An applicative use of the Halkomelem lexical suffix FACE

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In this paper we make a case for the grammaticalization of the lexical suffix *=as* FACE in Halkomelem. The suffix grammaticalizes to mark dative applicatives and appears on approximately half a dozen ditransitive verbs. The general course of the semantic development of lexical suffixes and their morphosyntax conspire to make this change possible. Although this is the first documented case of a lexical suffix grammaticalizing in this fashion, nouns for face have been proposed as sources of dative morphology in other languages of the world.

1 Halkomelem applicatives[1]

This paper addresses the origin of the dative applicative suffix in Halkomelem, a Central Salish language.[2] Like other Salish languages, Halkomelem is polysynthetic and thus has many affixes in the verb complex that reference nominals, including agreement markers, transitive suffixes, lexical suffixes, and applicative suffixes. Applicative morphology appears in an applicative construction, e.g. a clause where a non-patient NP is the object and verb morphology signals its semantic role. For example, you can see the effect of the applicative suffix by comparing the transitive clause in (1) with the ditransitive clause, a dative applicative construction, in (2):[3]

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[1] We acknowledge the mentorship of Wayne Suttles, who has independently asserted that the applicative suffix may be the lexical suffix *=as* (see Suttles in press: §10.4.3). If he had not done so, we probably would not have made the effort to develop the evidence as presented here. Previous versions of this paper were given as Gerdts (2000a, 2001). We thank the audiences at AAA and LSA for their comments and questions. Also thanks to Kaoru Kiyosawa and Charles Ulrich for their many suggestions and corrections.

[2] Data are mostly drawn from our field research on the Island dialect of Halkomelem. We would like to thank the speakers who have provided data including Arnold Guerin, Ruby Peter, and especially Theresa Thorne. Funding for our research has come from Jacobs Fund, SSHRC, and SFU. We also make extensive use of data from the Cowichan Dictionary (Hukari and Peter 1995). Data from this source are marked (H/P). We are indebted to Tom Hukari for his assistance.

[3] Abbreviations used in glossing the data are: APPL: applicative, AUX: auxiliary, BEN: benefactive applicative, CN: connective/complementizer; DAT: dative applicative, DET: determiner, EMPH: emphatic, ERG: ergative, EVID: evidential, FUT: future, IMP: imperative, INCHO: inchoative, INSTR: instrumental, LOC: locative, MID: middle, NEG: negative, NOM: nominalizer, OBJ: object, OBL: oblique, PAS: passive, PST: past, PL: plural, POS: possessive, Q: interrogative, REFL: reflexive, SUB: subject, TR: transitive.

(1) nem̓ cən sem̓-ət θə-nə snəxʷəl.
AUX 1SUB sell-TR DET-1POS canoe
'I'm going to sell my car.'

(2) nem̓ cən sam̓-əs-t łə słeni? ʔə θə-nə snəxʷəł.
AUX 1SUB sell-DAT-TR DET woman OBL DET-1POS canoe
'I'm going to sell my car to the woman.'

The dative applicative construction allows the expression of a goal NP as a direct argument and the expression of a patient as an oblique object. In Halkomelem, there is no other means for expressing goals in a ditransitive clause. The goal is the grammatical object, as seen by the object inflection in the following example:

(3) ni? ʔiẇ-əs-θam̓-š-əs ʔə kʷθə qeq-s.
AUX show-DAT-TR:1OBJ-3ERG OBL DET baby-3POS
'She showed me her baby.'

Passives of applicatives are also possible:

(4) ni? sam̓-əs-θel-əm ʔə kʷθə snəxʷəł-s.
AUX sell-DAT-TR:1OBJ-MID OBL DET canoe-3POS
'She sold me her car.'

Gerdts (1988) discusses the syntactic structure of Halkomelem applicatives at some length. Kiyosawa (1998, 2002) divides Salish applicatives into two types: redirectives, which realign arguments, and relationals, which bring in new arguments. Halkomelem has two of each. The **redirective** applicative suffixes are the dative *-as* (5) and the benefactive *-ələc* (6). The **relational** applicative suffixes are the directional suffix *-nəs* (7) and the general relational applicative suffix *-meʔ* (8).[4]

(5) *-as* dative

ʔeʔəm	'give'	ʔa:m-əs-t	'give it to him/her'
sem̓-ət	'sell it'	sam̓-əs-t	'sell it to him/her'
xʷayəm	'sell'	xʷayəm-əs-t	'sell it to him/her'
√ʔiẇ	'instruct'	ʔiẇ-əs-t	'show it to him/her'
√yəθ	'tell'	yəθ-əs-t	'tell him/her about it'

[4] Note that the causative suffix and the transitive suffix also get used in an applicative sense: *qʷəl-stəxʷ* 'speak to him/her', *nəqəm-ət* 'dive after him/her/it'. Also there are a couple of examples of a suffix *-c* that seems to be an applicative: *ƛ̓iləm-əc-t* 'sing to him/her'. Perhaps this is related to the benefactive suffix.

(6) *-əɬc* benefactive

q̓ʷəl-ət	'bake it'	q̓ʷəl-əɬc-ət	'bake it for him/her'
θəy-t	'fix it'	θəy-əɬc-ət	'fix it for him/her'
kʷən-ət	'take it'	kʷən-əɬc-ət	'take it for him/her'
p̓eɬ̓θ-ət	'sew it'	p̓eɬ̓θ-əɬc-t	'sew it for him/her'

(7) *-nəs* directional

nem̓	'go'	nəm̓-nəs	'go toward him/her/it'
ʔewə	'come'	ʔewə-nəs	'come toward him/her/it'
xʷəni-ʔ	'get there'	xʷəni-n̓s	'get there to him/her/that place'

(8) *-meʔ* general relational applicative

ɬc=iws	'tired'	ɬc=iws-meʔ-t	'tired of him/her'
siʔsiʔ	'afraid'	siʔsiʔ-meʔ-t	'afraid of him/her'
kʷəl	'hide'	kʷel-meʔ-t	'hide from him/her'
qʷal	'say, speak'	qʷəl-mə-t	'lecture to, bawl out him/her'

As Kiyosawa (1999, 2002) notes, Salish languages have from two to six applicatives, and, aside from Bella Coola, each language has at least one redirective and one relational applicative suffix. Kinkade (1998a) found twelve different suffixes—seven of which are redirectives, and reconstructed two redirectives for Proto-Salish. His findings are summarized in the table below, taken from Kiyosawa (2002) and modified to fit our format.

Proto-Salish			***xi**				***VmV**			
Bella Coola		Be								amk
Central Salish		Sl/Cx					ʔəm			
		Se					ém			
		Sq	ši							
		Cl	sí							
		Sa	si							
		Hl			ɬc				as	
		Ld	yi							
Interior Salish	North	Li	xi							
		Th	xi							
		Sh	x(í)							
	South	Ok	xi	ɬ		túɬ				
		Sp/Ka	ši	ɬ						
		Cd	ši	ɬ		túɬ				
		Cm	xi	ɬ		túɬ				
Tsamosan		UCh	ši				tmi	tuxʷt/txʷt		
Tillamook		Ti	ši							

Table 1. Salish redirectives (based on Kinkade 1998a)[5]

[5] Bella Coola (Be), Sliammon (Sl), Comox (Cx), Sechelt (Se), Squamish (Sq), Klallam (Cl), Saanich (Sa), Halkomelem (Hl), Lushootseed (Ld), Lillooet (Li), Thompson (Th),

Noticeably, neither of the Halkomelem suffixes corresponds to the redirective suffixes in other Salish languages. The benefactive *-łc* overlaps in form, but not in function, with a suffix from Southern Interior Salish; and the Halkomelem dative applicative *-as* is unlike any other Salish applicative suffix. This leads us to conclude that *-as* is an innovation in Halkomelem. The alternative hypothesis, that *-as* is the lone retention of a Proto-Salish suffix, seems unlikely. In this paper, we follow up on a suggestion made by Gerdts and Hinkson (1996) and also by Suttles (in press: §10.4.3) that the origin of the dative applicative is the lexical suffix *=as* FACE.

Like other Salish languages, Halkomelem has over one hundred lexical suffixes denoting body parts (hand, foot, heart, nose), basic physical or environmental concepts (earth, fire, water, wind, tree, rock, berry), cultural items (canoe, net, house, clothing), and human/relational terms (people, spouse, offspring). Lexical suffixes usually bear little phonological resemblance to free-standing nouns of same or similar meaning.[6]

LEXICAL SUFFIX	GLOSS	INDEPENDENT NOUN	GLOSS
=as	'face, round object'	sʔaθəs	'face'
=cəs	'hand, finger'	cel̓əš	'hand'
=šən	'foot, leg'	sx̌en̓ə	'foot'
=θən	'mouth, edge'	θaθən	'mouth'
=ew̓=txʷ	'building, room'	lel̓əm̓	'house'

Table 2. Lexical suffixes and full noun forms

In the case of 'face', the noun *sʔaθəs* itself probably contains the lexical suffix for face.[7] Although lexical suffixes have core meanings, they are polysemous morphemes showing an elaborate network of semantic extensions (Hinkson 1999, 2000, 2001, 2002). In their range of extended meanings, lexical suffixes exhibit concrete, locational, and relational extensions. For example, as we show below (see §3), the suffix *=as* means 'face', 'surface', 'round object', 'money', 'front', etc. This polysemy makes lexical suffixes very difficult to gloss. Following Hinkson (1999: 37), we adopt the practice of giving each suffix a megagloss (in small caps) that is representative of its core and most frequent

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Shuswap (Sh), Okanagan (Ok), Spokane (Sp), Kalispel (Ka), Coeur d'Alene (Cd), Columbian (Cm), Upper Chehalis (UCh), and Tillamook (Ti).

[6] Lexical suffix data frequently occur with the prefixes: the *s-* 'nominalizer' and *xʷ-* 'locative'. When they co-occur, the *s* assimilates to *š-* before *xʷ-* and appears as *šxʷ-* before vowels and as *š-* before consonants.

[7] Following Dale Kinkade and others, we use an equal sign to mark the boundary of the stem and lexical suffix. The lexical suffix is in fact a bound root phonologically (Czaykowski 1982, Czaykowska-Higgins et al. 1996, among others).

The phonology of lexical suffixes is quite complicated because they surface in many forms. Sometimes they appear with a connective element consisting of a vowel put a plain or glottalized *l*, *w*, or *y*. Our practice is to place an = before the connective another = between the connective and the lexical suffix.

meaning. For example, the megagloss for *=as* is FACE, though its meaning in a particular example may be one of its semantic extensions. Morphosyntactically, lexical suffixes serve both compounding and classifying functions (see §4). Thus, they are likely sources for grammatical morphemes in Salish languages.

We argue that the origin of the dative applicative *-as* is the lexical suffix *=as* FACE and give evidence that supports this hypothesis. Given the historical picture, it seems worthwhile to pursue our hypothesis in more detail. In the following sections, we first look at evidence supporting the phonological identity of these two suffixes. Then we examine *=as* FACE from a semantic perspective. Lastly, we discuss the morphosyntax of the lexical suffix for FACE. We conclude that syntactic and semantic forces conspire to allow the grammaticalization of the lexical suffix *=as* FACE into a dative applicative.

2 The Phonological evidence

First, we note the phonological similarity between the dative applicative and the lexical suffix for FACE. The lexical suffix appears variously as *=as* or *=əs* depending on stress.[8] We see that the suffix may appear with a full vowel under stress as in (9) or that it otherwise with schwa as in (10):[9]

(9)	niʔ	'be there'	nəʔ=ás	'facing away'
	√qṗ	'be down'	qṗ=ás	'have one's face down'
	k̓ʷiʔ	'go up'	k̓ʷəʔ=ás	'facing up'
	ləc̓	'full'	ləc̓=ás	'full (round object)'
(10)	qaʔ	'water'	š-qaʔ=əs	'tears (=water on face)'
	qit-ət	'tie it'	š-qit=əs	'headband
	ɬic̓	'cut'	xʷ-ɬic̓=əs-t	'cut him/her on the face'
	√ʔix̌	'scrape'	xʷ-ʔix̌=əs-əm	'scrape one's face'

As previously noted by Hukari (see Hukari and Peter 1995:371ff.), several (four?) suffixes in the language trigger vowel harmony in a preceding *e* vowel, e.g. *e* > *a*. This is seen, for example, in the following data involving the lexical suffix *=aʔqʷ* 'head':[10]

[8] Bianco (1996, 1998) shows that primary stress falls on the first vowel based on the following sonority hierarchy: /e, a, o, u/ > /i/ > /ə/. Since stress is predictable in the Island dialect, it is our practice to not usually indicate it.

[9] Lexical suffix data frequently occur with the prefixes: the *s-* 'nominalizer' and *xʷ-* 'locative'. When they co-occur, the *s* assimilates to *š-* before *xʷ-* and appears as *šxʷ-* before vowels and as *š-* before consonants.

[10] Suttles (in press) also notes this effect and calls it umlaut.

(11)	ƛ̓ʷes	'burn'	ƛ̓ʷas=aʔqʷ	'scorched head' (H/P)
	łeƛ̓-š	'move it aside'	łaƛ̓=aʔqʷt	'turn his/her head aside'
	ṗeƛ̓-ət	'feel it'	ṗaṗəƛ̓=aʔqʷ-t	'feeling his/her head'
	šem-əls	'smoke-drying'	šašəm=aʔqʷ-əl̓s	'smoke-drying fishheads' (H/P)

The last form in (11) shows that the vowel need not be in the immediately preceding syllable.

Another suffix that triggers harmony is reflexive (frequently used as an inchoative (Gerdts 2000c)).[11] This suffix appears as *-θat* under stress:[12]

(12)	ƛ̓əp	'deep'	ƛ̓əp-θát	'get deep'
	qəx̌	'many'	qəx̌-θát	'become many'
	θi	'big'	θi-θát	'grow big'
	x̌əyƛ̓	'medicine'	x̌əyƛ̓-θát	'get cold'

The vowel of the suffix triggers vowel harmony in the following examples, but since it is unstressed, it surfaces as schwa.

(13)	ƛ̓ʷes	'warm'	ƛ̓ʷás-θət	'get hot'
	lem-ət	'look at him'	lámə-θət	'look at self'
	łec	'dark'	łác-θət	'get dark'
	słex̌əṅ	'medicine'	łáx̌əṅ-θət	'medicate oneself'

We see that the lexical suffix FACE *=as* also triggers vowel harmony on a preceding *e* vowel:

(14)	ƛ̓ʷes	'burn'	xʷ-ƛ̓ʷas=əs	'burned face'
	ʔeɬ̓θ-ət	'wipe it'	xʷ-ʔaɬ̓θ=əs-əm	'wipe one's face'
	ṗeƛ̓-ət	'feel it'	xʷ-ṗaƛ̓=əs-t	'feel his/her face'
	s-qəl̓eẇ	'beaver'	š-qəl̓aẇ=əs	'beaver mask' (H/P)
	x̌ɬeƛ̓ʷ	'carve'	xʷ-x̌ɬaƛ̓ʷ=əs-t	'carve a mask' (H/P)
	teʔcəs	'eight'	taʔcs=əs	'eight round objects'

The dative applicative suffix is never stressed and thus always appears as *-əs*. Fortunately, however, two of the roots in Island Halkomelem that take the applicative suffix have an underlying *e*. So the *e* in *ʔéʔəm* 'give' harmonizes to *a* in *ʔa:m-əs-t* 'give it to him/her' and *e* in *seṁ-ət* 'sell it' harmonizes to *a* in *saṁ-əs-t* 'sell it to him/her'. The harmony is triggered by the applicative suffix. The significance of the harmony data has also been pointed out by Suttles (in

[11] The reciprocal suffix *-tal* also triggers harmony.

[12] The presence of the glottal stop in *=aʔqʷ* prevents the vowel from reducing to schwa when it is unstressed, presumably because of the lowering effect of the glottal stop. There are no sequences of schwa glottal stop in Halkomelem.

press: §10.4.3), who gives an additional example from Downriver Halkomelem: *ʔaǰʷ-əs-t* 'give to him' based on the root *ʔeǰʷ-* 'give'.

For example, the two forms of the verb 'give' can be seen in (15) and (16).

(15) ni? cən ʔeʔəm ʔə kʷθə sceːɬtən.
AUX 1SUB give OBL DET salmon
'I gave the salmon away.'

(16) ni? cən ʔaːm-əs-t ɬə sɬeni? ʔə kʷθə sceːɬtən.
AUX 1SUB give-DAT-TR DET woman OBL DET salmon
'I gave the salmon to the woman.'

The intransitive form of the verb occurs in (15). This is what Gerdts and Hukari (1998) call a zero-antipassive. It is semantically transitive but syntactically intransitive. The patient is an oblique object. In (16), the clause is semantically ditransitive. The applicative suffix is present and the goal is the direct object. The applicative suffix triggers vowel harmony of the root vowel. There is also deletion of the glottal stop and coalescence of the two vowels into a long vowel.

Thus, we see that the vowel harmony evidence provides an argument for the identity of the dative applicative suffix and the lexical suffix for FACE. This leads us to consider other evidence.

3 The Semantic evidence

Body part lexical suffixes extend via semantic principles into a complex network of meaning (Hinkson 1999). Within the Salishan family the suffix FACE can refer to the face or head of a human or animal, to round objects, and to locations and directions associated with the face. Furthermore, since the face is the most distinctive and salient part of an individual's body, the lexical suffix FACE often extends to represent the entire person or individual.

3.1 The Semantics of FACE and its anatomical extensions

The Halkomelem lexical suffix *=as* is cognate with suffixes denoting face throughout Salish languages. Its reconstructed proto-form is **us* (Kinkade 1998b); and its most common meaning in the languages of the family is the body-part face. Here are some Halkomelem examples of the somatic use of *=as*.

(17) š-ɬəl̓p̓=əs 'facial wrinkles' (√ɬəl̓p̓ 'wrinkle, floppy')
xʷ-ɬaq̓ʷ=əs-t 'slap him/her on the face'
š-t̓ᶿx̌ʷ=as 'washed face' (√t̓ᶿx̌ʷ 'wash')
xʷ-yəqʷ=s 'burn face' (yəqʷ 'burn')
xʷ-p̓aǰ̓=əs-t 'feel his/her face' (p̓eǰ̓ 'feel')
xʷ-q̓ʷaqʷ=əs-tən 'club him/her in face' (√q̓ʷaqʷ 'hit (with club)')

xʷ-yəm̓q̓=əs-əm	'scrub one's face ceremonially with branches'(H/P)
š-yaṯq̓ʷ=əs-əm̓	'face cloth' (√yaṯq̓ʷ 'rub')
š-təm̓aɬ=əs	'face painted with ochre' (təməɬ 'ochre')(H/P)
š-kʷikʷəm̓=əs	'blushing' (kʷim 'red')
xʷ-k̓ʷəs=əs	'burnt face' (for a ceremony) (k̓ʷes 'burn')(H/P)
š-x̌aṯθ=əs-tən	'picture, photograph' (√x̌e:ṯθ 'measure, frame')
xʷ-ɬiċ=əs-t	'cut someone on the face' (ɬiċ 'slice, cut')
xʷ-ṯəm̓=əs-t	'pound on someone's face' (√ṯəm̓ 'to hit')(H/P)
xʷ-ʔaṯθ=əs-əm	'wipe one's face' (√ʔeṯθ 'to wipe')

Though concrete meanings of the lexical suffix *=as* refer overwhelmingly to the face in Halkomelem, other concrete meanings are also possible for the suffix. In several Salish languages the suffix can mean both 'face' and 'eye' and though the usual form for 'eye' in Halkomelem is *=aləs,* there are a few instances of the suffix *=as* meaning 'eye'. The conflation of 'eye' and 'face' under one morpheme is attested in many languages of the world.[13]

(18)	xʷ-ʔip=əs-əm	'wipe eyes'(ʔip- '?')
	š-ṯeqeʔ=as	'black (bruised) eye'
	š-ṯkʷa=as	'one-eyed, blind in one eye'

Another type of semantic extension involves transferring the concept of face to inanimate objects. The face is the most important and salient part of the body. The Principle of Canonical Orientation (Hinkson 1999) postulates that canonical templates determine the structural relations that a body part bears to the body as a whole and that these relations can be projected to the world at large.

(19)	ciɬ=əs	'steep bank, steep place' (ciɬ 'high') (H/P)
	qiq̓=əs-t	'tie, bind it (e.g., spear point to shaft)' (qiq̓ 'tie') (H/P)
	xʷ-ʔix̌=əs=t	'scrape face (e.g., sole of shoe)' (ʔix̌ 'scrape') (H/P)
	xʷ-kʷaʔ=əs	'comes off (e.g., sole of shoe)' (kʷeʔ 'come off') (H/P)

In (19), the suffix *=as* denotes the front or most salient portion of an inanimate entity.[14]

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[13] (Hinkson 1999) connects 'face' and 'eye' through the Principle of Anatomical Adjacency: the eyes are contained within the area of the face; and Principle of Shape Abstraction: eyes and face are both roundish in shape. Andersen (1978) cites Tarascan, Sango, Huastec, and several other Mayan languages where this type of conflation occurs.

[14] In fact, there is one example that is based on the noun 'face' *ʔaθəs=mən* 'front yard' (H/P) [face + instrumental], which itself contains the lexical suffix *=as*.

3.2 Locational and directional extensions of FACE

The canonical orientation of the face in humans coincides with the directional axis of displacement in the human body, i.e. the front of the body, or the direction of the line of sight. Thus the lexical suffix *=as* FACE gives the general orientation of a body in regards to another entity, or the relationship existing between the body and another entity. If the suffix combines with predicates of real or deictic motion, locational and directional extensions of the suffix may trace a potential path of displacement and its endpoint:

(20)	nəʔ=as	'facing away' (niʔ 'be there')
	təh=as	'facing this way' (təʔi 'this')
	x̌ʷtaʔ=əs-əm	'face towards, head towards' (x̌ʷteʔ 'toward')
	xʷ-ɬaɬ=əs-t	'face towards the wall' (ɬeɬ- 'turn towards')
	qṗ=as-t	'turn it upside down' (√qṗə 'down')
	qṗ=as-əm	'look down' (√qṗə- 'down')
	k̓ʷəʔ=as	'facing up' (k̓ʷiʔ 'climb')
	ɬq̓əɬ=as	'across from' (√ɬeq̓ 'lay down')
	qəɬ=as	'backwards' (qəl 'bad')
	xʷ-θq̓ʷ=as-təl	'meet each other' (√θq̓ʷə 'folded over')
	ʔəmš=as-əm̓	'travel, sightsee, tour' (ʔiməš 'walk')
	c̓al=əs-əm	'look back, turn around' (√c̓al 'change, switch')
	xʷ-saẇq̓=əs-t	'look around' (seẇq̓ 'seek')
	xʷ-θiqʷ=əs-əm	'fall foward' (√θiqʷ '?')
	siẇaṅ=əs	'be in the front in a vehicle or in a group when walking' (yəẇeṅ 'first') (H/P)

The locative or directional interpretation is not signaled by the body-part lexical suffix alone. Rather, it is required or sanctioned by the verb compounded with the body-part lexical suffix. This principle is labeled the Profiling Effect of Predicate Semantics (Hinkson and Norwood 1997).

The last example shows that the canonical template of the body can be projected to other entities, e.g. a vehicle. In this case, the front part of the entity is usually denoted by *=as*.

3.3 Metonymic extensions of FACE

Metonymy is the process whereby one thing comes to stand in place of something else due to an intrinsic relation between the two things. Primarily, a face is important not because of its shape or its relative location in the body, but because it is the most highly individualized feature of a person. You can identify and distinguish one person from another through facial traits; also you recognize

a person by recognizing his or her face.[15] The relation between a face and the identity of its owner fulfills the conditions for metonymy. Thus, it is entirely plausible that face and person come to be denoted by the same morpheme.

In Halkomelem, we see many examples of metonymic extensions of the lexical suffix *=as* FACE referring to the entire person. Characteristics of the person are cast as descriptions of the face.

(21)	ʔiy=əs	'happy' (cf. ʔəy̓ 'good')
	qil=əs	'sad' (cf. qəl 'bad')
	xʷ-q̓il=əs	'knowledgeable, dependable' (H/P) (cf. ɬ-q̓il̓-t 'clarify, make plain') (H/P)
	l̓ᶿəl̓q=əs	'flirty (person)' (H/P) (cf. l̓ᶿəl̓q̓=əs 'sling (for hurling rocks)' (H/P)

Also many actions directed toward the whole person contain the lexical suffix FACE.

(22)	k̓ʷɬ=as-t	'throw liquid on him'
	ɬəlt=əs-t	'sprinkle him/her'
	miq̓=əs-t	'push, force him/her underwater'
	x̌əʔ=as-t	'go pick him/her up and bring back'
	xʷ-θq̓ʷ=as-t	'meet, to go towards'
	x̌əy̓q̓=əs-t	'pin him down with weight'
	x̌ʷiq̓ʷ=əs-t	'lasso it' (H/P)

In most cases it is obvious how *=as* comes to denote the entire person or animal. This would have come about because the face is often the salient part of the entity involved in the designated activity. For example, if you push someone under water, the point is to get the person's face below the surface. In other cases though, the connection is no longer so obvious.

Within Salish languages, the transition from 'face' to 'person' is not unique to Halkomelem. For example, we see this extension at work in the following data from three Interior Salish languages:

(23) *Shuswap* (Kuipers 1974: 136)
(c)-ptək=(u)s-n-s
hither-PASS by=FACE-TR-3ERG
'to pass by (a person)'

(24) *Lillooet* (van Eijk 1987: 35)
pálʔ=us-əm
one=FACE-MID
'one group of people'

[15] For example, consider the English colloquialism 'what's his face?' referring to the whole person.

(25) *Thompson* (L. Thompson and T. Thompson 1996: 34)
n-ci(y)·cy=ús
LOC-new (redup.)=FACE
'newly remarried person'

Above in (19) we showed that the concept of 'face' can be extended to non-human entities according to the Principle of Canonical Orientation and the extension would refer to the front or most salient feature of the object. In the examples in (26), the canonical template of the body has been projected to inanimate entities.

(26)		
	θx̌=as-əm	'park (a car)'
	pk̓ʷ=as-t	'sprinkle powdery substance on it'
	pən=əs-t	'cover it with dust, flour, feathers'
	ʔak̓ʷ=əs-t	'hang it up'
	xʷk̓ʷ=as-t	'drag it'

Thus, when you park a car, it is the front of the car that you point into the parking place, or, when you hang something up on a hook, it is the top of the garment that gets on the hook. In all the instances above the suffix *=as* FACE denotes the most salient feature of the entity; the feature that is targeted by the implied action of the verb. Moreover, metonymy can apply to these examples and the suffix can refer to the entire inanimate entity.

3.4 The Grammaticalization of FACE

Above we have shown that the suffix *=as* FACE extends in various ways in Halkomelem. It undergoes semantic processes developing shape, locational, directional, and metonymic meaning extensions. Our claim here is that the lexical suffix *=as* undergoes a further step of grammaticalization. It takes on the status of a grammatical morpheme—an applicative suffix—that adds a goal to an act of transference in verbs like the following:

(27)		
	ʔa:m-əs-t	'give it to him/her'
	xʷaye m-əs-t	'sell it to him/her'
	sam̓-əs-t	'sell it to him/her'
	ʔiẇ-əs-t	'show it to him/her'
	yəθ-əs-t	'tell him/her about it'

It is easy to see how the semantics of this extension works, since these verbs all involve a directional element, and as noted above, the suffix for face may denote the endpoint of an implied directionality. Moreover, in the case of 'show to' and 'tell to' the act is directed toward the area of the face. In addition, metonymy is at play, and the whole person is actually being referred to, especially in the case of 'give to' and 'sell to'. So semantic pressure from two sources—directional

extension and metonymic extension—conspire to allow the suffix to take on the function of a dative applicative.

4 The Morphosyntactic evidence

In this section we compare lexical suffixes and applicatives from a morphosyntactic viewpoint. First, we detail lexical suffix constructions. Then we show how applicative constructions parallel them. Last, we discuss two combinatory restrictions and show how they pertain to both constructions.

4.1 The Morphosyntax of lexical suffixes

4.1.1 Compounding constructions

In previous work, we have laid out our analysis concerning the morphosyntax of lexical suffixes. (See especially, Gerdts 1998, 1999, to appear, Gerdts and Hinkson 1996, Gerdts et al. 2002). Lexical suffixes originate as nouns (Carlson 1990, Egesdal 1981, Kinkade 1998b, Mattina 1987) and some of their uses reflect this origin.[16] They serve as the head in nouns formed by the compounding of a noun, adjective, or verb root with the lexical suffix.

(28)	təməɬ=əpsəm	'woodpecker' (ochre + neck)
	qʷɬcẏ=šən	'shoe' (log + foot)
	θiθ=əs	'big rocks' (big + face > round)
	ɬiẇəyəɬ=ecẇ=txʷ	'church' (pray + building)
	ʔitət=əl=wət	'pajamas' (sleep + clothing)
	ṗiʔṗq̇=əẏ=as	'waxberry (snowberry)' (white + connector + face > round > berry)

Suffixed to verbs, lexical suffixes serve a clause-level function equivalent to noun incorporation. Lexical suffixes can be the equivalent of an oblique/adjunct.

(29)	q̇t=aθən	'walk along (a shore etc.)' (go along + mouth)
	q̇ət=nəc	'go around end of lake' (go along + bottom)
	q̇p=as-əm	'assemble, gather face to face' (gather + face + middle)

More frequently, the lexical suffix plays an argument role in the clause. The lexical suffix can be the theme of an unaccusative verb, irrelevant to our discussion here, or the patient/theme of a transitive verb.

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[16] In the case of *=as*, there is one piece of evidence that it is in fact a noun root. It appears in the form *ʔas-əm* 'to face (in a direction)'. The middle suffix *-m* can be added to a noun to make a verb: *wekən-əm* 'go by wagon', *pətən-əm* 'to sail', *q̇ɬan-əm* 'go to the bow'. (Gerdts and Hukari 1998).

(30) q^{w}s=eẏən 'set a net' (throw out + net)
səẇq̇=iẇs 'search for a lost person' (seek + body)
łəċ=əl=qən 'shear wool' (cut + hair)
ṗt̓$^{\theta}$=əl=məx^{w} 'milk a cow' (wring out + breast)

This leads to an intransitive construction paralleling compounding noun incorporation (Gerdts 1998).

(31) ni? šk̓^{w}=əyəł łə słeni?.
AUX bathe=OFFSPRING DET woman
'The woman bathed the baby.'

The intransitive status of a clause like (31) is apparent when compared to its transitive counterpart (32):

(32) ni? šak̓^{w}-ət-əs łə słeni? łə qeq.
AUX bathe-TR-3ERG DET woman DET baby
'The woman bathed the baby.'

The verb in (31) lacks transitive inflection, and the third person subject determines absolutive (Ø) rather than ergative agreement. Furthermore, we see that a proper noun can be the subject of a clause with lexical suffixation, as seen in (33); normally, proper nouns cannot serve as ergatives in the Island dialect of Halkomelem (34).

(33) ni? šk̓^{w}=əyəł łə Meli.
AUX bathe=OFFSPRING DET Mary
'Mary bathed the baby.'

(34) *ni? šak̓^{w}-ət-əs łə Meli łə qeq.
AUX bathe-TR-3ERG DET Mary DET baby
'Mary bathed the baby.'

So it is clear that compounding lexical suffixation results in an intransitive construction.

Also, as is typical in the case of noun incorporation, lexical suffixes (both somatic and non-somatic) can serve as the possessed element in an external possession construction (Gerdts and Hukari 1998).

(35)	xʷ-x̌əl̓=əs-t	'paint his/her face'
	xʷ-t̓əm̓=əs-t	'pound on his/her face' (H/P)
	ʔeʔt̓ᶿ=šə(n)-t	'wiping his/her feet'
	šk̓ʷ=əyəɬ-t	'bathe his/her baby'
	t̓əmš=ən̓ə-t	'braid his/her hair'
	sew̓q̓=əw̓-txʷ-t	'looking for a house for him/her'
	kʷaxʷ=əw̓-txʷ-ət	'knock on his house'
	θəy=eʔɬ-t	'make his/her bed'

Payne and Barshi (1999:3) define external possession as a construction "in which a semantic possessor-possessum relation is expressed by coding the possesor as a core grammatical relation of the verb and in a constituent separate from that which contains the possessum."[17] In Halkomelem, external possession construction can be transitive, as seen by the transitive inflection and ergative agreement in (36) and (37).

(36) ni? tši=ʔqʷ-t-əs łə sɬeni? kʷθə sqʷəmey̓.
AUX comb=HEAD-TR-3ERG DET woman DET dog
'The woman combed the dog's hair.'

Proper nouns cannot be the subject in such clauses.

(37) *ni? tši=ʔqʷ-t-əs łə Meli kʷθə sqʷəmey̓.
AUX comb=HEAD-TR-3ERG DET Mary DET dog
'Mary combed the dog's hair.'

The semantic possessor of the lexical suffix is the object.[18] A pronominal external possessor appears as object inflection:

(38) nem̓ cən ceʔ tši=ʔqʷ-θam.
go 1SUB FUT comb=HEAD-TR:2OBJ
'I will comb your hair.'

(39) ʔəwə kʷəs x̌eʔ xʷ-pas=əs-θam̓š-əs k̓ʷ-stem sx̌eləqəm.
NEG DET:NOM also LOC-hit=FACE=TR:1OBJ-3ERG DET-what fierce beasts
'I have not been hit in the face by the fierce animals anymore.' (H/P)

In addition, passive counterparts are possible:

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[17] External possession has become the standard way to refer to these constructions in the typological literature. In previous work, Gerdts (1981a, 1981b) refers to it by the relational grammar term of "possessor ascension."

[18] Gerdts has in fact never claimed, contra Wiltschko (2002), that the NP is a syntactic possessor. Wiltschko attributing this viewpoint to her must have arisen from confusion about the use of the term "possessor" in a semantic sense.

(40) ni? tši=ʔqʷ-t-əm ʔə-x̌ Meli kʷθə sqʷəmeẏ.
AUX comb=HEAD-TR-MID OBL-DET Mary DET dog
'The dog's hair was combed by Mary.'

(41) ni? xʷ-pas=əs-θəl-əm ʔə kʷθə sme:nt.
AUX LOC-hit=FACE-TR:1PAS-MID OBL DET rock
'I was hit in the face by a rock (that was thrown).'

In sum, the external possession construction, which always involves lexical suffixation in Halkomelem, is a transitive clause; the semantic possessor of the noun referred to by the lexical suffix is the object.

4.1.2 Classifying constructions

In addition to the compounding functions of lexical suffixes that we have illustrated above, lexical suffixes also perform classificatory functions. Most suffixes can appear in a construction that parallels classifying noun incorporation (Gerdts 1998). In this construction, the suffix is doubled by a free-standing NP object with a specific meaning:

(42) ʔəẇ həy kʷ st̓θəx̌=wil-t ct tθə ləpat ʔi
CN only DET wash=VESSEL-TR 1PL.SUB DET pot and
tθə la?θən.
DET dishes
'We only wash pots and plates.'

(43) ʔeʔəθ xʷiʔ ɬəmc̓=əs-t-əs tθə cəlqamaʔ.
AUX INCHO:AUX pick=FACE-TR-3ERG DET raspberry
'Now she is just picking the raspberries (instead of stripping).' (H/P)

Again, the transitivity of the clause is obvious from the transitive inflection and the third person ergative agreement, as in (43). Passive data give evidence that the doubled NP is the object (44).[19]

(44) ni? t̓əṅ=elə-t-əm kʷθə słənɬeni? t̓iləm ceʔ.
AUX line.up=PEOPLE-TR-MID DET woman(PL) sing FUT
'The ladies that are going to do the singing are lined up.' (H/P)

The semantics of the classifier construction is quite complicated, but generally some aspect of the NP, e.g. its shape or function, is highlighted by the lexical suffix that is chosen.

As noted above in our discussion of metonymic extensions, sometimes it is difficult to tell in a particular example whether the action is directed to a part of the NP or to the whole NP. The former instance would constitute a case of external possession, while the latter would be more akin to a type of

[19] Notably, it contrasts with the 'doubled' NP of denominal verb constructions (Gerdts and Hukari 2002), which appears in the oblique case.

classificatory lexical suffixation, where one element of the whole is being highlighted.

(45) q̓aṗ=əs-t t$^{\theta}$əṅ sqʷəmeẏ nan ʔəẇ xʷ-qəl=əwən.
tie=FACE-TR DET:2POS dog very CN LOC-bad=INSIDES
'Tie up your dog; he is too mean.' (H/P)

Whatever the semantic status of examples like (45), syntactically they parallel other lexical suffix data. So the NP doubling the lexical suffix is the object, as seen by the ergative agreement and object inflection in (46) and the passive in (47).

(46) niʔ k̓ʷɬ=as-θaṁš-əs.
AUX pour=FACE-TR:1OBJ-3ERG
'He threw water on me.'

(47) niʔ k̓ʷɬ=as-θel-əm.
AUX pour=FACE-TR:1PAS-MID
'I got water thrown on me.'

Also, about twenty of the lexical suffixes function as numeral classifiers (Gerdts and Hinkson to appear, Gerdts et al. 2002, Shaw et al. 2002):

(48) ɬixʷ=əqən lisek
three=CONTAINER sack
'three sacks'

(49) teʔcs=elə kʷθə nə meṁənə.
eight=PEOPLE DET 1POS children.
'I have eight children.'

(50) ck̓ʷš=as ʔə t$^{\theta}$əṅ telə?
twenty=FACE Q DET:2POS money
'Do you have twenty dollars?'

There is some flexibility in the system depending on what aspect of the noun is being highlighted in a particular situation. However, the numeral classifier system is largely a grammatical system, and often the origins and meaning of the classifiers are opaque to native speakers. For example, the classifier for people *=elə* in (49) above probably originates as the suffix for containers, as in (51):

(51) š-q̓ʷəl̓eš=elə 'bird's nest'; cf. q̓ʷəl̓eš 'bird'
š-əṁsəməẏ=elə 'bee hive'; cf. səṁsəməẏə 'bee'
š-p̓əx̌əm=elə 'pipe'; cf. p̓ax̌əm 'smoke'
š-ləm=elə 'bottle'; cf. ləm 'liquor' < Eng. rum

Native speakers, however, tend not to recognize any relationship between these two uses.

Table 3 below summarizes the uses of lexical suffixes in Halkomelem compounding and classifying uses of lexical suffixes.

USE	CATEGORY	FUNCTION	# OF SUFFIXES	MEANING
N Compounds	+N	head	all	transparent
Compounding	+N	argument/adjunct	almost all	transparent
Classifying	-N	non-argument	almost all	transparent/ opaque
Classifiers	-N	classifier	≈twenty	mostly opaque

Table 3. Uses of lexical suffixes in Halkomelem

In terms of categorial status, the N-like quality of the lexical suffix bleaches out as it picks up more of a classificatory function, thus ceasing to play the role of an argument in classifiying constructions. At the same time its semantics become increasingly more abstract and less transparent than the core nominal meaning. When the suffix becomes opaque, native speakers very often do not recognize its status as a separate morpheme.

4.2 Parallels between lexical suffixes and applicatives

Returning now to the point at hand, we note the similarities between lexical suffix constructions and applicative constructions. As seen in the data above, the lexical suffix FACE is used in all the types of constructions outlined in the previous section. Most notably, it appears in external possession, as in (52) and (53), the classifying lexical suffix constructions, as in (54) and (55), and the metonymic construction in (56):

EXTERNAL POSSESSION

(52) xʷ-ʔaṯ̓ᶿ=əs-t θəṅ sqeʔəq̓
LOC-wipe=FACE-TR DET:2POS younger.sibling
'Wipe your little sister's face!' (H/P)

(53) niʔ ċə wəł xʷə-qəl θə qələṁ-s səẇ
AUX EVID PST INCHO-bad DET eye-3POS so
xʷ-ṗaχ̓=əs-t-əs tᶿə sċaṁəqʷ-s.
LOC-feel=FACE-TR-3ERG det g.g.grandchild-3POS
'Her eyes have gone bad, so she felt her great-great-grandson's face.' (H/P)

CLASSIFIYING LEXICAL SUFFIX CONSTRUCTIONS

(54) neṁ č šqə-t xʷ-x̌ɬ̓ak̓ʷ=əs-t tᶿə šc̓ələxʷəs!
go 2SUB finish-TR LOC-carve=FACE-TR DET mask
'You finish carving the mask!' (H/P)

(55) nəcim ʔal̓ə ʔəṅ-š niʔ xʷ-x̌əl̓=əs-t
why EMPH 2POS-NOM AUX LOC-mark=FACE-TR
tᶿə š-x̌at̓ᶿ=əs-tən?
DET NOM-measure=FACE-INSTR
'Why did you mark the picture?' (H/P)

METONYMIC CONSTRUCTION

(56) neṁ č miq̓=əs-t tᶿə sƛ̓iʔƛ̓qəɬ.
go 2SUB push=FACE-TR DET child
'Go force the child underwater!' (to teach him to swim)

The surface similarities between lexical suffix and applicative constructions like (57) are obvious:

(57) neṁ č ʔa:m-əs-t tᶿə swəy̓qeʔ!
go 2SUB give-DAT-TR DET man
'Go give it to the man!'

In all cases the construction is transitive, with the person or entitiy involved as the grammatical object. The lexical suffix or the applicative occupies the position immediately after the root and before the transitive suffix:

root	lexical suffix applicative	transitive limited control causative antipassive	object passive reflexive reciprocal	subject

Table 4. The verb complex schematized

Furthermore, we see that while the meaning 'face' is generally preserved in the external possession constructions (52) and (53), it is bleached away in the classificatory lexical suffix construction (54) and (55), and especially in (56) a case of metonymic use. In the applicative construction, of course, the lexical suffix retains no remnant of the core meaning.

Moreover, in all three cases there is an NP object that is directly affected by the action. This NP is the patient in the classifying lexical suffix construction, but it is the 'possessor' in the external possession construction and the goal in the applicative.

So we see how the applicative construction overlaps with lexical suffixation constructions. The applicative suffix shares the property of abstract

semantics with the lexical suffix in the classifying construction. The object of the applicative parallels the object in an external possession construction in not being the patient of the verb.

Construction	FACE	Object NP = patient	Object NP directly affected
External possession	yes	no	yes
Classifying lexical suffix	no	yes	yes
Applicative	no	no	yes

Table 5. Applicative and lexical suffixation constructions

The applicative construction is thus a natural extension of the lexical suffix construction.

Of course, since the applicative construction is semantically ditransitive, there is the added factor of the oblique-marked patient.

(58) ʔiẇ-əs-θaṁš ʔə kʷθə pukʷ!
show-DAT-TR:1OBJ OBL DET book
'Show me the book!'

(59) neṁ łə saṁ-əs-t tᶿə xʷələnitəm ʔə tᶿə steɬ̓əkən!
go IMP sell-DAT-TR DET White.men OBL DET stocking(PL)
'Go and sell those socks to the white people!' (H/P)

Lexical suffix constructions also allow oblique NPs.

(60) miq̓=əs-θaṁš ʔə tᶿə meqeʔ!
push=FACE-TR:1OBJ OBL DET snow
'Push me into the snow!' (H/P)

(61) niʔ kʷ̓ɬ=as-tal-əm ʔə-x̌ Bill ʔə kʷθə qa.
AUX pour=FACE-TR:1OBJ-MID OBL-DET Bill OBL DET water
'Bill threw water on us.'

This is only a superficial parallelism. As noted by Gerdts (1988) and Hukari (1979) several different types of NPs appear in the oblique case. However, they can be differentiated by extraction data, which we will not repeat here. Suffice it to say that the oblique objects like the patient in applicatives (58–59) and antipassives, true obliques like the locative 'snow' in (60) and the instrument 'water' in (61), and passive agents like "Bill" in (61) all behave differently under extraction.

4.3 A Similarity between applicative and lexical suffix constructions

So we see that applicative and lexical suffix constructions are quite parallel in their surface syntax. Moreover, as Gerdts (1988, 2000c) has shown,

these two constructions show similar combinatory restrictions. Unlike simple transitive objects (62), applied objects (63) and objects in external possession constructions (64) cannot be reflexives.

(62) ni? kʷələš-θət kʷθə swəy̓qeʔ.
AUX shoot-TR:REFL DET man
'The man shot himself.'

(63) *ni? ʔa:m-əs-θət kʷθə swəy̓qeʔ ʔə kʷθə pukʷ.
AUX gave-APPL-TR:REFL DET man OBL DET book
'The man gave himself a book.'

(64) *ni? cən t̓ᶿəx̌ʷ-ša-θət.
AUX 1SUB wash-FOOT-TR:REFL
'I washed my feet.'

Furthermore, many simple transitives (65) have antipassive counterparts with the middle suffix *-əm* (66); the patient appears as an oblique object:

(65) ni? q̓ʷəl-ət-əs tᶿə sce:ɬtən.
AUX bake-TR-3ERG DET salmon
'He cooked/barbecued the salmon.'

(66) ni? q̓ʷəl-əm ʔə tᶿə sce:ɬtən.
AUX bake-MID OBL DET salmon
'He cooked/barbecued the salmon.'

But neither applicatives (68) nor lexical suffixes (70) allow antipassives of this type.[20]

(67) ni? cən ʔa:m-əs-ət kʷθə swəy̓qeʔ ʔə kʷθə pukʷ.
AUX 1SUB gave-APPL-TR DET man OBL DET book
'I gave the man the book.'

(68) *ni? cən ʔa:m-əs-əm ʔə kʷθə swəy̓qeʔ ʔə kʷθə pukʷ.
AUX 1SUB gave-APPL-MID OBL DET man OBL DET book
'I gave the man the book.'

(69) ni? cən t̓ᶿəx̌ʷ=še-t tᶿə qeq.
AUX 1SUB wash=FOOT-TR DET baby
'I washed the baby's foot.'

[20] The form *t̓ᶿəx̌ʷ=šen-əm* does exist. This is a middle construction meaning 'wash one's own feet' (Gerdts and Hukari 1998) and thus supplies the reflexive meaning intended by (*64).

(70) *ni? cən ɬ̓θəx̌ʷ=šen-əm ʔə tθə qeq.
AUX 1SUB wash=FOOT-MID OBL DET baby
'I washed the baby's foot.'

In sum, objects in dative applicative and external possession constructions share some, but not all, of the properties of simple transitive objects. This is summarized in the following table.

	Simple object	Dative applied object	External possessor object
-t transitve	√	√	√
object pronouns	√	√	√
passive	√	√	√
reflexive	√	*	*
antipassive with *-əm*	√	*	*

Table 6. Object Properties

It is not apparent why there should be this asymmetry. Applied objects and external possessors in many languages reflexivize and antipassivize. However, under the hypothesis that the lexical suffix construction is the source of the applicative construction, we have a natural explanation for why applicatives act this way. The applicative inherited the combinatorial restrictions of the construction from which it developed.

5 Conclusion

In this paper, we have argued that the dative applicative suffix *–as* arose from the lexical suffix *=as* FACE through a process of grammaticalization. We presented evidence for the phonological identity of the two suffixes. We explored the semantics of the suffix FACE showing how an applicative meaning is a natural outcome of its semantic extensions. We also discussed parallels in the morphosyntax of lexical suffix and applicative constructions. Our contention is that the lexical suffixes are already launched on a path of grammaticalization due to their classificatory functions. Grammaticalization to an applicative morpheme is just one more step in this process.

The lexical suffix *=as* originates as a noun root with the concrete meaning of the body part 'face'. It extends semantically to various locational and directional meanings (20). The adoption of concepts such as 'face' for locative expressions like 'front' is just a first step in a grammaticalization process that is well attested in the literature (Heine and Kuteva 2002: 131). Furthermore, we see examples of metonymy with the lexical suffix *=as* FACE where it refers to the entire person or entity (21, 22). These two extensions set the stage for the further development of the lexical suffix into a dative applicative morpheme, which adds to the verbal semantics the meaning that an action is done in the direction of a person.

Morphosyntactically, lexical suffixes appear in two types of transitive constructions: external possessor constructions (52, 53), where the lexical suffix is the possessum and the NP object is the semantic possessor, and classifying constructions (54, 55), where the direct object NP is the patient of the verb and the lexical suffix is a comment upon some general property (e.g. shape or function) of the NP. The dative applicative construction resembles the external possession construction in that a non-patient is the object. In addition, it resembles the classifying construction in that the lexical suffix or the applicative suffix does not satisfy the role of an argument of the verb. Thus, lexical suffixes are used in syntactic constructions that parallel applicative constructions.

This is not to say that applicative and lexical suffix constructions are identical in all respects. Once the applicative construction arises, it takes on a life of its own in the grammatical system. We would expect the dative applicative construction to share properties with other applicative constructions that have arisen through other paths.

We conclude that the applicative use is a natural endpoint in the cline from lexical to grammatical element outlined in table 7.

USE	CATEGORY	FUNCTION	# OF SUFFIXES	MEANING
N Compounds	+N	head	all	transparent
Compounding Incorporation	+N	argument/adjunct	almost all	transparent
Classifying Incorporation	-N	non-argument	almost all	transparent/ opaque
Classifiers	-N	classifier	≈twenty	transparent/ opaque
Applicatives	-N	grammatical morpheme	four	inaccessible

Table 7. The noun–to–grammatical morpheme cline

Although the lexical suffix *=as* originates as a noun, it becomes acategorical as it takes on classificatory functions. This is simultaneously accompanied by semantic bleaching, which renders the suffix opaque to native speakers. Native speakers often recognize that a classifying lexical suffix is present, but they are not sure what it means. Much of the system of numeral classifiers is a fixed part of the grammar. By the time the suffix *=as* grammaticalizes into an applicative marker, it is not recognized as a suffix by native speakers.

To our knowledge, this is the first case in the cross-linguistic literature of an applicative morpheme developing from a noun. Usual sources for applicatives are prepositions and verbs. (See Peterson 1999.) For example, locative prepositions developed into locative applicative clitics in Kinyarwanda (Kimenyi 1980) and the verb 'take' has developed into an instrumental proclitic in Chickasaw (Munro 2000).

Forms for 'face' have developed into grammatical markers in other languages. For example, in Chalcatongo Mixtec (Brugman 1983) 'face' is used

as a locative or dative preposition. We also see this with verbs of speaking in Ayoquesco Zapotec (MacLaury 1989).

Chalcatongo (Brugman 1983)

(71) ni ha?a-ri nūū-yuu.
PAST pass-I face-house
'I went to his house.'

(72) ni-ha?a-ri in káká nūū-se?e-ro.
PAST-pass-I one horse face-son-you
'I gave a horse to your son.'

Ayoquesco (MacLaury 1989)

(73) b-di?i?d-a?n štiǰ-a?n lo dad-i?i?n.
C-give-3 promise-3 FACE man-diminutive.
'He gave his promise to the Lord.'

Thus, the development of the lexical suffix into an applicative suffix finds parallels in the development of prepositions or case markers in other languages of the world.

Because Salish lexical suffixes, especially the somatic suffixes, have an extensive range of meanings, including locative and directional uses, they are ideal candidates for grammaticalization into applicatives and other functional morphemes. We hope evidence will be uncovered in other Salish languages for this process.[21]

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[21] Gerdts and Hinkson (1996) suggest that the relational applicative suffix may come from the instrument suffix, which may have been a lexical suffix. Gerdts and Kiyosawa (2003) develop this proposal.

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