RELATIVE CLAUSES IN OMAHA-PONCA (SIOUAN)

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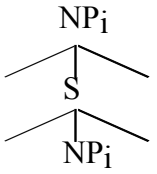
Relative clauses in Omaha-Ponca are internally headed; that is, the NP modified by a relative clause occurs inside the clause itself. The characteristic structure of an internally headed relative clause is roughly as in (1). An Omaha example is given in (2).

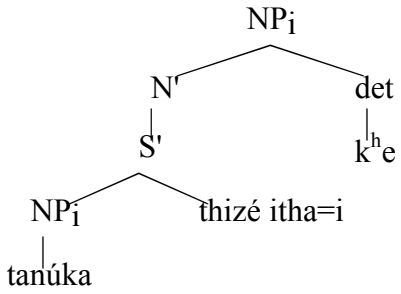
1.



(relative clause)

(head)

2. Thé k^he [tanúka thizé itha=i k^he] thizá=i=t^he.
this the meat he-gets-it he-promised=prox the he-got-it=prox=evid
'He got the (piece of) meat that he promised he would get.'



Internally headed relative clauses have been described in a fair handful of languages by now, including two Siouan languages (Crow, studied by Randolph Graczyk, and Lakhota, studied by Janice Williamson), as well as Quechua[1], Navajo[2], and several African languages[3], among others. Some of the issues raised by this crosslinguistic research are listed in (3). Although I think nearly everyone would agree with the broad outlines of the structure in (1) and (2), there is a lack of concensus about the details of how to analyze internally headed relatives, including such issues as whether they have external heads at some abstract level of representation,[4] whether they involve an analog of wh movement (movement of the head or an abstract wh element at LF), the distribution of definite and indefinite determiners in them, and whether they would be better analyzed as DPs.

3. QUESTIONS:

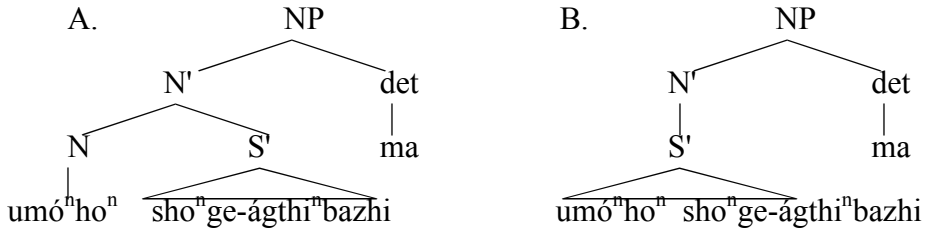
- Is there an external (empty) head N or NP (at any level)?
- Is there movement of the head N or NP or an abstract wh element to some position such as Spec or Comp? (at LF)
- What determiners and other modifiers occur with the head or matrix NP? Does Williamson's indefiniteness restriction hold, and if so, why?
- Do IHRCs provide evidence for DP (Determiner Phrase)?

Obviously I will not resolve all of these issues in a 15 minute talk. My main concern today is to give a description of some language-particular features of Omaha-Ponca relative clauses. But several of the general theoretical issues will arise at various points in the discussion.

Before going any further it seems appropriate to establish that Omaha relative clauses are indeed internally-headed. One might expect them to be, since those of closely related languages are. Furthermore, Omaha makes considerable use of other types of nominalized clauses, a characteristic Christopher Culy identifies as the best crosslinguistic predictor of the presence of IHRCs in a language. However, to the best of my knowledge it has never been conclusively demonstrated that Omaha RCs are internally headed. John Koontz briefly discusses relative clauses in his 1984 survey of Omaha grammar, and assumes that they have a structure roughly like that in (1), but does not argue explicitly for it.

In fact, Koontz points out that in all of the examples of relative clauses in his corpus of J. Owen Dorsey's texts the head noun, if overt, was clause-initial; this raises the possibility that the head NP might not actually be inside the clause at all. For instance, in (4), adapted from one of Koontz's examples[5], the noun *umo^{n}ho^{n}* might well be analyzed as an external head, as in diagram (A), rather than an internal one, as in (B).

4. umó^{n}ho^{n} sho^{n}ge-ágthi^{n}bazhi ma
   Omahas horse-they do not sit on the
   'those Omahas who were unmounted'



However, in elicitation I've discovered that the restriction to initial position that apparently holds in Dorsey's texts is not absolute. Thus in (5a) the position of the adverb *théthudi* 'here' makes it clear that the head N, *níkashi^{n}ga*, is inside the bracketed relative clause.

5.a. Núzhi^{n}ga ak^{h}a [théthudi níkashi^{n}ga gthí^{n} thi^{n}k^{h}e] thégi gá^{n}tha.
   boy the here person lives the leaves wants
   'The boy wants the man who lives here to leave.'
 b. Núzhi^{n}ga ak^{h}á [níkashi^{n}ga théthudi gthí^{n} thi^{n}k^{h}e] éshti thégi gá^{n}tha.
   boy the person here lives the that-one leaves wants
   'The boy wants the man who lives here to leave.'

The two sentences in (5) are paraphrases. (5b) was given by one speaker as a translation of the gloss. A second speaker spontaneously produced (5a) as an alternative translation,

and all three speakers present at the elicitation session agreed that both variants are acceptable.

Relative clauses which have something preceding the head noun, like (5a), are quite rare, but the fact that they exist at all is a strong argument for an internally headed structure for Omaha relative clauses.[6] The strong tendency for the head of relative clause constructions to be clause-initial can probably be explained in terms of discourse function, since the head is a TOPIC, and topics tend to be clause-initial; Rushforth & Gorbet propose a similar explanation of word order in Bearlake Athapaskan RCs.

One of the most striking features of Omaha relative clauses is the distribution of determiners within them. In fact, under the general heading of determiners there are two quite distinct set of facts to consider: the existence and identity of determiners associated with the matrix NP, on the one hand, and the lack of determiners associated with the head NP, on the other.

I'll talk about the second of these first, since it can be covered more quickly. In the examples we have seen so far, the head noun is not followed by an article or any other modifier: *tanúka* in (2), *umó^{n}ho^{n}* in (4), *níkash^{in}ga* in (5a-b). Adding an article, with or without the clause-final article, results in ungrammaticality:

6.a.	* ... tanúka	k^{h}e	thizé	ítha=i		(k^{h}e) ...	(cf. (2))
	meat	the	gets-it	promised=prox		the	
	* ... umó^{n}ho^{n}	ama	shó^{n}ge-ágthi^{n}bazhi			(ma) ...	(cf. (4))
	Omahas	the	horse-they do not sit on			the	
	* ... níkashi^{n}ga	ak^{h}á	théthudi	gthí^{n}	(thi^{n}k^{h}e) ...		(cf. (5))
	person	the	here	lives	the		

Omaha thus behaves as expected according to Williamson's 1987 claim that the heads of internally headed relatives should always be indefinite. This "indefiniteness effect" prediction has been confirmed for a fairly varied sample of languages by Culy (1990), and both Williamson and Culy propose semantic explanations for the constraint.[7] Graczyk accounts for the lack of determiners on relative clause heads in Crow in a different way, by analyzing them as N' rather than NP. This issue might be decided by the presence of indefinite determiners (although it's not totally straightforward: Graczyk argues that what look like indefinite determiners in Crow aren't). Unfortunately, I do not have any examples of Omaha relative clauses with indefinite determiners on their heads, but I also lack evidence that such examples are ungrammatical. In any case, the fact that Omaha does obey the indefiniteness effect supports the contention that any account of this phenomenon should be a general, not language-particular one, although it does not choose between competing explanations.

In sharp contrast to the lack of definite determiners on the head NP, the matrix NP always has a determiner. Koontz claims (p. 172) that the relative clause must have an article or the topic marker *de* in the matrix clause, and my data bear this out. What makes Omaha particularly interesting in this regard is that in this language, unlike Lakhota or other languages whose internally headed relative clauses have been studied, the article identifies the semantic type and grammatical role of the NP.

A list of articles with the semantic features Koontz states they have in the Dorsey texts is given in (7). The speakers I have been recording do not always seem to use all of the articles in exactly this way, but they do many of them with approximately the meanings given.

7. Omaha-Ponca definite articles: (adapted from Koontz 1984)

ak^{h}á	amá	thi^{n}	t^{h}o^{n}	thi^{n}k^{h}é	ma	k^{h}e	t^{h}e	tho^{n}	ge
+anim	+anim	+anim	+anim	+anim	+anim	-anim	-anim	-anim	-anim
+agent	+agent	-agent	-agent	-agent	-agent	horizontal	vertical	round	scattered
singular	pl / mv	moving	standing	sitting	plural				

As John Koontz has pointed out, the article which follows a relative clauses marks the function of the head NP within the matrix sentence, not its function within the relative clause. This is most obvious with an animate head which is agent in one clause but patient in the other. We have already seen one example of this type: in sentence (5), the article *thi^{n}k^{h}é* goes with the matrix clause patient function of the relative construction as a whole, rather than with the relative clause agent function of the head noun *níkashi^{n}ga*. In fact, (4) is similar too, although it's hard to see since I didn't give the whole sentence; it has *ma* rather than *ama* as its article because it is the object of the matrix verb.

Another similar example but without an overt head is given in (8). Here the use of *thi^{n}k^{h}é* rather than *ak^{h}á* shows that the nominal modified by the article is the patient/object of the matrix verb *íbaho^{n}* 'they know him', not the agent/ subject of the relative clause verb *wamó^{n}tho^{n}=no^{n}* 'he steals'. (8b) has the reverse situation: the article *ak^{h}á* is appropriate for the matrix subject function of the woman, but not for its embedded object function.

8.a. [Wamó^{n}tho^{n}=no^{n} thi^{n}k^{h}é] íbaho^{n}.
steals=habitual the they-know
'They know the one who steals.'

b. [Wa'u ató^{n}be ak^{h}á] ebé a
woman I-see the who ?
'Who is the woman I saw?'

The article clearly goes with the higher NP of structure (1), not with the lower one or with a clause-final empty N or N'. This has been assumed by people working on internally headed relatives in various languages -- to give just one example, Rood and Taylor's 1977 description of Lakhota relative clauses derives them by deleting the matrix NP except for its determiner. But it is rather nice to have morphological evidence that the whole clause is being treated as a nominal.[8]

One convenient way of seeing that the clause-final article marks matrix function is that the article on a relative clause always matches the article on an appositive phrase. It is very common in Omaha, especially in the story-telling style of certain individuals, for an appositive phrase meaning something like "that one" to appear before (or less frequently after) a noun phrase. This appositive phrase consists of a demonstrative and an article. (9) gives examples with simple NPs.

9.a. ... duá thi^{n}k^{h}é ké thi^{n}k^{h}é uhó^{n}
this the turtle the he-cooks-it
'He cooked the turtle.'

b. Itháde ak^{h}á shé ak^{h}á thaégitha égo^{n}
her-father the that the he-was-kind-to-her having
'Her father was kind to her [and...]'

Note that the articles match: *thi^{n}k^{h}é* in (a); *ak^{h}á* in (b). The same is true when the NP involved is a relative clause construction. We have already seen one example of this, in (2), where the matching article is *k^{h}e*. A few more examples are in (10).

10.a. Gá t^{h}e [shó^{n}ge o^{n}gágthi^{n} t^{h}e]
that the horse we-sit-on-it the
'Is that the horse we were riding?'

b. Gá ak^{h}á [izházhe gá t^{h}e uk^{h}étho^{n} ak^{h}á] té amá mo^{n}gthe
that the name that the he-earned-it the buffalo the upright
no^{n}zhi^{n}=bazhi bazó^{n} ahí=i=t^{h}e.
stand=neg among he-comes=prox=evid
'The one that earned that name, before the buffalo could stand up he came among them.'

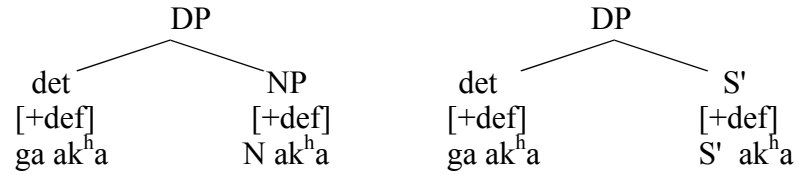
c. Gó^{n}ki é-ska ethégo^{n}=no^{n} she k^{h}e [John Turner athi^{n} k^{h}e]
and ref-? they-think=usually that the he-has-it the
'And they think that's the one (flute) John Turner had.'

d. Gá thi^{n}k^{h}é [uthúthe gthi^{n} thi^{n}k^{h}é] giáxe égo^{n} aiátha=i=t^{h}e.
that the caught sits the tease having they-left-him=prox=evid
'Having teased the one that was caught, they left him.'

Actually most of the spontaneously produced relative clauses I have (that is, those produced in narratives or conversations as opposed to those elicited as translations of English relative clauses) are of this type. I have wondered why. At one time I thought the use of the appositive construction with RCs might be an adaptation to English RC structure, since it provides something that looks like an external head. But the oldest and "purest" of the speakers I work with is the one that uses it most.[9] And an English-based explanation would make it mysterious why this construction is not used (or used much less) in elicited translations.

Another possibility is that what I've been calling an "appositive" construction really isn't one at all, but a Determiner Phrase with an NP or a relative clause as its complement. Under this hypothesis, sketched in (11), the "articles" would be analyzed as affixes embodying a definiteness feature (in addition to other features: animacy, agency, position, movement, θ-role, as in (7)). The demonstrative determiner and the NP or S' agree in definiteness.

11.



Such an analysis is attractive partly because it avoids the problem of either treating (1) as an exocentric structure, in which the top NP has no nominal head, or else positing an empty nominal outside the relative clause to serve as the structural head. Culy has argued that a structure like that in (2), with an S' exhaustively dominated by an N', is allowed under some versions of X-bar theory, but it seems to be to be a rather serious weakening of the notion of "headedness", which is the basis of all X-bar theory. (I won't go into a discussion of X-bar theory here -- but see e.g. Kornai and Pullum's recent article in *Language* for arguments that it depends crucially on the "headedness" concept.)

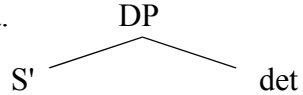
But a DP analysis like that in (11) has some problems of its own. First, it runs into trouble accounting for other types of constructions with determiners, which I do not discuss here. Second, it requires proliferation of empty Determiner positions: presumably all NPs would be dominated by DP, and most would have a null demonstrative determiner; not a fatal flaw, but not exactly an advantage. Third, it's not clear what the effect would be on the analysis of other nominalized clauses; an exocentric construction may be needed for them in any case.[10] Finally, this analysis would be at least awkward for cases of multiple apposition. This is not terribly common, but I have run across a handful of examples; (12) is one.

12. Gá ama itími ama Gloria ama shti wi^{n} gíthewi^{n}.
that the her-aunt the the too one she-bought-it
'Her aunt Gloria also bought one.'

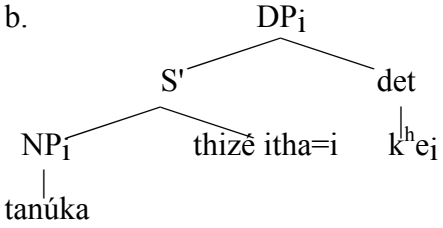
So, all things considered, a DP analysis in which the head of the DP is the demonstrative phrase does not seem likely to be satisfactory.

A different type of DP analysis is worth considering more seriously. Under this analysis, diagrammed in (13), the relative clause itself is a DP.

13. a.



b.



(13b) shows how the relative clause in (2) would be reanalyzed under this hypothesis. The nominalizing article *kʰe* is now the syntactic head of the construction, and is coindexed with the NP which is the intuitive semantic head. Although I have not shown it in the tree, the NP in turn would be coindexed with the zero 3rd person patient agreement affix on the verb. In the case of a relative clause with no overt head (e.g. (8a), (10b,c,d)) the affix itself would be directly coindexed with the article, with no need for an

empty NP head, either internal or external. Given this analysis, a relative clause could be defined as a clause one of whose arguments or adjuncts is coindexed with a c-commanding determiner.

This analysis may become particularly attractive if we take seriously the idea of pronominal argument languages, as MaryAnn Willie has argued for Navajo. (Although I don't agree with her assertion that the fact that NPs are adjuncts necessarily means they can't be heads; after all, adjuncts can head RCs in English ("The day I arrived in Chicago it snowed") and even more clearly in Slavic languages (for instance, Bulgarian *Igrajat (tam) kŭdeto postrojaxa novata sgrada* 'They're playing [there] where the new building was built', and similar examples with*(togava) kogato* '[then] when'; *(taka) kakto* [so] as, etc.). Furthermore, there is no reason a pronominal affix couldn't serve as head in a structure like (1) or (2). But in any case, the DP analysis in (13) does provide an endocentric structure for relative clauses, with a minimum of abstraction, and avoids the problems associated with (11). It is certainly a reasonable alternative to (1)/(2), although I'm not convinced it is right at this point.

I won't say much about the issue of movement to COMP or SPEC (the second "question" in (3)). This is perhaps the most theory-internal of all the issues raised in (3). Within a GB analysis it is quite clear that some kind of raising at LF will have to take place to account for scope facts; Williamson and Culy have both argued this for Lakhota. I find those arguments fully convincing, but at present I am not able to confirm or contribute new arguments from Omaha. The Lakhota scope-of-negation facts cannot be replicated in Omaha, since Omaha lacks the necessary negative polarity items.

In closing, let me just mention that Omaha has relative clauses corresponding to English free relatives; some examples are given in (14).

14.a. [Ebé=nie t^{h}e] sho^{n}sho^{n} mo^{n}thó^{n}=ga.
who=you-are the continue walk=imp
'Whoever you are, keep going.'

b. [I^{n}dádo^{n} iwi^{n}go^{n}za=i t^{h}e] gághe gó^{n}tha=bazhi=no^{n}
what we-teach-them=prox the they-do they-want=neg=habitual
'They don't want to do what we teach them.'

c. [No^{n}be t^{h}e di i^{n}dádo^{n} aní^{n} tho^{n}] o^{n}'í=ga.
hand the in what you-have-it the give-it-to-me=imp
'Give me what you have in your hand.'

The semantic/notional head of these is the wh-word, which is interpreted here as an indefinite pronoun. Like other types of relative clauses, this type is amenable to either a DP analysis along the lines in (13), in which the article *t^{h}e* or *tho^{n}*, coindexed with the wh word, would be the structural head, or an NP analysis along the lines in (1), in which the wh word itself or perhaps the 3rd person agreement affix would be the structural as well as semantic head.

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[1]Peter Cole
[2]Paul Platero; MaryAnn Willie; *Hale? should he be credited for Australian lgs instead?*
[3]Christopher Culy (recent dissertation on crosslinguistic characteristics of IHRC's).
[4]Rood & Taylor 1977 say the head NP follows the RC and is deleted except for its article. WIlliamson 1987, Culy 1990 argue that there's no external head. Van Valin 1977 assumes head precedes clause; the RC proper is only the verb. Lehmannn 1986 defines "head" semantically, and seems to claim there is no structural head in internally headed RCs.
[5]This is part of Koontz's (100) p. 173. The transcription has been modified to match the other examples in this paper.
[6]This is exactly the argument Willie 1989 (p. 430) uses to prove some Navajo RCs are internally headed. Note that (14c) may be another example of pre-head material in a relative clause.
[7]Their explanations are not identical, but similar in spirit; both have to do with the status of indefinites as variables rather than quantifiers.
[8]Crow relativizers also show thematic role of head, but within the relative clause, not within the main clause (Graczyk).
[9]And it did exist in Dorsey's time: Koontz gives at least one example.
[10]Culy claims other nominalized clauses would have to be exocentric, and uses this as an argument for allowing RCs to be exocentric too. But I'm not at all sure I buy it -- why couldn't they be DPs too?