

# PSYCH PREDICATES AND APPLICATIVES IN SALISH\*

Donna B. Gerdts and Kaoru Kiyosawa  
Simon Fraser University

## 1. Introduction

There are two means for expressing a psychological event involving an experiencer and a stimulus in Salish languages. First, as seen in the following examples from Halkomelem<sup>1</sup>, the psych construction can be an intransitive clause with the experiencer expressed as subject and the stimulus as an oblique:<sup>2</sup>

(1) ni cən siʔsiʔ ʔə kʷθə snəxʷəł.  
AUX 1SUB frighten OBL DET canoe  
'I was frightened at the car.'

(2) niʔ ǰel kʷθə swiwləs ʔə kʷθə sqʷaqʷəl-s kʷθə ləplit.  
AUX believe DET boy OBL DET word-3POS DET priest  
'The boy believed the priest's words.'

Second, it is possible to express the psychological event as an applicative construction. The verb is suffixed with the relational suffix *-meʔ* (from *\*-min* (Gerdts and Kiyosawa 2003)) and the stimulus is the direct object:

(3) ni cən siʔsiʔ-meʔ-t kʷθə sqʷəmeý.  
AUX 1SUB frighten-REL-TR DET dog  
'I was frightened at the dog.'

(4) niʔ ǰel-meʔ-t-əs kʷθə swiwləs kʷθə ləplit.  
AUX believe-REL-TR-3ERG DET boy DET priest  
'The boy believed the priest.'

---

\* Our research is part of an on-going SSHRC-funded project by Donna Gerdts and Tom Hukari to study classes of verb roots and how they combine with prefixes and suffixes. Also this is part of a pan-Salish study on applicatives that Kaoru Kiyosawa is writing as a dissertation. Versions of this paper were presented as Gerdts and Kiyosawa (2003, to appear) and we thank those audiences as well as the CLA audience for their questions and comments. We also thank Tom Hukari and Charles Ulrich for suggestions and criticisms.

<sup>1</sup> The data that we present here are based on our original fieldwork with speakers of the Island dialect (həlǰəmínə́m) and the Downriver dialect (hə́nǰəmínə́m). We label the latter data as (DR). Our field research has been funded by grants from Jacobs Fund, SFU, and SSHRC. We would like to thank the speakers who have worked with us on this data, including Arnold Guerin, Bill Seward, Theresa Thorne, and especially Ruby Peter. Errors remain our own responsibility.

<sup>2</sup> The following abbreviations are used in glossing the data: APPL applicative, ART article, AUX auxiliary, CONT continuative, CS causative, DET determiner, ERG ergative, GEN genitive, DRV derivational suffix, LOC locative, NEG negative, NOM nominalizer, OBJ object, OBL oblique, PL plural, POS possessive, REL relational, SG singular, SUB subject, TR transitive, UNR unrealized.

The surface transitivity of psych applicatives is apparent from the presence of the transitive suffix in (3) and (4). Furthermore, the third person subject of the psych applicative in (4) determines ergative agreement, while the subject in (2) does not.<sup>3</sup>

In this paper, we give a brief exploration of psych applicatives in Salish languages. In section 2, we frame applicative structures in general and then situate psych applicatives within this picture. In section 3, we give more details concerning the psych applicative construction in one Salish language, Halkomelem. We conclude that psych applicative constructions are robustly attested in Salish languages. Turning to a brief cross-linguistic survey of psych applicatives in section 4, we conclude that they are relatively rare in languages of the world and thus the Salish data are an important example of this phenomenon.

## 2. Salish applicatives

There are 23 languages in the Salish language family of the Pacific Northwest, and they are grouped into 5 branches as shown in Table 1.

Branch		Language
Bella Coola		Bella Coola
Central Salish		Comox/Sliammon, Clallam, Halkomelem, Lushootseed, Nooksack, Northern Straits, Pentlatch, Sechelt, Squamish, Twana
Interior Salish	Northern Interior Salish	Lillooet, Shuswap, Thompson
	Southern Interior Salish	Coeur d'Alene, Columbian, Kalispel/Flathead/Spokane, Okanagan/Colville
Tsamosan		Lower Chehalis, Upper Chehalis, Cowlitz, Quinault
Tillamook		Tillamook

Table 1: Branch of the Salish language family

Salishan languages are known for their polysynthetic structure. They exhibit a large number of affixes (prefixes, suffixes, and infixes) and reduplications, a rich agreement system of personal inflection, a rich system of transitive suffixes, and lexical suffixation (which is like noun incorporation, only the lexical suffix bears no resemblance to free-standing noun of same or similar meaning). A template for the verbal suffixes is given in Table 2.

---

<sup>3</sup> For further evidence concerning the syntactic analysis of Halkomelem applicatives, see Gerdts (1988) and Gerdts and Kiyosawa (2003).

root	+1 lexical suffix	+2 applicative	+3 antipassive	+4 transitive (- control, causative)	+5 object, passive, reflexive, reciprocal	+6 subject
------	-------------------------	-------------------	-------------------	---	---	---------------

Table 2. Verbal suffix template<sup>4</sup>

In this paper, we address aspect one function of the zone 2 suffixes—the applicatives. An applicative construction is where a non-patient NP is the object of the clause and verb morphology signals the semantic role of the object. As previously shown in Kiyosawa (1999, 2000, 2002), Salish languages have two types of applicatives—redirective and relational. In redirective constructions, the verb stem is usually transitive, and the semantic role of the applied object is usually goal, benefactive, malefactive, or possessor. For example, observe the following dative applicative:

- (5) *Spokane* (Carlson 1980:24)  
 x<sup>w</sup>íç-š-t-ən                      łu? Agnes łu? t yámǰ<sup>w</sup>e?  
 gave-APPL-TR-1SG.SUB ART Agnes ART OBL basket  
 ‘I gave a basket to Agnes.’

In contrast, in relational applicatives, the verb stem is intransitive. The semantic role of the applied object is usually stimulus of a psychological or perceptual event, goal or direction of motion, goal of a speech act, source, or undergoer of an adverse event.

#### Psychological Event

- (6) lháyel-**mít**                      ‘ashamed of’ *Sechelt* (Beaumont 1985:108)  
 (7) c-ləš-eš(-s)-wəš-š              ‘angry at’ *Tillamook* (Egedal & Thompson 1998:257)

#### Motion

- (8) təkʔilx-**mn-s**                      ‘run to’ *Shuswap* (Kuipers 1992:50)  
 (9) k<sup>w</sup>ənəŋàt-**nəs-áŋəs**              ‘ran after’ *Saanich* (Montler 1986:168)

#### Speech Act

- (10) q<sup>w</sup>ay-**mi-θi**                      ‘scold’ *Sliammon* (Watanabe 1996:53)  
 (11) yáʔš-**n-ń**                      ‘tell’ *Upper Chehalis* (Kinkade 1991:170)

#### Transfer-Source

- (12) k<sup>w</sup>úlŋ-**ni-t**                      ‘borrow from’ *Squamish* (Kuipers 1967:79)  
 (13) qáda-**di-d**                      ‘steal from’ *Lushootseed* (Bates, Hess & Hilbert 1994:172)

<sup>4</sup> This template is just a heuristic device—not a formal treatment of the morphology. After all, outer layer morphology often creates the right sort of base for earlier morphology in the template, creating another “cycle” of suffixation. See Gerds (to appear) for some examples of this.

Adversative

(14) č'əł-**ni**-θay-ə**m** 'I got rained on.' *Sliammon* (Watanabe 1996:334)

(15) tékł-**m**-t-i-t 'We get rained on.' *Thompson* (Thompson & Thompson 1992:74)

There are twelve different applicative suffixes in Salish languages, and the reconstruction of proto-forms are done by Kinkade (1998): \*-*xi* (-*xi*, -*ši*, -*si*, -*yi*), \*-*VmV* (-*ʔəm*, -*émt*, -*tmi*), -*as/-əs*, -*ł*, -*łc*, -*tułt*, -*tx<sup>w</sup>t*, \*-*mi* (-*min*, -*min*?, -*mis*, -*me*?, -*bi/-i*, -*əwi*, -*ŋiy*), -*m*, \*-*ni* (-*di*), \*-*nəs* (-*c/-s*, -*tas/-ts*), -*amk*. Each Salish language has from two to six applicative suffixes, and at least one redirective and one relational suffix as shown in Table 3.

Branch	Language	Redirective #: Relational #	Redirective	Relational
Bella Coola	Bella Coola	??1:1	ʔ- <i>amk</i>	- <i>m</i>
Central Salish	Comox/Sliammon	1:2	- <i>ʔəm</i>	- <i>mi</i> , - <i>ni</i>
	Sechelt	1:2	- <i>ém</i>	- <i>mí</i> , - <i>ni</i>
	Squamish	1:2	- <i>ši</i>	- <i>min</i> ?, - <i>ni</i>
	Clallam	1:2	- <i>sí</i>	- <i>ŋə</i> , - <i>nəs</i>
	Saanich	1:2	- <i>si</i>	- <i>ŋiy</i> , - <i>nəs</i>
	Halkomelem	2:2	- <i>as</i> , - <i>łc</i>	- <i>me</i> ?, - <i>nəs</i>
	Lushootseed	1:3	- <i>yi</i>	- <i>bi</i> , - <i>di</i> , - <i>c/-s</i>
Tillamook	Tillamook	1:2	- <i>ši</i>	- <i>əwi</i> , - <i>əs</i>
Tsamosan	Upper Chehalis	3:3	- <i>š i</i> , - <i>tmi</i> , - <i>tux<sup>w</sup>t/-tx<sup>w</sup>t</i>	- <i>mis/-mn</i> , - <i>ni</i> , - <i>tas/-ts</i>
Northern Interior Salish	Lillooet	1:1	- <i>xi</i>	- <i>min/-min</i>
	Thompson	1:1	- <i>xi</i>	- <i>mi</i>
	Shuswap	1:1	- <i>x(i)</i>	- <i>m(i)</i>
Southern Interior Salish	Okanagan	3:1	- <i>xi</i> , - <i>ł</i> , - <i>túł</i>	- <i>min</i>
	Kalispel/Spokane	2:1	- <i>ši</i> , - <i>ł</i>	- <i>mi</i>
	Coeur d'Alene	3:1	- <i>ši</i> , - <i>ł</i> , - <i>túł</i>	- <i>mi</i>
	Columbian	3:1	- <i>xi</i> , - <i>ł</i> , - <i>túł</i>	- <i>mi</i>

Table 3. Distribution of redirective vs. relational applicatives<sup>5</sup>

Relational applicative suffixes show up in all of the Salish languages. They are used for psychological events, as in (6) and (7), goals of motion, as in (8) and

<sup>5</sup> The key references that were consulted to ascertain the pan-Salish facts were:

Bella Coola (Davis and Saunders 1997), Clallam (Montler 1996), Coeur d'Alene (Doak 1997), Columbian (Kinkade 1980, 1982), Halkomelem (Gerdt 1988), Lillooet (Van Eijk 1997), Lushootseed (Bates, Hess, and Hilbert 1994, Hess 1967), Okanagan (A. Mattina 1994, N. Mattina 1993), Saanich (Montler 1986), Sechelt (Beaumont 1985), Shuswap (Kuipers 1974, 1992), Sliammon/Comox (Watanabe 1996), Kalispel/Spokane (Carlson 1972, 1980), Squamish (Kuipers 1967), Thompson (Thompson and Thompson 1980, 1992), Tillamook (Egesdal and Thompson 1998), Upper Chehalis (Kinkade 1991). See Kiyosawa (1999, 2002) for more details.

(9), goals of speech acts, as in (10) and (11), the source of transfer verbs, as in (12) and (13), and for the undergoer of adverse events as in (14) and (15). Table 4 summarizes how the various meanings of relational applicatives are expressed by the different suffixes. The forms are given from the Proto-Salish perspective, following Kinkade’s (1998) reconstructions.

	Psychological Event	Motion	Speech Act	Adversative	Source
N. Interior Salish	*	*-mi		Ø	Ø
S. Interior Salish					Ø
Other Central Salish					*-ni
Lushootseed	*-ni, *-nəs	*-nəs	*-nəs	Ø	*-ni
Tillamook			*-nəs	Ø	Ø
Upper Chehalis		*-mi	*-ni, *-nəs	Ø	Ø
Squamish	*-ni		*-ni	Ø	*-ni

Table 4. Salish relational applicatives

This paper focuses on one use of the relational applicative—its use to encode the stimulus of a psychological event. We see it is a general Salish pattern to use a relational applicative on a psychological predicate. For example, the following data show psych applicatives based on the root meaning ‘afraid’ in several languages:

- (16) *Sechelt* (Beaumont 1985:102)  
 čásxém-mí-t  
 afraid-REL-TR  
 ‘be afraid of someone/ something’
- (17) *Halkomelem* (Gerds 1988b:139)  
 síʔsiʔ-meʔ-t  
 afraid-REL-TR  
 ‘afraid of him/her/it’
- (18) *Lushootseed* (Hess 1967:39)  
 xəc-bí-d  
 afraid-REL-TR  
 ‘afraid of him’
- (19) *Lillooet* (Van Eijk 1997:114)  
 páq<sup>w</sup>uʔ-mín  
 afraid-REL:TR  
 ‘to be afraid of something’

- (20) *Shuswap* (Kuipers 1992:50)  
 nʰɛl-mn-s  
 afraid-REL:TR-3ERG  
 ‘be afraid of’
- (21) *Okanagan* (A. Mattina 1994:219)  
 n-ʰílməntsən  
 //n-ʰíl-min-nt-s-ən//  
 LOC-afraid-REL-TR-2OBJ-1ERG  
 ‘I got scared of you.’
- (22) *Coeur d’Alene* (Doak 1997:178)  
 iʔ-n-ʰíł-mən-əm.  
 //in-ʔc-hn-ʰíł-min-m//  
 2GEN-CONT-LOC-fear-REL-M  
 ‘Thou art fearing him.’
- (23) *Upper Chehalis* (Kinkade 1991:113)  
 q<sup>w</sup>án-ts  
 afraid-REL  
 ‘afraid of’
- (24) *Tillamook* (Egesdal and Thompson 1998:254)  
 qeš qe n-ʰ<sup>w</sup>aʔəš-əwí-n-i k s-qéʰe?  
 NEG UNR LOC-afraid-REL-DRV-1SUB ART NOM-dog  
 ‘I am not afraid of dogs.’

Thus, the evidence points towards the psych applicative being a very old construction within the Salish language family.

### 3. Halkomelem psych applicatives

In this section we turn to a case study based on original fieldwork on psych applicatives in one Salish language, Halkomelem, a Central Salish language, currently spoken by around one hundred elders in southwest British Columbia.

As illustrated in the previous section, Salish applicative constructions can be divided into two types—redirective and relational. Halkomelem has two suffixes of each type, and psych applicative suffix *-meʔ* is one of the two relational applicative suffixes—the directional suffix *-nəs* and the general relational applicative suffix *-meʔ*. We call *-meʔ* the general relational suffix, for want of a better term. It has a variety of uses: it appears when the applied object is the stimulus of a psychological predicate, the source of a verb of motion, the goal of a speech act, the sufferer of an adversative, or the benefactive of an intransitive verb.

(25) *-meʔ* general relational applicative

a. stimulus of psychological or cognitive predicate

łciws	‘tired’	łciws-meʔ-t	‘tired of him/her’
qel	‘believe’	qel-meʔ-t	‘believe him/her’
siʔsiʔ	‘afraid’	siʔsiʔ-meʔ-t	‘afraid of him/her’
xiʔxeʔ	‘ashamed’	xiʔxeʔ-meʔ-t	‘ashamed of him/her’

b. source of verb of motion

łəw	‘run away’	łəw-mə-t	‘run away from him/her’
k <sup>w</sup> əl	‘hide’	k <sup>w</sup> əl-meʔ-t	‘hide from him/her’

c. goal of speech or expressive act

xe:m	‘cry’	xe:xe:m-mə-t	‘crying over him/her’
q <sup>w</sup> al	‘speak’	q <sup>w</sup> əl-mə-t	‘lecture to, bawl out him/her’

d. adversative (often in passive)

θeʔc	‘get dark’	θeʔc-meʔ-t	‘get dark on him/her’
łəməx <sup>w</sup>	‘rain’	łəməx <sup>w</sup> -meʔ-t-əm	‘(he/she/it) get rained on’

e. benefactive of intransitive verb

k <sup>w</sup> uk <sup>w</sup>	‘cook’	k <sup>w</sup> uk <sup>w</sup> -meʔ-t	‘cook for him/her’
ya:ys	‘work’	ya:ys-meʔ-t	‘work for him/her’

The most common use of the suffix *-meʔ* (common in the sense that it appears on the greatest number of different predicates) is with psych applicatives. To date we have found 27 examples of psychological, cognitive, or perceptual predicates that form applicatives. We give these in the following table.

Gloss	Halkomelem
afraid, frightened of	siʔsiʔmeʔt
annoyed at	ciwəlmət (DR)
astonished, surprised at	ciqmeʔt
believe (lies)	qelmeʔt
dream about	ʔəlʔəlyəmət (DR)
embarrassed, shy of	xi:ʔxeʔmeʔt
fed up with	k <sup>w</sup> iləmeʔt
forget about	meiqmeʔt
get full of	məqmiʔt (DR)
happy for	hilək <sup>w</sup> meʔt
happy for	ʔiyəsmeʔt
jealous of	wəwistəñəqmeʔt
lonely, sad for	səlsəlq <sup>w</sup> meʔt
mad at	tetiyaqmət
miss	qəlmeʔt
respect	siʔəmməʔt
remember	hek <sup>w</sup> meʔt
sad for	qiləsmeʔt
sad for	səwsəwmeʔt
sense	siwəlməʔt
startled at	t <sup>h</sup> əyk <sup>w</sup> meʔt
suspicious of	k <sup>w</sup> elək <sup>w</sup> meʔt
think, decide about	x <sup>w</sup> θtiwənməʔt
think that way about	štəʔe:wəñməʔt
think about	x <sup>w</sup> q <sup>w</sup> ələwənməʔt
tired of waiting for	qsəmeʔt
tired of	łciwsmeʔt

Table 5. Halkomelem Psych Applicatives

The relational suffix appears immediately following the verb stem, or it can follow a lexical suffix, as in the following example:

- (26) š-təʔe:-wəñ-meʔ-t  
 NOM+LOC-like.that-INSIDE-REL-TR  
 ‘thinking that way about it/him/her’

As part of our attempt to locate examples of psych applicatives, we took a list of psych predicates and tried to elicit them. We have found only a couple of potential predicates that do not allow the applicative suffix, and these are given in (27).



- (27) \*k<sup>w</sup>eýk<sup>w</sup>əý-meʔ-t            ‘hungry for it’  
 \*təǰ-meʔ-t                            ‘make a mistake about it’  
 \*hile:nəq-meʔ-t                    ‘pretending about it’  
 \*x<sup>w</sup>en-meʔ-t                        ‘relieved about it’

Although further research needs to be done on this topic, we conclude that almost all psych predicates form applicatives. This is quite a general, productive construction in Halkomelem.

#### 4. Psych applicatives in cross-linguistic perspective

A quick look at the cross-linguistic literature suggests that psych applicatives are relatively rare in the languages of the world. Peterson (1999:122) gives some general observations on the types of applicative constructions from a survey that he conducted based on data from fifty languages, as summarized in Table 6:

Type	% of languages
Benefactive/malefactive	80%
Comitative	60%
Locative	50%
Instrumental	40%
Circumstantial	20%

Table 6. Peterson’s (1999) survey of applicatives in 50 languages

He observes that nine languages have “circumstantial” (aka causal) applicatives. These are: Caquinte, Chichewa, Halkomelem, Kalkatungu, Maasai, Tepehua, Tukang Besi, West Greenlandic, and Zoque. However, “circumstantial” is a cover term for several types of applicatives, including reason as well as stimulus. When we revisited Peterson’s sample languages, we found that only Halkomelem and West Greenlandic had the psych use of the circumstantial applicative. Chichewa, Kalkatungu, Maasai, Tepehua, and Tukang Besi did not. We could not find enough data on Caquinte and Zoque to determine the nature of their circumstantial applicatives. However, it may be the case that in fact only two out of the fifty languages in Peterson’s sample exhibit psych applicatives.

The relevant applicative in West Greenlandic has been discussed by Fortescue (1984:89–90), who says: “The affix *ut(i)*...has a ‘relation-shifting’ function covering a range of semantic senses, roughly ‘with/for/with respect to...’” Examples include:

- (28) nassarpaa ‘he brings it along’    nassaappaa ‘he brings s.th. along for/to him’  
 tikippuq ‘he has arrived’            tikiuppaa ‘he has brought it’  
 atuarpuq ‘he read’                    atuvvappaa ‘he read (aloud) for him’  
 kamappuq ‘he is angry’                kamaappaa ‘he is angry with him’

Notably the last example in (28) is a psych applicative.

The scarcity of psych applicatives in Peterson’s data led us on a search for this construction in other languages. So far we have found two other examples.

One of them is from the Muskogean language Chickasaw (Munro and Willmond 1994:168, 171):

- (29) ishtayoppa ‘to be happy about, proud of’; cf. ayoppa ‘to be happy’  
 ishtikimalhpi’so ‘to be sad about, lonely for’; cf. ikimalhpi’so ‘to be sad’

Also, some Austronesian languages apparently have applicative affixes which can be used for applied objects that are stimuli. For example, Bowden (n.d.) says: “Taba has two applicative affixes which derive verbs with added non-Actor arguments. Applied arguments can have a variety of different semantic roles.” And among the examples of each affix, we found some that could be considered psych constructions:

- (30) Wangsi lkiuak baratci.  
 wang=si l=kiu-ak barat-si  
 child=PL 3PL=be.scared-APPL westerner=PL  
 ‘The children are scared of westerners.’

- (31) Oci namaro Iswan.  
 Oci n=ha-mara-o Iswan  
 Oci 3SG=CS-be.angry-APPL Iswan  
 ‘Oci is angry at Iswan.’

So the notion of stimulus is one that is coded either in case systems or applicatives, depending on the devices at hand in a particular language.

In sum, our search has so far uncovered psych applicatives in four language families: Austronesian, Eskimo-Aleut, Muskogean, and Salishan. Although we are bound to find more examples of psych applicatives, it is apparent that this is not a common phenomenon. So Salish languages are important to the cross-linguistic picture, especially because psych applicatives are robustly attested in this family. All the Salish languages have them. And as we have seen in Halkomelem, psych applicatives are the most common use of the general relational applicative. Furthermore, almost all psychological predicates in Halkomelem form applicatives. This is apparently a productive process.

It is noteworthy that there is no unique morpheme to mark the psych applicative in any of the languages we have seen—Chickasaw, West Greenlandic, Taba, or Halkomelem and other Salish languages. The morpheme is always used for other meanings as well. So in a sense, the psych meaning is parasitic off of a more general applicative system. Furthermore, Kiyosawa (1999) shows that Salish languages exhibit the full range of applicatives discussed by Peterson (see Table 6), although comitative and instrumental applicatives are not common. It may be the case that psych applicatives arise only at the edge of an elaborate applicative system. Further work on the typology of applicative systems should shed light on this issue.

## References

- Bates, Dawn, Thom Hess, and Vi Hilbert. 1994. *Lushootseed dictionary*. Seattle: University of Washington Press.
- Beaumont, Ronald C. 1985. *She shashishalhem, the Sechelt language: Language, stories and sayings of the Sechelt Indian people of British Columbia*. Penticton, British Columbia: Theytus Books.
- Bowden, John. n.d. Taba as a 'split-O' language: Applicatives in a split-S system. <http://linguistics.anu.edu.au/WP/Bowden2.html>
- Carlson, Barry F. 1972. *A grammar of Spokane: A Salish language of eastern Washington*. Doctoral dissertation, University of Hawaii.
- Carlson, Barry F. 1980. Two-goal transitive stems in Spokane Salish. *International Journal of American Linguistics* 46: 21–26.
- Davis, Philip W., and Ross Saunders. 1997. *A grammar of Bella Coola*. University of Montana Occasional Papers in Linguistics 13.
- Doak, Ivy Grace. 1997. *Coeur d'Alene grammatical relations*. Doctoral dissertation, University of Texas at Austin.
- Egedal, Steven M., and M. Terry Thompson. 1998. A fresh look at Tillamook (Hutéyu) inflectional morphology. In *Salish Languages and Linguistics: Theoretical and descriptive perspectives, Trends in linguistics: Studies and monographs* 107, eds. Ewa Czaykowska-Higgins and M. Dale Kinkade, 235–273. Berlin: Mouton de Gruyter.
- Fortescue, Michael. 1984. *West Greenlandic*. London: Croom Helm.
- Gerdts, Donna B. 1988. *Object and absolute in Halkomelem Salish*. New York: Garland Publishing.
- Gerdts, Donna B. to appear. Combinatory Conditions on Halkomelem Causatives. *Linguistics*.
- Gerdts, Donna B. and Kaoru Kiyosawa. 2003. Halkomelem psych applicatives. In *International Conference on Salish and Neighbouring Languages* 38: 127–159.
- Gerdts, Donna B. and Kaoru Kiyosawa. to appear. Salish psych applicatives. In *Proceedings of the Workshop on American Indigenous Languages, Santa Barbara Working Papers in Linguistics*.
- Hess, Thomas M. 1967. *Snohomish grammatical structure*. Doctoral dissertation, University of Washington.
- Kinkade, M. Dale. 1980. Columbian Salish *-xí, -ł, -túł*. *International Journal of American Linguistics* 46: 33–36.
- Kinkade, M. Dale. 1982. Transitive inflection in Moses-Columbian Salish. In *Kansas Working Papers in Linguistics* 7: 49–62.
- Kinkade, M. Dale. 1991. *Upper Chehalis dictionary*. University of Montana Occasional Papers in Linguistics 7.
- Kinkade, M. Dale. 1998. Comparative Salish Seminar, Course notes. Ms., University of British Columbia.
- Kiyosawa, Kaoru. 1999. Classification of applicatives in Salishan languages. In *International Conference on Salish and Neighbouring Languages* 34: 112–152.
- Kiyosawa, Kaoru. 2000. Applicatives in Salishan languages. Paper presented at the Workshop on Applicatives in the Languages of the Americas, CAIL 39, AAA 99, San Francisco, California.
- Kiyosawa, Kaoru. 2002. Proto-Salish applicatives. In *Working Papers of the Linguistics Circle* 15: 61–70. University of Victoria.

- Kuipers, Aert H. 1967. *The Squamish language: Grammar, texts, dictionary*. (Janua Linguarum, Series Practica 73.) The Hague: Mouton.
- Kuipers, Aert H. 1974. *The Shuswap language: Grammar, texts, dictionary*. (Janua Linguarum, Series Practica 225.) The Hague: Mouton.
- Kuipers, Aert H. 1992. The Shuswap complex transitivizers. In *International Conference on Salish and Neighbouring Languages* 27: 49–53.
- Mattina, Anthony. 1994. *-tułt*, and more on Okanagan transitive forms: A working paper. In *International Conference on Salish and Neighbouring Languages* 29: 204–231.
- Mattina, Nancy. 1993. Some lexical properties of Colville-Okanagan ditransitives. In *International Conference on Salish and Neighbouring Languages* 28: 265–284.
- Montler, Timothy R. 1986. *An outline of the morphology and phonology of Saanich, North Straits Salish*. University of Montana Occasional Papers in Linguistics 4.
- Montler, Timothy R. 1996. Some Klallam paradigms. In *International Conference on Salish and Neighbouring Languages* 31: 257–263.
- Munro, Pamela, and Catherine Willmond. 1994. *Chickasaw: An Analytical Dictionary*. Norman: University of Oklahoma Press.
- Peterson, David A. 1999. *Discourse-functional, historical and typological aspects of applicative constructions*. Doctoral dissertation, University of California, Berkeley.
- Thompson, Laurence C., and M. Terry Thompson. 1980. Thompson Salish //*-xi*//. *International Journal of American Linguistics* 46: 27–32.
- Thompson, Laurence C., and M. Terry Thompson. 1992. *The Thompson language*. University of Montana Occasional Papers in Linguistics 8.
- Van Eijk, Jan P. 1997. *The Lillooet language: Phonology, morphology, syntax*. Vancouver, British Columbia: University of British Columbia Press.
- Watanabe, Honoré. 1996. Sliammon (Mainland Comox) transitive constructions with *-ʔəm*, *-ni*, and *-mi*. In *International Conference on Salish and Neighbouring Languages* 31: 327–338.