

Towards a typology of Algonquian relative clauses*

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This paper identifies two major strategies for relative clause construction in Algonquian languages: what I call participle constructions (where the verb stem bears nominal inflectional morphology), and preverb constructions (where the verb stem is preceded by a morpheme *kâ-*). Each Algonquian language surveyed in this paper uses one of these strategies, but not both. In this paper I propose that both types of relative clauses represent distinct strategies of supporting a morphologically dependent (affixal) Rel head; that is, both types of relative clauses are captured with a single structure. In participle constructions the verb raises to Rel to support the affix and is marked with nominal morphology due to concord on the Rel head. In preverb constructions the preverb is merged into the Rel head in order to support the affix; there is no verb stem in Rel and therefore no nominal morphology on the verb.

1 Introduction

Johansson (2010) proposes that Blackfoot (Algonquian) third person relative clauses are verbal clauses that are marked with nominal *phi*-feature inflection by a process of concord on a Rel head, resulting in sentences as in (1). In this example, both the demonstrative *om* 'that' and the verb stem *áyo'kaa* 'sleeping' are marked with the nominal animate plural morpheme *-iksi*. I will refer to these *phi*-feature-marked verb stems as PARTICIPLES.

- (1) BLACKFOOT
Omiksi áyo'kaiksi.
om-iksi á-yo'kaa-iksi
DEM-AN.PL IMPF-sleep-AN.PL
'Those sleeping ones.' (Frantz 2009:114)

Participle constructions appear to be one of two major relative clause strategies in Algonquian languages. The second major strategy employs a preverb *ka:-*, and no nominal marking on the verb. This type of construction is typified by the following example from Rainy River Ojibwa (2).

- (2) RAINY RIVER OJIBWA
inini ka:-nagamat kino:zi
man KA:-sing-3.CONJ tall-3
'The man who is singing is tall' (Johns 1982:161, ex. 2a)

In this paper, I propose that both types of relative clause constructions constitute strategies to support a morphologically dependent affix on a Rel head (cf. Branigan 2011). Under this analysis, participle constructions employ verb-raising to support the affix, where the verb stems are marked with *phi*-feature morphology by way of concord. Preverb constructions merge the preverb *ka:-* into Rel to support the affix.

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The rest of this paper is organized as follows. In §2 I give a brief overview of Algonquian grammar. In §3 I discuss participle relative clause constructions, and in §4 I discuss preverb relative clause constructions. In §5 I outline a single structural analysis to account for both types of relative clauses. In §6 I touch on parallels between relative clauses and questions, before concluding in §7.

2 Overview of Algonquian grammar

Algonquian languages are spoken across North America, from the Rocky Mountains to the Atlantic coast. Following Ethnologue (Lewis 2009), there are three major branches within the family. These are given below, along with the languages of each branch discussed in this paper (3).

(3) BRANCHES OF THE ALGONQUIAN LANGUAGE FAMILY

- Central (Ojibwa, Nishnaabemwin, Cree-Montagnais-Naskapi, Fox)¹
- Plains (Blackfoot)
- Eastern (Passamaquoddy)

Algonquian nouns are classified into two genders: animate and inanimate. Grammatically animate nouns may be semantically animate (i.e. willful beings) or inanimate; but all inanimate nouns refer to semantically inanimate entities (Goddard 2002).

ANIMATE	INANIMATE
Semantically animate entities	Semantically inanimate entities
Semantically inanimate entities	

Table 1: Nominal gender in Algonquian

Demonstratives agree in number and gender with nouns, as shown by inflectional *phi*-feature suffixes. In the following examples from Blackfoot, *-iksi* is the animate plural nominal suffix, and *-istsi* is the inanimate plural nominal suffix (4). In many Algonquian languages there is no gender marking in the singular (Goddard 2002).

(4) BLACKFOOT

- | | | | | | |
|----|--|--|----|---|---|
| a. | <i>Ómiksi</i>
om-iksi
DEM-AN.PL
'Those dogs.' | <i>imitáiksi</i>
imitáa-iksi
dog-AN.PL | b. | <i>Ómistsi</i>
om-istsi
DEM-IN.PL
'Those berries.' | <i>míinistsi</i>
míin-istsi
berry-IN.PL |
|----|--|--|----|---|---|

Where there are two third person animate arguments of a transitive verb, one, typically the actor, is marked as PROXIMATE; the other, typically the goal, is marked as OBVIATIVE (5).

(5) BLACKFOOT

<i>Ikákomimmiiwa</i>	<i>nohkówa</i>	<i>kitáni</i>
ik-waakomimm-yii-wa	n-ohkó-wa	k-itan-yi
INT-love-DIR-3S	1-SON-PROX.SG	2-daughter-OBV.SG
'My son loves your daughter.'		

(Frantz 2009:54, ex. 1)

Verbs in Algonquian are sorted into four classes based on transitivity and animacy (Bloomfield 1946). Intransitive verbs are subdivided based on the grammatical animacy of the subject argument; transitive verbs are subdivided based on the grammatical animacy of the object argument.

¹ Arguably Nishnaabemwin and Ojibwa are dialects of the same language; but given that relative clauses are different in Rainy River Ojibwa as reported in Johns (1982) and in Nishnaabemwin as reported in Valentine (2001) I maintain a distinction here.

ANIMACY OF SUBJECT	Animate Intransitive	AI
	Inanimate Intransitive	II
ANIMACY OF OBJECT	Transitive Animate	TA
	Transitive Inanimate	TI

Table 2: Algonquian verb classes

These verbs are conjugated in morphologically distinct orders in different syntactic and pragmatic contexts. For the purposes of this paper, let us draw the generalization that matrix clause verbs are either in the INDEPENDENT ORDER or the CONJUNCT ORDER;² while subordinate clauses are typically in the conjunct order.³

In the following sections I discuss Algonquian relative clause constructions in light of these grammatical generalizations.

3 Participle relative clause constructions

Several Algonquian languages make use of participles to form relative clauses (Costa 1996). These are constructions that combine verbal and nominal inflection on a verbal stem. Typically, a participle is a third person verbal complex marked with a single nominal *phi*-feature suffix. I refer to this as a verbal complex because I am not aware of any morphology that is not permitted within the verbal complex of a participle relative clause: everything from manner adverbs to epistemic modals appears to be acceptable. The nominal suffix agrees in *phi*-features with the head of the relative clause. This is the type of relative clause found in Blackfoot (Plains), Fox (Central) and Nishnaabemwin (Central, Ojibwa).

Participles combine characteristics of verbs and nominals to such a degree that these constructions in Algonquian have been treated as nominalizations (cf. Frantz 2009 on Blackfoot). I argue that these constructions are not nominalizations, but are *phi*-feature-marked relative clauses. In the following sub-section I provide some evidence that participle relative clause constructions are not nominalizations, before continuing on to the relative clauses themselves.

3.1 Participle relative clauses are not agent nominalizations

Baker & Vinokurova (2009) suggest that when linguistic examples are translated into English, agent nominalizations (i.e. English *sing-er*) and relative clauses (i.e. English *the one who sang*) often receive the same translation (usually a nominalization translation). In other words, the English construction in a translation is not necessarily reflective of the construction in the source language. This is true of participle relative clause constructions in Algonquian, which are often translated as agent nominalizations. In this section I draw on diagnostics developed by Baker & Vinokurova (2009) to show that participle constructions are not agent nominalizations.⁴

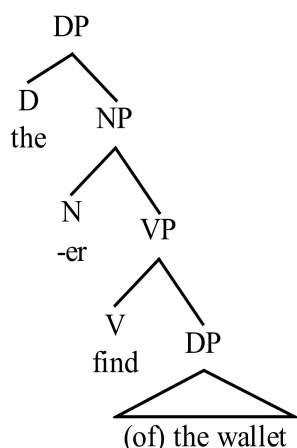
Based on a cross-linguistic survey of 78 languages (none of which is Algonquian), Baker and Vinokurova (2009) suggest that agent nominalizations have a cross-linguistically uniform representation (6).

² See Brittain (2001) for a discussion of main clause conjunct verbs in CMN, and Starks (1994) regarding Woods Cree.

³ Richards (2004) argues that in Wampanoag independent verbs raise to C, while conjunct verbs do not.

⁴ The possibility remains that participle constructions are in fact nominalizations of a different type. This is a research direction that I leave to future research.

(6) Agent nominalizations



(Baker and Vinokurova 2009:520)

In the above structure, agent nominalizations are nominalized below *v*, and are therefore **not** syntactically verbal/clausal.⁵

If Algonquian participle relative clause constructions are agent nominalizations, we predict that a number of clausal projections will be disallowed, including AdvP (Cinque 1999), NegP (Pollock 1989, Zanuttini 1997), and Tense. However, all of the above functional heads appear to be available within participle constructions (7-9)

(7) AdvP

a. BLACKFOOT

Áíkkinaooyiwa.

á-ikkina-ooyi-wa

IMPF-slow-eat-PROX.SG⁶

‘Slow eater.’

(8) NegP

a. BLACKFOOT

Anna máátayo’kaawa.

ann-wa maat-á-yo’kaa-wa

DEM-PROX.SG NEG-IMPF-sleep-PROX.SG

‘That one who is not sleeping.’

b. NISHNAABEMWIN

...giw

ngoji

debendaagzisgog

nishnaabeg.

giw

ngoji

debendaagozi-siw-g-ig

nishnaabeg

PRO.3PL.PROX

anywhere

IC+belong-NEG-3.CONJ-AN.PL

Indian.3PL.PROX

‘...those Indians who don’t belong anywhere.’

(Valentine 2001:581, ex. 177)

⁵ Baker and Vinokurova (2009) use the term Voice, following Kratzer (1996); In my original proposal (Johansson 2010) I follow Chomsky (1995) and refer to the head that introduces an external argument as *v*, to be consistent with other research on Blackfoot external arguments (Ritter and Rosen 2009, Bliss 2009, Meadows 2010). I maintain that here.

⁶ Verbal and nominal inflectional morphemes are ambiguous in the singular in Blackfoot. I analyze these morphemes as nominal based on the contexts in which the forms can appear, and the translations/comments of my consultants. Where possible, I provide plural forms.

- (9) TENSE
- a. BLACKFOOT
Anna áakso'kaawa.
 ann-wa áak-yok'aa-wa
 DEM-PROX.SG FUT-sleep-PROX.SG
 'That one who will sleep.'
- b. FOX
Wi:h=wi:hpomaka.
 IC+wi:h=wi:hpom-ak-a
 IC+FUT=eat.with-1>3(PL)-AN.SG
 'The one I shall eat with.'
 (Goddard 1987:109, ex. 21)
- c. NISHNAABEMWIN
Ge-giigoonykejig.
 ge-giigoonyke-d-ig
 FUT-fish-3.CONJ-AN.PL
 'Those who will fish.'
 (Valentine 2001:579, ex. 169)

Based on the above evidence, I offer the interim conclusion that Algonquian participle constructions are not agent nominalizations. In the next subsection, I propose that these constructions are relative clauses that are marked with nominal morphology by a process of concord.

3.2 The proposal: Concord

An analysis of Algonquian participle constructions as relative clauses leaves us with the problem of nominal *phi*-feature marking on verbal complexes within a relative clause. Where does this marking come from? Johansson (2010) proposes that Blackfoot relative clauses are verbal complexes that are marked with *phi*-feature inflection by a process of *phi*-feature concord on the relative clause head. Essentially, the verbal complex agrees with the head of the relative clause.⁷

Such an analysis predicts that participle relative clauses should show *phi*-feature agreement with the head of the relative clause, regardless of its grammatical role. If we extend this prediction to other Algonquian languages, it appears to be borne out by the data (10).

- (10) *PHI*-FEATURE CONCORD IN AGREEMENT WITH RELATIVE CLAUSE HEAD
- a. BLACKFOOT (DIRECT OBJECT, OBLIVATIVE, AS HEAD)
- | | | | | |
|--------------|---------------------------|-----------|---------------|----------------|
| [<i>Omi</i> | <i>otsinoi'sskipayi</i>] | <i>ki</i> | <i>ánnayi</i> | <i>nínnst.</i> |
| om-yi | ot-sinoi'sskip-a-yi | ki | ann-ayi | n-ínsst |
| DEM-OBV.SG | 3-kiss-DIR-OBV.SG | and | DEM-VERBLZ | 1-older.sister |
- 'The one that he kissed is my older sister.'
- b. FOX (POSSESSOR OF SUBJECT AS HEAD)
- | | | | |
|-------------|-----------------|--------------------|--------------------------------------|
| <i>I:na</i> | <i>ihkwe:wa</i> | <i>ona:pe:mani</i> | <i>ne:hi-mi:hkečihiwa:nita</i> |
| i:n-a | ihkwe:w-a | o-na:pe:m-ani | IC+nahi-mi:hkečihiwe:-nit-a |
| DEM-AN.SG | woman-AN.SG | 3-husband-OBV.SG | IC+know.how.to-doctor.people-3-AN.SG |
- 'That woman whose husband was a doctor.'
 (Goddard 1987:113, ex. 37)

⁷ This kind of pattern is also attested in a number of Bantu languages, including Shona, Swahili and Zulu, where the verbal complex bears a relative clause marker that agrees in noun class with the head of the relative clause (Henderson 2006).

- c. NISNAABEMWIN (SUBJECT AS HEAD)
- | | | | |
|--------------|-------------------------|------------|----------------------|
| ...giw | <i>gaa-nsaaqig</i> | <i>niw</i> | <i>dkonwewninwan</i> |
| giw | <i>gaa-nsaa-d-ig</i> | <i>niw</i> | <i>dkonwewninwan</i> |
| PRO.3PL.PROX | IC+PAST-kill-CONJ-AN.PL | PRO.3.OBV | policeman.3OBV |
- '...those who killed the policemen...'
- (Valentine 2001:580, ex. 173)

With this preliminary evidence, I propose that a *phi*-feature concord analysis of participle relative clauses in Blackfoot can be extended to account for relative clauses in other Algonquian languages. Before continuing on to consider a structural account for this type of relative clause, I will turn to the second major type, preverb relatives.

4 Preverb relative clause constructions

A number of Algonquian languages do not form relative clauses with participle constructions. Rather, they make use of the preverb *kâ*.⁸ In these types of constructions, a conjunct-order verbal complex is preceded by the preverb. I know of no cases in which the verbal complex in a preverb construction is marked with nominal morphology. This is the type of relative clause found in Western Naskapi, Northern East Cree and Plains Cree (Central, Cree-Montagnais-Naskapi), and Rainy River Ojibwa (Central, Ojibwa).

In all of the following examples, the verbal complex is fully verbal, and the preverb is the only morphological indication that the verbal complex is a relative clause (11-12).⁹

- (11) WESTERN NASKAPI
- | | | | | |
|-------------|---------------------|---------------|------------|-------------------|
| <i>Nîyâ</i> | <i>kâ-tikusihk</i> | <i>îskwâw</i> | <i>nîy</i> | <i>nitiskwâm.</i> |
| <i>nîyâ</i> | <i>kâ-tikusih-k</i> | <i>îskwâw</i> | <i>nîy</i> | <i>nitiskwâm</i> |
| DEM | KÂ-arrive-CONJ | woman | PRO | my.wife |
- 'That woman who came here is my wife.'
- (Brittain 2001:102, ex. 113b)
- (12) PLAINS CREE
- | | | | |
|-------------|--------------|--------------------|----------------|
| <i>Naha</i> | <i>nâpêw</i> | <i>kâ-sâkihât</i> | <i>Mary-wa</i> |
| <i>naha</i> | <i>nâpêw</i> | <i>kâ-sâkihâ-t</i> | <i>Mary-wa</i> |
| DET | man | KÂ-love-CONJ | Mary-OBV |
- 'That man who likes Mary'
- (Blain 1997:68, ex. 17c)

In some cases, it appears that the preverb is not necessary. In the following examples from Rainy River Ojibwa, we see that it is possible to construct a relative clause without a preverb (13). In this example, the preverb is replaced with INITIAL CHANGE (13b): the ablaut of the initial vowel of a conjunct verb stem (cf. Costa 1996). I set this pattern aside for future work; but note that initial change is common

8 Here, *â* signifies a long vowel, as in Cree orthography. In the Ojibwa examples, this same vowel is represented as *a*:

9 Preverb relative clauses do not contain nominal morphology. However, given that Algonquian participle morphology is ambiguous with verbal morphology in the singular, consider the following evidence from a plural relative clause in Northern East Cree. This is a case where we would clearly see nominal marking on the verb stem if this were a participle. Of interest to us is the plural verbal morphology *-ch* on (i), which differs from the nominal plural suffix *-ich*. The verb stem in these examples is *tikushin* 's/he arrives' (MacKenzie et. al. 2004-2010); however, when this verb is inflected with third person conjunct order morphology *-ch*, the stem-final consonant *n* surfaces as *h*. Note in (ii) that this morphophonological process does not occur when an *n*-final noun stem takes the plural morpheme *-ich*.

- (i)
- | | | | | | | |
|-------------|----------------|-----------------------|-------------|-----------|---------------------|-------------------|
| <i>Nîyi</i> | <i>anichî</i> | <i>nîchishânich</i> | <i>utih</i> | <i>kâ</i> | <i>tikushihch</i> | <i>iskwâuch.</i> |
| <i>nîyi</i> | <i>an=ichî</i> | <i>n=îchishân=ich</i> | <i>utih</i> | <i>kâ</i> | <i>tikushin=ch</i> | <i>iskwâu=ich</i> |
| 1 | that=PL | 1=sibling=PL | here | <i>kâ</i> | arrive.AF=CONJ.3.PL | woman=PL |
- 'Those women who came here are my sisters.'
- (ii)
- | | |
|--------------|------------------|
| <i>shwân</i> | <i>shwân=ich</i> |
| shawl | shawl=PL |
| 'shawl' | 'shawls' |

to both participle relatives (cf. Valentine 2000) and preverb relatives (cf. Johns 1982).

(13) RAINY RIVER OJIBWA

a. *ka:-nagamat kino:zi*

KA:-sing-3.CONJ tall-3

'The one who is singing is tall.'

(Johns 1982:161, ex. 2d)

b. *Negamat kino:zi*

IC+sing-3.CONJ tall-3

'The one who is singing is tall.'

(Johns 1982:162, ex. 3d)

4.1 What is *kâ*-?

The nature of the preverb *kâ*- varies cross-linguistically, such that an in-depth discussion of the morphosyntax of *kâ*- is far beyond the scope of this paper. To Johns (1982), Rainy River Ojibwa *ka:-* is a relative pronoun merged in complementizer position. However, Brittain (2001) argues against extending Johns' analysis to Western Naskapi, because of examples like (14), in which the relative clause is optionally composed with both *kâ*- and an overt relative pronoun *awân* 'who'.

(14) WESTERN NASKAPI

a. SENTENTIAL COMPLEMENT

Nichischâyimâw kâ-nikimut

ni-chischâyim-âw kâ-nikimu-t

1-know.TA-IND.1>3 COMP+PAST-sing.AI-CONJ.3.SG

'I know he sang.'

b. RELATIVE CLAUSE

Nichischâyimâw awân kâ-nikimut

ni-chischâyim-âw awân kâ-nikimu-t

1-know.TA-IND.1>3 who COMP+PAST-sing.AI-CONJ.3.SG

'I know the one who sang.'

(Brittain 2001:175, ex. 212)

Furthermore, Brittain (2001) notes that *kâ*- is variable throughout the Cree-Montagnais-Naskapi dialects. In all dialects it is the normal past tense marker in complement clauses. In certain dialects it has arguably been reanalyzed as occurring at the head of focus constructions, and in others it has been reanalyzed as occurring at the head of relative clauses in present or past tense.

Keeping these complications in mind, I set aside the problem of *kâ*- for now. The crucial generalization of the above data is that preverb relative clauses do not co-occur with *phi*-feature inflection. That is, we do appear to have two types of relative clauses in Algonquian, participle relatives and preverb relatives, and any given language appears to use *only one type*. Drawing on this generalization, I propose a unified analysis of these two types in the next section.

5 A unified structural analysis: Two types of relative clauses in complementary distribution

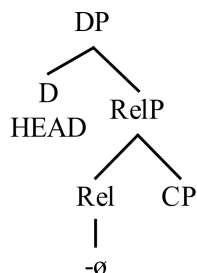
The central proposal of this paper is that the two types of Algonquian relative clauses identified herein have the same basic structure. Recall that the two types of relative clauses, participle relatives and preverb relatives, employ different morphology in complementary distribution.

	<i>PHI</i> -FEATURE AGREEMENT	PREVERB <i>KÂ</i> -
PARTICIPLE RELATIVE	✓	✗
PREVERB RELATIVE	✗	✓

Table 3: Participle vs. preverb relative clauses constructions

I propose that this distribution can be accounted for if *phi*-feature morphology and the preverb *kâ*- are associated with the same syntactic projection. Drawing on Branigan's (2011) approach to verb-second constructions I propose the following preliminary structure for relative clauses (15):¹⁰

(15) ALGONQUIAN RELATIVE CLAUSE (PRELIMINARY)



What I am calling the Rel head is occupied by a dependent affix *-ø*, which must be morphologically supported. I assume that its complement is a CP, as evidenced by the range of morphology that can occur inside of participle marking in participle relative clauses. An optional NP projection may intervene between the DP and the RelP projections.

The head of the relative clause is moved out of the CP (cf. Kayne 1994), such that when the head of a relative clause originates as the object of a verb, it carries its obviative *phi*-features with it. The verbal complex is marked as obviative, which signals that the head of the relative clause originated as the object of the verb, as in (16), reproduced from (10a) above.

- (16) BLACKFOOT
- | | | | | |
|--------------|---------------------------|-----------|---------------|----------------|
| [<i>Omi</i> | <i>otsinoi'sskipayi</i>] | <i>ki</i> | <i>ánnayi</i> | <i>nínnst.</i> |
| om-yi | ot-sinoi'sskip-a-yi | ki | ann-ayi | n-ínsst |
| DEM-OBV.SG | 3-KISS-DIR-OBV.SG | and | DEM-VERBLZ | 1-older.sister |
- 'The one that he kissed is my older sister.'

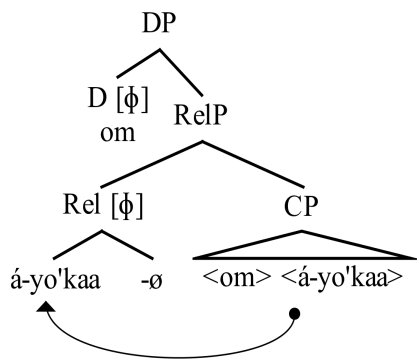
The two types of Algonquian relative clauses are the product of two strategies to support the dependent morpheme on Rel. These strategies are discussed in the following two subsections.

5.1 Participle relative clause constructions

In participle relative clauses, the dependent morpheme *-ø* on the Rel head is supported by moving the verbal complex out of CP. Recall that while I call this the verbal complex, I am referring to the extended verbal projection. The verbal complex is marked with nominal *phi*-feature morphology via concord on the Rel head (17).

¹⁰ See also Zwart (1997).

(17) ALGONQUIAN PARTICIPLE RELATIVE CLAUSE CONSTRUCTION



BLACKFOOT

om-iksi á-yok'aa-iksi

DEM-AN.PL IMPF-sleep-AN.PL

'Those sleeping ones.'

(Frantz 2009:114)

Note that in this proposal, only those syntactic objects that are raised out of CP (the head of the relative clause and the verbal complex that raises to support the null morpheme) are marked with *phi*-feature morphology. This account is able to capture the following evidence from Passamaquoddy, in which only the verbal complex 'caught' and its obviative object 'these rabbits,' the head of the relative clause, are marked with obviative *phi*-feature morphology (18). This is consistent with the structure above, though the word order remains a problem.¹¹

(18) PASSAMAQUODDY RELATIVE CLAUSE

*Yuktok nit mahtoqehsuw-ok malsom ecitawel-uk-(*ihi) meson-ac-ihí.*
 these.3PL that rabbit-3PL wolf IC+trick-CONJ-(*PART.OBV.PL) IC+catch-CONJ-PART.OBV.PL
 'These are the rabbits that [NP the wolf that I tricked] caught.' (Bruening 2001:163, ex. 392)

5.1.1 Overt Rel morphology? Blackfoot *-hka*

Blackfoot relative clauses may additionally be marked by what Uhlenbeck (1938) calls a relative suffix, *-hka*. This suffix is homophonous with a morpheme that Frantz (2009) analyzes as a post-inflectional morpheme encoding invisibility; that is, a morpheme suffixed to demonstratives and nouns that already bear *phi*-feature morphology, where the demonstratives and nouns denote entities not visible to the speaker (19).

(19) BLACKFOOT INVISIBLE MORPHEME

Annáá annááhka kinnahka?
 ann-wa ann-wa-hka k-ínn-wa-hka
 where-3s DEM-3s-INVS 2-father-3s-INVS
 'Where is your father?'

(Frantz 2009:67, ex. m)

It is uncertain whether relative *-hka* and invisible *-hka* are in fact one and the same morpheme. This morpheme is present on the demonstrative, head noun if present, and verbal complex of a relative clause; in other words, it is another case of concord (20).

(20) BLACKFOOT RELATIVE MORPHEME *-HKA*

Ki tókskamma [omíksska ponokáiksska áyiistapokska'siiksska] iihpókiiyoowa.
 ki tokskamm-wa om-iksi-hka ponoká-iksi-hka á-yiistap-okska'si-iksi-hka iihpokiyyoo-wa
 and one-3s DEM-AN.PL-REL elk-AN.PL-REL IMPF-away-run-AN.PL-REL follow-3s
 'And one followed those elk that were running away.' (Frantz 2009:128 [Uhlenbeck 1938])

¹¹ Note that Bruening (2001) presents a different account for the distribution of *phi*-feature morphology: to him, participle agreement arises due to successive-cyclic movement of the relative operator, which triggers agreement.

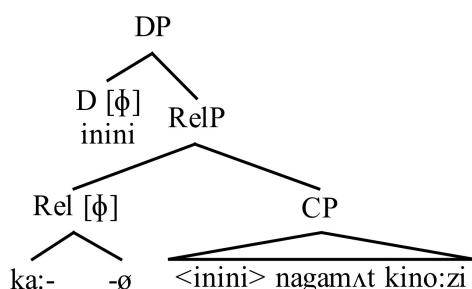
I leave fieldwork on this morpheme to future work; but note that other post-inflectional morphemes also appear on the verbal complexes of relative clauses in Blackfoot. In the following example, the relative clause is marked with the 'other time' morpheme *-ka*, which is used when the spatial information encoded in the demonstrative is relevant to a speech act participant at some time other than the time of the speech act (Frantz 2009:66) (21).

- (21) BLACKFOOT 'OTHER TIME' MORPHEME *-ka*
Ámoksi-ka isttsííksinai'kokaiksika.
 amo-iksi-**ka** isttsííksina-i'kokaa-iksi-**ka**
 DEM-AN.PL-O.T. snake-paint.lodge-AN.PL-O.T.
 'Ones who (used) snake-painted lodges here.' (Frantz 2009:67, ex. o)

5.2 Preverb relative clause constructions

In preverb relative clause constructions, the dependent morpheme *-ø* on the Rel head is supported by merging *kâ-* in Rel (22).

- (22) ALGONQUIAN PREVERB RELATIVE CLAUSE CONSTRUCTION



RAINY RIVER OJIBWA

inini ka:-nagamát kino:zi

man KA:-sing-3.CONJ tall-3

'The man who is singing is tall.'

(Johns 1982:161, ex. 2a)

Note that I have left the *phi*-features on Rel; but because *kâ-* is a preverb it cannot take any agreement morphology. Therefore, there is no evidence for or against concord in this structure; I leave the *phi*-features on Rel here so that both relative clause structures are identical.

5.3 On conjunct verb order

Richards (2004) proposes that conjunct order verbs in Wampanoag (Eastern Algonquian) occur where the verb fails to raise to C.¹² In relative clause constructions, verbs do not raise to C; therefore, conjunct order is predicted. In most of the languages surveyed in this paper, verbal complexes in relative clauses are overtly marked with conjunct morphology.

Note that verbal morphology in Blackfoot relative clauses appears to be a mix between that which is predicted for an independent order verb and that which is predicted for a conjunct order verb, and the constructions lack verbal agreement morphology altogether. For example, the negator *maat-* is associated with independent verbs (8a), while the third person prefix *ot-* and the direct morpheme *-a* appear to pattern with conjunct order verbs (16); however, both of these morphemes are used in participle relative clause constructions. This is a puzzle that requires further research; but which is perhaps related to the nature of verb order morphology in Blackfoot (cf. Déchaine and Wiltschko, 2010).

¹² Richards (2004) also draws a parallel between verb orders in Algonquian and verb-second constructions in Germanic.

5.4 Where is *kâ*-?

In the above account (22), Rainy River Ojibwa *kâ*- is merged into the structure external to the CP, because it does not carry any tense meaning. Past tense relative clauses in Rainy River are double-marked with *kâ*-, which I argue to be merged in Rel, and *gi*·?, merged in TP (cf. Johns 1982). This is a problematic result for Western Naskapi, where *kâ*- carries a past tense meaning (Brittain, 2001). In this case, *kâ*- is merged inside TP, and moved out to Rel.

Either way, *kâ*- is usually analyzed as a *wh*-element that raises to Spec-CP (cf. Brittain 2001, Johns 1982). The present analysis seems to require two *kâ*- morphemes: one for *wh*-questions, and one for relative clauses. Perhaps this is not as problematic as it sounds, given that *kâ*- has been reanalyzed in so many dialects of Cree-Montagnais-Naskapi (Brittain 2001, cf. §4.2).

6 Parallels between relative clauses and questions

One aspect of relative clause constructions that I have set aside entirely in this paper is the fact that relative clauses and questions have much in common in Algonquian languages (see Brittain 2001, Bruening 2001 and Johns 1982, 2008 for discussion). Note, for example, that *wh*-questions in Passamaquoddy take participle marking, like relative clauses (23).

- (23) PASSAMAQUODDY WH-QUESTION
Wen-il kisi-milakotim-ahtic-il?
who-OBV PERF-tell.stories-CONJ-PART.OBV
'Who are they telling stories about?' (Bruening 2001:210, ex. 522b)

Furthermore, Bruening (2001) shows that some participle-marked questions are not relative clauses. This suggests that participle agreement cannot be considered a case of *phi*-feature concord, contra the present proposal. Bruening suggests that participle agreement arises where there is extraction.

Perhaps a Bruening-style movement analysis of *phi*-feature concord is preferable to the present analysis; though it is unclear to me how to account for the distribution of participle and preverb relative clause constructions with such a model. The most likely possibility is that the present proposal is only sufficient to account for certain Algonquian languages, and not others; my goal in this paper has been to present a broadly applicable account for micro-parametric variation between Algonquian languages.

7 Conclusions, questions, future research

In this paper I have attempted to account for the distribution of two major types of relative clauses in Algonquian languages by positing a morphologically dependent affix on a head that I have called Rel. My preliminary proposal is that the two relative clause types are epiphenomenal of two strategies to support the affix. In participle relative clauses, the verbal complex is raised to Rel and marked with *phi*-feature morphology by way of concord. In preverb relative clauses, the preverb *kâ*- is merged in Rel to support the affix; though there is significant cross-linguistic variation in the nature of this preverb.

This paper raises a number of questions. For instance, I have not investigated the role of initial change in relative clause constructions. Another issue is that of optional *phi*-feature agreement, as mentioned in Bruening (2001) and Valentine (2001). This is a difficulty for a concord-based approach. Another major issue is whether or not the present account of relative clauses can somehow be unified with an account of Algonquian *wh*-questions. Finally, the cross-linguistically diverse features of *kâ*- ought to be explored, along with the implications this diversity has on the present proposal for preverb relative clause constructions.

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