Verbal applicatives in Nuuchahnulth*

Olga Steriopolo
ZAS, Berlin

In this article, I provide a description and analysis of the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' in the Southern Wakashan language Nuuchahnulth (*nuučaaʔnuɬ*). I argue that these morphemes are verbal applicatives that add a non-core argument to the thematic structure of a verb.
Verbal applicatives in Nuuchahnulth are interesting to investigate because they exhibit typologically unique behaviour that has never been studied before. Applicatives are traditionally considered functional elements whose only purpose is to add an indirect object to the argument structure of the verb (Pylkkanen 2002: 17). Nuuchahnulth is the only known language that productively uses independent verbs for this purpose.
Nuuchahnulth is an indigenous language of Canada spoken in the province of British Columbia. It consists of 14 major dialects, most of which have never been studied. All of these dialects are now highly endangered and urgently need to be documented.

We are the Nuu-chah-nulth-aht. We continue to follow our ancestors' true self-determination and real self-sufficiency when they lived and thrived on the lands and waters on the West Coast of Vancouver Island.

(The Nuuchahnulth Tribal Council)

* I would like to express my gratitude and appreciation to the language consultants of Nuuchahnulth Mary Jane Dick, Sarah Webster and Katherine Fraser. This article is dedicated to the people of Nuuchahnulth.
The article is based on my General's paper at the University of British Columbia, Canada, defended in partial fulfillment of the requirements for the degree of Doctor of Philosophy. This research has not been published before.

1 Introduction

The main objective of this work is twofold: First, to provide a detailed description of the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' in Nuuchahnulth (*nuučaaʔnuɬ*), an endangered indigenous language of British Columbia. Second, to propose a syntactic analysis of these morphemes.

Different languages employ different strategies for introducing a new discourse participant (Pylkkanen 2002). For example, English uses so-called double object constructions: (a) *John melted some ice.* (b) *John melted Mary some ice* (*Mary* is a new participant). The Bantu language Venda uses the special suffix *-el*: *Mukasa o-nok-is-el-a Katonga mahada* 'Mukasa melted Katonga the snow' (*Katonga* is a new participant). By contrast, Nuuchahnulth productively uses verbs to introduce discourse referents. In this respect, Nuuchahnulth is an unusual language, as it is the only language known to exploit such a strategy (Rose 1981). While it has been noted before that Nuuchahnulth has many typologically unique characteristics (Davidson 2002; Nakayama 2001; Stonham 1999), this way of introducing a new discourse participant has received very little attention in linguistic research (Klokeid 1978).

The data used in the article were collected by the author (unless specified otherwise) through fieldwork with three native speakers of the Ahousaht (ʕ*aaḥuus*ʔ*atḥ*) dialect of Nuuchahnulth. The speakers are literate females of 55-65 years of age. They are bilingual (with English as second language). The data were elicited using the research method of collecting native speakers' introspective judgments, which is a standard method in linguistic research. This method involves asking native speakers to judge constructed sentences for their well-formedness. The sessions were transcribed and tape-recorded. The collected data were first checked with the speakers, and then entered into a computer database. The field-notes and the database are accessible to other researchers, as well as to educational institutions interested in the data. The research was carried out in Vancouver and on Vancouver Island, British Columbia, Canada.

The article is organized as follows: Section 1 provides a short overview of the language. Section 2 describes the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' in Nuuchahnulth. Section 3 outlines previous analyses of the morpheme *čiɬ* 'do to'. Section 4 presents the proposal. Section 5 is devoted to the syntax of applicatives in Nuuchahnulth. Section 6 presents the conclusions. The article also contains an Appendix with a list of verbs used with the morphemes *čiɬ*, *ḥta* and *cḥin*.

2 Nuuchahnulth

Aboriginal British Columbia is renowned for its linguistic diversity. In Canada, there are between 50 and 73 Aboriginal languages representing 11 language families (Ignace 1998). In British Columbia alone, there are between 27 and 34 Aboriginal languages, representing eight distinct language families. All of these languages have experienced a tremendous decline during the past century, and most are currently in danger of extinction (Kinkade 1991).

Nuuchahnulth is among these highly endangered languages. There are 14 traditionally unwritten dialects of Nuuchahnulth, out of which, only four have been described (Ahousaht, Ditidaht, Kyuquot, and Tseshaht). It is very important to document the language, because the number of native speakers is rapidly declining. Most community members below the age of 60 do not speak or understand Nuuchahnulth at all, which makes the revival of the language very difficult (Nakayama 2001).

Nuuchahnulth (NCN) is spoken along the west coast of Vancouver Island from Cape Cook to Pachena Point. It belongs to the Southern Wakashan branch of the Wakashan language family, along with two other languages: Ditidaht and Makah. Ditidaht is spoken on the southern coast of Vancouver Island. Makah is spoken on the Olympic Peninsula in Washington State, USA.

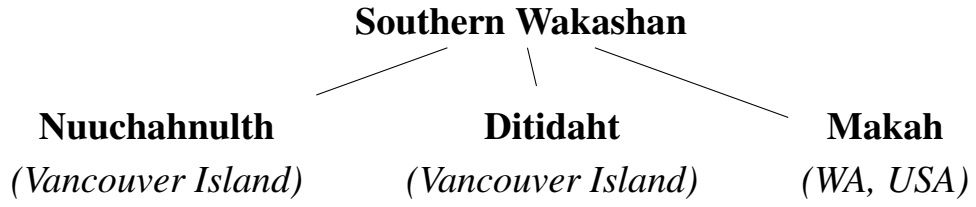


Figure 1: The Southern Wakashan branch of the Wakashan language family

The clausal structure of the language is characterized by predicate-initial word order with subject inflection (person/number/mood) on the predicate (Wojdak 2002: 1). There is no object inflection on the predicate with the exception of imperatives.

(1) a. makuk^{w}-mit-siš maḥt̓ii
buy-PAST-3SG.IND house
'I bought a house.'

b. * makuk^{w}-mit-ʔiš maḥt̓ii
buy-PAST-3SG.IND house
'I/He/She bought a house.'

There are two distinct verb classes in NCN: incorporating verbs (ʔ*u*-verbs) and non-incorporating verbs (independent verbs) (Woo & Wojdak 2001). Incorporating verbs appear either suffixed to the morpheme ʔ*u*, or to an incorporated object. ʔ*u* is an "empty" pleonastic morpheme glossed as *ø* ("empty").

(2) a. ʔu-ʔap-mit-ʔiš čakup maḥt̓ii
ø-buy-PAST-3SG.IND man house
'A man bought a house.'
b. maḥt̓ii-ʔap-mit-ʔiš čakup
house-buy-PAST-3SG.IND man
'A man bought a house.'
c. * ʔap-mit-ʔiš čakup maḥt̓ii
buy-PAST-3SG.IND man house
'A man bought a house.' (Woo & Wojdak 2001: 1)

Non-incorporating verbs never occur with ʔ*u* or an incorporated object.

(3) a. makuk^{w}-mit-ʔiš čakup maḥt̓ii
buy-PAST-3SG.IND man house
'A man bought a house.'
b. * ʔu-makuk^{w}-mit-ʔiš čakup maḥt̓ii
ø-buy-PAST-3SG.IND man house
'A man bought a house.'
c. * maḥt̓ii-makuk^{w}-mit-ʔiš čakup
house-buy-PAST-3SG.IND man
'A man bought a house.' (Woo & Wojdak 2001: 1)

Neither verbal type can appear suffixed to a subject.

(4) a. * čakup-ʔap-mit-ʔiš maḥt̓ii
man-buy-PAST-3SG.IND house
'A man bought a house.'
b. * čakup-makuk^{w}-mit-ʔiš maḥt̓ii
man-buy-PAST-3SG.IND house
'A man bought a house.' (Woo & Wojdak 2001: 1)

3 The morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for'

According to the speakers' judgments, all three morphemes denote an action done to an object. These three morphemes are the only ones in the language with this meaning. Following Rose (1981), Davis & Sawai (2001), Wojdak (2002) and Sawai (2002), I gloss the morpheme *čiɬ* as 'do to' and the morpheme

cḥin as ‘do for’. Rose also translates the morpheme *ḥta* as ‘do to’. However, according to the native speakers, this translation misses a difference in meaning between the morphemes *čiɬ* and *ḥta*. The morpheme *čiɬ* means ‘do (something) to an object’, while the morpheme *ḥta* means ‘do (something) with focus on an object’. To capture this difference in meaning, I suggest to translate *ḥta* as ‘do towards’ with the native speakers’ agreement.

The morphemes *čiɬ* ‘do to’, *ḥta* ‘do towards’ and *cḥin* ‘do for’ can occur either clause-finally, or clause-initially. These morphemes can optionally incorporate certain types of complements (*wh*-words, quantifiers, and personal and reflexive pronouns). The different positions of the morphemes and optional incorporation are described below.

I. No Incorporation:
   a. [pred[1] DO IO-*čiɬ*/*ḥta*/*cḥin*]
   b. [IO-*čiɬ*/*ḥta*/*cḥin* pred DO]

II. Incorporation:
   a. [DO-pred IO-*čiɬ*/*ḥta*/*cḥin*]
   b. [IO-*čiɬ*/*ḥta*/*cḥin* DO-pred]

The morpheme *čiɬ* ‘do to’

(5) a. ʔu-yii-mit-ʔiš John ƛ̓iiḥciip ʔaya-*čiɬ* (clause-final)
ø-give-PAST-3SG.IND John flowers many-do.to
‘John gave flowers to many.’

b. ʔaya-*čiɬ*-mit-ʔiš John ʔu-yii ƛ̓iiḥciip (clause-initial)
many-do.to-PAST-3.SG.IND John ø-give flowers
‘John gave flowers to many.’

c. ƛ̓iiḥciip-yii-mit-ʔiš John ʔaya-*čiɬ* (incorporation)
flowers-give-PAST-3SG.IND John many-do.to
‘John gave flowers to many.’

d. ʔaya-*čiɬ*-mit-ʔiš John ƛ̓iiḥciip-yii (incorporation)
many-do.to-PAST-3SG.IND John flowers-give
‘John gave flowers to many.’

[1] pred = predicate

The morpheme *ḥta* 'do towards'

(6) a. ʔu-yii-mit-ʔiš John ƛ̓iiḥciip ʔaya-*ḥta* (clause-final)
ø-give-PAST-3SG.IND John flowers many-do.towards
'John gave flowers to many.'

b. ʔaya-*ḥta*-mit-ʔiš John ʔu-yii ƛ̓iiḥciip (clause-initial)
many-do.towards-PAST-3SG.IND John ø-give flowers
'John gave flowers to many.'

c. ƛ̓iiḥciip-yii-mit-ʔiš John ʔaya-*ḥta* (incorporation)
flowers-give-PAST-3SG.IND John many-do.towards
'John gave flowers to many.'

d. ʔaya-*ḥta*-mit-ʔiš John ƛ̓iiḥciip-yii (incorporation)
many-do.towards-PAST-3SG.IND John flowers-give
'John gave flowers to many.'

The morpheme *cḥin* 'do for'

(7) a. ʔu-ḥc̓ii-siš haʔum sut-*cḥin* (clause-final)
ø-cook-1SG.IND food you-do.for
'I cook food for you.'

b. sut-*cḥin*-siš ʔu-ḥc̓ii haʔum (clause-initial)
you-do.for-1SG.IND ø-cook food
'I cook food for you.'

c. haʔum-ḥc̓ii-siš sut-*cḥin* (incorporation)
food-cook-1SG.IND you-do.for
'I cook food for you.'

d. sut-*cḥin*-siš haʔum-ḥc̓ii (incorporation)
you-do.for-1SG.IND food-cook
'I cook food for you.'

The morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' obligatory suffix to the following objects: the reflexive pronoun ʔ*uk*^{w}*a* 'self', the personal pronouns *sii* 'me', *sut* 'you-SG', *niiḥ* 'us' and *siiḥ* 'you-PL'; and *wh*-words if these objects occur in the sentence. They optionally suffix to object-quantifies and to the pleonastic morpheme ʔ*u*-. These morphemes never attach to a subject.

(8) a. ʔuk^{w}a-*čiɬ*-mit-ʔiš čakup ʔu-c̓us (with reflexive pron.)
self-do.to-PAST-3SG.IND man ø-make.fun
'A man made fun of himself.'

b. ʔu-ċus-mit-ʔiš čakup ʔuk^{w}a-*čiɬ*
ø-make.fun-PAST-3SG.IND man self-do.to
'A man made fun of himself.'

c. * ʔu-*čiɬ*-mit-ʔiš čakup ʔuk^{w}a ʔu-ċus
ø-do.to-PAST-3SG.IND man self ø-make.fun
'A man made fun of himself.'

d. * ʔu-*čiɬ*-mit-ʔiš čakup ʔuk^{w}a-ċus
ø-do.to-PAST-3SG.IND man self-make.fun
'A man made fun of himself.'

In (8a) and (8b), the morpheme *čiɬ* 'do to' is suffixed to the reflexive pronoun ʔ*uk^{w}a* 'self', and the sentences are correct. In (8c) and (8d), this morpheme is not suffixed to the reflexive, and the sentences are ungrammatical.

(9) a. sii-*čiɬ*-mit-ʔiš čakup ʔu-ċus (with personal pron.)
me-do.to-PAST-3SG.IND man ø-make.fun
'A man made fun of me.'

b. ʔu-ċus-mit-ʔiš čakup sii-*čiɬ*
ø-make.fun-PAST-3SG.IND man me-do.to
'A man made fun of me.'

c. * ʔu-*čiɬ*-mit-ʔiš čakup sii ʔu-ċus
ø-do.to-PAST-3SG.IND man me ø-make.fun
'A man made fun of me.'

d. * ʔu-*čiɬ*-mit-ʔiš čakup sii-ċus
ø-do.to-PAST-3SG.IND man me-make.fun
'A man made fun of me.'

In (9a) and (9b), the morpheme *čiɬ* 'do to' is suffixed to the personal pronoun *sii* 'me', and the sentences are grammatical. In (9c) and (9d), this morpheme is not suffixed to the same personal pronoun, and the sentences are incorrect.

(10) a. ʔača-*čiɬ*-mit-ʔiš čakup ʔu-ċus (with *wh*-object)
who-do.to-PAST-3SG.IND man ø-make.fun
'Who(m) did a man make fun of?'

b. * ʔu-*čiɬ*-mit-ʔiš čakup ʔača ʔu-ċus
ø-do.to-PAST-3SG.IND man who ø-make.fun
'Who(m) did a man make fun of?'

c. * ʔu-*čiɬ*-mit-ʔiš čakup ʔača-ċus
ø-do.to-PAST-3SG.IND man who-make.fun
'Who(m) did a man make fun of?'

In (10a), the morpheme *čiɬ* 'do to' is suffixed to the *wh*-word ʔ*ača* 'who', which yields a grammatical sentence. In (10b) and (10c), however, this morpheme is not suffixed to the *wh*-word, and the sentence is incorrect.

(11) a. hiš-*čiɬ*-mit-ʔiš čakup ʔu-ċus (with quantifier)
everybody-do.to-PAST-3SG.IND man ø-make.fun
'A man made fun of everybody.'

b. ʔu-ċus-mitʔiš čakup hiš-*čiɬ*
ø-make.fun-PAST-3SG.IND man everybody-do.to
'A man made fun of everybody.'

c. ʔu-*čiɬ*-mit-ʔiš čakup hiš-aata ʔu-ċus
ø-do.to-PAST-3SG.IND man everybody-direction ø-make.fun
'A man made fun of everybody.'

In (11a) and (11b), the morpheme *čiɬ* 'do to' is suffixed to the quantifier *hiš*- 'everybody'. In (11c), this morpheme is not suffixed to the quantifier. All three sentences are grammatical, which illustrates that the morpheme *čiɬ* 'do to' can optionally suffix to quantifiers. The sentence (11c) also shows that *čiɬ* 'do to' can attach to the pleonastic morpheme ʔ*u*-.

In (12), the sentence can only be correct if the *wh*-word is an object. If the *wh*-word refers to the subject, the sentence becomes ungrammatical.

(12) ʔača-*čiɬ*-mit-ʔiš hiš-aata ʔu-ċus (with subject)
who-do.to-PAST-3SG.IND everybody-direction ø-make.fun
* 'Who made fun of everybody?' (*wh*-word = subject)
'Who(m) did everybody make fun of?' (*wh*-word = object)

The discussed above is summarized in the Table 1 below.

Table 1: The use of *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' in Nuuchahnulth

Category		***čiɬ/ḥta/cḥin***
Objects	Reflexive pronoun ʔ*uk*^{w}*a* 'self'	✓ (obligatory)
	Personal pronouns *sii* 'me', *sut* 'you-SG', *niiḥ* 'us', *siiḥ* 'you-PL'	✓ (obligatory)
	Wh-words	✓ (obligatory)
	Quantifiers	✓ (optional)
	Pleonastic morpheme ʔ*u*-	✓ (optional)
Subjects		*

4 Previous analyses of the morpheme *čiɬ* 'do to'

There has been no research done explicitly on the morphemes *ḥta* 'do towards' and *cḥin* 'do for'. However, two syntactic analyses of the morpheme *čiɬ* 'do to' have been proposed. Both analyses focus on the interaction of *čiɬ* 'do to' with *wh*-words.

According to one analysis (Davis & Sawai 2001), *čiɬ* is an object auxiliary generated above the VP. According to the other analysis (Sawai 2002), *čiɬ* is a focus particle generated above the IP. It has also been suggested by Wojdak (2002) that *čiɬ* could be analyzed as an accusative case marker. I discuss all three proposals in turn below.

4.1 *čiɬ* 'do.to' is an object auxiliary (Davis & Sawai 2001)

According to Davis & Sawai, *čiɬ* is an incorporating object auxiliary projected above the VP. *Wh*-words attach to *čiɬ* 'do.to' when used with a non-incorporating verb. The *wh*-verb complex then undergoes head-movement to Mood, and after that to C (13b).

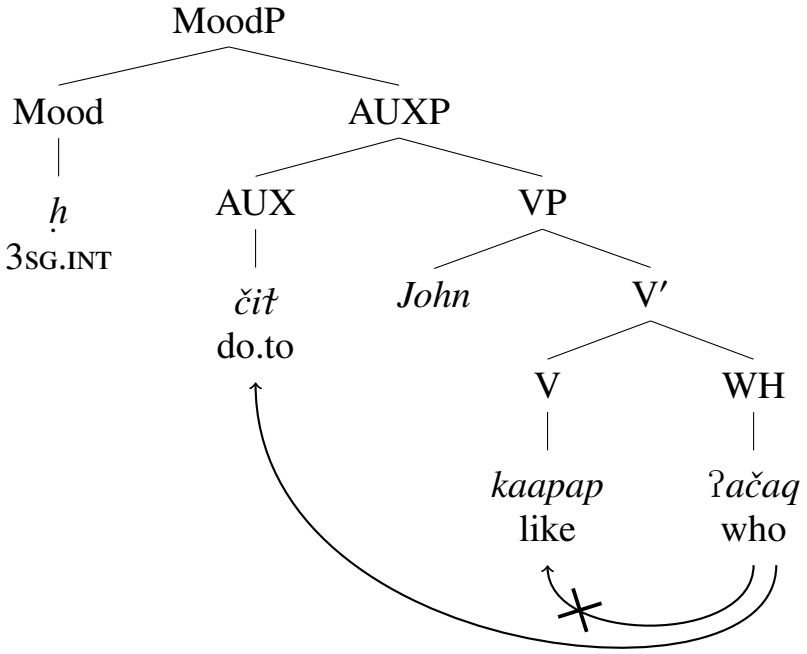
To account for the fact that a *wh*-word cannot incorporate into a non-incorporating verb, Davis & Sawai adopt a "relativized" version of Relativized Minimality[2] (Rizzi 1995). They propose that only potentially incorporating predicate can count as an intervening head for purposes of incorporation. Therefore, in (13b) above, the *wh*-word *ʔačaq* 'who' incorporates into the auxiliary *čiɬ* 'do.to' without a minimality violation.

A fatal problem with Davis & Sawai's analysis was pointed out by Wojdak (2002). According to Wojdak, if extended to account for the reflexive pronoun *ʔuk^{w}a* 'self', the analysis violates Relativized Minimality. Thus, in (14b), the movement *a* should be blocked, because the auxiliary *čiɬ* 'do.to' intervenes between I and V. The sentence (14b) is predicted to be ungrammatical. However, it is attested in NCN (see below).

(13) a. ʔaača-*čiɬ*-ḥ kaapap John
who-do.to-3SG.INT like John
'Who does John like?'

[2] *Relativized Minimality*: X x-governs Y if there is no Z such that (i) Z is a typical potential x-governor for Y; (ii) Z c-commands Y and Z does not c-command X.

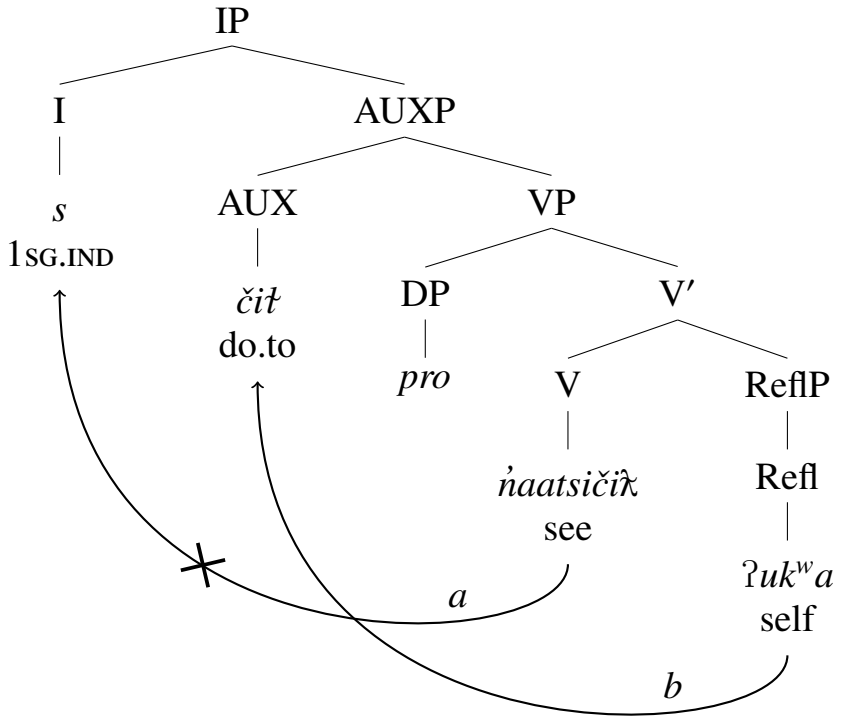
b.



(Davis & Sawai 2001: 128)

(14) a. ʼnaatsičiƛ-s ʔukʷa-*čiɬ*
see-1SG.IND self-do.to
'I saw myself.'

b.



(Wojdak 2002: 12)

4.2 *čiɬ* 'do.to' is a focus particle (Sawai 2002)

According to Sawai (2002), *čiɬ* 'do to' is a focus particle generated above the IP in the head of FocP. The *wh*-phrase moves into Spec,FocP to check the strong [focus] feature of the head.

This analysis predicts that *čiɬ* 'do to' should always appear before the main predicate, because it is generated above the main predicate in a syntactic tree. However, this does not account for the correct sentences where *čiɬ* 'do to' is used clause-finally after the main predicate (see 15 below).

(15) What did you do to yourself?

a. ʔu-c̓us-mit-siš ʔuk^{w}a-*čiɬ*
ø-make.fun-PAST.1SG.IND self-do.to
'I MADE FUN of myself.'

b. m̓ačiƛ-mit-siš ʔuk^{w}a-*čiɬ*
bite-PAST-1SG.IND self-do.to
'I BIT myself.'

This analysis also predicts that in (15), the reflexive pronoun ʔ*uk^{w}a* 'self' should be focused, because it attaches to the focus particle *čiɬ*. However, as the data above indicate, it is not the case in the language. In (15a), only the verbs *c̓us* 'make fun' is focused and in (15b), only the verb *m̓ačiƛ* 'bite' is focused.

4.3 *čiɬ* 'do.to' is a structural accusative case marker

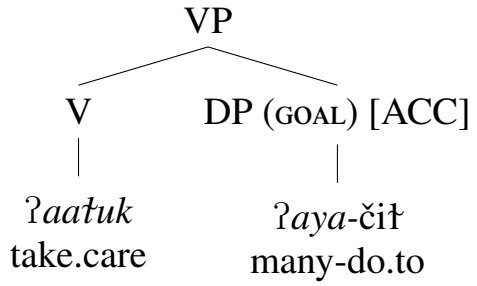
If the morpheme *čiɬ* 'do to' were a structural ACC case marker, it would predict that this morpheme cannot be sensitive to theta roles of the verb's arguments. Thus, in both (16) and (17) below, *čiɬ* 'do to' should attach to ʔ*aya* 'many' because ʔ*aya* is a complement of the verb.

(16) a. ʔu-ʔaaɬuk-mit-ʔiš čakup ʔaya-*čiɬ* (ʔ*aya* = GOAL)
ø-take.care-PAST-3SG.IND man many-do.to
'A man took care of many.'

b. * ʔu-ʔaaɬuk-mit-ʔiš čakup ʔaya (ʔ*aya* = GOAL)
ø-take.care-PAST-3SG.IND man many
'A man took care of many.'[3]

[3] This example as well as all correct examples below are grammatical data in Nuuchahnulth volunteered by native speakers. The examples do not miss information, compared with their English translations, where the word *something* is missing.

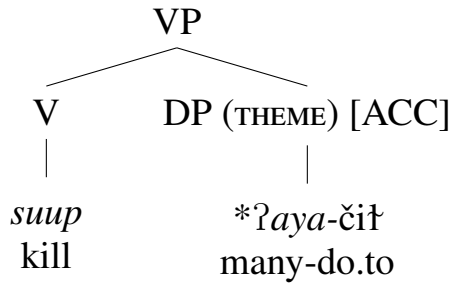
c.



(17) a. * ʔu-suup-mit-ʔiš čakup ʔaya (*ʔaya* = THEME)
ø-kill-PAST-3SG.IND man many
'A man killed many.'

b. ʔu-suup-mit-ʔiš čakup ʔaya (*ʔaya* = THEME)
ø-kill-PAST-3SG.IND man many
'A man killed many.'

c.



However, as the data above indicate, it is not the case in the language. The NCN sentences show that this morpheme is sensitive to theta roles of the verb's complements. In (16), *ʔaya* 'many' is a GOAL argument of the verb. The morpheme *čiɬ* 'do to' attaches to this argument, and the sentence is correct. In (17), ʔaya 'many' is a THEME argument. The morpheme *čiɬ* 'do to' attaches to it, and the sentence is ungrammatical. This sensitivity with regard to theta-roles is not predicted by the analysis of *čiɬ* 'do to' as an ACC case marker.

To rule out a possibility that the verb *suup* 'kill' in (17) is "special", such that it does not assign ACC case to its complement, I illustrate below more examples where *čiɬ* 'do to' is ungrammatical on the THEME argument of the verb (18-20).

(18) a. * ʔu-ʔiic-mit-ʔiš čakup ʔaya-*čiɬ* (*ʔaya* = THEME)
ø-eat-PAST-3SG.IND man many-do.to
'A man ate a lot.'

b. ʔu-ʔiic-mit-ʔiš čakup ʔaya (*ʔaya* = THEME)
ø-eat-PAST-3SG.IND man many
'A man ate a lot.'

In (18) above, *čiɬ* 'do to' is ungrammatical on the THEME argument *ʔaya* 'many' of the verb *ʔiic* 'eat'.

(19) a. * ʔu-kwiiɬ-mit-ʔiš John ʔaya-*čiɬ* (*ʔaya* = THEME)
ø-make-PAST-3SG.IND John many-do.to
'John made a lot (of something).'
b. ʔu-kwiiɬ-mit-ʔiš John ʔaya (*ʔaya* = THEME)
ø-make-PAST-3SG.IND John many
'John made a lot (of something).'

In (19) above, *čiɬ* 'do to' is ungrammatical on the THEME argument *ʔaya* 'many' of the verb *kwiiɬ* 'make'.

(20) a. ʔu-yii-mit-ʔiš John ƛ̓aatn̓aʔis ʔaya-*čiɬ*
ø-give-PAST-3SG.IND John children many-do.to
* 'John gave children lots (of something).'
'John gave (something) to many children.'
b. ʔu-yii-mit-ʔiš John ƛ̓aatn̓aʔis ʔaya
ø-give-PAST-3SG.IND John children many
'John gave chrildren lots (of something).'
* 'John gave (something) to many children.'

In (20), *čiɬ* 'do to' is ungrammatical on the THEME argument *ʔaya* 'many' of the verb *yii* 'give'. However, it is grammatical with the GOAL argument of this verb. Thus, in (20a), *ʔaya* 'many' is a GOAL argument of the verb *yii* 'give'. The morpheme *čiɬ* 'do to' attaches to this argument, and the sentence is correct. In (20b), *ʔaya* 'many' is a THEME argument of the same verb *yii* 'give', and the grammatical sentence occurs without *čiɬ* 'do to'.

Another argument that shows that *čiɬ* 'do to' is not a structural ACC case marker concerns passive constructions in NCN. If this morpheme were a structural ACC case marker, we would expect it not to appear on the THEME which has been promoted to subject in passive constructions (see Kim 2001 on object promotion in passive constructions). However, as the example (21b) below indicates, *čiɬ* 'do to' is grammatical on the promoted object in a passive clause (compare with 21a).

(21) a. ʔu-c̓us-mit-ʔiš Mary sut-*čiɬ*
ø-make.fun-PAST-3SG.IND Mary you-do.to
'Mary made fun of you.'
b. sut-*čiɬ*-ʔat-mit-ʔick ʔu-c̓us-ʔat ʔuḥʔat Mary
you-do.to-PASSIVE-PAST-2SG.IND ø-make.fun-PASSIVE by Mary
'You were made fun of by Mary.'

As (21) shows, the morpheme *čiɬ* 'do to' is used in both active and passive clauses, which is not predicted by this analysis.

Another piece of evidence that *čiɬ* 'do to' is not a case marker comes from its position in a clause. If *čiɬ* 'do to' were a case marker, we would expect it to appear attached to the argument and act as a constituent with the argument. However, as the examples below indicate, *čiɬ* 'do to' can occur either on the argument, or separated from it (as in 22b, compare with 22a), which is unexpected if analyzing *čiɬ* 'do to' as a case marker.

(22) a. ʔaya-*čiɬ*-mit-ʔiš čakup ʔu-c̓us (on the argument)
many-do.to-past-3sg.ind man ø-make.fun
'A man made fun of many.'

b. ʔu-*čiɬ*-mit-ʔiš čakup ʔaya ʔu-c̓us (separated)
ø-do.to-past-3sg.ind man many ø-make.fun
'A man made fun of many.'

5 The proposal

I propose that the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' are verbal applicatives that add a non-core (additional) argument to the thematic structure of a verb. In 5.1, I show that these morphemes are verbs. In 5.2, I argue that these morphemes serve to introduce a non-core argument.

5.1 The morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' are verbs

One argument in favor of the verbal status of the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' is that they appear independently as verbs meaning 'do to', 'do towards' and 'do for'.

The morpheme čiɬ *'do to'*

(23) a. ʔu-*čiɬ*-mit-ʔiš John ʔumʔiiq (as a verb in a statement)
ø-do.to-PAST-3SG.IND John mother
'John did (something) to mother.'

b. ʔača-*čiɬ*-mit-ḥ John (as a verb in a question)
who-do.to-PAST-3SG.INT John
'Who(m) did John do (something) to?'

The morpheme ḥta *'do towards'*

(24) a. ʔu-*ḥta*-mit-ʔiš John ʔumʔiiq (as a verb in a statement)
ø-do.towards-PAST-3SG.IND John mother
'John did (something) to mother.'

b. ʔača-*ḥta*-mit-ḥ John (as a verb in a question)
who-do.towards-PAST-3SG.INT John
'Who(m) did John do (something) to?'

The morpheme cḥin *'do for'*

(25) a. ʔu-*cḥin*-mit-ʔiš John ʔumʔiiq (as a verb in a statement)
ø-do.for-PAST-3SG.IND John mother
'John did (something) for mother.'

b. ʔača-*cḥin*-mit-ḥ John (as a verb in a question)
who-do.for-PAST-3SG.INT John
'Who(m) did John do (something) to?'

These morphemes can have the same arguments as other verbs in NCN: they can be used with common nouns, proper names, inanimate nouns, reflexive pronouns, personal pronouns and quantifiers.

(26) a. ʔu-*čiɬ*-mit-ʔiš John ʔumʔiiq
ø-do.to-PAST-3SG.IND John mother
'John did (something) to mother.'

b. ʔu-*ċus*-mit-ʔiš John ʔumʔiiq
ø-make.fun-PAST-3SG.IND John mother
'John made fun of mother.'

In (26a) above, the morpheme *čiɬ* 'do to' is used with the common noun ʔ*um*ʔ*iiq* 'mother'. In (26b), the verb *ċus* 'make fun' is used with the same common noun.

(27) a. ʔu-*čiɬ*-mit-ʔiš Mary John
ø-do.to-PAST-3SG.IND Mary John
'Mary did (something) to John.'

b. ʔu-*ċus*-mit-ʔiš Mary John
ø-make.fun-PAST-3SG.IND Mary John
'Mary made fun of John.'

In (27a), the morpheme *čiɬ* 'do to' is used with the proper name *John*. In (27b), the verb *ċus* 'make fun' is used with the same proper name.

(28) a. ʔu-*čiɬ*-mit-ʔiš John huupuk̓^{w}as-uk Bill
ø-do.to-PAST-3SG.IND John car-POSSESSIVE Bill
'John did (something) to Bill's car.'

b. ʔu-*ċus*-mit-ʔiš John huupuk̓^{w}as-uk Bill
ø-make.fun-PAST-3SG.IND John car-POSSESSIVE Bill
'John made fun of Bill's car.'

In (28a), the morpheme *čiɬ* 'do to' is used with the inanimate noun *huupuk̓^{w}as* 'car'. In (28b), the verb *ċus* 'make fun' is used with the same inanimate noun.

(29) a. ʔuk^{w}a-*čiɬ*-mit-ʔiš John
self-do.to-PAST-3SG.IND John
'John did (something) to himself.'

b. ʔuk^{w}a-*ċus*-mit-ʔiš John
self-make.fun-PAST-3SG.IND John
'John made fun of himself.'

In (29a), the morpheme *čiɬ* 'do to' is used with the reflexive pronoun *ʔuk^{w}a* 'self'. In (29b), the verb *ċus* 'make fun' is used with the same reflexive pronoun.

(30) a. sut-*čiɬ*-mit-ʔiš John
you-do.to-PAST-3SG.IND John
'John did (something) to you.'

b. sut-*ċus*-mit-ʔiš John
you-make.fun-PAST-3SG.IND John
'John made fun of you.'

In (30a), the morpheme *čiɬ* 'do to' is used with the personal pronoun *sut* 'you'. In (30b), the verb *ċus* 'make fun' is used with the same personal pronoun.

(31) a. ʔu-*čiɬ*-mit-ʔiš John hiš-aata
ø-do.to-PAST-3SG.IND John everybody-direction
'John did (something) to everybody.'

b. ʔu-*ċus*-mit-ʔiš John hiš-aata
ø-make.fun-PAST-3SG.IND John everybody-direction
'John made fun of everybody.'

In (31a), the morpheme *čiɬ* 'do to' is used with the quantifier *hiš* 'everybody'. In (31b), the verb *ċus* 'make fun' is used with the same quantifier.

Another piece of evidence that *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' are verbs comes from examples where these morphemes can occur with the passive suffix -ʔ*at*, just like other verbs in NCN.

(32) a. ʔu-*čiɬ*-ʔat-mit-ʔiš ʔumʔiiq
ø-do.to-PASSIVE-PAST-3SG.IND mother
'It was done to mother.'

b. ʔu-*ċus*-ʔat-mit-ʔiš ʔumʔiiq
ø-make.fun-PASSIVE-PAST-3SG.IND mother
'Mother was made fun of.'

In (32a), the morpheme *čiɬ* 'do to' appears with the passive suffix -ʔ*at*. In (32b), the verb *ċus* 'make fun' is used with the same passive suffix.

In NCN, only incorporating predicates can occur with the expletive morpheme ʔ*u*- (Woo & Wojdak 2001). As the data below show, the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' can also occur with the expletive ʔ*u*- (see also Section 2.2).

(33) a. ʔu-*čiɬ*-mit-ʔiš John ʔumʔiiq
ø-do.to-PAST-3SG.IND John mother
'John did (something) to mother.'

b. ʔu-*ċus*-mit-ʔiš John ʔumʔiiq
ø-make.fun-PAST-3SG.IND John mother
'John made fun of mother.'

In (33a), the morpheme *čiɬ* 'do to' appears with the expletive morpheme ʔ*u*-. In (33b), the verb *ċus* 'make fun' is used with the expletive ʔ*u*-.

Another similarity with incorporating verbs is that *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' can suffix to a *wh*-word.

(34) a. ʔača-*čiɬ*-mit-ʔiš John
who-do.to-PAST-3SG.IND John
'Who(m) did John do (something) to?'

b. ʔača-suup-ḥ-ʔač John
who-kill-3SG.INT-CONFIRM John
'Who did John kill?'

In (34a), the morpheme *čiɬ* 'do to' appears suffixed to the *wh*-word ʔ*ača* 'who'. In (34b), the verb *ċus* 'make fun' is also suffixed to the same *wh*-word.

I have shown above that the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' and incorporating verbs behave very similarly in NCN. The question arises: are there any differences? The only difference found is that unlike other incorporating verbs, *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' cannot suffix to a noun or another verb.

(35) a. * ʔa-ʔiič-*čiɬ*-mit-ʔiš John
PL-old.person-do.to-PAST-3SG.IND John
'John did (something) to old people.'

b. ʔa-ʔiič-ʔaaɬuk-mit-ʔiš John
PL-old.person-take.care-PAST-3SG.IND John
'John took care of old people.'

In (35a), the morpheme *čiɬ* 'do to' is ungrammatical when suffixed to the noun *ʔaʔiič* 'old people'. In (35b), the verb *ʔaaɬuk* 'take care' appears suffixed to the noun *ʔaʔiič* 'old people'.

(36) a. * ƛ̓iix-*čiɬ*-mit-ʔiš John ʔumʔiiq
laugh-do.to-PAST-3SG.IND John mother
'John did (something) laughing at mother.'

b. ƛ̓iix-*c̓us*-mit-ʔiš John ʔumʔiiq
laugh-make.fun-PAST-3SG.IND John mother
'John made fun laughing at mother.'

In (36a), the morpheme *čiɬ* 'do to' is ungrammatical when suffixed to the verb *ƛ̓iix* 'laugh'. In (36b), the verb *c̓us* 'make fun' is suffixed to the verb *ƛ̓iix* 'laugh'.

I attempt to explain this difference between *čiɬ*, *ḥta* and *cḥin* and other incorporating verbs in NCN in the Section 6.3.

The discussed above is summarized in the Table 2.

Table 2: The morphemes *čiɬ* 'do to', *ḥta* 'do towards', *cḥin* 'do for' are verbs

Properties	**Verbs**	***čiɬ/ḥta/cḥin***
Occur as verbs in sentence	✓	✓
Used with: common/proper, animate/inanimate nouns, pronouns, quantifiers	✓	✓
Appear with passive -ʔ*at*	✓	✓
Occur with expletive ʔ*u*-	✓	✓
Suffix to *wh*-words, pronouns, quantifiers	✓	✓
Suffix to nouns, verbs	✓	X

5.2 The morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' are applicatives

Many languages have a means of adding an indirect object to the argument structure of a verb (Pylkkanen 2002). This is widely attested in the Bantu languages amongst many others (Bresnan & Moshi 1993). Such additional arguments are called applied arguments. The term applicatives is used to refer to elements that serve to add an applied argument to the argument structure of a verb. I argue that the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' are applicatives, because they are used to introduce such additional (non-core) arguments.

In the following example (37a), the intransitive stative verb *hiix^{w}at* 'be angry' has the core argument AGENT 'I'. In (37b) and (37c), the non-core argument *ʔaya* 'many' is added, in which case the morphemes *čiɬ* 'do to' or *ḥta* 'do towards' appear in the sentence.

(37) a. hiix^{w}at-ḥi-siš
be.angry-STATE-1SG.IND
'I am angry.'

b. hiix^{w}at-ḥi-siš ʔaya-*čiɬ*
be.angry-STATE-1SG.IND many-do.to
'I am angry at many.'

c. hiix^{w}at-ḥi-siš ʔaya-*ḥta*
be.angry-STATE-1SG.IND many-do.towards
'I am angry at many.'

čiɬ 'do to' and *ḥta* 'do towards' are also used in questions when an additional argument occurs in the sentence (38a and 38b below).

(38) a. ʔača-*čiɬ*-k hiix^{w}at-ḥi
who-do.to-2SG.INT be.angry-STATE
'Who are you angry at?'

b. ʔača-*ḥta*-k hiix^{w}at-ḥi
who-do.towards-2SG-INT be.angry-STATE
'Who(m) are you angry at?'

In (38a) and (38b), the non-core argument 'who' is added. As a result, the morphemes *čiɬ* 'do to' or *ḥta* 'do towards' appear in the sentence.

(39) a. kamatq-šiƛ-ʔaqƛ-siš ...
run-PERF-FUTURE-1SG.IND
'I will run (e. g. to the store).'

b. kamatq-šiƛ-ʔaqƛ-siš ʔaya *cḥin ...*
run-PERF-FUTURE-1SG.IND many-do.for
'I will run for many (on behalf of many).'

In (39a), the intransitive unergative verb *kamatq* 'run' has the core argument AGENT 'I'. In (39b), the non-core argument 'many' is added, which causes the morpheme *cḥin* 'do for' to appear in the sentence.

(40) ʔača-*cḥin*-ʔaqƛ-k kamatq-šiƛ
who-do.for-FUTURE-2SG.INT run-PERF
'For who(m) will you run?'

In (40), the non-core argument 'who' is added, and the morpheme *cḥin* 'do for' is used in the sentence.

(41) a. qaacii-tʔyap-mit-ʔiš John suuḥaa
give.food-bring-PAST-3SG.IND John salmon
'John brought a salmon.'
b. qaacii-tʔyap-mit-ʔiš John suuḥaa ʔaya-*čiɬ*
give.food-bring-PAST-3SG.IND John salmon many-do.to
'John brought a salmon to many.'
c. qaacii-tʔyap-mit-ʔiš John suuḥaa ʔaya-*ḥta*
give.food-bring-PAST-3SG.IND John salmon many-do.towards
'John brought a salmon to many.'

In (41a), the transitive verb *qaacii* 'bring' has two core arguments: the AGENT 'John' and the THEME 'salmon'. When the non-core argument 'many' is added, the morphemes *čiɬ* 'do to' or *ḥta* 'do towards' are used in the sentence (41b), (41c).

(42) a. ʔača-*čiɬ*-mit-ḥ John qaacii-tʔyap suuḥaa
who-do.to-PAST-2SG.INT John give.food-bring salmon
'Who(m) did John bring a salmon to?'
b. ʔača-*ḥta*-mit-ḥ John qaacii-tʔyap suuḥaa
who-do.towards-PAST-2SG.INT John give.food-bring salmon
'Who(m) did John bring a salmon to?'

In (42a) and (42b), the non-core arguemnt 'who' is added. As a result, the morphemes *čiɬ* 'do to' or *ḥta* 'do towards' appear in the sentence.

(43) a. haʔum-ḥc̓ii-siš
food-cook-1SG.IND
'I cook food.'

b. haʔum-ḥc̓ii-siš ʔaya-*cḥin*
food-cook-1SG.IND many-do.for
'I cook food for many.'

In (43a), the transitive verb *ḥc̓ii* 'cook' has two core arguments, the AGENT 'I' and the THEME 'food'. When the non-core argument 'many' is added, the morpheme *cḥin* 'do for' appears in the sentence (43b).

(44) ʔača-*cḥin*-k haʔum-ḥc̓ii
who-do.for-2SG.INT food-cook
'Who(m) do you cook food for?'

In (44), the non-core argument 'who' is added, and the morpheme *cḥin* 'do for' is used in the sentence.

I have shown above that the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' occur with additional arguments in NCN. If these morphemes are applicatives, i. e. they serve to add a non-core argument to the thematic structure of a verb, we would expect that additional arguments cannot be added without these morphemes. This prediction is shown to be correct in the examples below.

(45) a. * qaacii-tx̓ap-mit-ʔiš John suuḥaa ʔaya
give.food-bring-PAST-3SG.IND John salmon many
'John brought a salmon to many.'

b. qaacii-tx̓ap-mit-ʔiš John suuḥaa ʔaya-*čiɬ*
give.food-bring-PAST-3SG.IND John salmon many-do.to
'John brought a salmon to many.'

c. qaacii-tx̓ap-mit-ʔiš John suuḥaa ʔaya-*ḥta*
give.food-bring-PAST-3SG.IND John salmon many-do.towards
'John brought a salmon to many.'

(46) a. * haʔum-ḥc̓ii-siš ʔaya
food-cook-1SG.IND many
'I cook food for many.'

b. haʔum-ḥc̓ii-siš ʔaya-*cḥin*
food-cook-1SG.IND many-do.for
'I cook food for many.'

The current theory predicts that the applicative morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' cannot be used with a core argument of the verb. Below I show that this prediction is borne out, as these morphemes are ungrammatical with a core THEME argument of the verb.

(47) a. haʔum-ḥc̓ii-siš ʔaya
food-cook-1SG.IND many
'I cook lots of food.'

b. ʔu-ḥc̓ii-siš [ʔaya haʔum]
ø-cook-1SG.IND many food
'I cook lots of food.'

c. * ʔu-ḥc̓ii-siš
ø-cook-1SG.IND
'I cook.'

d. * haʔum-ḥc̓ii-siš ʔaya-*čiɬ*
food-cook-1SG.IND many-do.to
'I cook lots of food.'

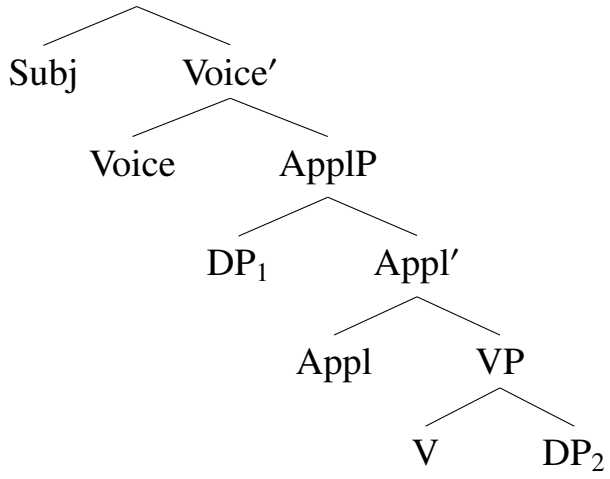
e. * ʔu-ḥc̓ii-siš [ʔaya-*čiɬ* haʔum]
ø-cook-1SG.IND many-do.to food
'I cook lots of food.'

In (47d) and (47e), the applicative is attached to the core THEME argument, and the sentences are ungrammatical.

6 A syntactic structure for the NCN applicatives

Pylkkanen (2002) argues that cross-linguistically there are two different types of applicatives: high applicatives and low applicatives. High applicatives denote a relation between an event and an individual and attach above the verb (48). Low applicatives denote a relation between two individuals and attach below the verb (50). The two constructions are similar in that in both, the applied (additional) argument asymmetrically c-commands the direct object.

(48) (Pylkkanen 2002: 19)

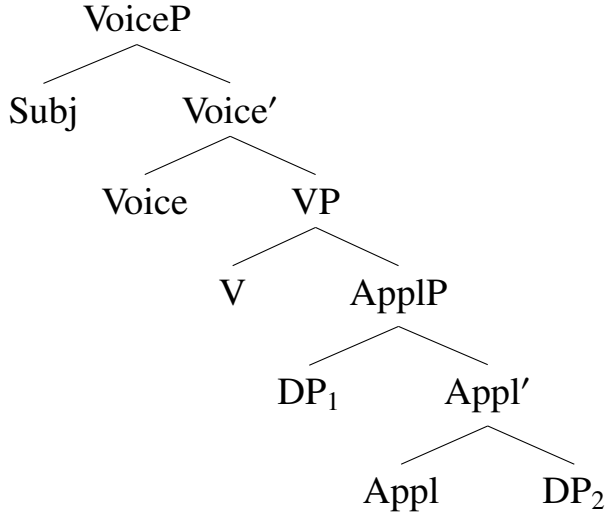


In (48), the applicative adds another participant to the event described by the verb. An example with a high applicative is shown in (49).

(49) High applicative: Luganda (Pylkkanen 2002: 25)

Mukasa ya-tambu-le-dde Katonga
Mukasa PAST-walk-APPL-PAST Katonga
'Mukasa walked for Katonga.'
(Katonga is an additional participant added to the event of walking.)

(50) (Pylkkanen 2002: 19)



In (50), the applied argument bears no semantic relation to the verb, it only bears a transfer of possession relation to the direct object. This is illustrated in English sentences below.

(51) Low applicative: English (Pylkkanen 2002: 19)

a. *I wrote John a letter.*
(I wrote a letter and the letter was to the possession of John.)
b. *I baked my friend a cake.*
(I baked a cake and the cake was to the possession of my friend.)
c. *I bought John a new VCR.*
(I bought a new VCR and the VCR was to the possession of John.)

6.1 Semantic diagnostics (Pylkkanen 2002)

I order to distinguish between high and low applicatives, Pylkkanen applies two semantic diagnostics:

(52) Semantic diagnostics for high and low applicatives

a. *Diagnostic 1:* transitivity restrictions
"Since a low applicative denotes a relation between the direct and

indirect object, it cannot appear in a structure that lacks a direct object. Therefore, only high applicatives should be able to combine with unergative verbs" (23).

b. *Diagnostic 2:* verb semantics
"Since low applicatives imply a transfer of possession, they make no sense with verbs that are completely static: for example, an event of holding a bag does not plausibly result in the bag ending up in somebody's possession. High applicatives, on the other hand, should have no problem combining with verbs such as hold: it is perfectly plausible that somebody would benefit from a bag-holding event" (23).

Pylkkanen also mentions that low applicatives are productive with unaccusative verbs (38).

Applying these diagnostics to the NCN applicatives, I show that they behave like *high* applicatives.

(53) a. sut-*cḥin*-ʔaqƛ-siš kamatq-šiƛ ...
you-do.for-FUTURE-1SG.IND run-PERF
'I will run for you (e. g. to the store).'

b. kamatq-šiƛ-ʔaqƛ-siš sut-*cḥin* ...
run-PERF-FUTURE-1SG.IND you-do.for
'I will run for you (e. g. to the store).'

In (53), the applicative *cḥin* 'do for' is used with the unergative verb *kamatq* 'run', which is only possible with high applicatives according to Pylkkanen's *Diagnostic 1*.

(54) a. sut-*cḥin*-mit-siš suu ƛiqy̓ak
you-do.for-PAST-1SG.IND hold key
'I held a key for you.'

b. suu-mit-siš ƛiqy̓ak sut-*cḥin*
hold-past-1sg.ind key you-do.for
'I held a key for you.'

In (54), the applicative *cḥin* 'do for' is used with the static verb *suu* 'hold', which is only possible with high applicatives according to Pylkkanen's *Diagnostic 2*.

(55) a. * sut-*cḥin*-ʔaqƛ-siš hinin
you-do.for-FUTURE-1SG.IND arrive
'I will arrive for you (e. g. to the airport).'

b. * hinin-ʔaqƛ-siš sut-*cḥin*
arrive-FUTURE-1SG.IND you-do.for
'I will arrive for you (e. g. to the airport).'

In (55), the applicative *cḥin* 'do for' is ungrammatical when used with the non-incorporating unaccusative verb *hinin* 'arrive', which is predicted for high applicatives.

(56) a. * sut-*cḥin*-ʔaqƛ-siš ʔu-*ʼnii*
you-do.for-FUTURE-1SG.IND arrive
'I will arrive for you (e. g. to the airport).'
b. * ʔu-*ʼnii*-ʔaqƛ-siš sut-*cḥin*
arrive-FUTURE-1SG.IND you-do.for
'I will arrive for you (e. g. to the airport).'

In (56), the applicative *cḥin* 'do for' is ungrammatical with the incorporating unaccusative verb *ʼnii* 'arrive'.

The results are summarized in Table 3.

Table 3: The morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' are high applicatives

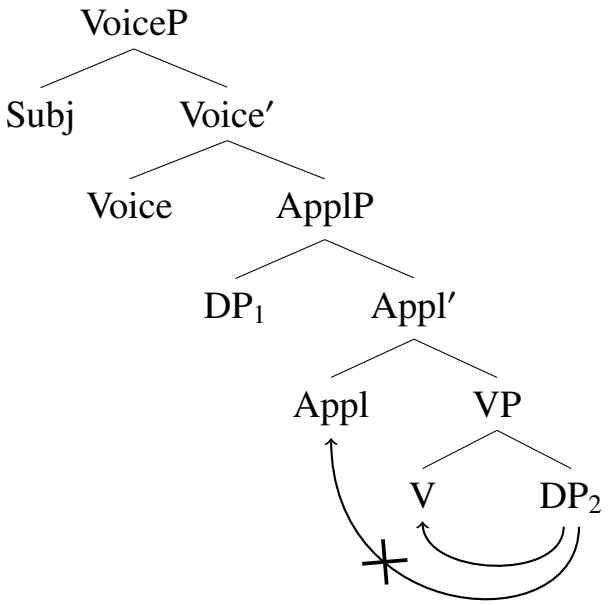
Combine with ...	**High applicatives**	**Low applicatives**	***čiɬ/ḥta/cḥin***
Unergative verbs	✓	X	✓
Static verbs	✓	X	✓
Unaccusative verbs	X	✓	X

6.2 Syntactic predictions

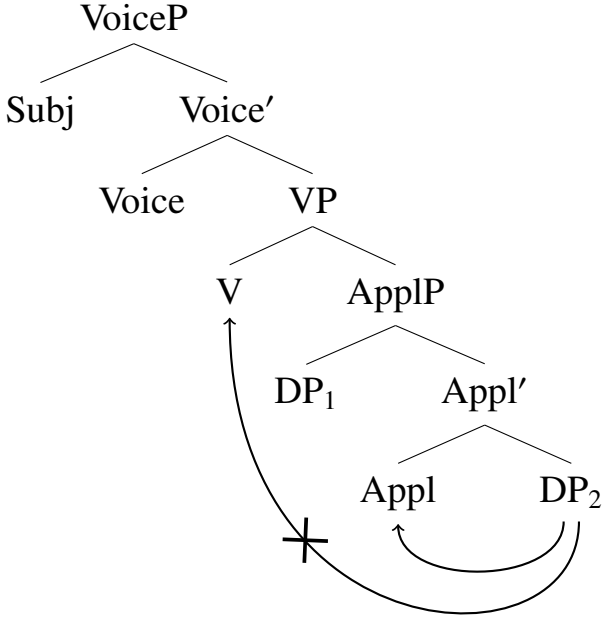
The two structures in (48) and (50) also make different syntactic predictions, namely predictions about incorporation. Thus, the structure for high applicatives predicts that the direct object should be able to incorporate into the verb, and it cannot incorporate into the applicative (see 57).

The structure for low applicatives in (58) predicts that the direct object should be able to incorporate into the applicative, and it cannot incorporate directly into the verb.

(57) (High applicative)



(58) (Low applicative)

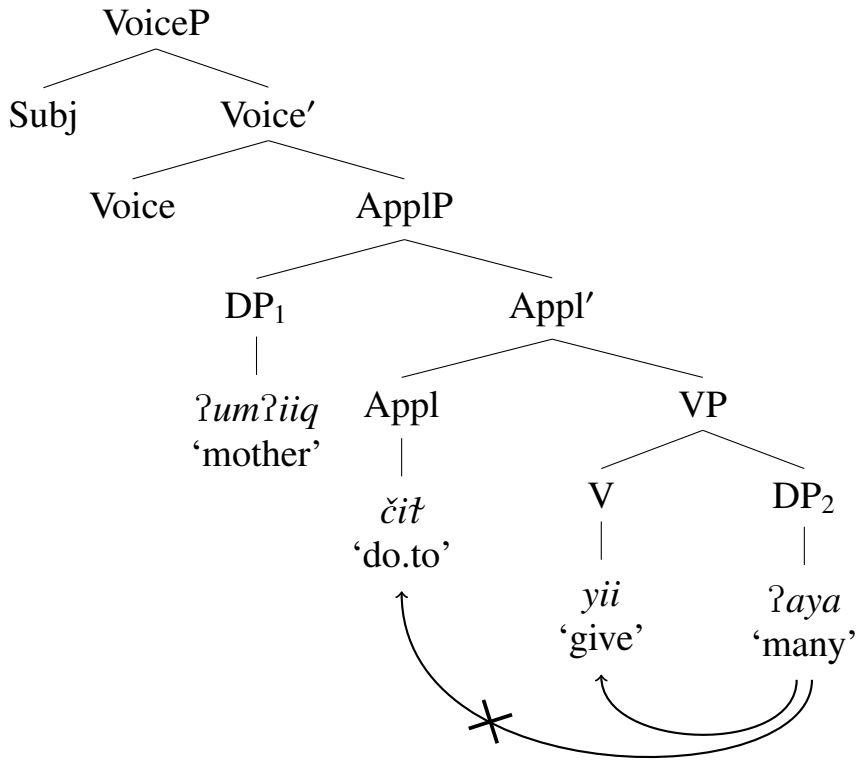


The NCN data show that the direct object can in fact incorporate into the verb, and it can never incorporate into the applicative, which is evidence in favor of the *high* applicative structure in NCN.

(59) a. ʔu-*čiɬ*-mit-ʔiš ʔumʔiiq ʔaya-yii
ø-do.to-PAST-3SG.IND mother many-give
'He/She gave lots to mother.'

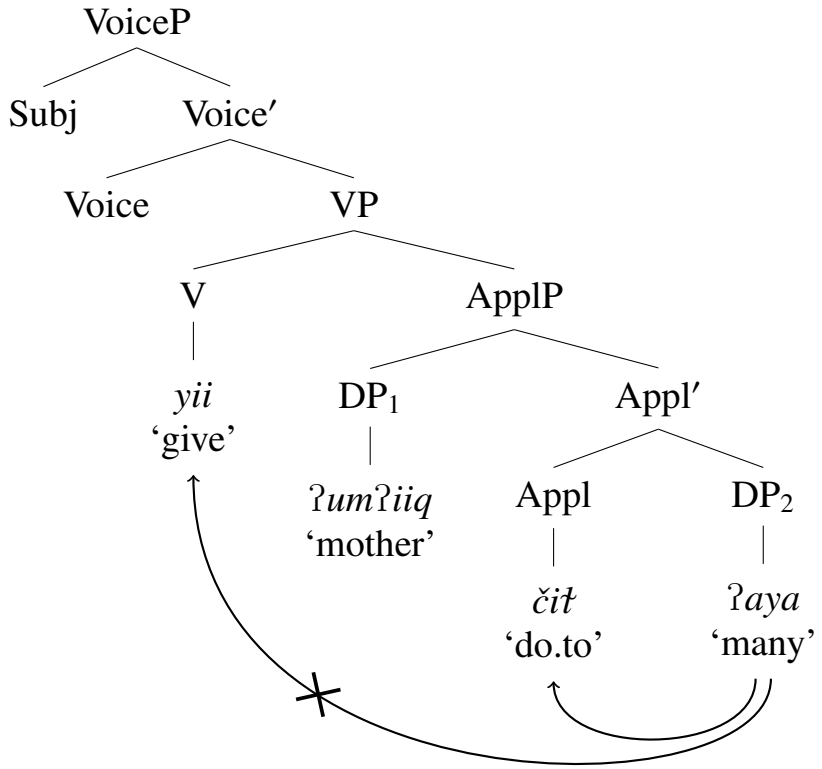
b. * ʔu-yii-mit-ʔiš ʔumʔiiq ʔaya-*čiɬ*
ø-give-PAST-3SG.IND mother many-do.to
'He/She gave lots to mother.'

(60)



The structure for high applicatives in (60) predicts that the direct object *ʔaya* ‘many’ should be able to incorporate into the verb *yii* ‘give’. It also predicts that the direct object should *not* be able to incorporate into the applicative *čiɬ* ‘do to’. These predictions are borne out in the sentence (59a) above.

(61)*



The structure for low applicatives in (61) predicts that the direct object ʔ*aya* 'many' should be able to incorporate into the applicative *čiɬ* 'do to'. It also predicts that the direct object should *not* be able to incorporate into the verb *yii* 'give'. However, these predictions are incorrect (see the sentence 59b above).

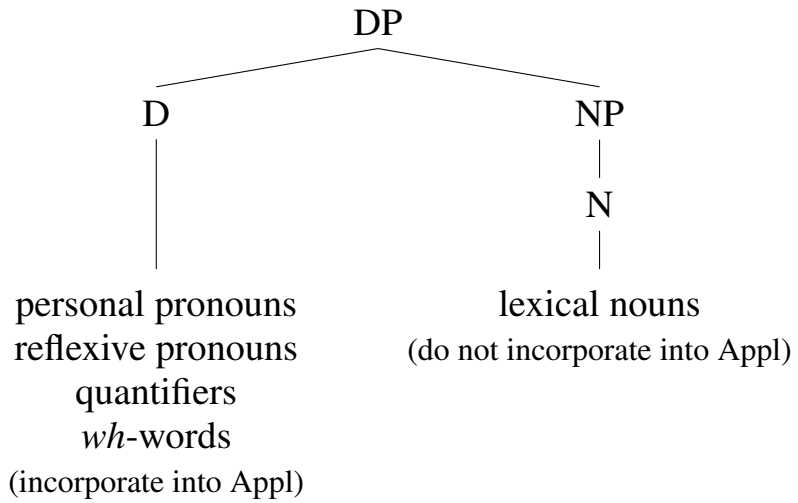
Thus, only the structure for high applicatives makes the correct predictions about incorporation in NCN.

To summarize, according to Pylkkanen's semantic diagnostics (2002), the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' are high applicatives. Syntactic predictions also show that these morphemes are high applicatives.

6.3 *čiɬ*, *ḥta* and *cḥin* as incorporators of functional elements

In the Section 5.1, I showed that the morphemes *čiɬ* 'do to', *ḥta* 'do towards' and *cḥin* 'do for' behave very similarly to incorporating verbs in NCN. They can incorporate personal and reflexive pronouns, quantifiers and *wh*-words. However, they cannot incorporate nouns and other verbs. Here, I propose that the reason for this is that *čiɬ*, *ḥta* and *cḥin* are functional heads that can only incorporate functional elements, like the ones listed above. Thus, in the structure (62) below, personal and reflexive pronouns, quantifiers and *wh*-words are generated in D and can get incorporated into the applicatives. Nouns and verbs are lexical elements, and therefore, they cannot be incorporated into the applicatives.

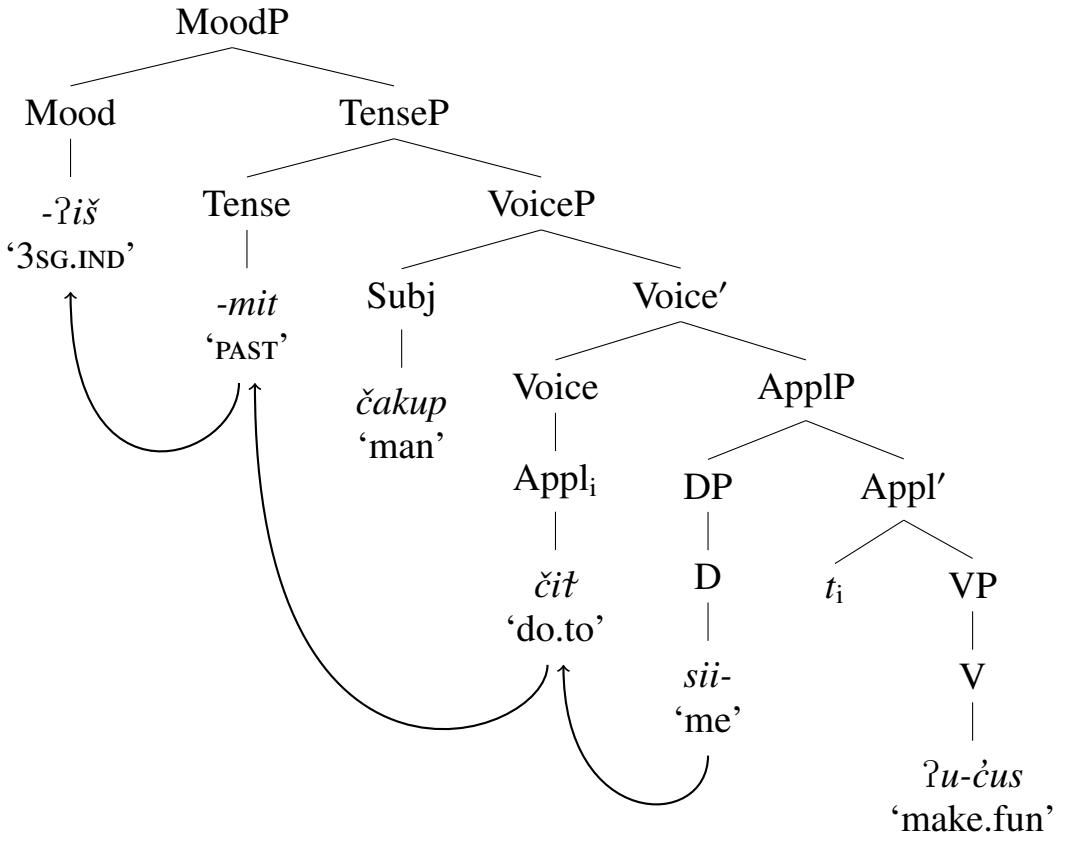
(62)



To generate a sentence like the one in (63) below, the applicative first moves to the Voice head, at which stage a functional element (in this case a pronoun) gets incorporated into it. Then the applicative with the incorporated into it element moves past the subject to the Tense head, and finally to the Mood head (see the structure in 64).

(63) sii-*čiɬ*-mit-ʔiš čakup ʔu-ċus (repeated from 9a)
me-do.to-PAST-3SG.IND man ø-make.fun
'A man made fun of me.'

(64)

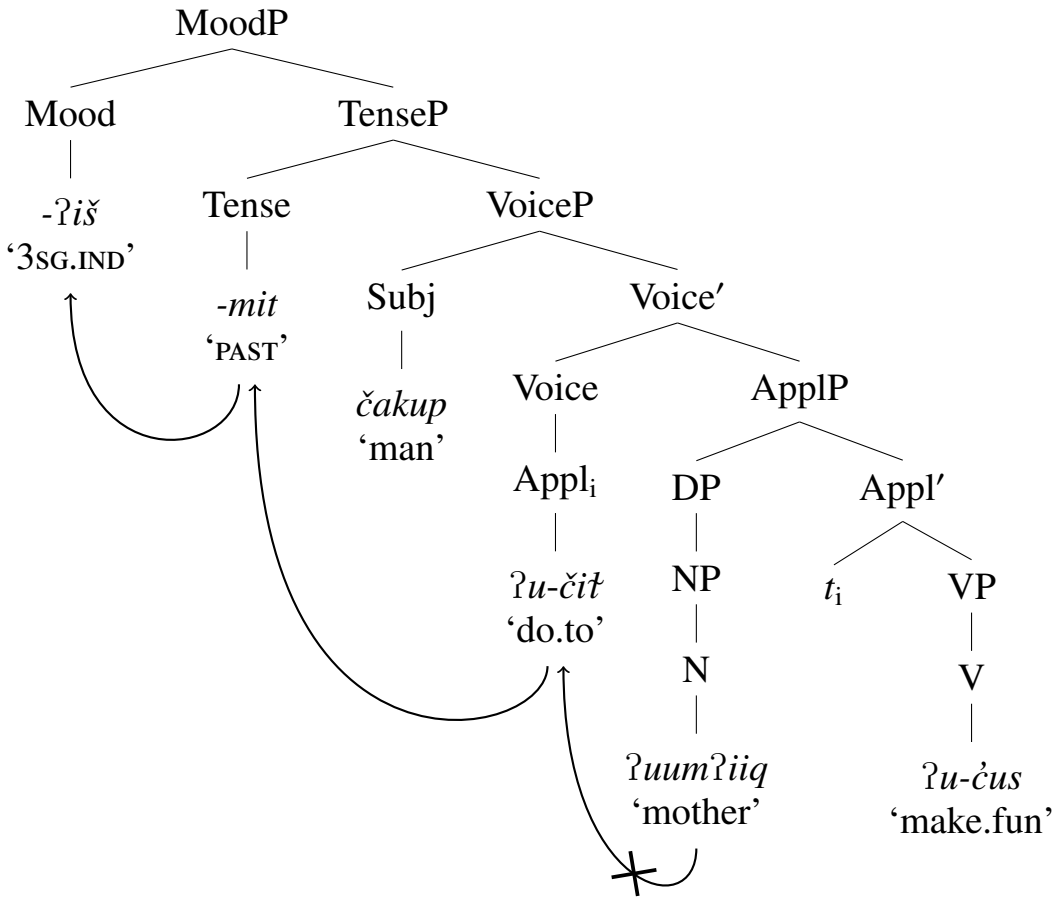


In the sentence (65) below, the noun ʔumʔiiq 'mother' is a lexical element and therefore, it cannot get incorporated into the applicative *čiɬ*-. The noun remains in the position it was generated in, namely, in Spec of ApplP position. The applicative moves to the Mood head via the intermediate Voice and Tense heads, thus generating the correct word order (see the structure in 66).[4]

(65) ʔu-*čiɬ*-mit-ʔiš čakup ʔumʔiiq ʔu-ċus (repeated from 9a)
ø-do.to-PAST-3SG.IND man mother ø-make.fun
'A man made fun of (the) mother.'

[4] I assume that the expletive morpheme ʔ*u*- is a morphological place holder, because it appears on the incorporating predicate only if no incorporation into this predicate takes place.

(66)



7 The conclusions

I have provided a detailed description and analysis of the morphemes *čiɬ* ‘do to’, *ḥta* ‘do towards’ and *cḥin* ‘do for’ in the Ahousaht dialect of Nuuchahnulth. I have argued that these morphemes are verbal applicatives that add a non-core argument to the thematic structure of a verb and showed that *čiɬ* ‘do to’, *ḥta* ‘do towards’ and *cḥin* ‘do for’ are high applicatives that attach above the main verb in a syntactic tree.

At the end, I would like to draw attention to the Nuuchahnulth community and the critical status of the language. The Nuuchahnulth community has a special position in the larger Canadian society. Their cultural traditions and language are in danger of being lost as a result of rapid English acculturation (Kinkade 1991). My language consultants recall being severely punished for speaking Nuuchahnulth in school, even as late as the 1950’s. As a result, many Nuuchahnulth parents did not teach their children to speak the language, hoping to spare them a similar humiliation. In spite of this emotional trauma, an increasing number of Nuuchahnulth people are now willing to relearn their language. For these reasons, the need for documentation and data analysis of the language becomes a pressing matter.

References

Bresnan, J. & L. Moshi (1993). Object Asymmetries in Comparative Bantu Syntax. In: Sam A. Mchombo (ed.). *Theoretical Aspects of Bantu Grammar 1*. Stanford, CA: CSLI Publications, 50-93.

Davidson, M. (2002). *Studies in Southern Wakashan (Nootkan) Grammar*. Ph.D. Thesis, University of New York at Buffalo.

Davis, H. & Sawai, N. (2001). Wh-Movement as Noun Incorporation in Nuu-chah-nulth. In: K. Meherdoomian and L. A. Bar-el (eds.). *WCCFL 20 Proceedings*. Somerville, MA: Cascadilla Press, 123-136.

Ignace, M. (1998). *Handbook for Aboriginal Language Program Planning in British Columbia*. First Nations Education Steering Committee, Vancouver. Second Printing, 1999.

Kim, E. (2001). *The Morphology and Syntax of -/at in Nuuchahnulth*. General's paper in Syntax. UBC, Vancouver, Canada.

Kinkade, M. (1991). The decline of native languages in Canada. In: Robins & Uhlenbeck (eds.). *Endangered Languages*. 157-176.

Klokeid, Terry J. (1978). Syntactic and conceptual relations in Nitinat. In: *12th International Conference on Salishan Languages (1977)*. Colville: Colville Federated Tribes.

Nakayama, T. (2001). *Nuuchahnulth (Nootka) Morphosyntax*. Ph.D. Thesis, University of California.

Pylkkanen, L. (2002). *Introducing Arguments*. Ph.D. Thesis, MIT.

Rizzi, L. (1995). *Relativized Minimality*. Cambridge, Mass: MIT Press.

Rose, S. (1981). *Kyuquot Grammar*. Ph.D. Thesis, University of Victoria.

Sawai, N. (2002). *The Syntax of Wh-Questions in Nuu-Chah-Nulth*. General's paper in Syntax. UBC, Vancouver, Canada.

Stonham, J. (1999). Noun Collocation in Nootka. In: M.Q. Hinkson & M. Ignace (eds.). *Papers for the 34th International Conference on Salish and Neighbouring Languages*. Kamloops, B.C.: Simon Fraser University, 231-250.

Wojdak, R. (2002). Ling 522 final paper. UBC, Vancouver, Canada.

Woo, F. & Wojdak, R. (2001). What's up with ʔ*u*ʔ A look at Incorporation in Nuu-chah-nulth. Paper presented at the *Workshop on Grammatical Structures in Indigenous Languages of the North/West*. Victoria, B.C.

Abbreviations and symbols

ø	Pleonastic morpheme
1	First person
2	Second person
3	Third person
ACC	Accusative case
APPL	Applicative
CONFIRM	Confirmative
IND	Indicative
INT	Interrogative
NCN	Nuuchahnulth
PERF	Perfective
PL	Plural
SG	Singular

Appendix

Table 4: Nuuchanulth verbs used with *čiɬ*/*ḥta*/*cḥin*

Verbs	**Translation**	***-čiɬ***	***-ḥta***	***-cḥin***
ʔuupẃin	to owe	✓	✓	X
ʔuuʔaɬsumḥi	to yearn for, to be infatuated with ...	X	X	X
ʔuup̓aa	to dislike, to disapprove of	✓	✓	X
ʔumaap	to pay attention to ..., to listen to ...	✓	✓	X
ʔuukš	to ask for ...	✓	✓	✓
ʔuuc̓us	to make fun of ..., to mock	✓	✓	X
ʔuksaap	to coax into ..., to encourage	✓	✓	X
ʔuqḥy̓uu	to be related to ...	✓	✓	X
ʔuyii	to give	✓	✓	X
ʔuuʔaɬuk	to take care of ...	✓	✓	✓
ʔuuḥc̓ii	to cook	X	X	✓

Table 4: Nuuchanulth verbs used with *čiɬ/ḥta/cḥin* (continued)

Verbs	**Translation**	***-čiɬ***	***-ḥta***	***-cḥin***
ʔuʔaap	to buy	x	x	✓
ʔuʔaata	to need	✓	x	x
ʔuʔatu	to fall off, to come off, to spend	x	x	x
ʔuʔiip	to give to ...	x	✓	x
ʔuʔinʔaš	to take place of ...	✓	✓	x
ʔuʔinḥkʷaẏap	to grind up	✓	✓	✓
ʔuʔinɬ	to serve ... (e. g. in a feast or a birthday party)	✓	✓	x
ʔuʔuʔiiḥ	to hunt, to collect	x	x	✓
ʔuuʔuċiqa	to miss an object (e. g. socks)	x	x	x
ʔuʔuǩuk	to look like, to resemble	x	x	x
ʔuʔukʷink	to talk with ...	x	x	x
ʔuʔumċu	to feed (someone specific)	x	x	x
ʔuʔumḥi	to be able to do	x	x	x
ʔuʔusum	to want	x	x	x
ʔumaḥsa	to want	✓	✓	x
ʔuʔuukt	to obtain by ...	x	x	✓
ʔuʔuukʷinkḥ	to tease	✓	✓	x
ʔuʔuusapi	to depend on ...	x	x	x
ʔuʔuwa	to complain	✓	✓	x
ʔuʕašt	to accomplish by ..., to be done by ...	✓	x	x
ʔuʕiƛ	to come upon ...	x	x	x
ʔucaʔap	to take (something from here to there)	✓	✓	x
ʔuċaas	to bet (in a gambling situation)	x	x	✓
ʔucp̓ii	to be on top, higher leverage	✓	✓	x

Table 4: Nuuchanulth verbs used with *čiɬ*/*ḥta*/*cḥin* (continued)

Verbs	**Translation**	***-čiɬ***	***-ḥta***	***-cḥin***
ʔucuqšiƛ	to put something into one's mouth	X	X	X
ʔuḥaaẏas	to go and buy	X	X	X
ʔuḥsaa	to have a craving for certain food or sweets	✓	X	X
ʔuḥtaa	to do to ...	X	X	X
ʔukc̓iq	to travel alongside another vessel	X	X	X
ʔukčaas	to sit with someone outside on the ground	X	X	X
ʔukčiiɬ	to sit with somebody in a house/room/floor	X	X	X
ʔukčiis	to sit with somebody on a bench/couch	X	X	X
ʔukčumyiɬ	to accompany another person (e. g. in dance)	X	X	X
ʔuktšiƛ	to shrink	✓	✓	X
ʔuk^{w}iiɬ	to make	✓	X	✓
ʔumaʔin	to be stingy, not wanting to share person or object	✓	✓	✓
ʔunaak	to have, to be in possession of ...	✓	X	X
ʔunaq	to be fond of eating (something specific)	✓	✓	X
ʔup̓uuƛ	to get paid	X	X	X
ʔuqɬaap	to think	✓	✓	✓
ʔusiik	to be made	X	X	✓
ʔustaasip	to set down (something) on a table	✓	✓	✓
ʔutwiiʔiɬ	to be the first in line	✓	X	X
ʔuuʔapuɬa	to be underneath, defeated	✓	✓	X
ʔuuʔinḥi	to be waiting for ...	✓	✓	X

Table 4: Nuuchanulth verbs used with *čiɬ/ḥta/cḥin* (continued)

Verbs	**Translation**	***-čiɬ***	***-ḥta***	***-cḥin***
ʔuuʔinqƛ	to handle something specific, to dislike	✓	✓	x
ʔuuʔiƛ	to go for, to take	✓	✓	x
ʔuuʔukči	to side with ...	✓	✓	x