STATIVE ASPECT AND POSSESSION IN SALISH Strang Burton and Henry Davis (UBC)

1 Introduction¹

St'át'incets (Lillooet) has a productive prefix $\{(?)\}$ - $\{(e_{s-})\}$ which can be used in two ways:

- (i) Attached to verbs, {es-} marks resulting state of X
- (ii) Attached to nouns, {es-} marks possession of X

This phenomenon is not confined to St'át'imcets; cognate constructions occur in at least three other Salish languages from both the Central (coast) and Interior branches.²

In this paper, we will investigate the syntax and semantics of this typologically unusual construction. We will argue that the aspectual and possessive uses for the prefix are systematically related; in other words, this is not a case of accidental homophony. Moreover, we shall show that this relationship may be expressed in terms of a parallel between the event-structure of a verb and the argument-structure of a noun. Once this parallel has been established, the two uses of the prefix may be collapsed into a single semantic function.

2 The Empirical Generalizations

2.1 Stative {es-}

When attached to a non-nominal predicate, {es-} in St'át'incets expresses the aspectual notion of resulting state.³

¹ Special thanks to Laura Thevarge for providing the data from Lower St'át'imcets. Thanks to Tillie Gutierezz, Amelia Douglas, and Elizabeth Hurley for discussion and checking of Brent Galloway's Stó:lo data. Thanks also to Hamida Demirdache, Lisa Matthewson, Dale Kinkade, Paul Kroeber, and the audience at the 1996 Victoria Morphosyntax Workshop for very helpful comments. This work has been financially assisted by SSHRCC grant #410-95-1519. Abbreviations are as follows: ACT=active intransitivizer, CMP=completive marker, CNJ=conjunctive, DEI=deictic, DET=determiner, DIR=directive transitivizer, EXI=existenceasserting enclitic, FRE=final reduplication, IMP=imperative, INTERR=interrogative, NOM=nominalizer, POS=possessive, PRG=progressive, SG=singular, STA=stative, SUB=subject. Clitic boundaries are marked by an equals sign (=) and affix boundaries by a dash (-). St'át'imcets examples are given in both phonemic transcription (top line) and the van Eijk practical orthography (middle line).

² St'at'imcets ((?))³-) is easily reconstructible to the Proto-Salish stative marker *?ac-, which has cognates in every Salish language except Comox and Bella Coola. See Kinkade (1996) for details.

³The two principle dialects of St'át'imcets are Upper (spoken in the northern part of St'át'imc territory) and Lower (spoken in the southern portion). Van Eijk (1985, 1986) refers to the dialects as "Fountain" and "Mount Currie", respectively. Within this broad dialect division, there is much subdialectal and individual variation, but all varieties of St'át'imcets are mutually intelligible. All examples in this paper are from the Lower (Mt.Currie) dialect unless otherwise noted.

(1) a .	m1ca7q mítsa7q sit	k=John k=John DET≖John		= John sat down (or up)
b.	wa? wa7 PRG	?əš-míča? es-mítsa7q es-sit	q k=John k=John DET=John	= John is/was sitting there (state)
(2)a.	p ú + = t u ? pulh=tu7 boil=CMP	k=John k=John DET=John		= John got boiled (completive form)
b.	p ú †. ə † púlh.elh boil.FRE	k=John k=John DET=John		= John was boiling (continuative)
c.	w a? wa7 PRG	?əğ-pú∔ es-púlh es-boil	k=John k=John DET=John	= John was boiled (ready-to-eat)

As documented in van Eijk (1985) and Davis (1995), stative {es-} only occurs with predicates which involve a transition culminating in a state.⁴ Inherently stative (non-nominal) predicates (3a), achievement predicates (3b) and activity predicates (3c) are all incompatible with $\{es-\}$.⁵

⁴This generalization applies to intransitive predicates only. However, there also exists, both in St'át'imcets and in other Salish languages (e.g., Columbian - M.D. Kinkade, p.c.) a set of <u>transitive</u> stative predicates. Some St'át'imcets examples are given below:

(i)	(?ə)š-təq-š	= to hold	>√təq	= be touched
(ii)	(?ə)š-?ač <u>x</u> -š	= to watch over	> √?aċ <u>x</u>	= be seen
(iii)	(?ə)š-kih-š	= to hold on one's lap	> √kih	= be put on one's lo

These forms have a number of peculiarities. Morphologically, they always involve the causative (non-control) transitivizer $\{-\check{s}\}$, even when used with roots which would normally take the directive (control) transitivizer, including those in (i-iii). In spite of their morphology, however, transitive statives appear to be invariably agentive (i.e., they involve full control). Aspectually, they are atelic, in marked contrast to intransitive statives, which are always telic - i.e., involve a resulting state. Pending further investigation, we set aside these interesting but peculiar cases, which are the focus of our investigation.

⁵Activity predicates suffixed with the active intransitivizer $\{-xal\}$ may <u>apparently</u> be suffixed with $\{es-\}$, yielding a completely different (nominal) interpretation: however, the prefix in question turns out to be not $\{es-\}$, but the near-homophonous nominalizing prefix $\{\frac{s}{2}-\}$. The stative and nominalizing prefixes are phonologically and syntactically different, as argued in sections 2.3 and 4.2 below.

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(3)a.	(*?əš-)pəq (*es-)peq (*STA-)white	ti=n=káh=a ti=n=káoh=a DET=1SG.POS=car=	EXI = My car is white.
b.	(*?əğ-)∦x ^w úm=i (*es-)t'cúm=lhkan	kan (lák ^w u? <i>bingo=</i> (láku7 <i>bingo=</i> h	ha) a)
	(*STA-)win=1SG.SUB	(DEI bingo=E	XI) = I won (at bingo).
c.	(*əš-)məč-xál= (*es-)mets-cál=lhkan (*STA-)write-ACT=1S	= I am writing/I wrote.	
2.2 P	ossessive {es-}		
When	attached to a noun, {e	s-} marks <i>possession</i> , as	shown in (4-5):
(4)a.	š-qá <u>x</u> a?	k=John	
	s-qáxa7	k=John ⁶	
	NOM-dog	DET=John	= John is a dog.
b.	wa? ?ə š -qá <u>x</u> a? wa7 es-qáxa7	k=John k=John7	
	PRG es-dog	DET=John	= John has a dog.

⁶The element wa7, glossed here as 'progressive', is both an aspectual auxiliary and a main verb meaning 'be at (a location)'; see Davis (1996) for a fuller account of the complexities of its distribution. Auxiliary wa7 typically yields a stage-level interpretation; it is thus exceedingly odd when used with individual-level predicates such as 'dog', 'sister' 'intelligent', and so forth; compare (4a) to (i) below, for example:

(i) #	wa?	š-qá <u>x</u> a?	k=John
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wa7	s-qáxa7	k=John
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PRG NOM-dog DET=John

In the Upper dialect, this extends to stative-possessive cases: thus (4b) means 'John (temporarily) has a dog', and (5b) means 'John (temporarily) has a child'. The normal (individual-level) interpretation for (5b) is expressed by (ii) in the Upper dialect :

= John is a dog (for a while).

•

= John has a child.

(ii) ?əš-k^wúza? k^w=š=John es-kúza? kw=s=John es-child DET=NOM=John

However, possessive auxiliary wa7 is <u>obligatory</u> in Lower Lillooet, whether or not the possessed predicate has a stage level interpretation. Thus (5b) has no stage-level connotations in the Lower dialect, and (ii) is ungrammatical. Aside from the behaviour of wa7 and some phonological differences (to be discussed below), the generalizations we make extend to both Upper and Lower St'át'incets.

⁷The stative marker [? = 3 = -] collapses with the lexical nominalizer [3 = -] when both are prefixed to a predicate: hence [? = 3 = -] + [3 = -gaxa?] - --> [? = 3 = -gaxa?].

5)a.	š-k ^w úza? s-kúza7 NOM-child		k=John k=John DET=John	= John is a child.
b.	wa? wa7 PRG	?əš-k ^w úza? es-kúza7 es-child	k=John k=John DET=John	= John has a child.

Possessive {es-} may only be prefixed to nouns; it cannot be used with other individual-level predicates, as shown by the ungrammaticality of (6b) and (7b):

(6)a.	<u>x</u> zúm xzúm big		k=Henry k=Henry DET=Henry	= Henry is big.
b.	*wa? *wa7 PRG	?əğ-xzúm es-xzúm es-big	k≖Henry k=Henry DET=Henry	= Henry has a big (one).
(7)a.	<u>x</u> zúm xzúm-: big-ear	-ana? ana7	k=Henry k=Henry DET=Henry	= Henry has big ears (is big-eared).
b.	*wa? *wa7 PRG	?əğ-xzúm-ana? es-xzúm-ana7 es-big-car	k=Henry k=Henry DET=Henry	= Henry has big ears.

However, while the input of possessive{es}-prefixation is a noun, the output is a non-nominal predicate. Nouns may occur in 'complex predicate' constructions together with an adjectival modifier, as in (8a) (Demirdache and Matthewson 1995, Matthewson and Davis 1995). Stative possessives may not, as shown in (8b).

(8)a.	[?áma [áma [good	k ^w tamč] kwtamts] husband]	k≖John k=John DET=John	= John is a good husband.
b.	*[?áma *[áma *[good	?ə š- k [₩] támč] es-kwtámts] STA-husband]	k =Má11 k=Mary DET=Mary	= Mary has a good husband.

Nominal predicates may also contain possessive marking, as in (9a), whereas stative possessives may not, as in (9b):

(9)a.	[k ^w támč=šu]	k=John	
	[kwtámts=su]	k=John	
	[husband=2SG.POS]	DET=John	= Your husband is John.

b. *wa?	[?əš-k ^w támč=šu]	k=Má11	
*wa7	[es-kwtámts=su]	k=Mary	
PRG	[STA-husband=2SG.POS]	DET=Mary	= Mary has your husband.

These facts follow if stative-possessives are non-nominal predicates, though derived from nouns.

2.3 Possessive {es-} is stative {es-}

The two types of {es-} illustrated in 2.1 and 2.2 could be related in two ways:

(i) By accidental homophony

(ii) As two uses of the same morpheme

An explanation based on prefixal homophony is by no means *a priori* implausible in St'át'imcets, which has four productive prefixes and two proclitics, all of which contain $[\S-], [n-]$, or both.⁸ The prefixal inventory is shown below:

(10)	Pr	oclitics	Prefixes	
	{n=}	= 1SG.POS	{n-}	= locative
	{š=}	= syntactic nominalizer	{¥-} {(?ə)š-}	= lexical nominalizer = stative
			{kənš-}	= try, want

The picture is further complicated by the fact that a maximum of two proclitic/prefix slots are apparently available, leading to widespread (and not entirely phonologically motivated) fusion between pre-predicative elements. See van Eijk (1985: 64) for details.

Nevertheless, in this section, we will show that (i) is untenable; there are too many morphosyntactic similarities between the stative and possessive versions of {es-} to dismiss their phonological resemblance as accidental.

The form of $\{es-\}$ varies between dialects and speakers. Whilst van Eijk (1985, 1986) gives $[\mathbf{\breve{s}}-]$ for the stative version, amongst Upper dialect speakers it often takes the form $[?a\mathbf{\breve{s}}-]$; Lower dialect speakers prefer $[\mathbf{\breve{s}}-]$ alone for the stative, but accept $[?a\mathbf{\breve{s}}-]$ as a grammatical alternative. This is shown in (11). Likewise, while van Eijk gives $[?a\mathbf{\breve{s}}-]$ for the possessive prefix, Lower speakers frequently reduce it to $[\mathbf{\breve{s}}-]$; Upper speakers seldom do so, but accept the reduced version as a legitimate dialectal alternate, as seen in (12).

(11) {es-} Can Freely Replace {s-} on Stative/Resultative Use

1. 1.

a.	w a ? wa7 PRG (<i>Lowe</i>	š-mí s-míts s-sit er Sťáťimcets:	ĕa?q a7q <i>also acceptab</i>	k=John k=John DET=John <i>le to Upper speakers)</i>	= John was sitting there
b.	w a? wa7 PRG (Uppe	?əš- es-mit es-sit er St'át'imcets:	míča?q tsa7q <i>also acceptab</i>	k ^w =§=John ⁹ kw=s=John DET=NOM=John <i>le to Lower speakers)</i>	= John was sitting there
(12)	{s-} (Can Freely Rep	lace {es-} on	Possessive Use, Too	
a.	w a? wa7 PRG (Uppe	?əš-qá <u>x</u> a? es-qáxa7 es-dog er and Lower St	k (^w = š =) J o k(w=s)=John DET=(NOM=) t'át' imcets)	hn I John	= John has a dog
a.	wa? wa7 PRG (Accep	š-qáxa? s-qáxa7 s-dog ptable to Upper	k (^w = §) Joh k(w=s)=John DET=(NOM=) and Lower spe	n John wakers)	= John has a dog

Thus, if a speaker uses [??**-] for the stative, they will allow it for the possessive, and viceversa. This correspondance would be unexpected under an account based on accidental homophony, but is fully expected if the possessive and stative prefixes are instances of the same morpheme.

Further support for this contention is provided by the existence of a third $[\S-]$ prefix, the nominalizer, which *never* surfaces as $[? \models \S-]$; all speakers, moreover, reject $[? \models \S-]$ as straightforwardly ungrammatical for the nominalizer.

(13)a. štam	k ^w u=¥=?í∔ən=ĕu	
stam'	ku=s=7ilhen=su	
what	DET=NOM=eat=2SG.POS	= What did you eat?
b. *š tam	k [₩] u=?əš=?í+ən=šu	
*stam'	ku=7es=7ilhen=su	
what	DET=NOM=eat=2SG.POS	= What did you eat?

This shows that the [? i - 1/[s-1]] variation is a particular property of the stative and possessive prefixes, and not of prefixal [s-1] in general.

⁹ The difference seen here between Upper and Lower St'át'incets proper name determiners has no bearing on the issue at hand.

⁸This is an extreme case of a tendency - very noticeable in Salish languages - for only a small subset of the consonantal inventory to be available for use in affixation. Thanks to M. D. Kinkade for pointing this out.

We conclude that the stative and possessive versions of {es-} are instances of one and the same morpheme. Before turning to an explanation for the distribution of {es-} in St'át'imcets, we will review some cross-Salishan evidence which will confirm this conclusion.

3 The stative-possessive connection across Salish

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3.1. N+e?kepmxčín (Thompson)
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Thompson and Thompson (1992: 94) remark that

"Stative //?ə5//...specifies actions, accomplished facts, and states of affairs which have already come into effect at the main time of a sentence, and remain in effect at that time."

This is very close to the role of the stative marker in St'át'imcets.¹⁰ Moreover, Nie?kepmxčín also has a stative possessive construction. Thompson and Thompson give the following examples:

(14)a.	?es-citx ^w STA-house	kt we	= We have a house
b.	?es-qálə <u>x</u> STA-root.digger	r ·	= She has a root-digging stick
c.	?es- <u>x</u> áỳwi STA-house		= She has a rhusband, is married

Thus, the stative-possessive connection is clearly present in N4e?kepmxčín.

3.2 Sechelt

Beaumont (1973) discusses a construction in Sechelt which is obviously equivalent to the

¹⁰There do, however, appear to be some differences between the Nie?kepmxčín and the St'át'imcets stative constructions. The former applies to a larger range of predicates, including permanent states. Thompson and Thompson (1992: 95) give the following examples:

?es-kin		
STA-slow	=	It is slow
?es-cíq ^w	=	It is red
	7es-kin STA-slow ?es-cíq ^w STA-red	?es-kin STA-slow = ?es-cíq [₩] =

The equivalents of (i-ii) are ungrammatical in St'át'imcets (see (3) above), which instead employs (total) reduplication to derive a permanent state or property (see van Eijk 1985):

(iii)	š-kən.kîn	=	It is slow	
	STA-slow(TRE)			
(iv)	čəq ^w .c1q ^w	=	It is red	
	red(TRE)			

(Note the stative prefix in (iii) is unproductive, and must be accompanied by total reduplication, unlike regular stative marking.)

St'át'imcets and Nie?kepmxčín stative possessives. The Sechelt stative prefix $\{s-\}$ can either be used on a non-nominal predicate to denote a resulting state, or on a noun to denote the state of possession:

(15)a.	s-pá <u>x</u> ét ta s STA-tear DET o	sél cloth	= The cloth (has been) torn.
b.	s-?á <u>x</u> éc-la STA-tear-IMP		= Stay lying down!
(16) a .	s-tač'tén-a-čx ^w STA-knife-INTERR-2SG	.SUB	= Do you have a knife?
b.	s-máqén STA-hair		= He has got hair.

The Sechelt stative-possessive construction seems to be almost identical to its St'át'imcets counterpart. Beaumont states that, just as in St'át'imcets, the stative-possessive predicate is unmodifiable by deictics or other "adjectival qualifiers". This follows if the derived stative is non-nominal, as in St'át'imcets. Semantically, the St'át'imcets and Sechelt constructions are also parallel: Beaumont notes that

...the subject is characterized by its state or condition of having that object described by the underlying form of the stative. Bizarre, but perhaps illuminating paraphrases of sentence 16... would be "Are you knife-endowed?", "Are you in possession of a knife?", or "Is having a knife one of your significant features now?" (Beaumont 1973: 110).

Interestingly, Beaumont also comments that use of the stative-possessive was already (in 1973) in decline amongst his consultants: "The 'Old People' would apparently have readily distinguished such forms, but not all present-day speakers would." (1973: 112). This hints at the antiquity of the construction; together with its widespread (though thinly attested) distribution across both Central and Interior Salish, this would seem to indicate possible Proto-Salishan ancestry.

3.3 Stó:lo Halq'eméylem

Stó: lo Halq'eméylem has a prefix $\{s-\}$, cognate to St'át'imcets $\{es-\}$, which marks stative/resultative aspect on verbal bases. Though it is no longer used productively with nouns, in at least some forms it also marks possession on nominal bases.

(17-18) show {s-} attached to verbs. Note that the stative/resultative prefix seems to occur only when the base has been reduplicated, marking what Galloway (1993) refers to as continuative aspect:

(17)a.	?íkw	=	to get lost
b.	?í:kw	=	getting lost

c.	s-?í:kw	=	to be lost	
(18)a.	píw–et	=	freeze something	(e=schwa, here)
b.	pípewet	=	freezing something	
c.	s–pípew	=	be frozen (in a frozen state)	

(Stó:lo Halg'emeylem, data from Galloway, 1984)

(19-21) are examples of what appears to involve possessive use of the stative prefix in Stó:lo. The possessive reading is not productive, but a number of forms with the s-prefix are based on nouns, including (19-20), as Galloway notes. The example in (21) is another case where the prefix correlates with a possessive reading, though here the derivation is apparently based on a verb.

(19)a.	Cæxw	=	a wife
b.	s-cæxexw	=	got a wife
(20)a.	qwe	=	get a hole
b.	s-qweqwæ	=	have a hole
(21)a.	k'æxwe	=	a box
b.	s-k'wæk'wexwe	=	be boxed (ie. to "have a box around you"; main gloss Galloway's, our note)

Note that the nominal bases here show (what Galloway labels) continuative morphology, just like the verbal bases in (17-18); this provides more evidence that the possessive and stative uses of {s-} involve the same morpheme.

4 Towards a theoretical account

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4.1 Introduction

We have now given a detailed description of the stative-possessive construction in St'át'imcets, and shown that a cognate construction exists in at least three other Salish languages. In the following sections, we will attempt to construct a theoretical account which unifies the aspectual and possessive uses of {es-} and its cognates. Our strategy will be as follows: first we will separately analyze the possessive and stative/resultative uses of {es-}; then we will look for parallels between the two functions at the level of lexical semantics, with the ultimate aim of collapsing the two into a single lexical entry.

4.2 Possessive [es-]

Our basic proposal for the possessive use of {es-}is as follows:

{es-}removes the external argument of the nominal base, and makes the internal argument (22) of the base into the external argument.

This proposal requires several additional assumptions. The first is obviously that

(23) Nouns can take external arguments.

Following Williams (1982), we construe an external argument as a distinguished member of the set of arguments associated with a lexical head, responsible for saturating the predicate via the subjectpredicate relation. Using the basic argument-structure notation of Grimshaw (1990), we follow the convention of marking the external argument by underlining, as in the sample English/St'át'imcets entries below:

(24)	meet/pzan	a-structure:	< <u>1</u> , 2> ¹¹
	cat/ilhen	a-structure:	< <u>1</u> >
	give/úm' en	a-structure:	< <u>1, 2, 3</u> >

Now, we simply extend the a-structure representations associated with non-nominal predicates to nouns. This is motivated by the fact that nouns take an external argument in predicate-nominal constructions, just like non-nominal predicates:

(25) I consider [John a fool/crazy/very much in love]

Next, essentially following Higginbotham (1985), we assume that an external argument is present even on referential (non-predicative) uses of DP (the 'R' role). However, when used referentially, the external argument of DP is not assigned syntactically. (26) illustrates R-role assignment in English and St'át'imcets.

(26)a. dog/sqaxa7 a-structure: <1>



Our next assumption is that nouns can take internal as well as well as external arguments - in other words, they may theta-mark NP arguments within NP. Furthermore, we make the following claim:

(27) The internal argument of a noun will surface as its possessor.

¹¹ We emphasize that the examples in (24) are for expository purposes only. In fact, it seems unlikely that verbs are directly associated with argument variables at all, as we point out in section 43

We therefore assume that, although the semantic relation of possession is very free, possessor arguments must be listed in the lexicon as part of the argument structure of nouns.

Matthewson and Davis (1995) give a number of arguments that possessors in St'át'imcets are indeed internal arguments. We repeat just one here, based on the fact that possessors do not saturate the noun phrase of which they are a part. On the contrary, a possessed nominal which lacks a determiner must function as a predicate, not an argument. This is shown in (28). In (28a) the possessed nominal functions as a main predicate. Its ungrammaticality in argument position is shown in (28b). To function as arguments, possessed NPs require an initial determiner, as in (28c).

28)a.	[čitx ^w =š	š=Mary]	[ti=pint-án-an=a]
	[tsitcw=s	s=Mary]	[ti=pint-án-an=a]
	[10030=330.103	NOM-Mary]	[DEI-paint-Dik-130.Civ-Exi

= I painted Mary's house (the one I painted was Mary's house)

b.	*pint-án= i kan	[čitx ^w =š	š=Mary]
	*pint-án=lhkan	[tsitcw=s	s=Mary]
	paint-DIR=1SG.SUB	[house=3SG.POS	NOM=Mary]

= I painted Mary's house

c.	pint-án= 1 kan	[ti=čitx ^w =š=a	š=Mary]
	pint-án=lhkan	[ti=tsitcw=s=a	s=Mary]
	paint-DIR=1SG.SUB	[DET=house=3SG.POS=EXI	NOM=Mary]

= I painted Mary's house

These facts follow if, just as internal arguments of V fail to saturate VP, possessor arguments of N fail to saturate NP. We conclude that possessors are internal arguments of the head noun in St'át'imcets, and, by extension, in other Salish languages.

We are now ready to illustrate our proposal. We will do so by first applying it to cases of inalienable possession, where nouns have meanings that give a very fixed relationship between the external argument and the internal argument. We will then extend the proposal to cases of alienable possession.

As our first example, we take the case of the inversely related nouns *husband* and *wife*. For *husband*, the external argument will be the man who is married; the internal argument will be the woman he is married to. This will give us the following argument-structure representation (we annotate the elements "man" and "woman" only mnemonically, of course; following Grimshaw's 1990 approach, the elements could simply be marked as <1, (2)>):

(29) husband = <<u>man</u>, woman> (Relationship = married)

The relation is illustrated in (30a) for English, and in (30b) for St'át'imcets.

(30)a.	John is [Mai	ry's husband] < <u>m</u> ,w>	
b.	[k ^w t am č [kwtamts [husband < <u>m</u> , w>	§=Mary] s=Mary] NOM=Mary]	k=John k=John DET=John

Now, recall our proposal concerning the effect of {es-}prefixation on argument structure:

(31) {es-}removes the external argument of the nominal base, and make the internal argument of the base into the external argument.

We have just seen that on unaffixed uses of *husband*, the external argument refers to a man in a marriage relationship, and the internal argument to his wife. (31) thus predicts that {es-} prefixation will yield the following change in argument-structure:

(32)	Base A-Structure		Output With {es-} Prefix
	< <u>man</u> , woman>	>	< <u>woman</u> >

In other words, the original external argument ('man') will be suppressed, and the internal argument ('woman') will be promoted to external status. That is what we get, as the switch between the unaffixed and the affixed forms in (33a) and (b) illustrates.

(33)a.	k ^w ta kwtar husba < <u>man</u>	mč k=Joh nts k=John und DET=Jo >	ו	=	John is a husband (to someone)
b.	wa? wa7 PRG	?əğ-k [₩] támč es- kwtámts es-husband < <u>woman</u> >	k = Mary k=Mary DET=Mary	=	Mary is a wife (to someone) (ie., Mary has a husband)

Now, let us turn to the inverse derivation with *wife*. On the unaffixed uses, the external argument of *wife* is the woman in the marriage relationship, and the internal argument is the man she is married to. This gives the basic a-structure shown in (34a). With $\{e_{s}\}$ prefixation, the derived a-structure will be as in (34b), with externalization of the male side.

(34)a.	Base A-Structure	Ь.	Output wi	th {es-} Prefix
	< <u>woman</u> , man>		< <u>man</u> >	(in marriage relation)

This yields the correct output, as illustrated in (35):

(35)a.	šəm? sem7á wife < <u>worr</u>	ám k=Mary m k=Mary DET=Ma an>	ry	=	Mary is a wife (to someone)	
b.	wa? wa7 PRG	? əš-(š) əm?a es-(s)em7am es-wife < <u>man</u> >	ím k≖John k=John DET=John	=	John is a husband (to someone) (ie., John has a wife)	

Next we turn to cases of alienable possession, which we treat in a precisely parallel fashion to the inalienable cases we have just examined. The difference between the two is simply that the theta-relation between possessor and possessed is looser in the alienable cases; however, we claim that all common nouns can license a possessive argument within NP.¹²

By this assumption, a noun like *dog* not only takes an external argument (referring to a dog), but also an internal possessor argument, as in (36).

(36) <<u>1</u>, Possessor>

Now, as with inalienable posession, {es-}prefixation will induce the a-structure operation shown in (37).

(37)	Base-Form		Prefixed Form
	<1, possessor>	->	<pre>possessor></pre>
We then o	correctly predict the inter	pretations	in (38).

(38)a.	š-qáy s-qáxa NOM-c	ka? 17 log	k=Joh k=Johr DET=J	n n ohn	=	John is a dog
b.	wa? wa7 PRG	?əğ−qá es-qáxa es-dog	≦ <u>х</u> а? 17	k=John k=John DET=John	=	John has a dog

¹² It is worthing noting in this regard that St'át'imcets possessors do not display the full range of thematic options displayed by their counterparts in English. In particular, agentive interpretations are generally impossible, as observed in Matthewson and Davis (1995); thus, (i) only refers to possession, rather than authorship:

(i)	ti=púk [₩] =š=a	š=John		
	ti=púkw=s=a	s=John		
	DET=book=3SG.POS=EXI	NOM=John	=	John's book
	1 'l d later of allowable	mennesion in loss	tightly const	rained than that of i

Thus, while the relation of alienable possession is less tightly constrained than that of inalienable possession in St'át'imcets, it is still more constrained than that of alienable possession in English.

To summarize, we have analyzed the possessive use of $\{-es\}$ as an operation on the argument structure of a noun which suppresses the external (referential) argument and promotes the internal (possessor) argument to external status.

4.2 Aspectual {es-}

(39)

Aspectual Type

We take as our starting point the descriptive generalization that resultatives denote the result, product, or finished state of the activity denoted by the base form of the verb (Suttles 1984, 7.7; this quotation is cited directly from Galloway's grammar). We implement this idea here in terms of an event-structure theory of how to represent the aspectual properties of verbs (Grimshaw 1990, van Hout 1994, Davidson 1967, Vendler 1967, Dowty 1979, Pustejovsky 1988, 1991, Davis and Demirdache 1995, Demirdache 1996). Event-structure is used to distinguish different sorts of predicates, based on the aspectual nature of the predicate. Some of the standardly distinguished event-structures are given in (39).

The second a second		10/10/10/00
Process ¹³	<epr></epr>	sleep
State	<e<sub>st></e<sub>	be drunk
Accomplishment	<e<sub>pr, e_{st}></e<sub>	kill, die
Individual-Level	NONE	know French

Event Structure

Evamples

The basic idea is that different sorts of predicates describe different kinds of events. These are described in terms of *eventualities* (<e>) which are unanalyzable sub-events, the 'atoms' of aspectual calculus. Some events (e.g., simple states) are primitive, consisting of a single eventuality; others (e.g., accomplishments) are complex, involving a transition between two eventualities.¹⁴ Some non–eventive predicates do not denote events at all, just static properties of individuals. There is much debate as to the proper representation of event-structure both within Salish and more generally: see the references cited for various perspectives on event-structure and/or event-variables, having to do with differences between aspectual classes, interaction with tense and temporal modifiers, and the syntactic realization of arguments. However, it is our intention in this paper to side-step most of this debate, since our proposal is compatible with a number of different possible approaches to event structure.

The basic idea is as follows:

¹³ We employ the neutral term 'process' here in place of the more familiar 'activity' in order to avoid questions of agency and/or control. Note that Davis and Demirdache (1995) and Davis (1995) argue that <u>all</u> control predicates in St'át'incets are aspectually derived, thus denying the existence of simple (agentive) activities.

¹⁴ Many types of aspectual calculus (e.g. Pustejovsky 1991) also treat processes as complex rather than atomic, consisting of a sequence of identical eventualities $c_{1...e_n}$. We are sympathetic to this view, but retain the simpler labelling for ease of exposition, since as far as we can tell it makes no difference to the essential points of our argument.

19

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(40) The stative/resultative marker removes the initial process component from the denotation of a change–of–state predicate, leaving only the resulting state: i.e.: $<e_{pr},e_{st}> -> <e_{st}>$

Note that we assume here that the event-variables in the event-structure of a predicate are projections from, or abstractions over, a semantic level. For example, we assume that an accomplishment asserts the existence of two related eventualities, an initial process and a resulting state, and these are related by causation. However, for the purposes of this paper, we will not deal explicitly with the semantics entailed by this approach: it will suffice to simply list the number of events associated with each predicate. In particular, it is crucial to our proposal that there are <u>two</u> eventualities associated with a transition (change-of-state), but only <u>one</u> associated with a state.

Now, let's look at how the proposal deals with the data. First, take the example in (41).

(41)a.	pú∔=tu? púlh=tu7 boil=CMP Base. Predic	k=John k=John DET=John ted Event-Struc	cture = <e<sub>pr, e_{st}></e<sub>	= John got boiled (completive form)
b.	wa? wa7 PRG	?əš-pú+ es-púlh es-boil	k=John k=John DET=John	= John was boiled (ready-to-eat)

Prefixed form. Predicted Event-Structure = $\langle e_{st} \rangle$

This treatment makes two predictions. The first is straightforward and concerns the output: after the stative/resultative prefix is added, we're left with a predicate denoting a state, and that state is whatever is the usual state resulting from the activity denoted by the base. As far as we can tell, this is correct.

However, our approach also makes a slightly less obvious second prediction, this time concerning the input. Because we have characterized the function as one that removes a process and leaves just a resulting state, we predict that $\{es_{-}\}$ can <u>only</u> attach to a predicate that has two eventualities in its event-structure - i.e., to an accomplishment. This means that predicates that are states or processes should not have a defined output for $\{es_{-}\}$.

In fact, this appears to be right, though the data is complicated by the existence in St'át'imcets (and in Salish more generally) of the near-homonymous nominalizing prefix $\{s$ -}(see 2.3 above) which attaches freely to predicates denoting processes (including derived activity predicates) and to a lesser extent to non-derived stative predicates.¹⁵ Compare the forms in (42) (with nominal

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interpretation) to those in (43) (with resulting state interpretation):

(42) Nominal interpretation:

Derived form:		Root:	Event structure:
a.š-kax	= something dry	>√kax = dry	<est></est>
b.š- <u>x</u> ak	= something desired	>√xak = difficult	<e<sub>st></e<sub>
c.š-q [₩] ənú <u>x</u> [₩]	= sickness	> √q ^w ənú <u>x</u> ^w = sick	<est></est>
d. š −S [₩] uỳt	= sleep	> √ S ^w uỳt = sleep	<e<sub>nr></e<sub>
e.š-?úq ^w a?	= a drink	> √?úq ^w a? = drink	<e<sub>pr></e<sub>

(43) Resulting state interpretation

Derived form:		Root:		Event structure:
a.(?ə)š-məč	= written	> √mə č	= write	$\langle e_{nr}, e_{st} \rangle$
b.(?ə)≸-pu∔	= boiled	> √pu l	= boil	$\langle e_{pr}, e_{st} \rangle$
c.(?ə)≸-kup	= twisted	> √kup	= twist	$\langle e_{pr}, e_{st} \rangle$
d.(?ə)≸-zuq [₩]	= dead	> √zuq [₩]	= die	$\langle e_{nr}, e_{st} \rangle$
e.(?ə) š -qax ^w	= broken	> √qax ^w	= break	$\langle e_{pr}, e_{st} \rangle$

4.2.1 Interaction with Other Aspectual Markers

In this section, we will further refine our analysis of stative {es-} by showing how it interacts with other aspectual markers.

Look first at the completive¹⁶ of a base without the stative/resultative marker, as in (44).

(44) Completive form of a base (without Stative-Resultative marking)

pú∔=tu?	k=John	
pulh=tu7	k=John	
boil=CMP	DET=John	
=John got boiled, boiling activity is complete (and John is still in that boiled state-the state		
is not in the past).		

What happens here is that the completive aspect only says something about the initial process part of the action: it doesn't say that John's state of being boiled is over, just the process. This means that the completive only applies to $\langle e_{DT} \rangle$ in the $\langle e_{DT} \rangle$ est. grid. This is true for English tense, too.

¹⁵ Obviously, a more complete account would attempt to deal with the argument-structure/eventstructure alternation induced by the nominalizer. Under such an account, the eventuality associated with a non-nominal (state or process) predicate would have to be converted to the external (R) argument of the noun created by nominalization. This raises non-trivial questions about the semantic interchangeability of event variables and individual (argument) variables: see 4.3 below for further discussion.

¹⁶ The aspectual marker glossed here as 'completive' is one of a series of second position clitics which primarily concern a speaker's state of knowledge with respect to the event denoted by a proposition. A more appropriate gloss would probably be 'complete speaker knowledge', as pointed out by Lisa Matthewson (p.c). We retain the simpler term for ease of exposition.

For example, take an accomplishment like *close the window*, as in (45), that describes a process of acting on the window, and a resulting state of the window being closed. Past tense does not say that the window's being closed is in the past; only that the activity-component (doing the closing) is in the past.

(45) John closed the window. $close = \langle e_{pr}, e_{st} \rangle$

In other words, past-tense applies only to $\langle e_{DT} \rangle$, not to the resulting state.

Now, what both the Salish and the English data suggests is that there is some difference in status between the two components of the event-structure of an accomplishment: the process is somehow 'privileged', in that it is the only component that gets bounded or identified with modifiers outside the VP. If so, we need to mark this privileged status on the event-structure grid lexically associated with the predicate. With malice aforethought, let's mark the initial eventuality with underlining, and understand that to mean: tense and aspectual modifiers can only bind <u>that</u> component of the event-structure.

(46) $pu+, <e_{pr}, e_{st}>$

Now, let us turn to the completive form of a verbal base prefixed with the stative-resultative marker, as in (47):

(47) Stative/Resultative AND a Completive Marker on a Verb

wa?	?əš-pú∔=tu?	k=John
wa7	es-púlh=tu7	k=John
PRG	es-boil=CMP	DET=John
=John was	boiled, but his being b	oiled is over. He's not boiled anymore.

The interpretation associated with (47) shows us that not only does the stative/resultative marker remove the initial process from the event-structure, but it also promotes the "status" of the remaining eventuality, giving it the privilege of being identifiable with aspectual markers outside the verb-complex. Recall that the result-state didn't have that privilege before. In other words, the characterization of stative/resultative {es-} should really be as in (48):

(48) Stative/Resultative Use of the Prefix

$$\langle e_{\underline{\text{pr}}} e_{\underline{\text{st}}} \rangle \longrightarrow \langle e_{\underline{\text{st}}} \rangle$$

With this point in place, we are now ready to move on to the next section, where we will explicitly compare the aspectual function of {es-} with our earlier analysis of its possessive use.

4.3 Putting Possession and Aspect Together

To recapitulate, we summarize the possessive and aspectual functions of {es-} in (49a) and (49b),

respectively:

(49)a. Possessive Use: Remove the prominent (external) individual variable from a-structure, and make the remaining variable prominent (external).

<1, 2> --> < 2 >

 Stative/Resultative Use: Remove the prominent individual variable from event-structure, and make the remaining variable prominent.

 $\langle \underline{e}_1, e_2 \rangle \longrightarrow \langle \underline{e}_2 \rangle$

The two processes look obviously parallel. However, we seem to have one major problem: the process is applying to individual-variables in a-structure in (a), but to event-variables in event-structure in (b). How can we put the two together?

At a certain level of abstraction, there is a natural answer to this question. It is known already that eventualities and individuals are sometimes treated in natural language as parts of a single domain of entities. In other words, there is an ontological class that contains both of those sorts of things, and certain linguistic functions can range freely over the whole of that domain. This is shown for example in Partee (1991), who demonstrates that there are a number of quantifiers that range freely over both event-variables and individual-variables.

Assuming this to be the case, we can say that the {es-} prefix is a function that also ranges over the whole of that super-domain. If it sees a base that relates two individual-variables, it suppresses one and promotes the other; and if it sees a base that relates two event-variables, it suppresses one and promotes the other, in just the same way. This suggests that we might collapse the semantics of the prefix in the following fashion:

(50) <x₁, x₂> → <x₂>, where x ranges over the (known) super-domain containing individuals and events.

However, of course, there remain some open questions, including notably that in (51):

(51) What is the relation between the event-structure and the *individual* arguments taken by a predicate?

It turns out that under certain models of this relationship, it becomes mechanically very hard or impossible to collapse the two into the function in (50). The problem arises particularly on models where verbs take <u>both</u> event-arguments and individual-arguments, as in for example Kratzer (1994). This suggests that if (50) is a true characterization of the function of {es-}, event-structure arguments and individual arguments must be "segregated". One way to do this would be to make the claim in (52):

(52) Stage-level verbs take no individual arguments, only event-arguments.

This is suggested in recent work by van Hout (1994), where it is argued that the presence of NP arguments in the syntax is forced by the presence of event-arguments in the event-structure. In her terms, NP arguments are only be licensed by identification with event-arguments. But given this licensing, the presence of individuals associated with the argument-structures of stage-level verbs become superfluous for the theta-criteron: simply listing the elements of event-structure suffices to capture the number of NP arguments required by the verb. In that case, stage-level accomplishments can be understood simply as bi-valent functions over events; nouns (or at least the nouns in questions) are bi-valent functions over individuals. A generalized function applies to both, in the manner indicated. In fact, we take the fact that Salish languages show such a generalized function as evidence for this position.

5 Conclusion

We have now shown that there is a clear connection between the possessive and stative uses of the {es-} prefix, and have discussed various ways in which that connection might be made formally explicit. The important point, however, is not how, or even if, we can collapse the two uses of the prefix. What we take to be most significant is that possession and stative aspect, which seem to be completely unrelated semantically, turn out not to be such different things at all, but actually closely parallel. The correspondence between the two uses in Salish is a reflection of that parallel.

References

Beaumont, R. (1973). "Sechelt Statives", CJL 18, 102-122.

Davidson, D. (1967). "The Logical Form of Action Sentences.", in N. Rescher, ed., <u>The Logic of Decision and Action</u>, University of Pittsburgh Press, Pittsburgh.

Davis, H. (1995). "Deep Unaccusativity and zero syntax in St'át'imcets", to appear in M. Uribe-Etxebarria and A. Mendikoetxea (eds.), <u>Supplements of the International Journal of Basque</u> <u>Linguistics and Philology.</u>

Davis, H. (1996). "Wa7 t'u7 Wa7.", talk given at the Victoria Workshop on Salish morphosyntax, Victoria, B.C.

Davis, H. and H. Demirdache (1995). "Agents and Events", talk given at the GLOW colloquium, Tromsø, Norway.

Demirdache, H. (1996). "'Out of Control' in Salish and Event Decomposition", to appear in M. Uribe-Etxebarria and A. Mendikoetxea (eds.), <u>Supplements of the International Journal of Basque Linguistics and Philology.</u>

Demirdache, H. and L. Matthewson (1995). "On the Universality of Syntactic Categories", ICSNL 30.

Dowty, D. (1979). Word Meaning and Montague Grammar. Kluwer, Dordrecht.

Galloway, Brent (1993) <u>A Grammar of Upriver Halkomelem.</u> U. of California Publications in Linguistics, Vol. 96.

Grimshaw, J. (1990). Argument Structure. Linguistic Inquiry Monograph 18, MIT Press, Cambridge, MA.

Higginbotham, J. (1985). "On Semantics." Linguistic Inquiry 16.

Kinkade, M. D. (1996). "Reconstructing Aspect in Salish Languages.", paper given at the Sixth Spring Workshop on Theory and Methods in Linguistic Reconstruction., University of Pittsburgh.

Kratzer, A. (1994). "On External Arguments." in E. Benedicto and J. Runner (eds.), Functional Projections: UMOP 17. GLSA, Amherst, MA.

Matthewson, L. and H. Davis (1995). "The Structure of DP in St'át'imcets (Lillooet Salish)", ICSNL 30.

Partee, B. (1991). "Adverbial Quantification and Event Structures", Proceedings of the Berkeley Linguistics Society Volume 17.

Pustejovsky, J. (1988). "Event Semantic Structure", ms., Brandeis University.

Pustejvosky, J. (1991). "The Syntax of Event Structure", Cognition 41.

Suttles, Wayne (1984). <u>A Reference Grammar of the Musqueam Dialect of the Halkomelem</u> Language. Undated ms. on file at the Royal British Columbia Museum.

Thompson, L. and T. Thompson (1992). <u>The Thompson Language</u>. Missoula, MT: U.of Montana Press.

van Eijk, Jan (1985). <u>The Lillooet Language: Phonology. Morphology. Syntax.</u> Ph.D. dissertation, University of Amsterdam, to be published by UBC Press.

van Eijk, Jan (1986). Dictionary of the Lillooet Language. Ms., Victoria, B.C.

van Hout, A. (1992). "On the Role of Aspect in the Lexicon (Linking Activity Verbs)." Proceedings of the Second Computational Lexical Semantics Seminar, Toulouse.

van Hout, A. (1994). "Projection Based on Event Structure", ms. Max Plank Institute, Nijmegen.

Vendler, Z. (1967). Linguistics and Philosophy. Ithaca, NY: Cornell University Press.

Williams, E. (1980). "Predication", Linguistic Inquiry 11.