immediately before the stressed vowel. The glottal stop allomorph of the actual is found with all perfective bases that do not fit into the shapes listed in 3.2.1.1, 3.2.1.2, and 3.2.1.3, and are thus not able to take reduplication, ablaut, or metathesis/stress shift. This includes base shapes CVVC, CəCəC, CV, CV-C, CəCVC, CəCV, and several other longer and rarer base shapes. It is also found with over half of the documented bases of the shape CVCəC, the remainder taking reduplication (see 3.2.1.1).

Table 6 summarises the most common base shapes on which actuals are formed by glottal stop infixation, and the number of actuals formed in this way. Although there are 11 actuals in the "other" row of the table, there are only one or two examples of each of the "other" base shapes.

PERFECTIVE	ACTUAL	NUMBER OF ACTUALS
CVCəC	CV-ʔ-CəC	13
CV-C	CV-ʔə-C	3
Cə́CəC(C)	CV-ʔ-CəC(C)	3
other		11

Table 6. Actuals formed by glottal stop infixation.

Representative examples of glottal infixed actuals are given in (50) – (53).

(50) a. WAḴES
wéqəs
'yawn' (Turner 2005:251)

b. WA,ḴES
wé-ʔ-qəs
yawn(-ACT-)
'yawning' (Turner 2005:251)

(51) a. HÁSEN̲ SEN
hés-əŋ sən
sneeze-MID 1SGSU
'I just sneezed.' (Turner 2005:251)

b. HÁ,SEN̲, SEN
hé-ʔ-s-əŋ' sən
sneeze(-ACT-)-MID 1SGSU
'I'm sneezing.' (Turner 2005:251)

(52) a. θəŋé
'carry on back' (Montler 1989:105)

b. θəŋé-ʔə
carry.on.back-ACT
'carrying on back' (Montler 1986:130)

(53) a. čákʷəs
'use something' (Montler 1986:130)

b. čə-ʔ-áẇəs
use(-ACT-)
'I'm using it now.' (Montler 1986:130)

There are also a few actuals which appear to have been formed by both reduplication *and* infixation, as in (54) and (55).

(54) a. YÁ, E SW̱ ŚQOM
yéʔ ʔə sxʷ šḵʷám
go Q 2SU swim
'Are you going for a swim?' (Turner 2005:252)

b. ŚEŚQO,EM E SW̱
šəšḵʷá-ʔə-m ʔə sxʷ
swim(-ACT-) Q 2SU
'Are you swimming?' (Turner 2005:252)

(55) a. YÁ, SEN XŁÁM E TŦE TÁTI,
yéʔ sən ǰłém ʔə tθə téy-təẏ
go 1SGSU watch OBL DET PL-canoe.race
'I'm going to watch the canoe race (all the races).' (Turner 2005:252)

b. XEXŁÁ,EM SEN E TŦE TÁTI,
ǰə-ǰłé-ʔə-m sən ʔə tθə téy-təẏ
ACT-watch(-ACT-) 1SGSU OBL DET PL-canoe.race
'I'm watching the canoe races.' (Turner 2005:252)

These bases are both of the shape CCVC, an uncommon base shape, and appear to behave similarly to CVC bases, which take reduplication, but also similarly to other rare-shaped bases by taking the glottal infix.

3.2.1.5. Resonant glottalisation in actuals.

Actuals, like resultives, exhibit glottalisation of post-stress resonants (Montler 1989, Caldecott 1999). Examples (56), (57), and (58) show that resonant glottalisation occurs with the reduplication, metathesis/stress shift, and glottal infix allomorphs of the actual. Since there are so few examples of actuals formed by ablaut plus suffixation, and none of them contains a resonant, I cannot show that resonant glottalisation also occurs with this allomorph, although it is predicted to do so.

(56) a. DILEM ŦE Janet
ṯíləm θə Janet
sing DET Janet
'Janet sang (a song).' (Turner 2005:252)

b. DEDI,LEM, ŦE Janet
ṯə-ṯíl̓əm̓ θə Janet
ACT-sing DET Janet
'Janet is singing.' (Turner 2005:252)

(57) a. ŚTEN̲
štə́ŋ
walk-MID
'walk' (Turner 2005:256)

b. ŚETEN̲,
šə́təŋ'
walk(ACT)-MID
'walking' (Turner 2005:256)

(58) a. HÁSEN̲ SEN
hés-əŋ sən
sneeze-MID 1SGSU
'I just sneezed.' (Turner 2005:251)

b. HÁ,SEN̲, SEN
hé-ʔ-s-əŋ' sən
sneeze(-ACT-)-MID 1SGSU
'I'm sneezing.' (Turner 2005:251)

Although post-stress resonants are usually the only resonants which undergo glottalisation, there are a few forms where a resonant immediately preceding the stressed vowel is glottalised. This usually occurs with longer forms, as in (59).

(59) a. štəŋ-í-st-əs
walk-PERSIS-CAUS-3ERG
'He walked/ran/operated it.' (Montler 1986:125)

b. štəŋ'-í-ʔ-st-əs
walk-PERSIS(-ACT-)-CAUS-3ERG
'He's operating it (a machine).' (Montler 1986:125)

Caldecott (1999), in a study examining the timing of glottalisation in SENĆOŦEN, found that intervocalic resonants immediately preceding a stressed vowel are post-glottalised; that is, glottal constriction occurs after oral articulation of the resonant. Intervocalic resonants immediately following a stressed vowel are pre-glottalised; glottal constriction precedes oral articulation of the resonant (p. 9). This confirms the description of SENĆOŦEN resonant glottalisation given in Montler (1986:13). Therefore, there is little or no acoustic difference between a V́R'ə sequence and a V́ʔRə sequence, and little difference between a əR'V́ sequence and a əRʔV́ sequence.

3.2.1.6. Glide hardening.

Several forms exhibit an interesting alternation between [kʷ] in the perfective and [ẇ] in the actual and between [č] or [č̓][17] in the perfective and [ẏ] in the actual. Example (60b) shows an actual formed by metathesis/stress shift and example (61b) shows an actual formed by reduplication. Both of these perfective-actual pairs exhibit the alternation between obstruent and glide.

(60) a. x̌əčə́q-t
press.down-C.TR
'Press down on it.' (Montler 1986:129)

b. x̌ə́ẏq-t-əs
press.down(ACT)-C.TR-3ERG
'He's pressing down on it.' (Montler 1986:129)

(61) a. kʷín-təl
fight-RECIP
'They fought.' (Montler 1986:117)

b. kʷí-ẇəṅ-təl̓
ACT-fight-RECIP
'They're fighting.' (Montler 1986:117)

Montler (1989:103–4) proposes that the underlying consonant in these cases is a glide, which is hardened to an obstruent in the perfective form. Thus, (60a) is underlyingly /x̌əyə́q-t/ and (61a) is underlyingly /wín-təl/. In the actual forms, the underlying glides surface as glottalised glides word-medially. However, the word-initial reduplicant consonant in (61b) still shows hardening. Montler (1989) observes that, in suffixes, only glides which would be glottalised surface as glides and that word-initial glides in these forms always surface as obstruents (*[wíẇəṅ-təl̓]). Janet Leonard (p.c.) suggests that it is because the glides are glottalised in the actual form that they surface as glottalised glides and do not undergo hardening to obstruents. Only plain [w] and [y] will surface as obstruents, so hardening no longer applies to the glottalised [ẇ] and [ẏ] of actuals. Word-initial resonants are never glottalised in SENĆOŦEN, so word-initial glides are always hardened in perfective and actual forms.

Not all glides in SENĆOŦEN undergo hardening to obstruents; the hardening is only observed in a small set of words. Hardening is also a historical process. The sounds [č] and [kʷ] in some SENĆOŦEN words correspond with [y] and [w] in the Central Salish languages of Pentlatch, Sechelt, Squamish, and Halkomelem (Galloway 1988:299). For example, the Squamish word for 'get angry' is *t'ayak̲'* [t̓áyaq̓] (Bar-el 2005:94) in

[17] The only example of an alternation of the ejective [č̓] with [ẏ] occurs in example (71) below, [t̓éč̓əq̓] "get angry" --> [t̓éẏəq̓] "be angry". This form may be an unusual example of a recent change from [č] to [č̓], since the cognate in other Salish languages has a [y], and [y] normally corresponds to [č] (Galloway 1988:300).

constrast with SENĆOŦEN *ṯéc̓əq̓*. The historical sound correspondence is not always related to the alternation between glides and obstruents, however, as can be seen when comparing SENĆOŦEN and Halkomelem *kʷínṯəl* 'fight' (Leslie 1979:45).

3.2.1.7. Vowel change in glottal infix forms.

Montler (1986:116) lists several actual forms which undergo change from [ə] to [e], which might suggest that they are formed by ablaut. However, all of the forms listed in that section contain the glottal infix allomorph of the actual. The vowel change is predictable, and may be used to avoid a sequence of [áʔ] (Bessell & Czaykowska-Higgins 1991, Shaw et al. 1999), although this sequence does occur in SENĆOŦEN (e.g. "past" clitic *1əʔ*). These actuals should not be grouped with the ablaut actuals described in section 3.2.1.2. The actuals described in this section differ from the ablaut actuals in that they contain a glottal stop infix, they do not take the suffix [-əɬ], and they have a different conditioning environment (they are not formed on CəC bases).

(62) a. tášəl-t sən
turn.upright-C.TR 1SGSU
'I turned it upright.' (Montler 1986:116)

b. kʷɬ té-ʔ-šəl-t sən
REAL turn.upright(-ACT)-C.TR 1SGSU
'I'm turning it upright now.' (Montler 1986:116)

(63) a. łáṯəm
'fish for herring' (Montler 1991:65)

b. kʷɬ łé-ʔ-ṯəm̓ sən
REAL fish.for.herring(-ACT-) 1SGSU
'I'm herring fishing.' (Montler 1986:116)

(64) a. x̌áš-əŋ
trip-MID
'He trapped.'[18] (Montler 1986:116)

b. x̌é-ʔ-š-əŋ' sən
trip(-ACT-)-MID 1SGSU
'I'm trapping.' (Montler 1986:116)

Since these roots have a schwa, rather than a full vowel, and contain suffixes, one might expect them to pattern with the metathesis/stress shift actuals. Montler (1986) cites the fact that they don't pattern together as evidence for a distinction between

[18] In Montler (1986) the forms in (64a) and (64b) are translated as 'He tripped' and 'I'm tripping', respectively. However, these should read 'He trapped and 'I'm trapping' (Timothy Montler, p.c.)

roots with an underlying schwa and vowelless roots, which surface with a schwa in the perfective. If a root has an underlying schwa, it takes the glottal infix allomorph of the actual ([ǩáš-əŋ] --> [ǩéʔš-əŋ'] "trap" --> "trapping"). If a root has no underlying schwa, it takes the metathesis/stress shift allomorph ([sq̓-át] --> [sáq̓-t] "tear it" --> "tearing it").

So far, those forms which have been checked with current speakers do not actually follow the pattern listed in Montler (1986). Example (65b) is listed as [ǩʷéṅət] by Montler (1986, p. 116), but the speakers with whom I worked rejected this actual form, preferring the regular metathesis/stress shift actual (which is listed in Montler (1989)). Example (66a) is listed as [tə́yəl] "go upstream" (Montler 1986:116), which appears to be a schwa-vowel root which takes the glottal stop infix allomorph of the actual as [téy̓əl]. However, the speakers with whom I worked rejected those forms, and instead gave the perfective in (66a). This is a full vowel CVCəC base, which takes the reduplication allomorph of the actual in (66b).

(65) a.

QENET	SEN	TŦE	JESKEN
ǩʷən-ət	sən	tθə	č̓ə́sqən
see-C.TR	1SGSU	DET	golden.eagle

'I looked at the golden eagle.'

b.

QEN,T	SEN	TŦE	JESKEN
ǩʷə́ṅ-t	sən	tθə	č̓ə́sqən
see(ACT)-C.TR	1SGSU	DET	golden.eagle

'I'm looking at the golden eagle now.'

(66) a.

YÁ,	LO,	SEN	TÍYEL
yéʔ	láʔ	sən	téyəl
go	PST	1SGSU	go.upstream

'I went upstream.'

b.

TETÁ,YEL,	SEN
tə-téy̓əl̓	sən
ACT-go.upstream	1SGSU

'I'm going upstream.'

At this point, further investigation and re-elicitation of the forms in this section is required to determine if there really is a distinction between schwa and vowelless roots.

In summary, this section has outlined four actual allomorphs: reduplication, ablaut plus suffixation, metathesis/stress shift, and glottal infixation. I have also given examples of resonant glottalisation, which occurs on all actual forms, and explained two phonological processes which strengthen the difference between some perfective and actual forms. The following table summarises the base shapes found with each actual allomorph.

ALLOMORPH	CV- REDUPLICATION	METATHESIS/ STRESS SHIFT	ABLAUT PLUS [-əɬ]	GLOTTAL STOP INFIX	GLOTTAL INFIX & REDUPLICATION
BASE SHAPES	CVC, CVC-CəC, CVCəC	CCəC, CC-əC, CəRəC, CəR-əC	CəC (/CC/)	elsewhere, CVCəC	CCVC, CVC-əC
NUMBER OF ACTUALS	22	33	3	30	3

Table 7. Allomorphy in actual forms.

Since the SENĆOŦEN actual is expressed in four considerably different ways, there have been several attempts to provide a unified analysis of the morpheme. In the next section, I will summarise four of these analyses, and one analysis which focusses on the distribution of resonant glottalisation in actuals.

3.2.2. Analyses of the SENĆOŦEN actual.

In this section I will outline the analyses of Montler (1986, 1989), Stonham (1994), Kurisu (2002), and Caldecott (1999).

3.2.2.1. Montler (1986, 1989).

The first linguistic treatment of the SENĆOŦEN actual is found in Montler (1986). This work is predated by analyses of actuals in Klallam, another Central Salish language (Thompson & Thompson 1969) and Lummi, another dialect of North Straits (Demers 1974). Although the actual allomorphs are similar in these three languages, Montler (1986) argues that neither of the previous analyses captures the SENĆOŦEN facts. Thompson & Thompson (1969) describe "metathesis" in Klallam, but Klallam, unlike SENĆOŦEN, has so-called "metathesis" involving full vowel bases (e.g., [čkʷút] 'shoot'; [čúkʷt] 'shooting' (Thompson & Thompson 1969:216)). SENĆOŦEN forms have schwas, and Montler (1986:119) proposes that they can be explained by a process of stress shift, whereby schwa is epenthesised to take the stress in forms which have no vowel underlyingly.

Demers (1974), in discussing Lummi, argues that those forms which appear to have undergone metathesis have not, but instead have a glottal stop infix. According to this analysis, the underlying form of [c̓ə́stŋs] 'he's getting hit' is /c̓ə́ʔsə + t + ŋ + s/ (Demers 1974:19). The unstressed schwa is deleted, and the glottal stop is deleted, since it is between a schwa and an obstruent. Montler (1986) points out that this analysis does not work for SENĆOŦEN, since SENĆOŦEN does not delete glottal stop in that position. In Demers's analysis, the location of the stressed schwa in a perfective form depends on the number of consonants following the root. According to Demers (1974), intransitive [c̓ə́ssən] 'I got hit' is underlyingly /c̓ə́sə + sən/, with stress remaining on the initial syllable. He suggests that with transitive [c̓sə́tsən], underlying /c̓ə́sə + t + sən/, stress is "protracted" to the second "underlying" schwa, since the root is followed by two consonants (t and s) (p. 16).

Montler (1986) instead suggests that stress shift is the driving process in actual formation. He observes that both "metathesis" and reduplication achieve the same goal; they both move the stress leftward in the word (pp. 124–125). When stress is on the suffix in the perfective, as in [θk̓ʷ-ə́t], it shifts leftward onto the root in the actual: [θə́k̓ʷ-t]. However, when stress falls on the root of a perfective, as in [t̓ák̓ʷ], the only way for it to shift leftward is for a new syllable to be created by reduplication, yielding the actual form [t̓á-t̓ək̓ʷ]. The difference between Montler's (1986) stress shift and Demers's (1974) stress protraction rule is as follows. For Montler (1986), this is a morphological rule applying to actuals (where the perfective is always considered more basic. For Demers, stress protraction is a phonological rule applying to perfectives with two consonants following the root (where initial stress is considered basic in all forms).

The stress shift analysis is problematic, since there are both metathesis/stress shift forms and reduplicated forms which do not stress a different syllable from their perfective bases, e.g., [t̓ə-t̓íl̓əm̓] (see (39)) and [mə́l̓č̓-t] (see (48)). Montler (1989) provides a more plausible account of actuals, using a templatic approach. He argues that the underlying form of the actual consists of "an abstract C_CC frame for the stressed vowel of the stem" (p. 93); i.e., actuals strive for the shape [. . .CV́CC. . .] or [. . .Cə́CC. . .]. Recall that reduplication is used with predicate roots of CVC or CVCəC, or CVC roots with consonant initial suffixation. Montler (1989) argues that the first consonant of the C_1VC_2 root is reduplicated to create the actual form $C_1VC_1C_2$, and a schwa is then epenthesised: $C_1VC_1əC_2$.

t̓ák̓ʷ	→	t̓á-t̓k̓ʷ	→	t̓át̓ək̓ʷ
CVC		CVCC		CVCəC

Figure 5. Derivation of reduplicated actual.

Metathesis/stress shift is used to change the predicate's shape to one of Cə́CC (i.e. C_CC) (Montler 1989:96).

θk̓ʷ-ə́t	→	θə́k̓ʷ-t
CC-VC		CVC-C

Figure 6. Derivation of metathesised actual.

For a form like [k̓ʷə́s-əŋ'] *counting*, [ə] epenthesis between a consonant and a following resonant occurs after the formation of the actual, so that the second [ə] does not count as part of the template (Montler 1989:102).

The glottal infix is used in most other actual forms. Montler (1989:98) notes that the most common environment for the glottal infix allomorph is a stem consisting of a CVC root and a VC suffix. A glottal stop adds a C to the CVC root, causing the CVCC template to be satisfied.

hés-əŋ	→	héʔs-əŋ'
CVC-VC		CVCC-VC

Figure 7. Derivation of infixed actual.

Montler (1989:106) posits that the reason that the consonant used to create a CVCC shape for these roots is a glottal stop is that there is a [constricted glottis] feature associated with the actual. This feature is also responsible for resonant glottalisation. The resonant glottalisation in infixed forms, and indeed in most actual forms, occurs to the right of the stress. In this way, resonant glottalisation and infixation are proposed to result from the same feature, fixed following the stressed vowel, and spreading rightwards.

Montler's (1989) templatic approach also partially accounts for the ablaut actuals which take the "durative" suffix. Recall that this allomorph is used with CC roots, which surface as CəC in the perfective. Although ablaut is not predicted by Montler's analysis, the addition of the suffix [-əɬ] to these forms could be argued to satisfy the CVCC template. The "epenthesis" of schwa in the suffix is also not predicted, but it is interesting that some Samish speakers do not include a schwa in this position (e.g. [ʔəs-ḵʷasɬ] "it's already counted" (Galloway 1990:41)).

náqʷ	→	náqʷɬ	→	náqʷəɬ
CəC		CVCC		CVCəC

Figure 8. Derivation of ablaut actual.

The so-called "durative" suffix may have had some original semantic function of its own (not necessarily related to durativity). However, since it is phonologically predictable in present day SENĆOŦEN, it seems likely that in the case of actual formation it is used for phonological reasons, enabling the ablaut actuals to conform to the usual shape of actuals.

Montler's (1989) analysis does not account for those reduplicated forms which have stress on the second syllable, such as [ṯə-ṯíl̓əm̓]. His analysis would predict that such forms should take the glottal infix allomorph. However, any analysis will run into this problem, since the phonological environment for such forms is an environment which more often conditions glottal stop infixation. The templatic approach does account for the majority of actuals.

3.2.2.2. Stonham (1994).

Stonham (1994) provides an account of SENĆOŦEN actuals where the actual adds a mora (an extra timing unit) to the root. According to his analysis, since reduplication adds a syllable, it adds a mora. The glottal stop infix usually closes an open syllable, thereby adding a mora (e.g. [wéqəs] "yawn" --> [wéʔqəs] "yawning"). He argues that "metathesis" is also used to add a mora to the root.

However, there is a potentially serious problem with this analysis. As shown by Anderson (2005), the analysis only works if coda consonants are moraic in SENĆOŦEN,

and if two coda consonants contribute two moras to a syllable, entailing the existence of trimoraic syllables. There is no evidence to support these assumptions, and there is currently research taking place regarding the role of weight in SENĆOŦEN (see Leonard 2006). Also, metathesis does not always add a mora to a root. For example, Stonham (1994) states that [tqʷə] 'X tightens something' is metathesised to [təqʷ] 'X is tightening something' (Stonham 1994:172). However, the actual allomorphy is sensitive to the shape of bases, not roots. As was shown in sections 3.1.1.3 and 3.2.1.3, the metathesis/stress shift allomorph is only used with CCəC bases. The change is from control transitive suffixed [tqʷə́t] to [tə́qʷt] Montler (1989:97). In this case, the syllable is not closed by metathesis, since the perfective [tqʷə́t] already has a closed syllable.

At best, the moraic approach accounts for a few forms which Montler's (1989) does not, namely forms such as [ṯə-ṯɪ́ɬəṁ]. However, over all, Stonham (1994) accounts for fewer forms than does Montler (1989).

3.2.2.3. Kurisu (2002).

In providing an Optimality Theoretic account of non-concatenative allomorphy, Kurisu (2002) proposes the constraint *Realise Morpheme (RM)*, which states that "the output has some phonological property which distinguishes it from the base form" (Kurisu 2002, p. 38). He applies this constraint to SENĆOŦEN, where, for him, the purpose of all three allomorphs is to distinguish actuals from perfectives. He argues that there is a [ʔ] associated with the actual and there is no other underlying shape for the actual morpheme. The cases where the glottal stop infix does not occur are then cases where the infixation of a glottal stop would violate markedness constraints in the language.

For example, the actual [q̓əp̓t][19] must differ from the perfective [q̓p̓ət], and cannot take the glottal infix to yield *[q̓p̓əʔt], since that has an undesirable complex onset (p. 160).[20] Kurisu's (2002) analysis appears to account for many actuals, and it provides the argument that actual allomorphy is driven by a need for actuals to differ from their perfective counterparts. However, it does not capture the relationship of actuals to one another, whereas Montler's (1989) analysis does. It is not clear from Kurisu's analysis why, for example, the actual is [q̓əp̓t] and the perfective [q̓p̓ət], rather than the other way around. Montler's (1989) analysis, on the other hand, does explain this, as he proposes that actuals attempt to fit a C_CC template.

3.2.2.4. Caldecott (1999).

The last analysis of the SENĆOŦEN actual that I will outline here is that of Caldecott (1999). Her account differs from all previously described accounts in that she is interested in the distribution of resonant glottalisation and does not attempt a unified account of reduplication, metathesis/stress shift, and infixation. In addition to results from an acoustic study of SENĆOŦEN glottalised resonants, she provides an Optimality Theoretic account of the distribution of resonant glottalisation. She argues that it results from a feature [creak] which is associated with actuals, and that [creak]

[19] This actual is listed as [xʷ-q̓əp̓t] 'patching it' in Montler (1989, p. 97).
[20] The onset cluster in the perfective form is tolerated; presumably this is because the perfective must remain faithful to its underlying representation.

affects only resonants in post stress position, because it is aligned with the left edge of the stressed vowel and with the right edge of the word (Caldecott 1999:43). There are cases of pre-stress glottalisation of resonants, as in, for example [kʷɬ iʔ ʔəm̓éʔqtəs] 'He's delivering it' (Montler 1986:115); however, there are very few of these cases. Therefore, Caldecott's (1999) analysis accounts for most actual forms, in terms of their resonant glottalisation.

Since Caldecott's (1999) analysis does not attempt to account for the actual allomorphy, Montler's (1986) suggestions do not cover all of the allomorphs, Stonham's (1994) analysis requires unusual assumptions, and Kurisu's (2002) analysis does not thoroughly predict the shape of actuals, I conclude that Montler's (1989) analysis is the most comprehensive to date.

In this section, I have focussed on the description and analysis of actuals. I will not be providing a new phonological analysis of actuals as these authors have done, but instead have reviewed their work in the hope that the reader will be better able to understand the allomorphy of actuals. The focus of this paper is instead to provide a new analysis of *resultives*. In the next section, I will compare my analysis, that resultives are formed by a combination of stative and actual morphology, with Montler's (1986) description of resultives.

3.3. Comparison with Montler (1986).

The difference between Montler's (1986) categorisation of resultives and mine is that he assumes the existence of a *resultive morpheme*. According to Montler (1986), there are separate stative, resultive, and actual morphemes, and actuals are formed by either *progressive* (infixing) reduplication, metathesis/stress shift, or the glottal infix. Resultives are formed by either *regressive* (prefixing) reduplication or ablaut. In contrast, according to my proposal, there is only a stative morpheme and an actual morpheme, and resultives are formed by a combination of the two.

There are two reasons why Montler (1986) analyses the resultive and actual as separate morphemes. First, he assumes there are two different types of reduplication, one used to form actuals, and the other to form resultives and some exceptional actuals. Second, several forms that he lists as resultive forms have no stative prefix. I will deal with the issue of reduplication in section 3.3.1, and the unprefixed "resultives" in section 3.3.2.

3.3.1. Progressive vs. regressive reduplication.

Montler (1986) argues that resultives and actuals are formed by different reduplication patterns; actuals are formed by -C progressive (infixing) reduplication and resultives by C- regressive (prefixing) reduplication. These two apparent reduplication patterns are shown in (67) and (68), respectively.[21] In both cases, an epenthetic schwa occurs following the reduplicated consonant, according to Montler's (1986) analysis.

[21] Since I argue in this section that all actual reduplication is regressive (prefixing), all reduplicated forms are represented with regressive reduplication. If we were to accept Montler's (1986) analysis of reduplication, the form in (67b), for example, would be better represented as [t̓á-t̓ə-k̓ʷ], where [-t̓ə-] is an infixed reduplicant.

(67) a. ȻŁ YÁ, ȻO DOQ ŦE Janet
kʷɬ yéʔ kʷə ṯáḵʷ θə Janet
REAL go INF go.home DET Janet
'Janet went home (already); Janet's gone home.' (Turner 2005:250)

b. YÁ, SEN I DODEQ
yéʔ sən ʔi ṯá-ṯəḵʷ
go 1SGSU AUX ACT-go.home
'I'm going/on my way home.' (already walking)
(Turner 2005:250)

(68) a. ŦIMO,T
θímaʔ-t
freeze-c.TR
'Freeze it.' (Turner 2005:249)

b. SŦEŦI,MO,
s-θə-θíṁaʔ
ST-ACT-freeze
'It's frozen.' (Turner 2005:249)

However, there are several actuals showing the same reduplication pattern as (68b), which Montler (1986) treats as exceptional forms.

(69) a. DILEM ŦE Janet
ṯíləm θə Janet
sing DET Janet
'Janet sang (a song).' (Turner 2005:252)

b. DEDI,LEM, ŦE Janet
ṯə-ṯíl̓əṁ θə Janet
ACT-sing DET Janet
'Janet is singing.' (Turner 2005:252)

I argue that these forms are not exceptional, but that there is actually only one type of reduplication exhibited by actuals and resultives: CV- prefixing (regressive) reduplication.

Most of the forms with so-called progressive (infixing) reduplication are two syllables, and most with prefixing are three syllables. I suggest that the two apparent reduplication patterns are the result of two facets of the stress assignment properties of SENĆOŦEN. First, unstressed full vowels regularly reduce to schwa, and, second, all

other things being equal, stress will fall on the penultimate syllable[22] (Montler 1986:24; Kiyota 2003:7, 9–10). In a form such as [ɫá-ɫəḵʷ], stress falls on the first syllable, because it is penultimate. Therefore the vowel in the second syllable is reduced to schwa. In a form such as [ɫə-ɫíɬəm̓], stress falls on the second syllable, because it is penultimate. Therefore, the vowel in the first syllable is reduced. Both forms exhibit CV-reduplication. If there were no vowel reduction, the forms would be *[ɫá-ɫaḵʷ] and *[ɫi-ɫíɬəm̓].

If we accept this analysis of actual reduplication, resultives and actuals are both formed by the same type of reduplication, as assumed in sections 3.1.1.1 and 3.2.1.1.

3.3.2. "Resultives" with no stative prefix.

Montler (1986) lists several "resultives" with no stative prefix. Two examples are given in (70) and (71). Montler probably lists these forms as resultives because they appear to have the same semantics as other resultives; in other words, they appear to express a resultant state.

(70) a. ŦIŁEN̲ SW̲ HÁLE
θíłəŋ sxʷ hélə
stand-MID 2SU GROUP
'Stand up everyone.' (Turner 2005:246)

b. ŦEŦIŁEN̲ SEN
θə-θíłəŋ sən
ACT-stand 1SGSU
'I'm standing up.' [state not process] (Turner 2005:246)

(71) a. DÁJEK TŦU,NIŁ
ɫeč̓əq̓ tθəẇnił
angry 3SGMASC
'He got angry.' (Turner 2005:251)

b. DEDÁ,YEK TŦU,NIŁ
ɫə-ɫeẏəq̓ tθəẇnił
ACT-angry 3SGMASC
'He's (already) angry.' (Turner 2005:251)

However, as noted by Bar-el (2003a, 2005) for Sḵwx̱wú7mesh, actuals (or progressives) in Salish languages also express resultant states when they are formed on certain predicate types, which Bar-el (2003a, 2005) calls *inchoative states*. Actuals formed on inchoative states will be discussed in section 4, where I will argue that these predicates are unergative (they have an agent/experiencer subject), while it appears that

[22] Some reduplicated actuals do not have penultimate stress, e.g., [ɫ̓ᶿəɫ̓ᶿə=ẇéč] 'sitting' (Montler 1986:131). These forms have lexical suffixes (traditionally indicated by the morpheme boundary =), suffixes with root-like meaning, which appear to be able to affect the stress assignment of SENĆOŦEN by attracting stress (Leonard 2005).

resultives are always formed on unaccusatives (with a patient subject). All of Montler's (1986) "resultives" with no stative prefix are formed on inchoative states; therefore, I argue that they are really actuals.

3.4 Section three conclusion.

In this section, I have outlined the form of actuals (3.1) and resultives (3.2) in SENĆOŦEN, and summarized and evaluated previous linguistic analyses of the two constructions. I have shown that actuals and resultives are formed by at least three of the same non-concatenative allomorphs, reduplication, ablaut (plus suffixation), and metathesis/stress shift, and predicted that resultives formed by glottal stop infixation probably exist but have yet to be documented. In 3.3, I compared my analysis of actuals and resultives with that of Montler (1986), and argued that the evidence supports my proposal that the resultive is not a morpheme, but is a construction formed by the addition of a stative prefix to an actual form.

If this proposal is correct, one would expect to find minimal pairs of actual and resultive, such as (72b) and (72c) or near minimal pairs, such as (73b) and (73c). However, these are the only two pairs found so far.

(72) a. X̱ES
qə́s
'It fell in the water.'

b.

YOŦ	OL,	X̱ÁSEŁ	TŦE	SƮOƮŁE	E	TŦE	Ḱ O,
yáθ	ʔaa̓l	qés-əł	tθə	s-t̓θát̓θłə	ʔə	tθə	qʷáʔ
always	LIM	fall.in.water(ACT)-DUR	DET	NOM-leaf	OBL	DET	water

'The leaf is always falling in the water.'

c. SX̱ÁSEŁ
s-qés-əł
ST-fall.in.water(ACT)-DUR
'He's/It's in the water.'

(73) a.

BEȻ	TŦE	MO,EḰ
p̓ə́kʷ	tθə	máʔəqʷ
rise.to.surface	DET	duck

'The duck floated to the surface.' (Turner 2005:248)

b. BÁȻEŁ
p̓ékʷ-əł
rise.to.surface(ACT)-DUR
'surfaces every now and then' [as in a buoy]

c.

SBOȻEŁ	TŦE	MO,EḰ
s-p̓ákʷ-əł	tθə	máʔəqʷ
ST-rise.to.surface(ACT)-DUR	DET	duck

'The duck has surfaced.'

In the next section (section 4), I will argue that such minimal pairs are rare because actuals and resultives are rarely found on the same bases, for morphosyntactic reasons. I will also consider why resultives would be derived from actuals, rather than from perfectives, based on the shared semantic properties of resultives and actuals.

4. The morphosyntax and semantics of resultives and actuals.

This section explores the morphosyntactic and semantic properties of resultives and actuals, pursuing two goals. The first goal is to explain why there are so few actuals and resultives formed on the same base, and the second is to consider a possible semantic reason why resultives might be formed from actuals.

In this paper, I argue that resultives are formed by a combination of a stative prefix and a predicate in the actual aspect. In section 3, examples were given to show that resultives and actuals are formed by the same morphological processes, and differ only in that resultives have a stative prefix. However, resultives and actuals are almost always formed on different bases, resulting in a scarcity of “minimal pairs” (a particular resultive and actual differing only in terms of the stative prefix). If a resultive is formed by a combination of the stative prefix and an actual, we expect more pairs like the actual in (73b) and the resultive in (73c), given in section 3 and repeated here in (74).

(74) a. K̲ES
qə́s
‘It fell in the water.’

b.

YOŦ	OL,	K̲ÁSEŁ	TŦE	ST̸OT̸ŁE	E	TŦE	ḰO,
yáθ	ʔal̓	qés-əł	tθə	s-t̓ᶿát̓ᶿłə	ʔə	tθə	qʷáʔ
always	LIM	fall.in.water(ACT)-DUR	DET	NOM-leaf	OBL	DET	water

‘The leaf is always falling in the water.’

c. SK̲ÁSEŁ
s-qés-əł
ST-fall.in.water(ACT)-DUR
‘He’s/It’s in the water.’

In section 4.1, I will consider a restriction on resultives which contributes to this scarcity of minimal pairs: the base on which a resultive is formed must express some change in the patient participant of an event. This restriction has consequences for the distribution of resultives and actuals. So far, resultives have not been found with roots which seem to be unergative, and have only been found with intransitive bases of roots which seem to be unaccusative. Actuals, on the other hand, are always formed on agent-oriented bases—derived transitive bases or bases which seem to be unergative.

Having argued in section 3 and in section 4.1 that resultives contain the actual morpheme, I will address the issue of whether the actual morpheme contributes semantically to resultives in section 4.2. This is a relevant question, considering that the actual is considered to be a type of imperfective (section 2) and resultatives formed from imperfectives seem to be rare typologically. I will argue that the meaning of a

resultive is *compositional*; that is, it is composed of the three meanings contributed by the stative prefix, the actual morpheme, and the verbal base. It will be argued that resultives can be characterised in terms of the features [durative] and [static], which are contributed by the actual and the stative morphemes, respectively. This proposal is formalised in an aspectual feature geometry (Turner & Urbanczyk 2006), which captures the observation that the stative prefix can only be added to verbs with actual morphology.

4.1. Resultives and unaccusativity.

This section outlines what I suggest is a semantic restriction narrowing the set of environments in which resultives occur. Resultives are found on unaccusative bases,[23] such as the base in (75a), which is an intransitive, with the patient subject "my ear".

(75) a. XEȽ TE NE ḴOLEṈ
x̌ə́ɬ tə nə q̓ʷáləŋ
get.hurt DET 1SGPOSS ear
'I hurt my ear/my ear got hurt.' (Kiyota 2004:260)

b. SXÁȽEȽ ȻS Jack
s-x̌éɬ-əɬ kʷs Jack
ST-get.hurt(ACT)-DUR DET Jack
'Jack is sick.' (Kiyota 2004:264)

If this restriction holds for all resultives, it should prevent resultives from occurring on a whole class of verbs, those that are unergative. In section 4.1.1, I will outline my assumptions regarding unaccusative and unergative roots. In that section, I will show that preliminary tests and negative evidence suggest that, indeed, resultives do not occur with unergative roots. Resultives have also not been found with middle suffixed forms. All of the SENĆOŦEN middle-suffixed actuals documented so far have an agent subject. In this way, the lack of resultives of middle suffixed bases appears to be caused by the inability of resultives to form on unergative bases.

In section 4.1.2, I turn to the unaccusative verb roots, and show that, so far, resultives have been found on the intransitive roots while actuals are found on the transitivised versions of these roots. Section 4.1.3 discusses possible reasons for these restrictions on resultives and actuals, and the consequence they have for the distribution of actuals and resultives: actuals and resultives are largely in complementary distribution.

4.1.1. Actuals and unergative bases.

This section discusses the preliminary observation that resultives are found with unaccusative intransitive predicates, while actuals are usually found with

[23] The opposite may not also be true; there may be unaccusatives which cannot be made resultive. I have not yet tested for this, and have only asked for resultives of unaccusative verbs which have the potential for a resultant state.

unergative intransitive predicates. The sentences in (76b) and (77b) are examples of resultives of unaccusative bases.

(76) a. LIḰ TŦE X̱I,LEM
líqʷ tθə x̌ʷíl̓əm
loosen DET rope
'The rope loosened; the rope slackened.'

b. SLI,LEḰ TŦE X̱I,LEM
s-lí-l̓əqʷ tθə x̌ʷíl̓əm
ST-ACT-loose DET rope
'The rope is slack.'

(77) a. LEƛ LE, TŦE LEPOT
láẗ̓θ ləʔ tθə ləpát
fill PST DET cup
'The cup was filled.'

b. SLÁƛEŁ TŦE LEPOT
s-léẗ̓θ-əł tθə ləpát
ST-fill-DUR DET cup
'The cup is full.'

The unergative predicates on which actuals are found include unsuffixed unergative roots, bound unergative roots containing middle suffixes, and unergative bases consisting of unaccusative roots with middle suffixes. Unergative roots are considered first. Examples (78b) and (79b) show actuals formed on unergative roots.

(78) a. ȻŁ YÁ, ȻO DOQ ŦE Janet
kʷł yeʔ kʷə ẗ̓áḵ̓ʷ θə Janet
REAL go INF go.home DET Janet
'Janet went home (already); Janet's gone home.' (Turner 2005:250)

b. YÁ, SEN I DODEQ
yeʔ sən ʔi ẗ̓á-ẗ̓əḵ̓ʷ
go 1SGSU AUX ACT-go.home
'I'm going/on my way home.' (already walking)
(Turner 2005:250)

(79) a. WAX̱ES
wéqəs
'yawn' (Turner 2005:251)

b. WA,X̱ES
wé-ʔ-qəs
yawn(-ACT-)
'yawning' (Turner 2005:251)

As mentioned in section 2, membership of a verb in the class of unergatives or that of unaccusatives is not universal, and therefore I must first define the criteria used here to determine if a predicate root is unergative or unaccusative in SENĆOŦEN. There are both morphosyntactic and semantic criteria.

In section 2, I outlined some morphosyntactic criteria used by Gerdts (1988b, 1991) and Gerdts & Hukari (2001) to distinguish between unergatives and unaccusatives in Halkomelem. At this point, only the first criterion, the ability of a verb to take the control transitive suffix /–t/, can be considered for SENĆOŦEN verbs, since there is not enough linguistic documentation to consider the other criteria. Normally, unaccusatives can take the control transitive suffix and unergatives cannot. When an unaccusative in SENĆOŦEN or Halkomelem becomes transitive, its subject becomes the object of the transitive construction.

A number of resultives are formed on roots which test as unaccusative according to this criterion. In (80), resultives are shown with the control transitive forms of the same root. Forms have been taken out of sentences for ease of comparison, and all full sentences can be found in appendix B.

(80) ***Resultives and their transitive correspondents***

	Resultive	*Transitive*	*Root*[24]	*Root meaning*
a.	SLÁȾEŁ	LEȾET		'be filled'
	slét̓ᶿəɬ	lət̓ᶿə́t	lət̓ᶿ	
b.	SŦEŦI,MO,	ŦIMO,T		'be frozen'
	sθəθím̓aˀ	θímaˀt	θimaˀ	
c.	SXÁL,EŁ	XEL,ET		'be written'
	sx̌él̓əɬ	x̌ə́l̓ət	x̌əl̓	
d.	SQOSEŁ	QSET		'be counted'
	sk̓ʷásəɬ	k̓ʷsə́t	k̓ʷəs	
e.	STOḰEŁ	TḰET		'be tightened'
	stáqʷəɬ	tqʷə́t	təqʷ	
f.	SŦOQEŁ	ŦQET		'be stretched'
	sθák̓ʷəɬ	θk̓ʷə́t	θək̓ʷ	
g.	SṮEPX	ṮPEXT		'be scattered'
	sƛ̓əpx̌	ƛ̓pə́x̌t	ƛ̓pəx̌	
h.	SBOȻEŁ	BȻET		'rise to the surface'
	sp̓ákʷəɬ	p̓kʷə́t	p̓əkʷ	

[24] Examples of these bare roots occurring on their own (without suffixes) have not yet been documented for all roots, so this column represents the abstract root shape.

i.	SḴÁSEŁ	ḴSET		‘fall in water’
	sqésəł	qsə́t	qəs	

Therefore, the roots on which resultives are formed appear to pattern with unaccusative roots.

In contrast, most of the verbs on which intransitive actuals are formed have not been found with the control transitive suffix.[25] Unfortunately, there is mainly only negative evidence so far: these verbs have not been found with the transitive suffix, but the majority of them have not been checked to see whether they are ungrammatical with the transitive suffix or they have just not been documented with the suffix yet. Only one verb has been checked so far, (81) below, and it is ungrammatical with control transitive [-t].

(81)	NOḰEŁ	ŦE	ḴAḴ
	náqʷ-əł	θə	qéq
	fall.asleep(ACT)-DUR	DET	baby
	‘The baby is asleep.’		
	*náqʷət		

Since, with the exception of two forms ((85) and (86), discussed below), there is an absence of control transitive examples of the roots on which intransitive actuals are formed, these roots appear to pattern morphosyntactically with unergatives.

Semantically, unaccusatives have a more patient-like subject, while unergatives have a more agent-like subject. In this discussion, I am using the terms agent and patient based on Dowty’s (1991) proto-roles hypothesis (see section 2.2.1.1.1), so when I say that the subject of an unaccusative is patient-like, I mean that it has more proto-patient properties than proto-agent properties. Consider, for example, the resultive in (82b).

(82)	a.	ŦIMO,T	
		θíma?-t	
		freeze-TR	
		‘Freeze it.’	(Turner 2005:249)
	b.	SŦEŦI,MO,	
		s-θə-θíṁa?	
		ST-ACT-freeze	
		‘It's frozen.’	(Turner 2005:249)

[25] These roots include, e.g., *ɬáḵʷ* ‘go home’, *ḵʷéy* ‘get hungry’, and *wéqəs* ‘yawn’. See appendix B for more examples of actuals of unergative roots.

The subject in example (82b) has two proto-patient properties: it undergoes a change of state (from not frozen to frozen), and it is causally affected by another participant (whoever/whatever has caused the freezing) (Dowty 1991:572).

Intransitive actuals, on the other hand, often have subjects with more proto-agent properties. The subject of (83), for example, has the proto-agent properties of control, motion, and (probably) volition.

(83) a. ȻŁ YÁ, ȻO DOQ ŦE Janet
kʷɬ yeʔ kʷə ṯáḵʷ θə Janet
REAL go INF go.home DET Janet
'Janet went home (already); Janet's gone home.' (Turner 2005:250)

b. YÁ, SEN I DODEQ
yeʔ sən ʔi ṯá-ṯəḵʷ
go 1SGSU AUX ACT-go.home
'I'm going/on my way home.' (already walking)
(Turner 2005:250)

Some actuals, such as (84b), lack the properties of control and volition.

(84) a. QȺ SEN
ḵʷéy sən
get.hungry 1SGSU
'I got hungry.' (Turner 2005:250)

b. QÁ,QI, SEN LE,
ḵʷé-ḵʷəy̓ sən ləʔ
ACT-get.hungry 1SGSU PST
'I was hungry.' (Turner 2005:250)

However, the subjects of these actuals are still less patient-like than the subjects of resultives, since they lack the proto-patient property of being causally affected by another participant.

If all intransitive actuals are unergative and all intransitive resultives are unaccusative, there should be no bases on which both resultives and actuals occur. However, there are at least two such bases, repeated below in (85) and (86).

(85) a. X̱ES
qə́s
'It fell in the water.'

b. YOŦ OL, X̱ÁSEŁ TŦE SƛOƛŁE E TŦE ḰO,
yáθ ʔaḷ qés-əł tθə s-ṯ̓θáṯ̓θłə ʔə tθə qʷáʔ
always LIM fall.in.water(ACT)-DUR DET NOM-leaf OBL DET water
'The leaf is always falling in the water.'

c. SḴÁSEŁ
s-qés-əł
ST-fall.in.water(ACT)-DUR
'He's/It's in the water.'

(86) a. BEȻ TŦE MO,EḰ
ṗək^{w} tθə máʔəq^{w}
rise.to.surface DET duck
'The duck floated to the surface.' (Turner 2005:248)

b. BÁȻEŁ
ṗék^{w}-əł
rise.to.surface(ACT)-DUR
'surfaces every now and then' [as in a buoy]

c. SBOȻEŁ TŦE ḰŁÁ,
s-ṗák^{w}-əł tθə q^{w}łéẏ
ST-rise.to.surface(ACT)-DUR DET log
'The log is floating (in one place).' (Turner 2005:248)

The subjects of (85) and (86)'s predicates are not so easily classified as either proto-agent or proto-patient. Based on the translation, it seems as though there does not have to be control or volition, but then there does not seem to be any direct external causation either. I suggest that these predicates may take either a proto-patient or a proto-agent subject, so that it is possible for the predicates to occur in the actual and in the resultive.

Morphosyntactically, both of these roots can take the control transitive, in which case there is an agent subject and a patient object.

(87) ḴSET
qs-ə́t
fall.in.water-C.TR
'Throw it in the water.'

(88) BȻET TŦE SĆÁNEW̱
ṗk^{w}-ə́t tθə s-čénəx^{w}
rise.to.surface DET NOM-fish
'Bring the fish to the surface'

Gerdts (2006) shows that about half of Halkomelem verbs are "swingers", verbs which pattern in some ways with unaccusatives and in other ways with unergatives. Interestingly, the Halkomelem verb *ṗək^{w}*, which is identical to the SENĆOŦEN verb in (86a), is listed as one of those verbs. I suggest that both (85) and (86) belong to a class of verbs in SENĆOŦEN which may be unaccusative or unergative and that therein lies the reason for their ability to take both intransitive actual and resultive.

In addition to not occurring with unergative verb roots, resultives are not found with derived unergatives containing either of the two *middle* suffixes. Montler (1986) observes that the SENĆOŦEN *control middle* [-əŋ] indicates the "controlled agency of the subject" (p. 177), while the non-control middle [-naŋət] "indicates that the subject is an agent not exerting conscious control over the activity expressed in the predicate" (p. 178). Based on this definition, and on the examples of middles in SENĆOŦEN sources, it appears that the SENĆOŦEN middle is used as an unergative.[26]

Some verbs are bound, and must always surface with a middle suffix (89), while some can occur without the middle, as in (90), where the root can also occur with the control transitive suffix, suggesting that it is an unaccusative root, but that an unergative can be derived from it by addition of the middle.

(89) a. HÁSEN̲ SEN
hés-əŋ sən
sneeze-MID 1SGSU
'I just sneezed.' (Turner 2005:251)

(90) a. QSEN̲
ḵʷs-áŋ
count-MID
'count' (Turner 2005:251)

b. YÁ, SEN QSET
yéʔ sən ḵʷs-át
go 1SGSU count-C.TR
'I'm going to count them.'

Because resultives always take a patient, they never seem to occur with middle suffixes. Example (91) shows an actual formed on a base containing a middle suffix (a) and the ungrammaticality of a resultive formed on the same base (b).

(91) a. HI,ELEN̲ TŦE SX̱ELOX̱ŁE
hí-ʔə-l-əŋ tθə s-t̓ᶿ-əl-át̓ᶿłə
fall(-ACT-)-MID DET NOM-leaf(PL)
'The leaves are falling.'

b. *s-hiʔələŋ

Resultives have not found with bound roots containing middle suffixes. For verb roots which can take a middle suffix, but are able to occur without it, resultives are unattested with the middle suffixed form (92d). One resultive has been checked so far,

[26] There are many uses for the Halkomelem middle, including some which may not always be agentive (Gerdts & Hukari 1998). So far, the SENĆOŦEN middle has not been documented or studied in great enough detail to see if any non-agentive middle forms occur. At any rate, all actuals of middles in SENĆOŦEN have agent subjects.

and it is ungrammatical. Although the middle is possible with the root in (92a), the resultive occurs on the unsuffixed non-middle root (92c).

(92) a. QSEN̲
ḵʷsə́ŋ
count-MID
'count' (Turner 2005:251)

b. QESEN̲,
ḵʷə́səŋ'
count(ACT)-MID
'counting' (Turner 2005:251)

c.

ƛ	SQOSEŁ	TɬE	XEƛXOLES
kʷł	s-ḵʷás-əł	tθə	x̌əṯθx̌=áləs
REAL	ST-count(ACT)-DUR	DET	egg=eye

'The eggs are already counted.'

d. *sḵʷə́səŋ'

Notice that the resultive (c), formed on the non-middle base, is formed by ablaut plus suffixation, while the actual (b), formed on the middle suffixed base, is formed by metathesis/stress shift. Since the base with the middle and the base without the middle have different shapes, a different allomorph of the actual is used in the resultive construction and in the actual construction.

4.1.2. Resultives and unaccusative roots.

In the last section, I observed that resultives never seem to occur with unergative roots or in middle constructions. In this section I will consider transitives, and the absence of resultives in transitive constructions.

All syntactic transitives in SENĆOŦEN, as in other Salish languages, are morphologically derived by the addition of a transitivising suffix. In the case of SENĆOŦEN, the productive transitivising suffixes are /-ət/ *control transitive*, /-naxʷ/ *non-control transitive,* and /-staxʷ/ *causative* (Montler 1986:163). The first two suffixes are added to unaccusative roots to derive regular transitive clauses with an agent and a patient (see test for unaccusativity in 4.1.1). The causative suffix is usually added to unergative roots, and "adds the implication that the subject is causing or obliging the activity expressed in the predicate" (Montler 1986:165).

Resultives have not been found to occur with transitive bases. Example (93c) shows the one ungrammatical resultive I have tested; so far no other resultives have been tested, but there is a complete absence of transitive resultives in the linguistic documentation of SENĆOŦEN. Suttles (2004) also notes that the Halkomelem resultive does not occur with control transitive [-t].

(93) a. T̲PEXT
ƛ̓pə́x̌-t
scatter-C.TR
‘scatter it’

b. T̲EPXT
ƛ̓ə́px̌-t
scatter(ACT)-C.TR
‘scattering it’

c. *sƛ̓ə́px̌t

Resultives of unaccusative verb roots are instead always formed on the unaccusative base, as in (94b).

(94) a. T̲PEX
ƛ̓pə́x̌
‘scatter’

b. ST̲EPX
s-ƛ̓ə́px̌
ST-scatter(ACT)
‘scattered’

Actuals of unaccusative roots, in contrast, have only been documented formed on the derived transitive of the root. I have attempted two unaccusative actuals in fieldwork so far, and they have both been rejected by current speakers of SENĆOŦEN. Compare the ungrammatical actual in (95b) with the grammatical resultive in (94b) above and ungrammatical (96b) with (78b).

(95) a. T̲PEX
ƛ̓pə́x̌
‘scatter’

b. *ƛ̓ə́px̌

(96) a.

LEƛ̓	LE,	TŦE	LEPOT
lə́t̓$^{\theta}$	ləʔ	tθə	ləpát
fill	PST	DET	cup

‘The cup was filled.’

b. *lét̓$^{\theta}$əɬ

Instead, actuals formed on these roots occur in the transitive, as in (93b), on the previous page, and (97b).

(97)	a.	LET̸ET TŦE	LEPOT	
		lət̓θ-ə́t	tθə	ləpát
		fill-C.TR	DET	cup
		'Fill the cup.'		
	b.	LET̸T	TŦE	LEPOT
		lə́t̓θ-t	tθə	ləpát
		fill(ACT)-C.TR	DET	cup
		'He's filling the cup.'		

So far, actuals seem *unable* to occur in unaccusative constructions; however, many more verbs need to be tested in order to make a generalisation in that respect. It may be instead that there is simply a tendency for actuals to be formed on unergatives and transitives, since they generally focus on a portion of an event in which the agent is directly involved (see 4.1.3). It is interesting to note that the cognate Halkomelem progressive is found in unaccusative constructions (Suttles 2004:138–165). Either there is only a tendency for actuals to be unergative or transitive in SENĆOŦEN, or this is a difference between these two closely related languages.

The proposed inability of resultives to occur with transitive (and middle) suffixes has a direct effect on the number of minimal pairs of actual and resultive. As mentioned in 4.1.1, and discussed in detail in section 3, the base shape of a predicate affects which allomorph of the actual is used. Actuals of bases with control transitive and control middle suffixes are always formed by either metathesis/stress shift or glottal infixation, since they normally have the shape CC-əC which takes metathesis/stress shift (98), or CVC-əC, which usually takes glottal stop infixation (99).

(98)	a.	SKET	TŦE	PIPE	
		sq̓-ə́t	tθə	pípə	
		tear-C.TR	DET	paper	
		'Tear the paper.'			
	b.	SEKT	SW̱	TŦE	PIPE
		sə́q̓-t	sxʷ	tθə	pípə
		tear(ACT)-C.TR	2SU	DET	paper
		'You're tearing the paper.'			

(99)	a.	HÁSEṈ	SEN	
		hés-əŋ	sən	
		sneeze-MID	1SGSU	
		'I just sneezed.'		(Turner 2005:251)
	b.	HÁ,SEṈ,	SEN	
		hé-ˀ-s-əŋ'	sən	
		sneeze(-ACT-)-MID	1SGSU	
		'I'm sneezing.'		(Turner 2005:251)

Occasionally, control transitive and control middle bases are polysyllabic, in which case the actual allomorph used is also usually glottal stop infixation.

Resultives, on the other hand, are rarely found with the metathesis/stress shift or glottal infix allomorphs of the actual. The main reason for this is that they are not found with transitive or middle suffixes. Resultives are usually formed on bases with no suffixes; the bases on which resultives are formed usually have the shape CəC, and take ablaut (100), or the shape CVC, and take reduplication (101).

(100) a. LEȾ LE, TŦE LEPOT
lə́t̓ᶿ ləˀ tθə ləpát
fill PST DET cup
'The cup was filled.'

b. SLÁȾEȽ TŦE LEPOT
s-lét̓ᶿ-əɬ tθə ləpát
ST-fill(ACT)-DUR DET cup
'The cup is full.'

(101) a. LIḰ TŦE X̱I,LEM
líqʷ tθə x̌ʷíl̓əm
loosen DET rope
'The rope loosened; the rope slackened'

b. SLI,LEḰ TŦE X̱I,LEM
s-lí-l̓əqʷ tθə x̌ʷíl̓əm
ST-ACT-loose DET rope
'The rope is slack.'

Most predicate roots in SENĆOŦEN have one of these two shapes, but there is one example of a resultive formed on one of the rarer CCəC roots, which is formed by metathesis/stress shift (94b) and is repeated as (102b) here.

(102) a. ṮPEX
ƛ̓pə́x̌
'scatter'

b. SṮEPX
s-ƛ̓ə́px̌
ST-scatter(ACT)
'scattered'

I also expect that a resultive of one of the other rare root shapes, such as CV, would be formed by glottal stop infixation, but no examples have yet been found.

In this section, I have shown one possible reason why there are so few documented minimal pairs of actual and resultive, a fact which partially obscures the

proposed composition of resultives (stative + actual). Many actuals are formed on bases on which resultives cannot be formed, since resultives are not formed on transitive or unergative bases. Pairs like the following are far more frequent, where the transitive actual is formed by metathesis/stress shift (103b) and the intransitive resultive is formed by ablaut plus suffixation (103c).

(103) a. TḰET
tq^{w}-ə́t
tighten-C.TR
'tighten it' (Turner 2005:258)

b. ØŁ TEḰT SEN
k^{w}ł təq^{w}-t sən
REAL tighten(ACT)-C.TR 1SGSU
'I'm tightening it.' (Turner 2005:258)

c. STOḰEŁ
s-táq^{w}-əł
ST-tighten(ACT)-DUR
'It's tight.' (Turner 2005:258)

The next section attempts to explain why this near complementary distribution might exist.

4.1.3. Correlations between resultive and unaccusativity.

In this section I will consider why the restrictions outlined in 4.1.1 and 4.1.2 seem to exist, considering both a functional explanation based on Comrie (1981) and formal analyses of resultives in other Salish languages. The correlation found between resultives and unaccusativity and between actuals and transitivity/unergativity is not totally surprising. Comrie (1981) follows Comrie (1976) in observing a correlation between patient-oriented constructions and resultant states. In some languages, aspectual morphemes expressing resultant states (perfects or resultatives), can only be used in constructions in which the subject is a patient, i.e., passives or unaccusatives. For example, in Armenian, the resultative can only be used in intransitive or passive constructions, as in (104) and (105), respectively.

(104) *Ašotə bezarac e*
'Ašot has become tired; Ašot is tired'

(105) *K^{h}aɣak^{h}-ə šrǯapat-v-ac e (t^{h}šnamu koɣmic^{h}).*
city-the surround-PASS-RES is enemy by
'The city has been surrounded (by the enemy).'
(Comrie 1981:73)

Comrie (1981) suggests that this correlation arises because, with most predicates, the patient is most affected by the event, and a resultant state is more likely to tell us about the state of a patient than that of an agent. For example, a sentence like *John has killed Bill* (which is a perfect), tells us more about Bill, the patient, than it does about John. If we want to ascertain the truth of the sentence, it is more useful to examine Bill than to examine John. On the other hand, *John is going to kill Bill* (a "prospective"), tells us more about the agent, John (Comrie 1981:70–71).

Comrie's (1981) explanation can be extended to account for the correlation between resultives and unaccusatives found in SENĆOŦEN. Unaccusatives, even more clearly than passives, tell us about a patient rather than an agent. Resultives are very similar to perfects in that they describe the result of an event which still obtains (see Nedjalkov & Jaxontov (1988) and Dahl (1985) for comparisons of resultives and perfects).

Transitive actuals can be compared to English progressives, in that they usually describe an event in progress. Both agent and patient are equally involved in the event itself, and Comrie suggests that it is likely that progressives would favour transitive constructions. This is what we see with the SENĆOŦEN actual; when applied to two-participant verbs, the actual is formed on a transitive base. There *are* intransitive actuals, but they are always unergative. They either describe a single participant event, in which case the single participant is involved in the beginning, middle, and end of the event, or they describe an agent-oriented intransitive, where the agent is involved in the beginning and middle of the event.

Comrie's (1981) functional explanation of the connection between resultives and patients can be formalised in a model of event structure, such as that proposed by Pustejovsky (1991, 1995). Recall from section 2 that previous analyses of the stative prefix in Salish languages have used just such a model. A comparison of the analyses of Burton & Davis (1996) and Bar-el (2003b) with claims about Salish event structure made by Davis & Demirdache (2000) does show a connection between statives (resultives) and patients.

Davis & Demirdache (2000) apply Pustejovsky's (1995) model of event structure to St'át'imcets (Interior Salish) predicates. They argue that all St'át'imcets roots are semantically causative, and have the event structure shown in figure 1. In the diagram, T = transition, P = process, and e = event. The whole causative consists of a process which then causes a transition from one state (¬e) to its opposition (e).

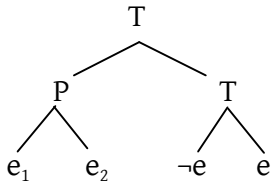


Figure 9. Salish event structure
(Davis & Demirdache 2000:116) (repeat of Fig. 3).

The bare unaccusative predicate foregrounds the final subevent (the lower transition), while unergatives foreground the initial subevent (the process). Davis & Demirdache

note a connection between the subevents and the semantic arguments of the event, which parallels Comrie's (1981) explanation. The final subevent, which is foregrounded in unaccusatives, is associated with the internal argument (patient) of the event, while the initial subevent, foregrounded in unergatives, is associated with the external argument (agent). When both subevents are foregrounded, both arguments are present and the event is expressed as a transitive (Davis & Demirdache 2000:122).

Burton & Davis (1996) and Bar-el (2003b) also use a Pustejovskyan event structure model to argue that the stative prefix (cognate to that used in SENĆOŦEN resultives) removes the initial "process" subevent of a predicate in St'át'imcets and Sqwxwú7mesh. These two papers do not look at the whole event as a causative, so they describe the effects of the causative as removing the component ¬e (called a process subevent in Pustejovsky's (1991) model) from a transition predicate, as in the following diagram.

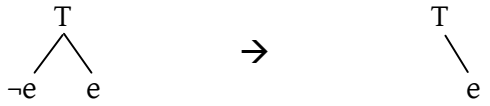


Figure 10. The effect of the stative prefix on event structure (repeat of Fig. 2).

If we apply this analysis to Davis and Demirdache's model, the following derivation ensues, where, in the end, only the final subevent—the resultant state—is foregrounded in the sentence.

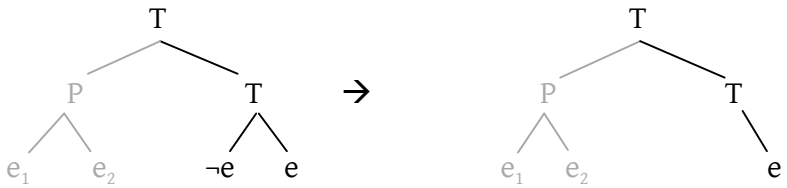


Figure 11. Event Foregrounding and Stative Formation

Notice that statives act on the portion of the event which is foregrounded in unaccusative constructions (the final transition). A corollary of this would be that statives cannot be formed on unergatives, since unergatives foreground the causing process subevent, which resultives do not target.

In summary, although resultives are argued to consist of an actual base with a stative prefix, there is only one example of a resultive and an actual which are identical but for the stative prefix, which I have described as a *minimal pair* of actual and resultive. This scarcity of minimal pairs results from the correlation of resultives with unaccusativity, which, in turn, results from the fact that resultives describe the result of an event, which is usually reflected in the event's patient. Actuals, on the other hand, have a correlation with transitives and unergatives. Due to these opposite correlations, actuals and resultives are largely in complementary distribution; they are usually formed on different bases.

Different bases have different phonological shapes, so different allomorphs of the actual are usually used with the transitive actual form and the intransitive resultive. Actuals are most often formed by glottal infixation or metathesis/stress shift, while resultives are most often formed by ablaut plus suffixation or reduplication. The distribution of actuals and resultives with respect to different types of bases and the actual allomorphs used with each type are summarised in the following table.

	UNACCUSATIVE BASE CəC, CVC, CCəC	TRANSITIVE BASE CC-ət, CVC-ət	UNERGATIVE BASE CəC, CVC, CVCəC	MIDDLE BASE CC-əŋ, CVC-əŋ
RESULTIVE	Yes: Ablaut, Reduplication, Metathesis	Unattested	Unattested	Unattested
ACTUAL	Unattested	Yes: Metathesis, Glottal infixation	Yes: Ablaut, Reduplication, Glottal infixation	Yes: Metathesis, Glottal infixation

Table 8. Argument structure of actual and resultive constructions.

Despite the scarcity of minimal pairs, there is some evidence that resultives are formed by prefixation of stative [s-] to an actual form. As shown in section 3, if the base is the right shape, actuals can be formed by reduplication or ablaut plus suffixation. There is one resultive which is formed by metathesis/stress shift. It also seems likely that resultives can be formed by glottal infixation. Certainly, both actuals and resultives exhibit resonant glottalisation. The next section of this section leaves the morphological properties of resultives and actuals behind, and considers the question of why resultives would be formed by a combination of stative and actual morphology.

4.2. The semantic compositionality of resultives.

According to the claims of this paper, resultives are formed by concatenation of stative and actual. This section provides a preliminary explanation of why resultives are formed in this way. I argue that the meaning of resultives is compositional; that is, there is a semantic contribution to a resultive from each of its component morphemes: the verbal base, the actual, and the stative. Following Turner & Urbanczyk (2006), it is argued that verbs are underspecified underlyingly for durativity and stativity, and that the actual morpheme adds durativity (the feature [durative]), while the stative prefix adds stativity (the feature [static]).

The proposal can be formalised with the following feature geometry, inspired by Harley & Ritter's (2002) feature geometry of person and number. Since [durative] is added by the actual and [static] is added by the stative, and the stative prefix can only attach to actuals, the feature [static] is dependent on the feature [durative].

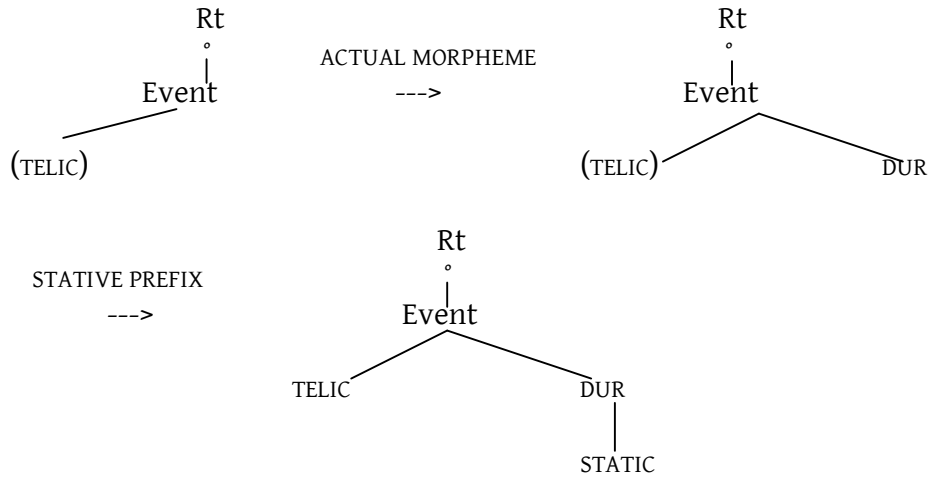


Figure 12. Feature geometry representation of actual and resultive formation.

Further motivations for the hierarchical representation of aspectual features in this feature geometry are discussed in the following subsections. I will consider the semantic contribution of the actual morpheme in 4.2.1 and that of the stative prefix in 4.2.2. Section 4.2.3 concludes the section, and provides possible tests for durativity and stativity.

4.2.1. The semantic contribution of the actual morpheme: Durativity.

In order to determine what semantic meaning the actual contributes to resultives, we must determine what actuals and resultives have in common semantically. In section 4.2.1.1, I will consider the semantics of the actual, suggesting that the actual adds a [durative] feature to a predicate (Turner & Urbanczyk 2006), and in section 4.2.1.2, I will show how resultives also have the feature of durativity.

4.2.1.1. Actuals and durativity.

The actual is a type of imperfective; in Smith's (1991) model, it is a component of the viewpoint aspect system. Recall that Smith (1991), following previous work on aspect, distinguishes between grammatical viewpoint aspects, such as perfective and imperfective, and situation type of predicates (Aktionsart), but claims that the two interact. A look at the interaction of actual aspect with different situation types gives us insight into the semantic contribution of the actual morpheme. The chart showing the features of Smith's situation types was given in section 2, and is repeated here as Table 9.

	STATIVITY	DURATIVITY	TELICITY	SCHEMA
STATES	[+static]	[+durative]	[-telic]	(I)——(F)
ACTIVITIES	[-static]	[+durative]	[-telic]	I ..... F_{Arb}
ACCOMPLISHMENTS	[-static]	[+durative]	[+telic]	I ..... $F_{Nat\ (R)}$
ACHIEVEMENTS	[-static]	[-durative]	[+telic]	..... I (R) .... F
SEMELFACTIVES	[-static]	[-durative]	[-telic]	I F

Table 9. Situation types (repeat of table 1).

In section 2, I concluded that, for the purposes of this paper, I would distinguish between four situation types in SENĆOŦEN: accomplishments, achievements, inchoative states, and activities/semelfactives. The actual can apply to each of these situation types, except some achievements, and there are three possible readings of the actual, depending on the event described. In all cases, the actual expresses a portion of an event with some duration.

With accomplishments (106–107) and activities (108–109), actuals cause the listener to "view [...] a situation from within" (Comrie 1976:24).

(106) a. SKET TŦE PIPE
sq̓-ə́t tθə pípə
tear-C.TR DET paper
'Tear the paper.'

b. SEKT SW̱ TŦE PIPE
sə́q̓-t sxʷ tθə pípə
tear(ACT)-C.TR 2SU DET paper
'You're tearing the paper.'

(107) a. MELEJT TŦE ḰŁƛ
mələč̓-t tθə qʷłéy
roll.over-C.TR DET log
'Roll the log over.'

b. MEL̓JT TŦE ḰŁƛ
mə́l̓č̓-t tθə qʷłéy
roll.over-C.TR DET log
'rolling the log over'

(108) a. DILEM ŦE Janet
t̓íləm θə Janet
sing DET Janet
'Janet sang (a song).' (Turner 2005:252)

b. DEDI,LEM, ŦE Janet
ɬə-ɬíl̓əm̓ θə Janet
ACT-sing DET Janet
'Janet is singing.' (Turner 2005:252)

(109) a. ŚTEN̲
štə́ŋ
walk-MID
'walk' (Turner 2005:256)

b. ŚETEN̲,
šə́təŋ'
walk(ACT)-MID
'walking' (Turner 2005:256)

This is Smith's (1991) "unmarked" reading of imperfectives, represented in the following schema, where I is the initial point (beginning) of the event, F is the final point (end) of the event, and the slashes represent which part of the event is described (or "viewed") by the actual.

I../////..F

Figure 13. Unmarked imperfective schema.

The actual is only possible with events which are *not* instantaneous conceptually, i.e., those which can be viewed as taking up some amount of time (p. 12).

According to previous work on situation types in Salish languages, including SENĆOŦEN (Kiyota 2004, 2005), there is no evidence that activities and semelfactives form a separate class. For this reason, they were grouped with activities in section 2. However, semelfactives appear to differ from activities in one sense: they have different readings in the actual. Comrie (1976) notes that semelfactives like *cough*, when used in an imperfective sense, must express a series of coughs, rather than the internal structure of a single cough. As with English progressive, semelfactive-like predicates express a repeated event in the actual.[27]

(110) a. HÁSEN̲ SEN
hés-əŋ sən
sneeze-MID 1SGSU
'I just sneezed.' (Turner 2005:251)

[27] This judgement is based on translations of the semelfactive-like predicates. The example used by one speaker to describe (111b) was of a runner jumping over one hurdle after another. The event of jumping involves several jumps over time, and is thus of prolonged duration.

b. HÁ,SEN̲, SEN
he-ʔ-s-əŋ’ sən
sneeze(-ACT-)-MID 1SGSU
‘I’m sneezing.’ (Turner 2005:251)

(111) a. W̲ITEN̲
xʷít-əŋ
jump-MID
‘jump’

b. I, W̲I,TEN̲,
ʔiʔ xʷí-ʔ-t-əŋ’
AUX jump(-ACT-)-MID
‘He’s jumping.’

Smith (1991) does not provide a diagram for this reading, but I will represent it thus.

I I I I
F F F F

Figure 14. Repetitive imperfective schema.

The English progressive, when used with non-durative achievements, expresses not an internal portion of the event, which is impossible, but a portion leading up to the initial point of an event (Smith 1991). For example, *the team was reaching the top* views a stage just before the team reached the top. This reading is shown in figure 15.

////..I (R)
F

Figure 15. “Leading up to event” imperfective schema.

These readings result from an imperfective/progressive’s association with durativity. There is only one example so far of an actual with a predicate which is translated as a classic achievement, and it seems only possible in the plural.

(112) a. ÁŁTI TELÁĆEL TŦE NE N̲ENN̲ENE
ʔéłti t-əl-éčəl tθə nə ŋə́n-ŋənə
AUX arrive(-PL-) DET 1SGPOSS PL-own.child
‘My children are arriving (more than one)’.

b. ÁŁTI TELÁ,ĆEL TŦE EN SĆÁLEĆE
ʔéłti t-əl-é-ʔ-čəl tθə ʔən s-čé-lə-čə
AUX arrive(-PL-)(-ACT-) DET 2POSS NOM-friend(PL)
‘Your friends are arriving.’

The fact that the actual of an achievement-like predicate such as (112a) can only exist in the plural is also a result of the actual's association with durativity.

SENĆOŦEN inchoative states are similar to achievements, in that they describe instantaneous changes of state. In the actual, they express the view of a portion of time after the event.

I R////
F

Figure 16. Result state imperfective schema.

The following examples illustrate this reading of inchoative states in the actual.

(113) a. DÁJEK TŦU,NIŁ
ṯeč̓əq̓ tθəẃniɬ
angry 3SGMASC
'He got angry' (Turner 2005:251)

b. DEDÁ,YEK TŦU,NIŁ
ṯə-ṯeẏəq̓ tθəẃniɬ
ACT-angry 3SGMASC
'He's (already) angry' (Turner 2005:251)

(114) a. U, EMET SW̲ OL,
ʔəẃ ʔə́məṯ sxʷ ʔaḷ
CONTEMP sit/at.home 2SU LIM
'Please sit down.' (respectful welcome for a visitor) (Turner 2005:248)

b. O,MET SEN
ʔá-ʔ-məṯ sən
sit/at.home(-ACT-) 1SGSU
'I'm lazy; I'm sitting; I'm at home.' (Turner 2005:248)

The perfective forms in (113a) and (114a) describe changes of state, and the actuals in (113b) and (114b) describe the result of a change of state. This reading of the actual may be unfamiliar to speakers of English, and seems to be rare typologically as a possible reading of an imperfective morpheme. It has been documented with progressives and imperfectives of Sḵwx̱wú7mesh inchoative states (Bar-el 2003a, 2005), and for a non-cognate imperfective morpheme in Bella Coola (Saunders & Davis 1993).

Apart from Salish languages, this type of imperfective also occurs in Japanese. As observed by Kindaichi (1950, cited in Ogihara 1998), the morpheme *-te iru* acts as a typical imperfective when attached to durative predicates (115), but expresses a resultant state when attached to some instantaneous predicates (116).

(115) Taroo-wa ima ie-o tate-te iru
Taro-TOPIC now house-ACC build-TE IRU-PRES
'Taro is now building a house.' (Ogihara 1998, p. 2)

(116) Hito-ga asoko-de sen-de iru
person-NOM there-at die-TE IRU-PRES
'There is a body there.' (Lit.: 'A man is dead there.') (Ogihara 1998, p. 2)

If *-te iru* were like the English progressive, (116) would be translated 'a man is dying' (Ogihara 1998:2). The behaviour of Japanese *-te iru* is similar to that of the SENĆOŦEN actual, although the types of predicates which pattern like (116) are different from those in SENĆOŦEN. In both languages, there is a class of predicate roots which express a change of state in the perfective and the result of that change in the imperfective/actual.

It appears that when the actual is added to an event which can conceptually have some duration (but is underspecified *lexically* for durativity), an unmarked imperfective reading is possible. However, if the event is conceptually instantaneous, one of the strategies outlined above is required in order for the [durative] feature to be manifested.

The underspecification of underlying durativity is seen in the lack of a distinction between activities and semelfactives (which are both atelic, but differ in terms of durativity). Kiyota (2005) argues that actuals and semelfactives form one lexical verb class in SENĆOŦEN. Accomplishments and achievements, which, in Smith's (1991) model, are distinguished by the presence/absence of durativity, seem to differ instead in terms of transitivity in Salish languages (see 2.2.2.2).

The proposal that durativity is added by the actual is in line with Wilhelm's (2003) claims that durativity is a property which is *grammatised* by the viewpoint aspect system of a language (p. 255). In other words, the durativity of an event is evident in the contrast between perfective and imperfective and in a predicate's ability to take imperfective or perfective morphology.

Turner & Urbanczyk's (2006) proposal, adopted here, is preliminary, and more research is required to determine exactly what grammatical durativity is. Comrie (1976, p. 41) warns that we must not confuse imperfectivity with durativity, where durativity means non-instantaneous in time. Durativity in the sense of Turner & Urbanczyk's model must be somehow distinct from this notion of having any duration in time. It seems possible to have a perfective of an event which necessarily takes up some recognisable amount of time, as in example (117a) in the next section, which means "the cup was filled".

Tests for durativity of perfectives and actuals are required before a full understanding of the semantics of the contribution of actuals is possible. Some possible tests are considered in section 4.2.1.3.

4.2.1.2. Resultives and durativity.

Resultives always express resultant states of achievement predicates. Recall that states are always [durative], so a resultive, like an actual, will view a portion of an event with some conceptual duration.

(117) a. LEɣ LE, TŦE LEPOT
lə́t̓$^{\theta}$ lə$^{\text{ʔ}}$ tθə ləpát
fill PST DET cup
'The cup was filled.'

b. SLÁɣEŁ TŦE LEPOT
s-lét̓$^{\theta}$-əł tθə ləpát
ST-fill(ACT)-DUR DET cup
'The cup is full.'

The state described in (117b) must take up some recognisable amount of time, since the speaker was able to observe the state of the object being full.

Perfectives contrast with both resultives and actuals in their view of a situation as a whole, and, according to Turner & Urbanczyk's (2006) proposal, in the lack of a [durative] feature. I propose that the resultive must be formed on an actual base, since it must be formed on a [durative] predicate. This idea will be considered further in 4.2.3, once I have established that the stative prefix contributes stativity to resultive constructions.

4.2.2. Resultives and stativity.

Resultives are proposed to be formed from actuals by the addition of the stative prefix. I propose that the stative adds the feature [static] to an actual form (with [durative]) to create the resultive. Resultives necessarily express a stative portion of an event, which is always the resultant state, after the final point. Actuals view a dynamic portion of most events and a stative portion of inchoative states. So actuals do not have to be [static], but resultives do. In 4.2.1, it was argued that durativity is not lexically specified in SENĆOŦEN, and that it is added by the actual aspect. There is some evidence that stativity is also underspecified in SENĆOŦEN. As was mentioned at the beginning of section 4.2, there are no stage-level states in SENĆOŦEN, and the concepts expressed by stage-level states in English are expressed by the actuals of inchoative states (e.g., (113b) ṯə-ṯeẏəq̓ *be angry*), or by resultives.

I suggest that stativity is added to predicates by the stative prefix [s-]. Also, Smith (1991) claims that states are necessarily [+durative], and that they are the only predicates which are [+static] (p. 30). Therefore, any predicate which is [+static] is also [+durative] ([static] and [durative] in the monovalent features used here). The stative prefix must attach to predicates with the feature [durative]; that is, predicates in the actual aspect. The semantic difference between actuals and resultives is that resultives require stativity; the morphological difference is that resultives require a stative prefix. This supports the proposal that resultives are formed by affixation of the stative prefix on actuals.

4.2.3. Summary: Resultives as a combination of actual and stative.

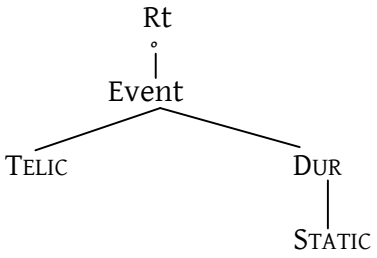
Resultives differ semantically from perfectives in that they have the properties of durativity and stativity, and they differ morphologically in that they have actual morphology and the stative prefix. I have argued that the semantic function of the actual is to add durativity to a predicate (4.2.1) and that the semantic function of the

stative prefix is to add stativity to a predicate (4.2.2). Since a stative predicate is necessarily durative, but not vice versa, the stative prefix can only be used with durative actuals and not with non-durative perfectives, but the actual morpheme can occur in constructions which are static (resultive) or non-static (actual). The following chart summarises the featural specifications of the three viewpoint aspects in SENĆOŦEN.

	NO [DURATIVE] FEATURE	[DURATIVE]
NO [STATIC] FEATURE	Perfective	Actual
[STATIC]	*	Resultive

Table 10. Durativity and stativity in SENĆOŦEN viewpoint aspect.

Since stativity is reliant on durativity; that is, all events with the feature [static] also have the feature [durative], [static] is dependent on [durative] in the feature geometry.



(Turner & Urbanczyk 2006:5)

Figure 17. Aspectual feature geometry.

Cowper (2005) has proposed a feature geometry of the minimalist syntax projection *Infl.* (inflection), based on English and Spanish. Since it deals with *all* features of Infl., it is far more comprehensive than the feature geometry outlined here. Turner & Urbanczyk's (2006) Event node corresponds to Cowper's (2005) Event feature, and their [durative] to her Interval feature. However, Turner & Urbanczyk's feature geometry differs in its feature of [static], which depends on [durativity]. This hierarchical relationship between the two features is used to capture the observations made in this section, that resultives can only be derived by addition of [static] to actuals, which contain the feature [durative], and not to perfectives.

In Burton & Davis's (1996) paper on the cognate stative prefix *es-* in St'át'imcets, an interior Salish language, the stative prefix is always used in progressive sentences, containing the progressive morpheme *wa7.*

(118) wa7 es-pulh k=John
waʔ əš-puł k=John
PROG ST-boil DET=John
'John was boiled.' (ready-to-eat) (Burton & Davis 1996:20)

This progressive morpheme is not cognate with the SENĆOŦEN actual, but it appears to have a similar aspectual function. It is interesting that, although the St'át'imcets progressive is an auxiliary, it still appears to be necessary to give a resultant state translation.[28] It is more plausible that resultives are composed of stative + actual in SENĆOŦEN if this co-occurrence is found in other languages, expressing a resultant state. This may be the case in St'át'imcets.

4.2.3.1. Testing for durativity and stativity.

At this point, tests have not been done to determine the empirical validity of the claims that the actual adds durativity and that the stative adds stativity to the representation of an event in SENĆOŦEN. Some possible English durativity tests which may be applicable to SENĆOŦEN are the compatibility of an event with time adverbials, such as "quickly" and "slowly" (Smith 1991:69), and the possibility of occurring in a "while" clause.

Time adverbials such as "quickly" and "slowly" make reference to the duration of an event, and so should only be possible with an event which is durative. In SENĆOŦEN, there is a word for "fast", X̱EṈ [x̌ʷə́ŋ] and a word for "slow", KEKÁNEŁ [q̓əq̓énəł] (Montler 1991:46). The word for "slow" looks as though it is in the actual aspect, since it has apparent reduplication, and possibly a durative suffix [-əł]. An example of Klallam *x̌ʷə́ŋ* "fast", which Montler (2003) states behaves the same as that of North Straits, is given in (119).

(119) x̌ʷə́ŋ_cn ʔəł_hiyáʔ-n
quick_1SGSU while_go-1SS
'I'm quick when I go.' (Montler 2003:123)

The prediction is that these words would only be able to refer to an event which is expressed in the actual aspect.

Another concept that requires durativity is of one event occurring while another is taking place. In English, only durative events can be used in "while" clauses. There might be a way to apply this test to SENĆOŦEN, by testing to see if it is possible to express the idea of two events occurring at once. For example, if I sang while going home, we would expect both the predicate "go home" and the predicate "sing" to be in the actual (*ṯáṯəkʷ* and *ṯəṯíl̓əm̓*). It should also be possible (according to the proposals in this section) to use a resultive in this type of expression. Further fieldwork must be done to first see if these tests or similar ones will work, and then to check if actuals and resultives are durative.

[28] This pattern is not corroborated by van Eijk (1997), but it is also not contradicted, because stative forms are given in isolation, rather than in sentences.

Stativity is harder to test for. The stativity diagnostics described in Smith (1991) seem to be tests for volition rather than for stativity (compatibility with volitional adverbs such as "intentionally"; occurrence in imperatives) or relatively language specific (English "It was _____ that she was doing"). In section 2, I described some language internal aspectual tests created by Kiyota (2004, 2005). None of these tests will diagnose an event as a state or non-state, however. The particle [kʷɬ] is available with resultives (which are argued to be stative) giving the same reading as with accomplishments and achievements. The stative prefix [s-] is not a good test for the stativity of resultives; it presumably cannot be attached to a resultive because resultives already have a stative [s-]. Further research is required to develop a test for stativity in SENĆOŦEN.

4.3. Section four conclusion.

It is possible to view resultive constructions as phrasemes (Mel'čuk 1993:393), containing actual and stative morphemes, but with a meaning which is not directly compositional in terms of those two morphemes. In other words, it is possible to say that *resultive = stative + actual* morphologically, but *resultive ≠ stative + actual* semantically. However, I think that this is an undesirable way of looking at resultives, given the generalisations put forth in this section, and the seemingly productive nature of resultives.

Actuals and resultives both have the feature [durative], and differ in terms of the feature [static]. The feature [static] must be added to [durative] predicates. Actuals and resultives both contain the actual allomorphs of reduplication, ablaut plus suffixation, and metathesis/stress shift and differ in the presence of the stative prefix. The stative prefix is only attached to predicates with actual morphology. It appears that the morphology of resultives parallels the semantics, and that the meaning of a resultive *is* compositional.

This section has shown that there are semantic and morphosyntactic reasons why resultives and actuals are not often found on the same predicate base and that, although this causes a paucity of minimal pairs of actual and resultive, there is both morphological and semantic evidence that resultives are a combination of stative and actual.

5. Conclusion.

This paper has provided an analysis of the SENĆOŦEN resultive construction, in terms of its morphology and semantics, and its morphosyntactic distribution. I have argued that the resultive construction is compositional; it consists of a predicate base, an actual morpheme, and a stative prefix, and each of these three morphemes contributes to the meaning of resultive. The actual morpheme, which is manifested either as reduplication, ablaut plus suffixation, or metathesis/stress shift, contributes the meaning of durativity. The stative prefix [s-] contributes the meaning of stativity.

I have also observed that resultives and actuals are in near complementary distribution, as resultives have so far been formed on bases which seem to be unaccusative, while actuals are formed on transitive bases and bases which seem to be unergative. The two bases which can take both actual and resultive appear to be bases with the properties of both unaccusative and unergative verbs.

This study of SENĆOŦEN resultives is preliminary, and further research would be beneficial in all areas covered here. First, the linguistic documentation of SENĆOŦEN is still very minimal, and the corpus of resultives is small. There are as yet no documented examples of resultives formed by glottal infixation, and only one documented resultive formed by metathesis/stress shift. Many more verb roots must be tested for the ability to form resultives in order to get a clear picture of the resultive construction. Also, the evidence provided for the unaccusativity of resultive bases and the unergativity of intransitive actual bases is very limited. Due to time limits, I have only tested one or two roots in each category. Further testing of verbs with respect to the criteria used by Gerdts (1988b, 1991) and Gerdts & Hukari (2001) would give more insight, not only into the topic of this paper, but also into SENĆOŦEN verbs in general.

Future research is also required in the area of the semantics of resultives and actuals. In this paper, I proposed that the actual morpheme adds a [durative] feature (Turner & Urbanczyk 2006) to a predicate and that the stative morpheme adds a [stative] feature. Semantic tests are required to determine whether durativity really is the distinction between actuals and perfectives, and whether predicates are underspecified for durativity and stativity.

Lastly, it would be very interesting to study the differences between SENĆOŦEN and Halkomelem, with respect to resultives and actuals. On the surface, it appears that the two languages form the resultive and the actual in very similar ways, yet the research I have done for this paper shows that the two languages may differ in terms of the types of bases on which actuals and resultives may be formed. They also differ in terms of their morphology: Halkomelem resultives and actuals clearly do not always have the same shape when formed on the same type of base, while SENĆOŦEN resultives and actuals do.

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Appendix A: Key to the SENĆOŦEN Alphabet

Adapted from Dave Elliott Sr.'s *Saltwater People, 1st Ed.*

SENĆOŦEN	APA	IPA	SENĆOŦEN	APA	IPA
Á	e	e	M	m	m
A	e	ɛ	N	n	n
Ⱥ	ey	ey	N̲	ŋ	ŋ
B	ṗ	p’	O	ɑ	ɑ
C	k	k	P	p	p
Ć	č	tʃ	Q	k̓ʷ	kʷ’
Ꝗ	kʷ	kʷ	S	s	s
D	ṫ	t’	Ś	š	ʃ
E	ə	ə	T	t	t
H	h	h	Ŧ	θ	θ
I	i	i	Ⱦ	ṫᶿ ~ ċ	tθ' ~ ts’
Í	ay *or* əy	ay *or* əy	T̲	ƛ̓	tɬ'
J	c̓	tʃ'	U	u *or* əw	u *or* əw
K	q̓	q’	W	w	w
K̲	q	q	W̲	xʷ	xʷ
Ḱ	qʷ	qʷ	X	x̌	χ
Ḵ	q̓ʷ	qʷ’	X̲	x̌ʷ	χʷ
L	l	l	Y	y	y
Ł	ł	ɬ	Z	z	z
,	ʔ or glottalised resonant				

Appendix B: Resultives and Actuals from Fieldwork

Unless otherwise cited, examples are from fieldwork in May 2006. Examples cited Turner (2005) are from fieldwork in fall 2004 and spring 2005. Examples marked with an asterisk (*) are of resultives and actuals which do not also appear in Montler's (1986, 1989) sources. Some of the resultives and actuals which do also appear in Montler's sources may differ slightly in form or translation, and most sentences listed here are a result of my fieldwork.

I. Resultives compared with perfectives

Reduplication

(i) a. LIḰ TŦE X̲I,LEM
líqʷ tθə x̌ʷíl̓əm
loosen DET rope
'The rope loosened; the rope slackened'

* b. SLI,LEḰ TŦE X̲I,LEM
s-lí-l̓əqʷ tθə x̌ʷíl̓əm
ST-ACT-loosen DET rope
'The rope is slack.'

(ii) a. ŦIMO,T
θímaʔ-t
freeze-TR
'Freeze it.' (Turner 2005:249)

b. SŦEŦI,MO,
s-θə-θím̓aʔ
ST-ACT-freeze
'It's frozen.' (Turner 2005:249)

Ablaut plus "durative" suffixation

(iii) a. ŦQET SEN LE, TŦE X̲I,LEM
θk̓ʷ-ót sən ləʔ tθə x̌ʷíl̓əm
stretch-C.TR 1SGSU PST DET rope
'I stretched out the rope.'

b. SŦOQEŁ TŦE X̲I,LEM
s-θák̓ʷ-əł tθə x̌ʷíl̓əm
ST-stretch(ACT)-DUR DET rope
'The rope's stretched.'

(iv) a.
LEƛ	LE,	TŦE	LEPOT
lə́t̓$^{\theta}$	ləʔ	tθə	ləpát
fill	PST	DET	cup

'The cup was filled.'

b.
SLÁƛEŁ	TŦE	LEPOT
s-lét̓$^{\theta}$-əł	tθə	ləpát
ST-fill(ACT)-DUR	DET	cup

'The cup is full.'

(v) a.
X̱ES
qə́s

'It fell in the water.'

* b.
SX̱ÁSEŁ
s-qés-əł
ST-fall.in.water(ACT)-DUR

'He's in the water.'

(vi) a.
BEȻ	TŦE	MO,EḰ
ṗák^{w}	tθə	máʔəq^{w}
rise.to.surface	DET	duck

'The duck floated to the surface.' (Turner 2005:248)

b.
SBOȻEŁ	TŦE	ḰŁÁ,
s-ṗák^{w}-əł	tθə	q^{w}łéẏ
ST-rise.to.surface(ACT)-DUR	DET	log

'The log is floating (in one place).' (Turner 2005:248)

c.
SBOȻEŁ	TŦE	MO,EḰ
s-ṗák^{w}-əł	tθə	máʔəq^{w}
ST-rise.to.surface(ACT)-DUR	DET	duck

'The duck has surfaced.'

(vii) a.
QSEṈ
k̓^{w}s-ə́ŋ
count-MID

'count' (Turner 2005:251)

b.
ȻŁ	SQOSEŁ	TŦE	XEƛXOLES
k^{w}ł	s-k̓^{w}ás-əł	tθə	x̌ət̓$^{\theta}$x̌=áləs
REAL	ST-count(ACT)-DUR	DET	egg=eye

'The eggs are already counted.'

(viii) a. KEPEN̲ ??
ʔəp-əŋ
'collect, gather' (Montler 1991:62)

b. SKÁBEŁ ƬE SƛE,LOƛŁE
s-ʔép-əł θə s-t̓ᶿə-l̓á-t̓ᶿłə
NOM-gather(ACT)-DUR DET NOM-leaf(-PL-)
'Leaves are piled.'

(ix) a. XEL,ET TƬEN, SNÁ
x̌əl̓-ət tθə-n̓ s-né
write-c.TR DET-2POSS NOM-name
'Write your name.' (Turner 2005:248)

* b. ȻŁ SXÁL,EŁ TƬE NE SNÁ
kʷł s-x̌él̓-əł tθə nə s-né
REAL ST-write(ACT)-DUR DET 1SGPOSS NOM-name
'My name is already written down.' (Turner 2005:248)

(x) a. TḰET
tqʷ-ə́t
tighten-c.TR
'tighten it' (Turner 2005:258)

b. STOḰEŁ
s-táqʷ-əł
ST-tighten(ACT)-DUR
'It's tight.' (Turner 2005:258)

Metathesis/stress shift

(xi) a. T̲PEX
x̌̓pə́x̌
'scatter'

* b. ST̲EPX
s-x̌̓əpx̌
ST-scatter(ACT)
'scattered'

II) Actuals compared with perfectives

Reduplication

(i) a. YÁ, LO, SEN TÍYEL
yéʔ láʔ sən téyəl
go PST 1SGSU go.upstream
'I went upstream.'

b. TETÁ,YEL, SEN
tə-téy̓əl̓ sən
ACT-go.upstream 1SGSU
'I'm going upstream.'

(ii) a. ȻŁ YÁ, Ȼ O DOQ ŦE Janet
kʷł yeʔ kʷə t̓ák̓ʷ θə Janet
REAL go INF go.home DET Janet
'Janet went home (already); Janet's gone home.' (Turner 2005:250)

* b. YÁ, SEN I DODEQ
yeʔ sən ʔi t̓á-t̓ək̓ʷ
go 1SGSU AUX ACT-go.home
'I'm going/on my way home.' (already walking)
(Turner 2005:250)

(iii) a. ŦIŁEN̲ SW̲ HÁLE
θíɬ-əŋ sxʷ hélə
stand-MID 2SU GROUP
'Stand up everyone.' (Turner 2005:246)

b. ŦEŦIŁEN̲ SEN
θə-θíɬ-əŋ sən
ACT-stand-MID 1SGSU
'I'm standing up.' [state not process] (Turner 2005:246)

(iv) a. QX̌ SEN
k̓ʷéy sən
get.hungry 1SGSU
'I got hungry.' (Turner 2005:250)

* b. QÁ,QI, SEN LE,
k̓ʷé-k̓ʷəy̓ sən ləʔ
ACT-get.hungry 1SGSU PST
'I was hungry.' (Turner 2005:250)

(v) a. DILEM ŦE Janet
ṯíləm θə Janet
sing DET Janet
'Janet sang (a song).' (Turner 2005:252)

b. DEDI,LEM, ŦE Janet
ṯə-ṯíl̓əm̓ θə Janet
ACT-sing DET Janet
'Janet is singing.' (Turner 2005:252)

(vi) a. DÁJEK TŦU,NIŁ
ṯéc̓əq̓ tθəẘniɬ
angry 3SGMASC
'He got angry' (Turner 2005:251)

b. DEDÁ,YEK TŦU,NIŁ
ṯə-ṯéy̓əq̓ tθəẘniɬ
ACT-angry 3SGMASC
'He's (already) angry' (Turner 2005:251)

(vii) a. ȻÁĆEN̲, ŦE Janet
kʷéčəŋ' θə Janet
yell DET Janet
'Janet yelled.' (Turner 2005:252)

b. ȻEȻÁĆEN̲, ŦE Janet
kʷə-kʷéčəŋ' θə Janet
ACT-yell DET Janet
'Janet is yelling.' (Turner 2005:252)

(viii) a. ŁIQSEN
łík̓ʷ=sən
hook=foot
'trip' (Turner 2005:246)

b. ŁIŁEQSEN,
łí-łək̓ʷ=sən̓
ACT-hook=foot
'tripping' (Turner 2005:246)

(ix) a. ȻINTEL
kʷín-təl
fight-RECIP
'They fought.' (Montler 1986:117)

b. ȻI,WEN,TEL,
kʷí-ẇəṅ-təl̓
ACT-fight-RECIP
'They're fighting.' (Montler 1986:117)

Ablaut plus "durative" suffixation

(x) a. NEḰ ŦE K̲AK̲
nə́qʷ θə qéq
fall.asleep DET baby
'The baby fell asleep; the baby's sleeping.'

b. NOḰEŁ ŦE K̲AK̲
náqʷ-əł θə qéq
fall.asleep(ACT)-DUR DET baby
'The baby is asleep.'

c. NOḰEŁ ŦE TANs ŦE K̲AK̲
náqʷ-əł θə tén-s θə qéq
fall.asleep(ACT)-DUR DET mother-3POSS DET baby
'The baby's mother is asleep.'

d. NENO,ḰEŁ
n-ən-áʔqʷ-əł
sleep(DIM.ACT)-DUR
'The little one's asleep.'

(xi) a. K̲ES
qə́s
'It fell in the water.'

b. YOŦ OL, K̲ÁSEŁ ŦE SƛOƛŁE E ŦE ḰO,
yáθ ʔal̓ qés-əł tθə s-t̓ᶿát̓ᶿłə ʔə tθə qʷáʔ
always LIM fall.in.water(ACT)-DUR DET NOM-leaf OBL DET water
'The leaf is always falling in the water.'

(xii) a. BEȻ ŦE MO,EḰ
p̓ə́kʷ tθə máʔəqʷ
rise.to.surface DET duck
'The duck floated to the surface.' (Turner 2005:248)

* b. BÁȻEŁ
p̓ékʷ-əł
rise.to.surface(ACT)-DUR
'surfaces every now and then' [as in a buoy]

Metathesis/stress shift

(xiii) a.

ƛQET	SEN	LE,	TƛE	X̲I,LEM
θk̓ʷ-ə́t	sən	ləʔ	tθə	x̌ʷíl̓əm
stretch-C.TR	1SGSU	PST	DET	rope

'I stretched out the rope.'

b.

ƛEQT	SEN	LE,	TƛE	X̲I,LEM
θə́k̓ʷ-t	sən	ləʔ	tθə	x̌ʷíl̓əm
stretch(ACT)-C.TR	1SGSU	PST	DET	rope

'I was stretching out the rope.'

(xiv) a.

SKET	TƛE	PIPE
sq̓-ə́t	tθə	pípə
tear-C.TR	DET	paper

'Tear the paper.'

b.

SEKT	SW̲	TƛE	PIPE
sə́q̓-t	sxʷ	tθə	pípə
tear(ACT)-C.TR	2SU	DET	paper

'You're tearing the paper.'

(xv) a.

T̲PEXT
x̌̓pə́x̌-t
scatter-C.TR

'scatter it'

b.

T̲EPXT
x̌̓ə́px̌-t
scatter(ACT)-C.TR

'scattering it'

(xvi) a.

T̲PEXSET
x̌̓pə́x̌-sət
scatter-REFL

'scatter all over'

* b.

T̲EPXSET
x̌̓ə́px̌-sət
scatter(ACT)-REFL

'scattering (slowly)'

(xvii) a. MELEJSET TŦE SḴAXE
mə́ləč̓-sət tθə sqéx̌ə
roll.over-REFL DET dog
'The dog rolled over.'

* b. MEL̓JSET TŦE SḴAXE
mə́l̓č̓-sət tθə sqéx̌ə
roll.over(ACT)-REFL DET dog
'The dog is rolling over.'

(xviii) a. MELEJT TŦE ḰŁƛ
mə́ləč̓-t tθə qʷłéy
roll.over-C.TR DET log
'Roll the log over.'

b. MEL̓JT TŦE ḰŁƛ
mə́l̓č̓-t tθə qʷłéy
roll.over(ACT)-C.TR DET log
'rolling the log over'

(xix) a. LEƛ̓ET TŦE LEPOT
ləƛ̓θ-ə́t tθə ləpát
fill-C.TR DET cup
'Fill the cup.'

* b. LEƛ̓T TŦE LEPOT
lə́ƛ̓θ-t tθə ləpát
fill(ACT)-C.TR DET cup
'He's filling the cup.'

(xx) a. BC̓ET TŦE SĆÁNEW̱
p̓kʷ-ə́t tθə s-čénəxʷ
rise.to.surface DET NOM-fish
'Bring the fish to the surface'

* b. BEC̓T TŦE SĆÁNEW̱
p̓ák̓ʷ-t tθə s-čénəxʷ
rise.to.surface(ACT)-C.TR DET NOM-fish
'[someone] is bringing the fish to the surface.'

(xxi) a. QENET SEN TŦE JESKEN
k̓ʷən-ət sən tθə č̓ə́sqən
see-C.TR 1SGSU DET golden.eagle
'I looked at the golden eagle.'

b. QEN,T SEN TŦE JESKEN
ḵʷə́n̓-t sən tθə c̓ə́sqən
see(ACT)-C.TR 1SGSU DET golden.eagle
'I'm looking at the golden eagle now.'

(xxii) a. YÁ, SEN QSET
yéʔ sən ḵʷs-ə́t
go 1SGSU count-C.TR
'I'm going to count it.'

* b. QEST SEN TŦE XEƛXOLES
ḵʷəs-t sən tθə x̌əl̓θx̌=áləs
count(ACT)-C.TR 1SGSU DET egg=eye
'I'm counting the eggs.'

(xxiii) a. QSEN̲
ḵʷs-ə́ŋ
count-MID
'count' (Turner 2005:251)

b. QESEN̲,
ḵʷə́s-əŋ'
count(ACT)-MID
'counting' (Turner 2005:251)

(xxiv) a. TḰET
tqʷ-ə́t
tighten-C.TR
'tighten it' (Turner 2005:258)

b. ȻŁ TEḰT SEN
kʷł təqʷ-t sən
REAL tighten(ACT)-C.TR 1SGSU
'I'm tightening it.' (Turner 2005:258)

(xxv) a. ŚTEN̲
štə́ŋ
walk-MID
'walk' (Turner 2005:256)

b. ŚETEN̲,
šə́təŋ'
walk(ACT)-MID
'walking' (Turner 2005:256)

Glottal stop infixation

(xxvi) a. ÁŁTI TELÁĆEL TŦE NE N̲ENN̲ENE
ʔéɬti t-əl-éčəl tθə nə ŋə́n-ŋənə
AUX arrive(-PL-) DET 1SGPOSS PL-own.child
'My children are arriving (more than one)'.

* b. ÁŁTI TELÁ,ĆEL TŦE EN SĆÁLEĆE
ʔéɬti t-əl-é-ʔ-čəl tθə ʔən s-čé-lə-čə
AUX arrive(-PL-)(-ACT-) DET 2POSS NOM-friend(-PL-)
'Your friends are arriving.'

(xxvii) a. W̲ITEN̲ TŦE SWÍ,K̲E,
xʷít-əŋ tθə s-wə́y̓q=əʔ
jump-MID DET NOM-man=person
'The man jumped.'

b. I W̲I,TEN̲,
ʔi xʷí-ʔ-t-əŋ'
AUX jump(-ACT-)-MID
'He's jumping.'

(xxviii)a. HÁSEN̲ SEN
hés-əŋ sən
sneeze-MID 1SGSU
'I just sneezed.' (Turner 2005:251)

* b. HÁ,SEN̲, SEN
hé-ʔ-s-əŋ' sən
sneeze(-ACT-)-MID 1SGSU
'I'm sneezing.' (Turner 2005:251)

(xxix) a. U, EMET SW̲ OL,
ʔəẇ ʔə́mət sxʷ ʔaḷ
CON sit/at.home 2SU LIM
'Please sit down.' (respectful welcome for a visitor) (Turner 2005:248)
[also means "get up" (i)e. from lying position)]

b. O,MET SEN
ʔá-ʔ-mət sən
sit/at.home(-ACT-) 1SGSU
'I'm lazy; I'm sitting; I'm at home.' (Turner 2005:248)

(xxx) a. WAḴES
wéqəs
'yawn' (Turner 2005:251)

b. WA,ḴES
wé-ʔ-qəs
yawn(-ACT-)
'yawning' (Turner 2005:251)

(xxxi) a. HILEN̲
hílən̓
'fall from a height' (Montler 1991:65)

b. HI,ELEN̲ TŦE SɣELOɣŁE
hí-ʔə-l-ən̓ tθə s-t̓θ-əl-át̓θłə
fall(-ACT-)-MID DET NOM-leaf(-PL-)
'The leaves are falling.'

More than one allomorph

(xxxii) a. YÁ, E SW̲ ŚQOM
yéʔ ʔə sxʷ šk̓ʷám
go Q 2SU swim
'Are you going for a swim?' (Turner 2005:252)

b. ŚEŚQO,EM E SW̲
šə-šk̓ʷá-ʔə-m ʔə sxʷ
ACT-swim(-ACT-) Q 2SU
'Are you swimming?' (Turner 2005:252)

(xxxiii)a. YÁ, SEN XŁÁM E TŦE TÁTI,
yéʔ sən x̌łém ʔə tθə téy-təy̓
go 1SGSU watch OBL DET PL-canoe.race
'I'm going to watch the canoe race (all the races).'

b. XEXŁÁ,EM SEN E TŦE TÁTI,
x̌ə-x̌łé-ʔə-m sən ʔə tθə téy-təy̓
ACT-watch(-ACT-) 1SGSU OBL DET PL-canoe.race
'I'm watching the canoe races.' (Turner 2005:252)

(xxxiv)a. BEƛ TŦE MO,EḰ
p̓ák̓ʷ tθə máʔəqʷ
rise.to.surface DET duck
'The duck floated to the surface.' (Turner 2005:248)

b. I BEBÁ,ȻEN̲, TŦE ḰŁÁ,
ʔi ṗə-ṗé-ʔ-kʷəŋ’ tθə qʷłéy̓
AUX ACT-rise.to.surface(-ACT-) DET log
‘That log is floating/drifting away.’ (Turner 2005:261)