

RELATIVE CLAUSES IN CROW

Randolph Graczyk

University of Chicago

The discussion of relative clauses in this paper will proceed from description to analysis.¹ In the first four sections I will treat lexical vs. non-lexical heads, relativizers, final determiners and head markers in relative clauses.

In section five I will discuss several of the theoretical issues involved in the analysis of Crow relative clauses: are they internally or externally headed? What is the syntactic status of the relativizers? Why is the head noun marked with the indefinite specific determiner?

1. Lexical vs. Non-Lexical Heads

Based on considerations of form, there are two basic types of relative clauses in Crow: lexically headed and non-lexically headed. (1) and (2) are examples of lexically headed relative clauses:

- (1) [hinne bacheé-m ak -óoppiia-sh] is -bilée
this man -DET REL-smoke -DET 3POS-fire

awá -ss -dee-m
earth-GOAL-go -DS

'this man who was smoking's fire was burning down'
(Uuwat 19)

In (1) *bacheém* is the head noun, marked as such by the indefinite specific determiner -m. *Ak-* is a relativizer that conveys 1) that the head nominal is the subject of the relative clause, and 2) that the subject is animate, and--in the overwhelming majority of cases--an agent. The demonstrative *hinne* and the final definite determiner -sh are typical noun phrase constituents. The noun phrase *hinne bacheém akóoppiash* functions in the matrix clause as the possessor of *isbilée*.

- (2) [hawáta-m Akbaatatdía
one -DET God

balee-héela-ss -huu -hche-wia-sh] díi-k
 1B.PL-midst-GOAL-come-CAUS-MOD-DET 2B -DECL

'you are the one God intended to send into our
 midst' (Lk 9:20)

In (2) hawátam, marked with the determiner -m, is the head noun, and there is no relativizer. The relative clause is object-headed, and functions as one of the noun phrases in an equational clause.

(3) and (4) are examples of relative clauses without lexical heads:

- (3) [hileen ak -húua-sh] kuss-íkaa (a)k
 these REL-come-DET GOAL-look.at-SS

daachí -k
 continue-DECL

'he kept looking at these ones who were coming'
 (Sees 3)

In (3) ak-, the relativizer, is the subject of the relative clause, which is functioning syntactically as the object of the goal postposition kuss-.

- (4) [hinne óotchia al -iisshii-wí -o] awateé-ssaa-k
 this night REL-camp -MOD-PL far -NEG -DECL
 'the place where they will camp this evening is
 not far' (Uuwat 15)

In (4) the relativizer ala-, here glossed 'the place where', is a locative expression (syntactically equivalent to a postpositional phrase or an independent adverb) within the relative clause, and the noun phrase containing the relative clause is the subject of the matrix clause.

2. Relativizers

There are two basic relativizers, ak- and ala-, and several composite forms based on ala- plus baa- 'indefinite pronoun': am-maa-, baa-ala, and am-maa-ala-. Also, there are a few examples in my data where baa- alone functions as a relativizer. We will consider each of these forms in turn.

As mentioned above, ak- conveys two pieces of information: 1) it indicates that the subject of the RC

is relativized, and 2) it marks the subject as animate, and in the vast majority of cases, agentive. Ak- may occur with a lexical head, as in (1) and (5), or without a lexical head, as in (3).

- (5) [hileen bacheé-o -m Jesus ak -áxp -ak
 these man -PL-DET J. REL-be.with-SS

ilíia-sh] kan daá-u -lak
 speak-DET then go -PL-COND

'when these men who were speaking with Jesus were leaving' (Lk 9:33)

There are several examples in my data where ak-co-occurs with stative verbs, and thus cannot be referring to an agent, as in (6):

- (6) isahké [ak -xawíi-kaashe] koó-k
 his.mother REL-bad -very COP-DECL
 'his mother is the one who is really bad'
 (Isshii 11)

In (6) ak- is the subject of a stative verb within the relative clause.

Like ak-, ala- may occur with or without a lexical head. This relativizer may fill several different syntactic roles within the relative clause. First, it may indicate that a locative, temporal or manner adverbial is the head of the relative clause, as illustrated in (7)-(9):

- (7) púaae [balé ala-satché] ko kukaá húu -ssaa-k
 smoke wood REL-thick PRO SOURCE come-NEG -DECL
 'the smoke isn't coming from where the trees are thick (the forest)' (Baláshe 2:19)

In (7) ala-, the head of the RC, is a locative adverbial, the syntactic equivalent of an independent adverb or a postpositional phrase. The RC functions in the matrix clause as the object of the source postposition kukaá.

- (8) [kal-am -máakaa -u] híi -k
 now-REL-1A.go.home-PL arrive-DECL
 'the time for us to go home has now arrived'
 (Baláshe 4:22)

In (8) ala- marks a temporal adverbial as head of the RC, which fills the subject role in the matrix clause.

- (9) [bíaxaake am -ma-lásitt-uua ko]
ducks REL-1B-happy -PL PRO

kala-koot -úu-k
-like-that-PL-DECL

'the way that ducks are happy is like that (that is how ducks enjoy themselves)' (Baláshe 1:11)

In (9) a manner adverbial is relativized upon with *ala-*, and the relative clause is a noun phrase in an equational clause with *kootá* 'be like that'.

There are other examples where *ala-* marks the object of the RC, rather than an adverbial, as relativized upon:

- (10) [baaxuawishé kal-an -náh-chikitché
animals -REL-2A -respect

kal-an-náh-kalatche] íiliia
-REL-2A-believe tipi.poles

koó-u -hcheilu-k
COP-PL-REPORT -DECL

'the animals that you respect and believe in are the tipi poles' (Issii 30)

In (10) *baaxuawishé* is the object of *kalannáhchikitché* and *kalannáhkatché*, and the RC is one of the noun phrases in an equational construction.

In still other examples *ala-* can be plausibly interpreted either as a manner adverbial or as an object, as in (11):

- (11) [hinne bíá am -mii-lía-sh] al-ákaa-?
this woman REL-1B -do -DET 2A-see -INTERR
'did you see what this woman did to me' -or-
'did you see how this woman did it to me?'
(Lk 7:44)

If *ala-* is treated in (11) as a manner adverbial, then this sentence would have a zero-anaphoric object, which is always a possibility in Crow, where third person subject and object pronouns are phonologically null.

We turn now to the composite forms *ammaa-*, *baaala-*, and *ammaaala-*. These forms are alike in three respects: 1) they are composed of *ala-* plus *baa-*

'indefinite object', 2) they are heads of relative clauses that lack lexical heads, and 3) they are objects within the relative clause.

While these forms are clearly segmentable morphologically, it is not at all obvious that they are syntactically and semantically segmentable, and so I will treat them as morphosyntactic units. (12)-(14) are examples:

- (12) hileen bachée-sh [ammaa-iikukkúua-sh] Jesus
 these men -DET REL -hear -DET J.

chiwaá-u -k
 tell -PL-DECL

'these men told Jesus what they had heard'
 (Lk 9:19)

In (12) *ammaa-* is the object of the RC, which functions as the second object of the ditransitive verb *chiweé*.

- (13) xusshí-hil -ak ilápitchi-hil -ak [baaan-nía]
 swift -very-SS good.shot-very-SS REL -do

xaxúa baatcháachi-k huu -k
 everything outstanding-DECL say.PL-DECL

'he was a very swift runner and an excellent shot;
 everything he did was outstanding' (Issii 1)

In (13) *baaan-* (a phonological variant of *baaala-*) is the object of *día*, and the noun phrase containing the relative clause is the subject of the stative verb *baatcháachi*.

- (14) [ammaaala-sheé] xaxúa xawii-i -lu-k
 REL -say everything bad -HAB-PL-DECL
 'everything she says is bad, whatever she says is
 bad' (Uuwat 19)

In (14) *ammaaala-* is the object of *sheé* 'say'. Both *baaala-* and *ammaaala-* can usually be translated 'whatever', and it is not clear to me what the difference of meaning is, if any, between the two.

There are also a few examples in my data of relative clauses headed by *baa-*, as in (15):

- (15) *ilak baa -wa-lá-ko koó-k*
 that INDEF-1A-2B-give COP-DECL
 'that is what I'm giving you' (Uuwat 10)

In examples like these *baa-* is functioning as an incorporated object rather than as a relativizer. Thus these examples are equivalent to object-headed relative clauses like (2) which have no overt relativizer.

3. Final Determiners

Relative clauses are marked with final determiners in the same way that other noun phrases are. According to one common definition (Comrie 1981:136), the function of a relative clause is to restrict the range of potential referents of a referring expression. If the relative clause restricts the range to one, so that the hearer can unambiguously identify the referent, it is coded as definite with *-sh*, as in (16):

- (16) [*shikáaka-m xapíi-o -sh*] *kuú -k*
 boy -DET lost -CAUS.PL-DET come.back-DECL
 'the boy that they lost has come back' (Uuwat 16)

Here the relative clause enables the addressee to uniquely identify which boy is being referred to, i.e., the one who was lost.

Not all noun phrases containing relative clauses are coded as definite, as shown in (17):

- (17) [*bacheé-m úa eél -isaa]-m] *ihchiss*
 man -DET his.wife belly-big -DET without.her

baa -aash-dée-lee-m
 INDEF-hunt-go -! -DS*

'a man whose wife was pregnant went hunting
 without her' (Bitáa 1)

In (17) the relative clause is marked with the indefinite specific determiner *-m*. Here the relative clause functions to narrow the range of potential referents of *bacheém* 'a man' to the class of men with pregnant wives. It does not, however, enable the addressee to uniquely identify a particular man.

In other cases the relative clause is marked with a zero determiner, as in (18):

- (18) [bilaxpáake ala-chikitt-úua] ko koon
 people REL-respect-PL PRO LOC

awáachi-i -lu-k
 sit -HAB-PL-DECL

'people that they respect always sit there'
 (Isshii 23)

Here the relative clause is generic in reference, and generic noun phrases regularly lack an overt determiner in Crow.

4. Head Markers

We turn now to the marking of the head nominal. Most commonly, the head is marked with the indefinite specific determiner -m, as in (19):

- (19) [bikkaa-chóos-uu-m áakee-l -uaa-sh] ko
 grass-dry -PL-DET top -be.at-PL -DET PRO

dushkú-a-k
 yank -DECL

'he yanked the dried grass that was on top of
 their heads' (Bitáa 17)

If the head noun is modified by a stative verb, both head and modifier are marked with -m:

- (20) [hinne [baa -m baatcháachi-m] dí-a-sh] ii
 this INDEF-DET outstanding-DET do -DET INSTR

ishúu -hil -uu-k
 his.song-make-PL-DECL

'because of this outstanding thing that he did
 they made a song for him' (AB 60)

In (20) baam baatcháachim is the head of the relative clause, with both baam and baatcháachim marked with final -m. This pattern of marking, where a noun and a following stative verb are both marked with -m, suggests that such combinations are themselves relative clauses.

If, however, the stative modifier is a quantifier, the head noun is not marked with -m, as in (21):

- (21) [iichíile dúupa-m aw-faschilee-sh]
 horse two -DET 1A-buy -DET

xusshi-kaás-uu-k
 swift -very-PL-DECL

'the two horses I bought are good runners'

There are a number of examples where the lexical head noun is not marked with -m. These include sentences where the head is a possessed noun, as in (22), or a proper name, as in (23), or generic, as in (24).

- (22) [bas -bitchiia ii úux -baxxipe] attá -shta-k
 lPOS-knife INSTR deer-1A.skin sharp-very-DECL
 'the knife I use to skin deer is very sharp'

In (22) the head noun, which is alienably possessed, is the object of the instrumental postposition *ii*; it occurs without -m.

- (23) [Akbaatatdía hinne baa -wilihpí -wa-hche
 God this INDEF-enter.water-1A-CAUS

ak -bii-lí-a-hche kon] bii-chiwa(a)-ák
 REL-1B -do -CAUS PRO 1B -tell -SS

'God, who had me do this baptizing, told me'
 (Jn 1:33)

- (24) baaxuawishé al -íkuua xaxúa chilíi-ssaa
 animals REL-see.PL all fear -NEG

kulée-wia-i -lu-k
 chase-MOD-HAB-PL-DECL

'they [moose] are not afraid of any animals they see; they are ready to chase them'

In the case of the examples with possessed nouns, proper names, and generic nouns, it may be the inherent definiteness of the head nominal that conditions the omission of -m. We will return to the question of the status of -m as a head-marker in the final section of the paper.

5. Syntax of Relative Clauses

Turning now to the syntax of relative clauses, let

us begin by summarizing the general features of Crow relatives that have emerge from the above discussion:

- 1) relative clauses may be lexically or non-lexically headed;
- 2) they may be marked with the relativizers ak- or ala-, or they may lack an overt relativizer;
- 3) a lexical head nominal is ordinarily marked with the indefinite determiner;
- 4) the head nominal is usually initial in the relative clause;
- 5) the noun phrase that contains the relative clause may be framed by a phrase-initial deictic demonstrative and a phrase-final determiner;
- 6) the head may fill any nominal grammatical role within the relative clause.

I see two possible analyses that could account for the data presented above on Crow relative clauses: 1) they are externally headed, with a null NP in the relative clause coreferential with the head, or in the case of relatives without lexical heads, a null discourse anaphor as head; or 2) they are internally headed, and the head may be either lexical or pronominal (i.e., a relativizer).

Based on the fact that in Crow all nominal modifiers except demonstratives follow their heads, I assume that under the first option relative clauses would follow their heads. However, examples like (25) present a problem for this analysis:

(25) [Mary-sh ilaalee-m iaschilee-sh]
 M. -DET car -DET buy -DET
 itchi-shta-k
 good -very-DECL

'the car that Mary bought runs very well'

Since the head noun, *ilaaleem*, is not initial in the RC, it is difficult to see how it can be viewed as external to the relative clause. One might claim that in examples like this it is the external head that is deleted; however, this appears to be an *ad hoc* solution.

In the light of the difficulties that the external head analysis poses, I will treat Crow relatives as internally headed, as in (26):

- (26) NP --> N' DET
 N' --> [_S...N'_{head}...]

Note that these phrase structure rules allow for embedded relative clauses, as in (20).

There are several remaining topics that need to be dealt with: 1) the status of the relativizers, and 2) the marking of the head nominal.

We turn first to a discussion of the syntactic status of the relativizers: *ak-*, *ala-*, *ammaa-*, *baaala-*, and *ammaaala-*. It is the presence or absence of a relativizer, and the form of the relativizer, if present, that indicates the grammatical role of the head in the relative clause, or at least limits the range of possible grammatical roles:

1) if there is no overt relativizer, the head noun is either an object, a possessor, or the subject of a stative verb;

2) if the relativizer is *ak-*, the head noun is a subject, usually of an active verb;

3) if the relativizer is *ala-*, the head is the object of the verb, the object of a postposition, or (in the absence of a lexical head) a locative, temporal, or manner adverbial.

4) if the relativizer is *ammaa-*, *baaala-*, or *ammaaala-*, the head is the object of the verb of the clause.

5) *ak-* and *ala-* occur in both lexically-headed and non-lexically-headed RCs, while *ammaa-*, *baaala-* and *ammaaala-* do not co-occur with lexical heads.

I have suggested above that the forms *ammaa-*, *baaala-*, and *ammaaala-* should be treated as non-segmentable morphosyntactic units. An alternative analysis would be to treat them as compositional, with *baa-* the lexical head and *ala-* a syntactically inert relativizer. This approach does not, however, account for the double occurrence of *ala-* in *ammaaala-* (*ala-* + *baa-* + *ala-*). Moreover, the fact that there is a semantic distinction between *ammaa-* 'what, that which' and *baaala-* 'whatever' suggests that these forms are lexicalized and syntactically non-compositional.

ak- and *ala-* can be treated as having optional syntax: in the absence of a lexical head they are syntactic constituents, noun phrases functioning as heads of relative clauses and filling argument slots within the relative clause. If, however, they co-occur

with lexical heads, they simply function as markers that indicate the grammatical role (or better, the range of possible grammatical roles) of the head noun within the relative clause. In these cases they are not syntactic constituents.

It should be noted that the distribution of *ak-* and *ala-* reflects the active/stative patterning found in other areas of Crow grammar. Although a few exceptions have been noted, it is generally true to say that *ak-* marks the head noun as an active subject, while *ala-* indicates that the head noun bears a grammatical role other than that of active subject.

Since *ammaa-*, *baaala-*, and *ammaaala-* never co-occur with lexical heads, they are always syntactic constituents. And since they always function as object NPs within the relative clauses, they may be viewed as incorporated objects.

From an autolexical perspective, the bound status of the relativizers need not be a barrier to their syntactic reality. When *ak-* and *ala-* are syntactic constituents, they are incorporated by the word that contains the head of the relative clause, the verb. In the case of *ak-*, this involves the incorporation of the subject of an active verb, something that does not otherwise occur in Crow. In the case of *ala-*, it is either an object or an adverbial expression that is incorporated, two alternatives that are otherwise well attested in Crow.

It should also be noted that *ak-* and *ala-* occur in the same relative positions in the verb complex as independent constituents occur in the clause. *ak-*, a subject marker, is initial in the verb complex, while *ala-*, which corresponds to a free adverb or postpositional phrase, either precedes or follows a bound pronominal object, just as an independent object NP may occur either before or after an independent adverb or postpositional phrase.

We turn now to the marking of the head nominal. We have seen that, with few exceptions, the head nominal is marked with the indefinite determiner *-m*, and never with the definite determiner *-sh*. A similar pattern is found in Lakhota relative clauses, as illustrated in (27):

- (27) *wicháša wā* [Mary wówapi k?u ki] he wābláke
 man DET book give DET I.see

'I saw the man who gave Mary a book' (Van Valin 1977:47)

In (27) the head noun *wičhása wə* occurs with the indefinite determiner *wə*, the same marking pattern that is found in Crow.

Williamson (1987:187) has suggested that definites are not possible heads in Lakhota because a definite referring expression is given or known, and further specification by means of a relative clause is, if not impossible, at least unnecessary.

However there are clear examples of relative clauses in Crow where the head nominal marked with *-m* is definite and given in the discourse. Consider (28)-(30). The context of the story is as follows: the protagonist, a young boy, is directed by a bird to straddle a piece of driftwood that he will find in a river. The driftwood is introduced in (28) with a noun phrase marked as indefinite specific by *-m*:

(28) *bimmúua -n balíaxxii-m huchí-ssaa-k. . .*
in.water-LOC driftwood-DET wind -GOAL-DECL

he -k
say-DECL

"in the water is a piece of driftwood facing the wind. . ." said [the bird]' (Isahkáa 17)

Several lines later we find the sentence given in (29):

(29) *dée-laa hinne balíaxxii-sh ólapi-m*
go -SS this driftwood -DET find -DS
'he went, he found this piece of driftwood'
(Isahkáa 18)

Here the noun phrase referring to the driftwood contains both the deictic demonstrative *hinne* 'this' and the definite determiner.

Three lines later the sentence given in (30) occurs, with the noun phrase referring to the driftwood modified by a relative clause:

(30) [*hinne balíaxxii-m áakinnee*]-sh
this driftwood-DET straddle -DET

ihkulussáa -(a)k iichíili-k
be.transformed-SS horse -DECL

'this piece of driftwood that he was riding transformed itself into a horse' (Isahkâa 19)

Since the driftwood has already been referred to by a definite noun phrase in (29), there is no way that the driftwood referred to in (30) can be considered in any sense indefinite or not 'given' to the hearer.

It seems clear, then, that an explanation for the marking of head nominals with -m in terms of referentiality or definiteness lacks motivation. This marking pattern appears to be a matter of purely formal syntax: head nouns of relative clauses are marked with the indefinite determiner even if they are already given in the discourse and identifiable by the hearer.

I believe that it is a mistake to treat the -m that marks the head noun as a determiner with independent reference, as Williamson seems to do. A noun phrase that contains a relative clause or, according to our analysis, a noun phrase that consists of a relative clause plus a final determiner, is a referring expression that is either definite or indefinite. Consequently, it makes little sense to speak of the head nominal as definite or indefinite, since the head nominal has no independent reference; it is a constituent of a larger referring expression.

It follows, then, that the -m that marks the head noun is not a determiner; I have labeled it a determiner in the morpheme glosses only because it is identical in form to--and presumably derived from--the indefinite specific determiner.

Although this -m is not a determiner, it does have a discourse function: it serves to identify the head noun. Thus it significantly reduces the possibility of ambiguity in the interpretation of relative clauses.

Consider the following hypothetical example, where both the subject and the object of the RC are marked with the definite determiner:

- (31) *[shikâakee-sh iichîilee-sh alapée-sh]
 boy -DET horse -DET kick -DET

aw-âkaa-k
 1A-see -DECL

'I saw the boy who kicked the horse' -or-
 'I saw the horse who kicked the boy'

With both NPs marked definite, this sentence would be ambiguous (apart from discourse context) as to which noun phrase is the head of the relative clause. The actual Crow sentences corresponding to (31) are given in (32):

- (32) a. [shikáaka-m iichíilee-sh alapée-sh] aw-ákaa-k
'I saw the boy who kicked the horse'
- b. [shikáakee-sh iichíili-m alapée-sh] aw-ákaa-k
'I saw the horse who kicked the boy'

These differ only in the marking of the head nouns, which renders their meanings unambiguous.

The possibility of ambiguity in internally-headed relative clauses is well attested in other native American languages. (33) is a Navajo example from Willie 1989:426 that is three ways ambiguous:

- (33) 'at'éeé diné bizts'osęę yiyiiltsá
girl man kissed saw
- 'the girl saw the one the man kissed' -or-
'the girl saw the man who kissed her' -or-
'someone saw the girl the man kissed'

This kind of ambiguity is avoided in Crow by making the head noun with -m.

To sum up, then, the marking of the head noun with -m does serve a discourse function; however, that function involves the identification of the head noun rather than its referential status.

NOTES

¹The abbreviations used in this paper are as follows: CAUS causative, COND conditional, COP copula, DECL declarative, DET determiner, DS different subject, GOAL goal postposition, HAB habitual, INDEF indefinite, INSTR instrumental postposition, INTERR interrogative, LOC locative postposition, MOD modal auxiliary, NEG negative, PL plural, POS possessive, PRO independent pronoun, REL relativizer, REPORT reportative, SOURCE source postposition, SS same subject, ! surprise marker. 1A, 1B, etc. mark the A (active) and B (stative) pronominal prefixes. In the example sentences relative clauses are enclosed in square brackets, and head nominals are underlined.

REFERENCES

- Anonymous. 1986. Apsáalooke bacheeítche. Crow Agency, Montana: Bilingual Materials Development Center. (BMDC)
- _____. 1980. Baláshe Harold huuk. 4 vols. BMDC.
- Comrie, Bernard. 1981. Language universals and linguistic typology: Syntax and morphology. University of Chicago Press.
- Medicine Horse, Mary Helen, transcriber. 1980. Bitaaalasshia Alitchiasshiituualak Bahaa Awuuasshiituualak. BMDC.
- Old Coyote, Henry. 1980. Isshiióoshkunnaalau. BMDC.
- _____. 1985. Uuwatisee. BMDC.
- Rood, David S. 1973. Aspects of subordination in Lakhota and Wichita. Chicago Linguistic Society, 71-88.
- Takes Gun, George. 1984. Isahkáalaxpe. Transcribed by Euna Rose He Does It. BMDC.
- Tushka, Belva, translator. n.d. Sees a white horse. Unpublished manuscript.
- Van Valin, Robert D., Jr. 1977. Aspects of Lakhota syntax. University of California dissertation.
- Williamson, Janis. 1987. An indefiniteness restriction for relative clauses in Lakhota. The representation of (in)definiteness, ed. by Eric J. Reuland and Alice G.B. ter Meulen, 168-90. Cambridge, Massachusetts: MIT Press.
- Willie, Mary Ann. 1989. Why there is nothing missing in Navajo relative clauses. Athapaskan linguistics: Current perspectives on a language family, ed. by Eung-Do Cook and Keren D. Rice. New York: Mouton de Gruyter.
- Wycliffe Bible Translators. In Progress. Crow New Testament. Pryor, Montana: Crow Bible Translation Committee.