

# Reversing the Projection:

## The middle suffix in Salish

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### Problem

The middle morpheme  $-m$  in Halkomelem Salish is polyfunctional, being used to mark some unergatives, denominals, antipassives, and inchoatives (Gerdts and Hukari 2006). Unaccusative (externally caused change of state) intransitive verbs have no morphology.

### Data

#### (1) Monoargumental Intransitives

##### Group One: Actions

Activities:

	həw'al'am	‘play’
	ʃk'wam'	‘swim’
Manner of Speaking Verbs:		
	q'ewəm	‘howl’
	yənəm	‘laugh’
Motion Verbs		
	c'tem	‘crawl’
	cɬ'am	‘jump’
Spatial Configuration		
	q'ewəm	‘kneel’
	ʔasəm	‘face towards’

##### Group Two: Non Agentive Events

Body Processes

	c'anəm	‘tremble’
	hesəm	‘sneeze’
	c'isəm	‘grow’
Motion Verbs (nonagentive)		
	siləm	‘roll’
	hiləm	‘fall from a height’

	meyəqəem	‘ripple’
Change of State(no external cause is implied)		
	p'a:m	‘swell up’
	p'eq'am	‘bloom’
	t'at <sup>θ</sup> əq'wəm	‘rotting’
Verbs of Emission		
	ɬew'səm	‘glitter’
	haq'wəm	‘smell bad’
	ɬ'ewəq'am	‘flicker (light)’

#### (2) Antipassive/Unaccusative

Intransitive	Transitive	Antipassive
pən	pən-ət	pən'-əm
‘get buried’	‘bury it’	‘plant, sow’
q'əp	q'p-ət	q'p-eʔəm
‘gathered’	‘gather it’	‘gather’
k'wes	k'wes-ət	k'ws-eʔəm
‘get hot’	‘heat it’	‘heat over flames, singe’
		mət' <sup>θ</sup> -eʔəm
mit' <sup>θ</sup>	mit' <sup>θ</sup> -ət	‘mash’
‘get mashed’	‘mash it’	pq'w-eʔəm
pəq'w	pq'w-a-t	‘break some off’
‘break’	‘break it’	sq'-eʔəm
səq'	sq'e-t	‘tear off a piece’
‘split, tear’	‘tear it’	

(2a)	kʷət	kwθə	ʃtihelə.	
	spill	DET	teapot	
	The kettle spilled.			
(2b)	niʔ	kʷɬ-t-əs	tʰə	qaʔ
	AUX	spill-TR-3ERG	DET	water
	He poured the water.			
(2c)	nemʹ	kʷɬ-eʔəm	ʔə	tʰə
	go	spill-AP	OBL	DET
	qaʔ.			
	water			
	Go pour some water (for the people).			

#### (3)Inchoative

liq'w	‘slack’	liq'wəm	‘get calm’
ʔiyəs	‘happy’	ʔiyəsəm	‘get happier’
itət	‘sleep’	ʔitətəm	‘get sleepy’

#### (4) Denominal

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

### Proposal

Monargumental intransitives with  $-m$  are **unergative**. The morpheme  $-m$  is a  $v$  head that combines with a root to create an eventive verb that introduces an argument.

(5)  $m: \lambda R \lambda x \lambda e [R(e, x)]$   
[<sub>VP</sub> [<sub>V</sub> Root- $m$ ] NP]

**Unaccusative** (externally caused change of state) roots merge with a null  $v$  head that introduces an event argument only. Their entity argument is introduced by a separate head, Trans (Zeller 1998), which contains an *undergoer* thematic role predicate, similar to the way the external argument is introduced in Kratzer (1996).

(6)  $v: \lambda R \lambda e [R(e)]$  Trans:  $\lambda x \lambda e [und(e, x)]$   
[<sub>TransP</sub> NP [<sub>Trans'</sub> Trans [<sub>VP</sub> [<sub>V</sub>  $v$  Root]]]]  
 $\lambda x \lambda e [und(e, x) \& V(e)]$

**Transitive** verbs based on unaccusative roots introduce both arguments through thematic role predicates in separate heads external to the VP, Voice and Trans.

(7) Voice<sub>trans</sub>- $t$ :  $\lambda x \lambda e [agent(e, x)]$   
[<sub>VoiceP</sub> NP [<sub>Voice'</sub>  $t$  [<sub>TransP</sub> NP [<sub>Trans'</sub> Trans [<sub>VP</sub> [<sub>V</sub>  $v$  Root]]]]]]  
 $\lambda e [agent(e, NP) \& und(e, NP) \& V(e)]$   
(see Wiltschko (2006) for discussion of  $-t$ )

### Support

#### Variable/Stable Thematic Role

The thematic role of the  $-m$  intransitive is given by the root itself; we do not necessarily expect a consistent thematic role to be assigned. For intransitive verbs that appear with null morphology, Gerdts and Hukari (2006:37) point out they are change of state verbs with an implied external causer. The sole NP of null morphology verbs are consistently patients or undergoers, being introduced syntactically.

#### Selectional restrictions on argument

Some  $-m$  verbs select specific types of arguments. (8a) liq'wəm ‘get calm’ applies to water and weather. (8b) x'wʔənəx'wəm ‘stop’ applies to the flow of the tides.

#### ‘Roll’ and Transitivity (Gerdts and Hukari 1998)

(9) Intransitive

naʔət	yə-sil'-əm'	t <sup>θ</sup> ə	snəx'wəl-s
AUX	ser-roll-MID	DET	canoe-3.POS

k'wθə	xwənitəm'.
DET	white.man

The white man's car is rolling.

(10) Transitive

Nem'	si:lt	t <sup>θ</sup> ə	wekən
go	roll-TR	DET	wagon

q'wəsət	ʔə	tθə	stal'əw'.
dip-TR	OBL	DET	river

Go and roll the wagon into the river.

(11) *-els* intransitivizer, which introduces an agentive argument, cannot appear on si:l ‘roll’, nor does it appear with typical unergatives \*q'wəyiləš-els ‘dance’.

(12) Internally caused unergative in the intransitive

Intransitive sil'-əm:  $\lambda x \lambda e [roll(e, x)]$   
[<sub>VP</sub> [<sub>V</sub> si:l-əm] [<sub>NP</sub> snəx'wəl-s k'wθə xwənitəm']]  
 $\lambda e [roll(e, car)]$

(13) Externally caused in the transitive

Transitive: si:l:  $\lambda e [roll(e)]$   
[<sub>VoiceP</sub> pro [<sub>Voice'</sub>  $t$  [<sub>TransP</sub> [wekən] [<sub>Trans'</sub> Trans [<sub>VP</sub> [<sub>V</sub>  $v$  sil]]]]]]  
 $\lambda e [agent(e, you) \& und(e, wagon) \& roll(e)]$

### Support (cont.)

#### Antipassives

The  $-m$  morpheme appears on unaccusative roots with two-argument semantics but intransitive syntax. They merge with  $-m$  to introduce an argument which appears within the VP, where the NP gets an oblique case.

(14)Root: k'wət  
Unaccusative k'wət:  $\lambda e [spill(e)]$   
[<sub>TransP</sub> kwθə ʃtihelə [<sub>Trans'</sub> Trans [<sub>VP</sub> [<sub>V</sub>  $v$  k'wət]]]]  
 $\lambda x \lambda e [und(e, kettle) \& spill(e)]$ .  
(15)Antipassive: k'wɬ-eʔəm:  $\lambda x \lambda e [spill(e, x)]$   
[<sub>VoiceP</sub> pro [<sub>Voice'</sub> Voice [<sub>VP</sub> [<sub>V</sub> k'wɬ-m ] [<sub>NP</sub> ʔə t<sup>θ</sup>ə qaʔ] <sub>obl</sub>]]]  
 $\lambda e [agent(e, he) \& spill(e, water)]$   
(16) Transitive: k'wət:  $\lambda e [spill(e)]$   
[<sub>VoiceP</sub> pro [<sub>Voice'</sub>  $t$  [<sub>TransP</sub> t<sup>θ</sup>ə qaʔ [<sub>Trans'</sub> Trans [<sub>VP</sub> [<sub>V</sub>  $v$  k'wɬ]]]]]]  
 $\lambda e [agent(e, he) \& und(e, water) \& spill(e)]$

(17) null antipassive				
ʔəɬtən	ʔə	č	ceʔ	ʔə
eat	Q	2.SUB	FUT	OBL

k'w sqəw?  
DET native.bread  
Will you eat some First Nations style bread?

These verbs skew toward the non-core transitive verb, which license their own argument (RH and Levin 1998).

The *-els* suffix (Gerdts and Hukari 2010, Galloway 1993) Galloway (1993:254) notes that “the examples show that the subject is a semantic agent, doing the action on purpose (except where the agent is inanimate) and the semantic focus is upon the activity not upon its result”  
(18a) hóqw-els ‘smelling/sniffing’  
(18b) hóqw-em ‘smell, give off a smell’

(19) <i>-els</i> antipassive (more common than $-m$ )			
naʔət	qws-els	ʔə	t <sup>θ</sup> ə
AUX	go.in.water.ACT	OBL	DET

ɬ'eləm' sce:ɬtən.  
salted salmon  
She soaked the salted fish.

(20) *-els* and  $-m$  can cooccur  
q'wəl-əm-els cən ceʔ ʔə k'w sce:ɬtən.  
bake-MID-ACT 1SUB FUT OBL DET salmon  
I am going to barbeque fish.

*-els* is an intransitive Voice head that introduces an agent thematic role predicate.

(21) [<sub>VoiceP</sub> NP [<sub>Voice'</sub> els [<sub>VP</sub> [<sub>V</sub>  $v$  hóqw ]]  
 $\lambda e [agent(e, NP) \& smell(e)]$   
(22) [<sub>VP</sub> [<sub>V</sub> hóqw-m] NP]  
 $\lambda e [smell(e, NP)]$   
(23)[<sub>VoiceP</sub> pro [<sub>Voice'</sub> els [<sub>VP</sub> [<sub>V</sub> q'wəl-əm][<sub>NP</sub> ʔə k'w sce:ɬtən]]]  
 $\lambda e [agent(e, I) \& barbeque(e, salmon)]$

### Consequences

A unified analysis of the middle morpheme  $-m$  is given.

Internal arguments can (but need not) be introduced by the morphosyntax (Borer 2005, 2013, Londahl 2014).

Some arguments have a thematic role assigned by the root but are introduced through the morphosyntax.

The verbs that have their argument structure built up completely syntactically are core transitive verbs.

Unergative NPs can be internal to VP; unaccusative NPs are external, which reverses standard practice.