

Voiced and Voiceless Intransitives in Halkomelem Salish: Rethinking Antipassives*

David Basilico

University of Alabama at Birmingham

1. Introduction

The antipassive is a construction found in several languages in which the verb appears with special morphology and the direct object of the verb is either demoted or suppressed entirely. The examples in (1) show the transitive/antipassive contrast in Halkomelem Salish (data from Gerdtš and Hukari 1998, 2005, 2006).

(1) *Antipassive in Halkomelem Salish* (Gerdtš and Hukari 2005, 2006)

- a. naʔət q^wəs-t-ʔs t^θə ʔeləm̃ sce:ʔən.
AUX go.in.water-TR-3ERG DET salted salmon
'She put the salted fish in water.'
- b. naʔət q^ws-els (ʔə t^θə ʔeləm̃ sce:ʔən).
AUX go.in.water-ACT (OBL DET salted salmon)
'She soaked the salted fish.'
- c. niʔ q^ws-eʔəm̃ (ʔə t^θə ʔeləm̃ sce:ʔən).
AUX go.in.water-MID (OBL DET salted salmon)
'She soaked the salted salmon.'

In (1a) we see the transitive clause. The verb appears with the transitive (TR) *-t* marker and ergative agreement *-ʔs*. The examples in (1b,c) show two types of antipassive clauses. The verb appears with special morphology and both the transitive marker and ergative agreement are absent. The direct object is expressed as an oblique. The clauses in (1b) and (1c) have different morphemes that signal the antipassive. In (1b), we see what has been termed the activity (ACT) morpheme *-els* and in (1c) we see the middle (MID) morpheme *-m* (allomorphs *-eʔəm̃* and *-əm̃*).

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With the antipassive, the clause is semantically transitive (that is, it is bivalent), in that there are two arguments present, but morphosyntactically intransitive, in that the agreement morphology and formal expression of the direct object is similar to that seen in clauses with only monovalent (one argument) verbs. Consistent with its intransitive morphosyntax, the antipassive verb can also appear without its oblique object and thus appear as an ordinary surface monovalent, intransitive clause. It is this mismatch between the argument structure and morphosyntactic frame that makes the antipassive fertile ground for proving theories of the relationship between argument structure and syntactic structure. What I show here is that the antipassive reveals more about the introduction of arguments than about the elimination or demotion of the internal argument.

2. Proposal

I argue that these suffixes are not detransitivizers, as proposed in Gerdts and Hukari (2005). Instead, I claim that the suffix *-els* is a Voice head (Kratzer 1996) (2b); it is the counterpart of the transitive *-t* suffix that appears in Voice (2a) and adds an agent thematic role predicate and external argument. Unlike *-t*, it does not license a DP in its specifier; thus, when *-els* is present, the subject is licensed by Tense, rather than the internal argument, as with *-t*. Following Levin (2015), a P is inserted to license the internal argument at the PF/SM interface.

- (2) a. [VoiceP pro [Voice' t [vP [v q^{wəs}] [NP t^{θə} λełəm̄ sce:łtən]]]]
 b. [VoiceP pro [Voice' els [vP [v q^{wəs}] [PP ʔə [NP t^{θə} λełəm̄ sce:łtən]]]]]]
 c. λe[SOAK(e) & AGENT(e, she) & UNDERGOER(e, salmon)]

The middle *-m* is a *v* head that both categorizes a root and introduces the external argument to create either an unergative verb or a non-core transitive verb. As in Tollan's (2018) analysis of unergatives in Samoan, no VoiceP is present¹. Just as with *-els*, the subject is licensed by T.

- (3) a. [vP pro [vP [v m [root q^{wəs}]]]
 b. λe[SOAK(e) & AGENT(e, she)]

The verb with the *-m* suffix does not select for a direct object; however, the syntax allows a phrase to merge in this position. There are two 'repair' strategies that allow such a structure to be interpreted at the PF/SM and LF/CI interfaces. First, the direct object is licensed by the insertion of P at the PF/SM interface, as discussed above.

- (4) [vP pro [vP [v m [root q^{wəs}]] [PP ʔə [NP t^{θə} λełəm̄ sce:łtən]]]]

Second, since the verb does not select an internal argument, there is a special rule at the LF/CI interface that allows the merged DP to receive a theta role.

¹ In Tollan (2018), the external argument of unergatives is introduced by a little 'v' head separate from the VP and different than Voice. In my proposal, there is no separate vP that introduces the external argument on top of VP; the categorizing *v* creates the verb and introduces the external argument at the same time.

(5) *Verb Complement Licensing Rule*

If the structure $[_{VP} v DP]$ is not interpretable because DP lacks a thematic role, assign the DP the following interpretation:

$\lambda e [\Theta(e, DP)]$ where Θ is a thematic role predicate given by the semantic content of the verb.

In the above case, Θ would be undergoer. The semantics for the object and that of the vP can combine through Event Identification. The semantics for the sentence in (4) would be the same as (2c), above.²

This analysis parallels Wiltschko’s (2006) claim that the intransitive suffixes in Salish introduce the external argument, but in her analysis, the intransitive suffixes introduce the external argument in the lexicon while the transitive suffix *-t* introduces the external argument in the syntax. In the analysis presented here, these suffixes introduce the external argument, but it is *-els* and *-t* that pattern together as Voice heads, distinct from *-m* as a verbalizer. In addition, in the analysis here, there is no need for a divide between the syntax and the lexicon; every suffix is added in the syntax, in keeping with the Distributed Morphology claim of a “single generative engine” (Halle and Marantz 1993).

3. Support for the Proposal

In this section, I give support for the claim that the morpheme *-m* is a verbalizer that merges with the root to create an unergative verb while the morphemes *-els* and *-t* are Voice heads.

3.1 Unergatives with *-m* and \emptyset

First, the middle morpheme *-m* appears on a number of canonical unergative verbs, as seen in (6). This is surprising if the morpheme *-m* is an intransitivizer, since these verbs are already intransitive.

(6) *Unergative verbs with -m*

$\check{s}k^wam$	‘swim’	$\check{x}e:m$	‘cry’
$h\acute{o}w'al'əm$	‘play’	$q'ewəm$	‘howl’
$yənəm$	‘laugh’	$\acute{c}tem$	‘crawl’

If unergatives lack Voice (Tollan 2018), we do not expect *-t* or *-els* to appear with an unergative verb because, in this analysis, both are Voice heads. As can be seen in (7), an unergative verb such as ‘dance’ allows neither *-els* or *-t* (Gerdtts and Hukari 2011).

- (7) a. $ni?$ $cən$ $q^w \acute{e}yil\acute{s}$.
 AUX 1.SUB dance
 ‘I danced.’
- b. $*q^w \acute{e}yil\acute{s}-t$.
 dance-TR

² We can view these objects as ‘root-licensed’ objects, as in Rappaport Hovav and Levin (1999).

- c. *q^wəviləš-els.
dance-AP

The example in (7a) above shows an unergative verb that lacks *-m* morphology. There are other unergative verbs in Halkomelem Salish that also lack *-m* morphology, as in (8).

- (8) *Unergatives with null morphology*
- | | | | |
|------------------|---------|----------------------------------|--------------------------|
| lak ^w | ‘fly’ | yays | ‘work’ |
| nem’ | ‘go’ | k ^w ayək ^w | ‘fish with a line, gaff’ |
| qwal | ‘speak’ | ʔitət | ‘sleep’ |

Here, I follow a proposal from Davis (1997) in the related language St’át’imcets that these cases involve a null counterpart of the *-m* morpheme. Now, if there is a null morpheme that creates unergative verbs, we should also expect a null morpheme in antipassive structures, and this is indeed the case, as seen in (9) below.

- (9) ʔəltən ʔə č ceʔ ʔə k^w sqəw?
eat Q 2.SUB FUT OBL DET native.bread
‘Will you eat some First Nations style bread?’

The null antipassive has the same structure as those antipassives with *-m*, with a null verbalizer taking the place of *-m*. The null morpheme merges with the root, creating an unergative verb and also introduces the external argument. No object need appear, as in (10). However, an optional object may merge with this verb (11b). Since this verb does not formally select an internal argument, we have some slippage between the syntax and semantics. In this case, the optional internal argument is semantically licensed by the Verb Complement Licensing Rule, with the object being assigned an incremental theme thematic role (11c). The verb and the direct object semantically combine through Event Identification (11d). The external argument merges next, with a P also inserted to license the direct object (11e), generating a syntactically and semantically acceptable clause (11e,f).

- (10) [[[vP pro [vP [v Ø [root √ʔəltən]]]]] = λe[EAT(e) & AGENT(e, you)]
- (11) a. [[[v Ø [root √ʔəltən]]]] = λxλe[EAT(e) & AGENT(e, x)]
 b. [vP [v Ø [root √ʔəltən]] [DP k^w sqəw]]
 c. DP assigned theta role by VCLR: λe[INCR THEME(e, native bread)]
 d. λxλe[EAT(e) & AGENT(e, x) & INCR THEME(e, native bread)]
 e. [vP pro [vP [v Ø [root √ʔəltən]] [PP ʔə [DP k^w sqəw]]]]
 f. λe[EAT(e) & AGENT(e, you) & INCR THEME(e, native bread)]

Note also that there are stems with the same root that appear with either null morphology or *-m*, reinforcing the claim that the null morpheme is a counterpart of the overt *-m* (see also Davis 1997 for St’át’imcets).

- (12) čək^wéʔam/ čək^wč ‘fry’

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Finally, as mentioned in Gerdts and Hukari (2011), monovalent intransitive verbs that describe an entity underdoing a directed change—unaccusative verbs—typically do not take *-m*. This observation further supports the notion that verbs suffixed with *-m* are unergative. In addition, unaccusative verbs transitive with *-t* (13b) and allow the morpheme *-els* (13c).

(13) *Unaccusative*

- a. niʔ q̄aʔ kʷθə-nə šeləces ʔə kʷθə-nə skʷu:kʷ.
 AUX added DET-1POS ring OBL DET-1POS cooking
 ‘My ring got added to my cooking.’
- b. niʔ cən q̄aʔ-t tʰə sciʔə ʔə tʰə sʰesəm.
 AUX 1SUB add-TR DET strawberry OBL DET soapberry
 I added strawberries to the soapberry dessert.
- c. niʔ cən q̄aʔ-els ʔə kʷθə s̄q̄pels.
 AUX 1SUB add-ACT OBL DET collection
 ‘I contributed to the collection.’

Only with unergative verbs is the external argument introduced by the verbalizing morphology. The transitive alternant of these unaccusative verbs have their external arguments added by Voice, requiring *-t* as the Voice head. Since these verbs have a Voice head, they also allow *-els*.

3.2 Cognate Objects

Gerdts (2010) notes that in Halkomelem, nouns can be made from unergative verbs with the addition of the prefix *s-*.

(14)	<i>Unergative verb</i>		<i>Cognate Object</i>	
	qʷal	‘speak’	sqʷal	‘speech, words’
	tiləm	‘sing’	st̄iləm	‘song’
	yays	‘work(v.)’	syays	‘work(n.)’
	ʔəltən	‘eat’	sʔəltən	‘food’

The appearance of a cognate object supports the view that these verbs are unergatives (Levin and Rappaport Hovav 1995)

- (15) t̄iləm cən ceʔ ʔə kʷ s-t̄iləm.
 sing 1.SUB FUT OBL DET N-sing.
 ‘I will sing a song.’

Verbs with cognate objects never appear with the transitive morpheme *-t* and never with the cognate object as a DP.

- (16) * qʷal-t ‘speak’; *t̄iləm-ət ‘sing’; *yays-t ‘work’; *ʔəltən-ət ‘eat’

Again, if these verbs are unergative, as evinced by their occurrence with a cognate object, then in the analysis presented here, these verb stems should not occur with *-t*, as these unergative verbs lack Voice (because by hypothesis, *-t* is a Voice head). A consequence of the analysis is that unergative verbs and agentive, optionally transitive verbs such as ‘eat’ have the same structure; both lacking Voice and both optionally allow objects.

3.3 Denominalization

The morpheme *-m* attaches to nouns to create denominal verbs, supporting the notion that this morpheme is a verbalizer (Gerdt and Hukari 2006).

- | | | | | |
|------|--------|-------------|----------|---------------|
| (17) | wekən | ‘wagon’ | wekənəm | ‘go by wagon’ |
| | patən | ‘sail’ (n.) | patənəm | ‘sail’ (v.) |
| | q’əwət | ‘drum’ (n.) | q’əwətəm | ‘drum’ (v.) |

3.4 Thematic Roles

There can be a difference in the theta role assigned to the subject with roots marked with *-els* compared to the same root with *-m*. Galloway (1993) notes that *-els* is always associated with agentivity but those roots suffixed *-m* are inconsistently agentive. He states with respect to *-els* that “all of the examples show that the subject is the semantic agent, doing the action on purpose (except where the subject is inanimate) and the semantic focus is on the activity not upon its results” (254). However, with *-m*, he writes “the ‘on purpose’ element is the most interesting because in the few examples where there is an *-əm* intransitive with the same verb root, the *-əm* intransitive had the meaning ‘not on purpose, happen to, accidentally’” (254). Thus, when *-els* and *-m* appear with the same root, the *-els* form has an agentive reading but the *-m* form need not.³

- | | | | |
|------|----|-----------|----------------------------|
| (18) | a. | hóqw-els | ‘smelling/sniffing’ |
| | b. | hóqw-em | ‘smell, give off a smell’ |
| (19) | a. | q’etx-áls | ‘to rattle, shivaree’ |
| | b. | q’etx-em | ‘to make a rattling sound’ |

These facts follow from the analysis here; as a Voice head, *-els* introduces an agent thematic role predicate and the subject is an argument of this predicate; no variation in the interpretation of the thematic role of the external argument is allowed with *-els*. With verbs suffixed with *-m*, there is no Voice head. The *-m* morphology is a verbalizer that merges with a root and introduces the external argument. The theta role of the external argument is determined by the semantics of the root, so we should expect variability.

- | | | |
|------|----|---|
| (20) | a. | [VoiceP DP [Voice’ els [vP [v √hóqw-Ø] PRO]]] |
|------|----|---|

³ Wiltschko (2006) treats the difference between the activity and middle suffix as a difference between ‘full control’ and ‘limited/no’ control marking for the subject.

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λe [SMELL(e) & AGENT(e, DP) & UNDERGOER(e, x)]

- b. $[_{vP} DP [_{vP} [_v \sqrt{h} \acute{o}q\omega\text{-}m]]]$
 λe [SMELL(e) & EMITTER(e, DP)]

3.5 Morpheme Order and Productivity

Gerdts and Hukari (2005) note that “if the transitive verb exists, then an antipassive with *-els* is also possible” Furthermore, Galloway (1993) states that “*-els* seems...to be the intransitive equivalent of the... transitivity *-(ə)t*.” By considering *-els* as an alternative head in Voice, it is not surprising that transitive verbs, which appear with the suffix *-t*, can take *-els* as well, since both are Voice heads.

Gerdts and Hukari (2005) also show it is possible for both *-els* and *-m* to appear together for some roots (21a,c), with *-m* being closer to the root than *-els* (the reverse is ungrammatical, see (21b)). This fact is surprising if these morphemes are detransitivizers. In our analysis, this order follows if *-m* is a verbalizer and *-els* a Voice head; *-m* merges first with the root to create a verb and then Voice is merged with the *vP*. Thus, *-els* will be further away from the root than *-m*. In these cases, the *-m* morpheme is reanalyzed as a verbalizer only, rather than as both a verbalizer and external argument introducer.

- (21) a. $\acute{q}^w\acute{a}l\text{-}\acute{a}m\text{-}els$ ‘barbeque’; $p\acute{a}p\acute{a}n\text{-}\acute{a}m\text{-}\acute{a}ls$ ‘plant’; $k^w\acute{s}\text{-}e\acute{?}\acute{a}m\text{-}els$ ‘burn’
 b. $*\acute{q}^w\acute{a}l\text{-}els\text{-}\acute{a}m$; $*p\acute{a}p\acute{a}n\text{-}\acute{a}ls\text{-}\acute{a}m$; $*k^w\acute{s}\text{-}els\text{-}(e\acute{?})\acute{a}m$
 c. $\acute{q}^w\acute{a}l\text{-}\acute{a}m\text{-}els$ $c\acute{a}n$ $ce\acute{?}$ $\acute{?}\acute{a}$ k^w $sce:\acute{t}\acute{a}n$ $\acute{?}\acute{a}w$ $k^w\acute{e}y\acute{a}l\text{-}\acute{a}s$.
 barbeque-MID-ACT 1SUB FUT OBL DET salmon COMP day-3SSUB
 ‘I am going to barbeque fish tomorrow.’

- (22) $[_{VoiceP} pro [_{Voice'} \acute{e}ls [_{vP} [_v \sqrt{q}^w\acute{a}l\text{-} m] [_{PP} \acute{?}\acute{a} k^w sce:\acute{t}\acute{a}n]]]]$

Gerdts and Hukari also notes that *-m* is less productive than *-els*; in my analysis, since *-m* is closer to the root, it is more derivation-like, so we expect less productivity. That is, only certain roots select *-m* as their verbalizer.

4. Lexical suffixes

The behavior of verbs with lexical suffixes shows that *-t/-els* pattern together separately from *-m*. Lexical suffixes are similar to incorporated nouns in that they typically have nominal reference and function as the internal argument (Gerdts 2003; Wiltschko 2009). When a verb with a lexical suffix appears with *-m* morphology, we get a subject reflexive interpretation for the possessor of the lexical suffix (23a), but not so with *-els* nor the transitive suffix *-t*. With the latter two, we get a nonspecific, generic (*-els*) (23b) or specific (*-t*) (23c) pronominal reading for the possessor.

- (23) a. $k^w\acute{a}x^w\text{-}\acute{a}w\acute{t}x^w\text{-}em$
 knock-house-MID
 ‘knock one’s own house’
 b. $k^w\acute{a}x^w\text{-}\acute{a}w\acute{t}x^w\text{-}els$

- knock-house-ACT
 ‘knock on people’s houses’
- c. $k^wax^w-\dot{a}wtx^w-t$
 knock-house-TR
 ‘knock on his/her house’.

I follow Wiltschko (2009) and consider that the lexical suffix itself introduces the possessor argument. Likewise, following Wiltschko (2009), the lexical suffix is an acategorical root that merges with the verb root, creating a compound root. My semantics for the compound root ‘knock-house’ is given below.

$$(24) \quad [[k^wax^w-\dot{a}wtx^w]] = \lambda x \lambda e \iota y [\text{KNOCK}(e) \ \& \ \text{UNDERGOER}(e, y) \ \& \ \text{POSS}(x, y) \ \& \ \text{HOUSE}(y)]$$

Let us see how the reflexive reading is derived. I have considered that the *-m* morpheme is a verbalizer that merges with a root to create a verb stem; at the same time, this verbalizer also introduces the external argument. I give in (19) a more explicit formal semantics for this head, borrowing and modifying slightly the semantics for verbal heads given in Irwin and Kastner (2020).

$$(25) \quad [[[_v \ m]]] = \lambda z \lambda e [\Theta(e, z)], \text{ where } \Theta \text{ is an external theta role predicate assigned by the root.}^4$$

The compound root in (24) merges with the *-m* suffix (25) to create a verb stem. These two elements semantically combine through Predicate Conjunction (Wood, 2015). As a result, the external argument introduced by the middle *-m* morphology is identified with the possessor argument introduced by the lexical suffix; in this way we get the reflexive reading (26). For this particular compound root, the external argument has an agent thematic role. Finally, the DP subject merges, saturating both the agent and possessor arguments (27).

- (26) a. $[_v \ [_{is} \ k^wax^w -\dot{a}wtx^w] \ m]$
 b. $\lambda x \lambda e \iota y [\text{KNOCK}(e) \ \& \ \text{UNDRGR}(e, y) \ \& \ \text{POSS}(x, y) \ \& \ \text{HOUSE}(y) \ \& \ \text{AGENT}(e, x)]$
- (27) a. $[_{vP} \ \text{pro} \ [_{vP} \ [_v \ [_{is} \ \sqrt{k^wax^w} -\sqrt{\dot{a}wtx^w}] \ m]]]$
 b. $\lambda e \iota y [\text{KNOCK}(e) \ \& \ \text{UNDRGR}(e, y) \ \& \ \text{POSS}(\text{pro}_1, y) \ \& \ \text{HOUSE}(y) \ \& \ \text{AGENT}(e, \text{pro}_1)]$

With the transitive *-t* and *-els* antipassive, we have a Voice/*vP* structure. The verbalizing morphology with these stems is null. Unlike above, this verbalizer does not introduce an argument. I give the semantics for this verbalizing head in (28a), again borrowing from Irwin and Kastner (2020). The verbalizer and the root semantically combine by Predicate Composition.

⁴ Irwin and Kastner (2020) gives an analysis of various verbs classes in English. I base the semantics for the *-m* verbalizer on their ‘transitive’ *v* head that introduces a theme theta role, though here I consider that this semantics is associated with the *v* head that creates unergative verbs and that the thematic role introduced is based on the root.

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- (28) a. $[[[v \ \emptyset]]] = \lambda P.P$
b. $[v [ls \ \sqrt{k^wax^w} -\sqrt{\acute{o}wtx^w}] \ \emptyset]$
 $\lambda x\lambda eiy[KNOCK(e) \ \& \ UNDERGOER(e, y) \ \& \ POSS(x, y) \ \& \ HOUSE(y)]$

A DP *pro* merges next, saturating the possessor argument.

- (29) $[_{vP} [v [ls \ \sqrt{k^wax^w} -\sqrt{\acute{o}wtx^w}] \ \emptyset]] \ pro_1]$
 $\lambda eiy[KNOCK(e) \ \& \ UNDRGR(e, y) \ \& \ POSS(pro, y) \ \& \ HOUSE(y)]$

Voice is added, introducing the external argument. Voice merges with the *vP* and semantically combines with the *vP* by Event Identification. A DP then merges to saturate this argument position. Because the external argument is added later in the derivation, after the possessor argument has been saturated by the object noun phrase, the subject does not become the possessor of the lexical suffix. No reflexive reading is obtained.

- (30) $[_{VoiceP} \ pro_2 [_{Voice} \ t/els [_{vP} [v [ls \ \sqrt{k^wax^w} -\sqrt{\acute{o}wtx^w}] \ \emptyset]] \ pro_1]]]$
 $\lambda eiy[KNOCK(e) \ \& \ UNDRGR(e, y) \ \& \ POSS(pro_1, y) \ \& \ HOUSE(y) \ \& \ AGENT(e, pro_2)]$

The difference between *-t* and *-els* in the interpretation of the pronoun results because of the case licensing difference between the oblique object and the DP object. The DP object is assigned absolutive case, and only an absolutive DP allows specific reference.

5. Conclusion

This analysis adds a further nuance to Davis's (1997) claim that transitives and unergatives in Salish are derived by morphosyntactic operations. It is similar in spirit to Wiltschko (2006) but does not need a lexical vs. syntactic introduction of arguments. It complicates our understanding of the antipassive construction; an antipassive morpheme does not involve argument reduction or demotion but introduces an external argument in Voice or is involved with verbalizing a root as well as introducing an external argument. We give further support for monotonicity in natural language (Kiparsky, 1983; Koontz-Garboden, 2012); that is, word formation operations add, but do not remove, meaning. This view of antipassivization in Salish supports Tollan's (2018) argument, based on data from unergatives and cognate objects in Samoan, that some clauses lack a Voice head.

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David Basilico
basilico@uab.edu