

On the classification of Wakashan lexical suffixes

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0. Introduction

This paper proposes an analysis of lexical suffixes in the Southern Wakashan language Nuu-chah-nulth which derives their morphological behaviour from their syntactic status as predicates. Under the analysis, locative suffixes (eg. $-(q)hta$ ‘on the foot’) and non-locative lexical suffixes (eg. $-ityak$ ‘fear’) are treated alike as affixal predicates.

- | | | | | |
|-----|----|---|----|--|
| (1) | a. | šušuwishtaḥ
šuwis-(q)hta[+R]-ḥ
shoes- on.foot -3.Q
Is he wearing shoes? | b. | ḥiḥiyityaksišʔaaḥ
ḥiyi- ityak [+R]-siš-ʔaaḥ
snakes- fear -1sg.IND-always
I’m always afraid of snakes. |
|-----|----|---|----|--|

I introduce diagnostics for the syntactic structure of affixal predicates, and argue that the different combinatory properties of these suffixes derive from variations in their argument structure (eg. unaccusative, transitive, locatum). Across all classes of affixal predicates in Nuu-chah-nulth, I claim that the predicate uniformly incorporates the argument introduced syntactically as its complement (cf. Stonham & Yiu 2000, Davis & Sawai 2001). This analysis correctly predicts the absence of unergative suffixes, which lack an internal argument.

The treatment of lexical suffixes has been a long-standing issue of contention in the Wakashan literature. In their seminal work on Nuu-chah-nulth (then referred to as “Nootka”), Sapir & Swadesh (1939) propose a division

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between two basic classes of lexical suffixes: root-like “governing” suffixes, and modificational “restrictive” suffixes (see also Swadesh 1939). Suffixes such as *-ityak* ‘fear’ fall under the rubric of governing suffix, while locative suffixes like *-(q)hta* ‘on the foot’ are classified as restrictive suffixes. While to date this traditional classification has been upheld for Southern Wakashan languages (Rose 1981, Davidson 2002), Boas (1947) rejected the distinction between governing and restrictive suffixes for the Northern Wakashan language Kwak’wala, arguing that such a classification is eurocentric and not based on language-internal evidence. This paper sides with Boas (1947) in arguing that a contrast between governing and restrictive suffixes is unwarranted: suffixes in both classes must be treated as essentially “root-like” predicates.

The organization of this paper is as follows. In §1, I argue that the combinatory properties of lexical suffixes derive from the argument structure of their predicate class. Diagnostics for the syntactic structure of affixal predicates are introduced in §2. In §3, I argue against the traditional analysis which treats Wakashan suffixes as governing or restrictive. §4 presents implications for the claim that lexical suffixation is an areal feature of the Pacific Northwest.

1. The combinatory properties of lexical suffixes

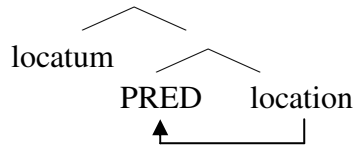
Since the first study of Southern Wakashan languages in the early twentieth century, researchers have observed that suffixes show contrasts in the type of relationship that holds between the suffix and its morphological host (Sapir & Swadesh 1939, Swadesh 1939, Rose 1981, Nakayama 1997, Davidson 2002). For example, Davidson (2002: 181) notes that the locative suffixes *-či* ‘in’ and *-ču(u)* ‘in a container’ show opposite patterns with respect to the nominal they suffix to. In the examples below, the locative suffix *-či* ‘in’ can suffix to the nominal *qaʔuuc* ‘burden basket’ (2a), while *-ču(u)* ‘in a container’ cannot (3b).

- (2) a. *qaʔuuc-či-ʔiš* *yaʔma*
 burden.basket-**in**-3.IND salal.berries
 The salal berries are in a burden basket.
- b. * *yaʔma-či-ʔiš* *qaʔuuc*
 salal.berries-**in**-3.IND burden.basket
- (3) a. *haʔum-ču-ʔiš* *qaʔuuc-ʔi*
 food-**in.container**-3.IND burden.basket-DET
 There’s food in the burden basket.
- b. * *qaʔuuc-ču-ʔiš* *haʔum*
 burden.basket-**in.container**-3.IND food

The claim that I develop in this paper is that the combinatory properties of lexical suffixes in Nuu-chah-nulth fall out from their argument structure. Under my analysis, the locative suffixes *-či* ‘in’ and *-ču(u)* ‘in a container’ are

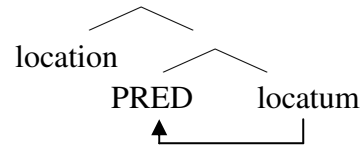
classified as location predicates and locatum predicates, respectively (cf. Hale & Keyser 2002). Location predicates take a location argument as their direct object, while locatum predicates take a locatum (theme) argument as their direct object.

(4) a. *location predicate*



eg. *-č'i* 'in'

b. *locatum predicate*



eg. *-č'u(u)* 'in a container'

As I will discuss in §2, affixal predicates in Nuu-chah-nulth incorporate an argument which occurs as a direct object. This derives the effect that a location predicate such as *-č'i* 'in' suffixes to its location argument, while a locatum predicate such as *-č'u(u)* 'in a container' is restricted to suffixing to a locatum.

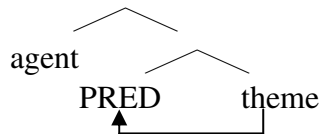
Under this analysis, locative suffixes are two sub-types of affixal predicates. Non-locative affixal predicates are also found in Nuu-chah-nulth, including transitive predicates such as *-siik* 'to do, to make' and unaccusative predicates such as *-suuʔ* 'to die'.

(5) a. *ʔučʔin-siik-it-siš*
dress-make-PST-1sg.IND
I made a dress.

b. *ʔaya-suuʔ-waʔiš*
many-die-3.QUOT
Lots died.

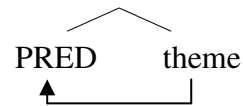
The analysis I give of these suffixes is shown in (6). As with locative predicates, I propose that these predicates incorporate the argument that occurs as their object (cf. Rose 1981, Stonham & Yiu 2000, Davis & Sawai 2001, Wojdak 2003a).

(6) a. *transitive affixal predicate*



eg. *-siik* 'to do, to make'

b. *unaccusative affixal predicate*



eg. *-suuʔ* 'to die'

In the following section, I introduce syntactic diagnostics which corroborate this analysis of the argument structure of affixal predicates.

2. Syntactic diagnostics for argument structure

Under my analysis, Nuu-chah-nulth lexical suffixes are affixal predicates which uniformly incorporate their objects. This section provides evidence for a distinction between subjects and objects in Nuu-chah-nulth, and shows that a range of syntactic tests motivate an analysis in which locative suffixes belong to

two distinct classes which have inverse argument structures. Before turning to cases involving locative affixal predicates, however, I first consider diagnostics for the syntactic structure of non-locative affixal predicates.

2.1 Transitive predicates

Syntactic phenomena in Nuu-chah-nulth which differentiate between subjects and objects of transitive predicates include clausal inflection, incorporation, word order, and a construction known as possessive-raising.

2.1.1 Diagnostic #1: clausal inflection corresponds to subject

Clausal inflection in Nuu-chah-nulth corresponds to the syntactic subject of a transitive predicate, not to the object (Rose 1981, Davidson 2002). This holds for both affixal (7a) and non-affixal (7b) predicates in the language.

- (7) a. čupč'upšumt-nah-siš
sweater-**look.for**-1sg.IND
I'm looking for a sweater.
- b. kithš'i?aqʔsiš suwa ?athii wikquus haana?afas
kith-š'iʔ-ʔaqʔ-siš suwa ?athii wik-quus haana?aq-'as
ring-PERF-FUT-1sg.IND you tonight NEG-1sg.C lahal-go
I'll call you tonight if I don't go to the lahal game.

2.1.2 Diagnostic #2: only objects incorporate

Incorporation is another diagnostic for the subject/object distinction. Transitive affixal predicates incorporate only their objects; subjects in Nuu-chah-nulth do not incorporate (Davis & Sawai 2001, Wojdak 2003a).

- (8) a. maht'ii?amitʔiš čakup
maht'ii-aap-mit-ʔiš čakup
house-**buy**-PST-3.IND man
A man bought a house.
- b. * čakup-aap-mit-ʔiš maht'ii
man-**buy**-PST-3.IND house
A man bought a house.

Note that in the absence of incorporation, an affixal predicate attaches to the expletive morpheme ?u- (cf. Stonham 1998, Wojdak 2003a).

- (9) ?u?aamitʔiš čakup maht'ii
?u-aap-mit-ʔiš čakup maht'ii
∅-**buy**-PST-3.IND man house
A man bought a house.

2.1.3 Diagnostic #3: neutral VSO word order

Word order also generally distinguishes between subjects and objects. In potentially ambiguous contexts, VSO word order is rigid (cf. Rose 1981).

- (10) ʔuʔuuʔukʔiš Ken Kay
 ʔu-**yuk**[+R]-3.IND Ken Kay
 ∅-**cry.for**-3.IND Ken Kay
 Ken is crying for Kay.
 (*unavailable interpretation*: Kay is crying for Ken.)

2.1.4 Diagnostic #4: possessive-raising corresponds to subject

A final diagnostic for differentiating subjects and objects is supplied by a construction known as possessive-raising. In possessive-raising configurations (11b), a possessive marker appears on the predicate rather than (or in addition to) the possessum subject, and the clausal inflection matches the possessor of the subject (Davidson 2002, Ravinski *in prep*).

- (11) a. ʔu-**yuʔaaʔ**-ʔiš ʔiniiʔ-ukqs hupkumʔ
 ∅-**find**-3.IND dog-1sg.POSS ball
 My dog found the ball.
- b. ʔu-**yuʔaaʔ**-uk-siš ʔiniiʔ hupkumʔ
 ∅-**find**-POSS-1sg.IND dog ball
 My dog found the ball.
 (*unavailable interpretation*: The dog found my ball.)

Possessive-raising is a diagnostic for subjecthood, since subjects, but not objects, are eligible to receive an interpretation as the possessum in this construction.

2.1.5 Summary

In sum, I have illustrated four syntactic diagnostics which motivate a distinction between the subjects and objects of transitive affixal predicates. Taken together, these diagnostics provide support for the proposal that only objects of affixal predicates incorporate. For example, the argument that tests as a non-subject by the possessive-raising diagnostic is the same argument that incorporates in (12).

- (12) hamuut-**uʔaaʔ**-uk-siš ʔiniiʔ
 bone-**find**-POSS-1sg.IND dog
 My dog found a bone.

We now turn to the syntactic structure of intransitive affixal predicates.

2.2 Unaccusative predicates

Unaccusatives are the sole type of intransitive affixal predicate found in Nuuchah-nulth. While unaccusative predicates in the language may be either affixal

(13a) or non-affixal (13b), to the best of my knowledge, unergatives in Nuu-chah-nulth are exclusively non-affixal.

(13) *unaccusative predicates: affixal and non-affixal*

- | | | |
|----|--|---|
| a. | ʔu- <u>ni</u> -ʔaʔ-ʔiš
Ø- arrive -TEMP-3.IND
My auntie has arrived now. | naʔiiqs-ak-qs
aunt/uncle-POSS-1sg.POSS |
| b. | <u>hinin</u> -ʔaʔ-ʔiš
arrive -TEMP-3.IND
My auntie has arrived now. | naʔiiqs-ak-qs
aunt/uncle-POSS-1sg.POSS |

(14) *unergatives predicates: exclusively non-affixal*

- | | |
|--|--|
| ʔiihʔiihamitʔiš
<u>ʔiih</u> -a[+R]-mit-ʔiš
cry -ITER-PST-3.IND
My auntie was crying. | naʔiiqsakqs
naʔiiqs-ak-qs
aunt/uncle-POSS-1sg.POSS |
|--|--|

The absence of unergative affixal predicates is directly predicted by an analysis in which affixal predicates incorporate their objects. Since unergatives lack an internal argument, they have no object which they may suffix to.

In contrast, it is predicted by the analysis that unaccusative affixal predicates may freely incorporate their single argument, since this internal argument is introduced as an object. This prediction holds:

- | | | | |
|---------|---|----|---|
| (15) a. | paastinʔathniʔiš
paastinʔath- <u>ni</u> -ʔiš
Americans- arrive -3.IND
Americans came. | b. | quʔaʔathʔiš
quuʔas- <u>ʔath</u> -ʔiš
people- reside -3.IND
There's people living there. |
|---------|---|----|---|

Note that outside of the incorporation test, the diagnostics employed for transitive predicates in Nuu-chah-nulth are inapplicable for intransitive ones. For example, the single argument of both unergatives and unaccusatives determines clausal inflection and is compatible with possessive-raising. The pattern of possessive-raising for unaccusatives and non-affixal unergatives is shown below.

(16) *unaccusative predicates (affixal & non-affixal)*

- | | | |
|----|---|------------------------|
| a. | <u>hinin</u> -ʔak-it-siš
arrive -POSS-PST-1sg.IND
My auntie arrived. | naʔiiqsu
aunt/uncle |
| b. | ʔu- <u>ni</u> -ʔak-it-siš
Ø- arrive -POSS-PST-1sg.IND
My auntie arrived. | naʔiiqsu
aunt/uncle |

(17) *unergative predicate (non-affixal)*

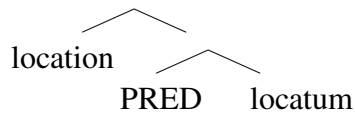
ʕiiḥʕiiḥakitsiš	naʔiiqsu
<u>ʕiiḥ</u> -a[+R]-ak-mit-siš	naʔiiqsu
<u>cry</u> -CONT-POSS-PST-1sg.IND	aunt/uncle
My auntie was crying.	

Possessive-raising fails to distinguish between unaccusatives and unergatives, since both classes behave identically in allowing their single argument to receive an interpretation as a possessum.

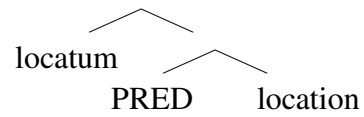
2.3 Locative predicates

This section provides support for a syntactic division between two classes of locative affixal predicates, which I term locatum and location predicates (following Hale & Keyser 2002). I propose that these locative predicates have argument structures which are the inverse of each other.

(18) a. *locatum predicate*



b. *location predicate*



The tests which I introduced in §2.1 will serve to support this analysis.

2.3.1 Diagnostic #1: clausal inflection corresponds to subject

The first diagnostic, clausal inflection, indicates that locatum and location predicates take different subjects. For locatum predicates, the person inflection corresponds to the location argument.

(19) ʔu-ciʔum-siš sačkaḥs
 Ø-on.side.of.head-1sg.IND comb
 I've got a comb on the side of my head.

For location predicates, the person inflection matches the locatum argument.

(20) ʔuu-ciyuk-siš ḥačiqs
 Ø-going.to-1sg.IND [place name]
 I'm going to Tofino.

2.3.2 Diagnostic #2: only objects incorporate

Locatum and location predicates show opposite patterns of incorporation. Only the locatum argument of a locatum predicate may incorporate.

(21) a. ʕiʔiçumʔ-uxs-ʔiš ʔuucma
 straw.hat-on.head-3.IND woman
 A woman is wearing a straw hat.

- b. * ṭuucma-kuxs-ṛiš ṣiṛiṣumṭ
 woman-on.head-3.IND straw.hat

In contrast, only the location argument of a location predicate may incorporate:

- (22) a. qaṛuuc-či-ṛiš ýaṃa
 basket-in-3.IND salal.berries
 There's salal berries in the burden basket.
- b. * ýaṃa-či-ṛiš qaṛuuc
 salal.berries-in-3.IND basket

This pattern is directly predicted if location predicates have locations as their objects, while locatum predicates have locata objects. As noted for non-locative predicates in §2.1.2, only objects of transitive predicates incorporate.

2.3.3 Diagnostic #3: neutral VSO word order

In ambiguous contexts, speakers prefer fixed VSO word order (§2.1.3). This word order diagnostic provides support for an analysis in which location and locatum predicates have inverse argument structures. As indicated by example (23), locatum predicates characteristically show a predicate-location-locatum word order, which is predicted if the location is the subject and the locatum the object.

- (23) ṛuucṛiṣ č'amaqṛ'akṛi ciixsac
 ṛu-aqṛ-ṛiš č'amaqṛ'ak-ṛi ciixsac
 Ø-inside-3 oven-DET frying.pan
 There's a frying pan in the oven.
 (consultant's comment: "you have to use this order, or else it sounds like the oven is in the frying pan")

For location predicates, in contrast, the locatum standardly precedes the location.²

- (24) ṛuk^wiṛiṣ ýaṃaṛi qaṛuuc
 ṛu-či-ṛiš ýaṃa-ṛi qaṛuuc
 Ø-in-3.IND salal.berries-DET burden.basket
 The salal berries are in a burden basket.

2.3.4 Diagnostic #4: possessive-raising corresponds to subject

The possessive-raising pattern of locatives also supports an analysis in which locatum and location predicates take different subjects. With locatum predicates, a possessive marker on the predicate can only be associated with an interpretation in which the location is the possessum. This diagnoses the location as the subject (cf. §2.1.4). An example is given in (25) with the locatum predicate –ṛaṭ 'on a flat

² However, as with non-locative sentences, locatives generally allow alternative word orders in unambiguous contexts. This process of scrambling requires further research.

surface’. Here, the location *č’upč’upšum†* ‘sweater’ is obligatorily interpreted as the possessum.

- (25) *šimtiqa†ukʔiš* Lucy *č’upč’upšum†*
šimtii-ʔa†-uk-ʔiš Lucy *č’upč’upšum†*
 name-**on.surface**-POSS-3.IND Lucy sweater
 There is a name is on Lucy’s sweater. (possessum= location)

In (25), an interpretation of ‘*Lucy’s name is on a sweater*’ is unavailable. Thus, the locatum (*šimtii* ‘name’) proves to be ineligible as the possessum, indicating that it is not a subject.

With location predicates, however, the opposite pattern holds: in possessive-raising with location predicates, only the locatum receives an interpretation as the possessum.

- (26) *qaʔuuc-či-ʔak-siš* *yaʔa*
 basket-**in**-POSS-1sg.IND salal.berries
 My salal berries are in a burden basket. (possessum= locatum)
(unavailable interpretation: The salal berries are in my burden basket)

This pattern corresponds to analysis in which the locatum argument is the subject of a location predicate.

2.4 Conclusion

In this section, I motivated the claim that locative and non-locative suffixes should both be treated as affixal predicates which incorporate their objects. Previous accounts of Nuu-chah-nulth lexical suffixes (eg. Rose 1981) did not consider members of the locatum class to be predicative. As I have shown, however, there is strong syntactic evidence that locatum suffixes are a sub-type of transitive affixal predicates.

Under this analysis of affixal predicates, the morphological pattern of suffixation falls out from the predicates’ argument structure. Only arguments introduced as objects of a predicate may serve as the host for suffixation. A variety of diagnostics confirm a classification in which locative suffixes show two distinct types of argument structure as location and locatum predicates.

3. A note on the governing/restrictive distinction

This paper proposes that the combinatory properties of Nuu-chah-nulth suffixes are derivable from their status as affixal predicates. In this section, I suggest some empirical and conceptual advantages which such an analysis has over the traditional claim that suffixation patterns derive from a distinction between root-like “governing” suffixes and modification “restrictive” suffixes (cf. Sapir & Swadesh 1939, Swadesh 1939, Rose 1981, Nakayama 1997, Davidson 2002).

Under traditional classifications, predicates which I have analysed as non-locative transitive (eg. *-ʔaap* ‘to buy’) and location predicates (eg. *-č̣i* ‘in’) are treated as governing suffixes which take their morphological base as their object (Rose 1981). On the other hand, predicates which I have classified as unaccusative (eg. *-ṇii* ‘arrive’) and locatum predicates (eg. *-č̣uu* ‘in a container’) are grouped together with an assortment of other suffixes (eg. plural markers) as restrictive suffixes. It is claimed that when a restrictive suffix attaches to a nominal, the nominal does not serve as the object of the suffix, but rather as a predicate (Rose 1981: 314). At the heart of the governing/restrictive hypothesis is the idea that restrictive suffixes, unlike governing suffixes, do not determine the syntactic (Davidson 2002) or semantic (Rose 1981) class of a resulting word.

This classification has the empirical inadequacy of failing to predict the absence of unergative suffixes. Since the difference between so-called governing and restrictive suffixes is not explicitly linked to argument structure, there is no means of specifying that a viable lexical suffix requires an internal argument. An additional empirical disadvantage is the existence of “non-restrictive” uses of restrictive suffixes. Under the governing/restrictive hypothesis, a restrictive suffix modifies the base which it attaches to. This hypothesis corresponds to the following interpretational possibilities (Davidson 2002):

- (27) qaʔuuc-č̣u
 pack.basket-**in.container**
 = ‘pack-basket (that is) in a container’
 * ‘in a pack-basket’ (Tseshah dialect: Davidson 2002: 181 ex. 275b)

However, my fieldwork on the Ahousah dialect of Nuu-chah-nulth has shown the opposite pattern.

- (28) wiḵ-um ʔuyii haʔum-č̣u-ʔi
 NEG-2sg.IMP(FUT) give food-**in.container**-DET
 Don’t give her the one with food in it!
 (*does not mean* ‘Don’t give her the food that’s in a container’.)

This interpretation is unexpected under the governing/restrictive hypothesis.³

Conceptually, the governing/restrictive hypothesis has two major inadequacies. The first is that in failing to treat members of the restrictive category as predicates, this classification misses the syntactic similarities which these suffixes have to members of the governing class. Suffixes in both categories show a subject-object asymmetry, and also participate equally in the formation of *wh*-questions and relative clauses (Wojdak 2003b). The second conceptual

³ The interpretation follows from the predicate/argument flexibility which characterizes Wakashan languages. Any predicate (here, the locative predicate *-č̣u(u)* ‘in a container’) can be converted to an argument in Nuu-chah-nulth via the addition of the enclitic determiner *-ʔi* (Wojdak 2001).

problem with the traditional governing/restrictive analysis is the lack of uniformity within the restrictive class. Restrictive suffixes in Nuu-chah-nulth include a large class of “spatial disposition” suffixes as well as a small miscellaneous class of non-locative suffixes including degree and plural morphemes (Davidson 2002). It is unclear what conceptual motivation there is for treating functional elements (such as plural markers) and lexical morphemes as a unified class.

To conclude, it appears that the governing/restrictive analysis is unsuccessful in capturing the predicative properties of Nuu-chah-nulth suffixes. Therefore, I propose that this hypothesis should be abandoned for Wakashan languages (see also Boas 1947), in favour of an analysis which derives the suffixation pattern of predicative lexical suffixes from their argument structure.

4. Typological implications

Lexical suffixation has long been treated as an areal feature of languages of the Pacific Northwest (see, for example, Sapir 1911, Gerdts & Hinkson 1996, Mithun 1999). Like Wakashan languages, Salish languages have locative lexical suffixes that denote body parts.

- (29) ni cən kʷəs-cəs
AUX 1sub. burn-hand
I burned my hand. (Halkomelem Salish: Gerdts 1998: 95 ex. 41)

It has been proposed that Salish lexical suffixes derive historically from nouns (Carlson 1989) and have undergone differing degrees of grammaticalisation as modifiers (Gerdts & Hinkson 1996). Gerdts (1998: 97) notes that there is support for the notion that “lexical suffixes can be regarded as incorporated nouns that have lost their status as free-standing nominals”.

In Wakashan, however, the inverse is true: lexical suffixes pattern productively as incorporating predicates in Nuu-chah-nulth. For this reason, lexical suffixes in Wakashan are only superficially similar to their counterparts in Salish languages.

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