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A-BAR ANAPHORA AND RELATIVE CLAUSES

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Since the introduction of trace theory and correspondingly more abstract S-structures, it has become apparent that some of the effects attributed to constraints on rules might equally be considered the effects of constraints on the representations that are the output of these rules. In general it has been difficult to distinguish the empirical differences between these alternate possible interpretations of constraints such as subadjacency. In this paper I will discuss a new type of evidence that suggests that the Complex Noun Phrase Constraint (CNPC) results from a constraint on representations rather than a constraint on rules. The constraint on representations is condition A of Generalized Binding theory, as proposed by Aoun (1981, 1985, to appear).

The evidence comes from the switch-reference (SR) system of Choctaw, a Muskogean language spoken in Mississippi and Oklahoma. Basic examples of SR are shown in (1).

1a.) Chaan-at [pro pisachokma-kat] ikhanah.
John-NOM handsome-SS know

'John_i knows he_i is handsome.'

- b.) Chaan-at [pro pisachokma-ka] ikhanah.
 John-NOM handsome-DS know

'John_i knows he_j is handsome.'

I follow Finer (1984, 1985) in considering SR to be a system of A-bar anaphora. Briefly, Finer assumes that a SR marker occurs in COMP and is coindexed with the subject of the clause in which it appears. The SS marker is an A-bar anaphor and DS is an A-bar pronominal. If the subject of a higher clause bears the same index as the SR marker, then it binds it from the coindexed INFL position. Since a SS marker is an anaphor, it must be bound, and consequently the upstairs subject must be coreferential with the subject of the matrix clause.

I differ slightly from Finer in considering the DS to be a disjoint anaphor, of the type proposed by Saxon (1984), rather than an A-bar pronominal, for the following reason. SR markers may only occur in embedded clauses. This follows naturally if we assume that both SS and DS are anaphors. A SR marker may not occur in the COMP of a main clause because it cannot be bound in that position. However, if we assume that DS is a pronominal, then we would expect contrasts like those shown in (2).

- 2a.) He washed the car.
 b.) *Himself washed the car.

However, this is not the case. As (3) shows, both SS and DS are excluded in matrix clauses.¹

- 3a.) *Chan-at hilha-chah
 John-NOM dance-SS
 b.) *Chan-at hilha-nah
 John-NOM dance-DS

In the approach which treats DS as a disjoint anaphor, we say that DS must be obviative with respect to some c-commanding NP within its governing category. We thus derive the facts in (3).

In this paper I will be mainly concerned with examples like (4), where a SR marker occurs in the COMP of a relative clause.

- 4a.) Chaan-at [pro ofi aaipa notama
 John-NOM dog table under
 aa-pisa-tok-at] chop-a-tok.
 LOC-see-PAST-SS buy-PAST

'John_i bought the dog he_i saw under the table.'
 or 'John_i bought the table he_i saw the dog under.'

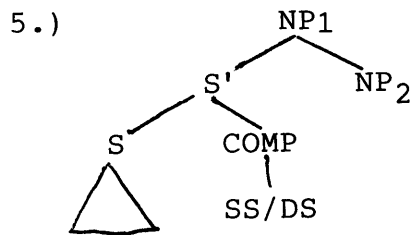
- b.) Chaan-at [Joyce-at ofi aaipa notama
 John-NOM Joyce-NOM dog table under
 aa-pisa-tok-a] chop-a-tok.
 LOC-see-PAST-DS buy-PAST

'John bought the dog Joyce saw under the table.'
 or 'John bought the table Joyce saw the dog under.'

Note that these examples show us that Choctaw has internally headed relative clauses (IHRCs) and that these IHRCs are ambiguous as to their head. The SR marking works as follows. In (4a), we have a SS marker, since John is the subject of both clauses. In (4b), John is the subject of the matrix clause and Joyce is the subject of the embedded clause, so we get the DS marker.

Choctaw is quite unusual among SR languages in allowing SR to be marked in relative clauses. Among all SR languages or language families, only four are known to mark SR in relative clauses. These four are Hopi, Tonkawa, Washo, and the Muskogean family (Jacobsen 1983). When we examine these languages an important generalization becomes apparent. All languages which allow SR markers in relative clauses have IHRCs. Languages with headed relative clauses never mark SR in relative clauses.

To account for the lack of SR markers in headed relative clauses it seems that we need a general constraint against representations of the form shown in (5).



That is, a SR marker may not appear in the COMP of a headed relative clause.

A natural source for this restriction is to be found in the binding theory. I suggest that in (5), NP_1 is the governing category for the anaphor in COMP. The restriction against an anaphor in this position is a result of condition A, which requires an anaphor to bound within its governing category.

Recall that Chomsky's (1981) definition of governing category makes crucial reference to the notion accessible SUBJECT, where accessibility is defined in terms of the *i*-within-*i* condition. It seems at first that NP_2 is not accessible to the anaphor, since the potential coindexing would violate the *i*-within-*i* condition. I argue that this is not the case. Chomsky (1981:229) points out that the *i*-within-*i* condition seems to be too strong with respect to relative clauses. In particular, we do not want to rule out sentences like (6).²

6.) [NP_i [the man_{*i*}] [_S who t saw himself_{*i*}]]

Chomsky suggests that the *i*-within-*i* condition be modified as follows:

7.) *_a...b... where a and b have the same index, unless b is coindexed with the head of a.

Since in (5), coindexation with NP_1 is coindexation with the head of NP_2 , no *i*-within-*i* violation occurs. NP_1 is thus accessible to the anaphor in COMP, and NP_2 constitutes the governing category.

If NP_1 is the governing category, why can't the anaphor be bound to the head of the relative clause? Recall that SR markers are A-bar anaphors. The head of a relative clause is not an A-bar position (see Safir 1985), therefore it is not a potential antecedent for the SR marker. There is no indexing that can satisfy condition A, and thus structures like (5) are ruled out.

In an approach like that of Generalized Binding, which treats wh-trace as an A-bar anaphor, extraction from a complex noun phrase will yield a configuration exactly like that shown in (5). NP_2 constitutes a governing category for the trace. Since the trace is not A-bar bound within its governing category, a condition A violation results.

In this account it is claimed that the presence of an external head is crucial for deriving the CNPC. This predicts that in a language like Choctaw, which does not have externally headed relative clauses, extraction from relative clauses should be grammatical. This prediction is borne out, as is shown in (8).

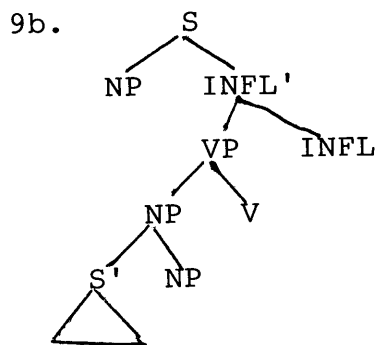
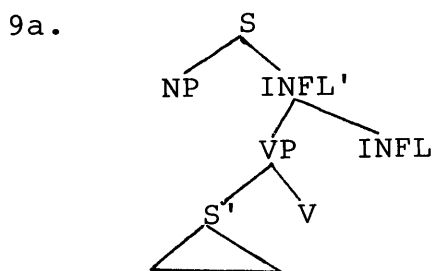
8.) Katommah_i [Chaan-at [pro ofi t_i
 Where John-NOM dog

 aa-pisa-tok-at] chop_a-tok]?
 LOC-see-PAST-SS buy-PAST.

'Where_i did John_j buy [the dog he_j saw t_i]??'

Note that while the English sentence is interpreted with main clause interrogation, it is clear that the Choctaw sentence involves extraction from the relative clause, due to the locative prefix on the embedded verb.

I have linked the prohibition on both SR markers and wh-traces in complex noun phrases to condition A. What is it about Choctaw that allow SR and wh-trace in this position? I have argued that the crucial fact about Choctaw is the absence of an external head. More specifically, I assume that a sentence like (2a) has the S-str representation in (9a) and the LF representation in (9b).



I follow Pesetsky (1982) in assuming that categorial selection is checked at LF, so there is no problem with the S-str in (9a). A rule of adjunction applies between S-str and LF and adjoins the head to S-bar.³ Note that this analysis accounts for both the occurrence of SR markers and the grammaticality of apparent CNPC violations. Since the relative clause has no head at S-str, there is no accessible SUBJECT, and the relative clause is not a governing category for an A-bar anaphor in COMP.

I would not want to claim that all languages with IHRCs involve LF head raising. In fact, there are several SR languages with IHRCs which do not allow SR to be marked in relative clauses. One such language is Imbabura Quechua, as discussed by Cole (1982). As (10) shows, Quechua has IHRCs.

- 10.) [Wambra wagra-ta randi-shka] ali wagra-mi.
 Boy cow-ACC buy-NOM good cow-VAL

'The cow that the boy bought is a good cow.'

I think that the most plausible representation for a Quechua-style IHRC is like that in (11).⁴



I am suggesting, then, that there is a fundamental difference between the IHRCs in Choctaw and Quechua, and that this difference lies in the presence or absence of an external head at S-str. How does a child learn what kind of relative clauses his or her language uses? I suggest that one crucial factor may be the existence of headed relatives in the language. In Quechua IHRCs and headed RCs alternate with each other, as shown in (12).

- 12.) [[Wambra — randi-shka] wagra] ali wagra-mi.
 Boy — buy-NOM cow good cow-VAL
 'The cow that the boy bought is a good cow.'
 (cf. (10))

In Choctaw, however, there are no headed relatives at all. If we make the reasonable assumption that children induce empty elements on the basis of other sentences in which overt elements occur, then the Quechua-speaking child has evidence which leads him or her to posit an empty head for the IHRC, while the Choctaw-speaking child does not.

In a language such as Quechua, SR may not occur in a relative clause because it has a head, even though it may be phonetically null. This representation for IHRCs in Quechua also predicts that we should get standard CNPC effects with extraction from a relative clause. This prediction is borne out, as (13) shows.

- 13a.) Riku-rka-ngui [NP [S — wagra-ta randi-shka]
 see-PAST-2nd cow-ACC buy-NOM
 runa]-ta-ka.
 man-ACC-TOP
 'You saw the man that bought the cow.'
- b.) Ima-ta-taj riku-rka-ngui [NP [S — — randi-shka]
 what-ACC-Q see-PAST-2nd buy-NOM
 runa]-ta?
 man-ACC?
 *'What did you see the man that bought?'

The theory proposed here predicts this correlation between SR marking and extraction from relative clauses. If a language has headed relative clauses, it will allow neither SR nor extraction from these relative clauses. If a language has truly headless relative clauses of the type I have argued for in Choctaw, then it will allow both SR marking and extraction.

Recall the reasoning behind this correlation. I have claimed that extraction from relative clauses in Choctaw is allowed because the relative clause in such structures is not an NP and is not the governing category. There is an alternate account of these apparent CNPC violations. We might say that since there is no NP node dominating the relative clause, wh-movement only crosses one bounding node, and is therefore licit. This approach treats the parallel restrictions on SR markers and wh-trace as unrelated. One is derived from binding theory and the other is derived from bounding theory. The theory proposed here, however, claims that the parallelism is derived from a single constraint, condition A.

I believe that my proposal is conceptually superior to an alternative theory that derives the SR and extraction facts from different sources. Consider the argument in schematic form. A certain structural configuration, the CNP, is an island to both movement and anaphora. An optimal theory will capture this fact. It is not possible to do so through constraints on movement, since the SR markers do not arise through movement. The only alternative is to appeal to a constraint on representations, in this case, generalized binding theory.

In closing, let me note that the facts discussed here do not argue against the elimination of constraints on movement or the elimination of movement itself. They merely show us that certain phenomena previously attributed to constraints on rules must now be attributed to constraints on representations.

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FOOTNOTES

1. Dan Finer (p.c.) has pointed out that DS markers are claimed to occur in main clauses in some Australian languages. However, Peter Austin (p.c.) tells me that the meaning of the main clause morpheme seems unrelated to that of the apparently identical morpheme in embedded clauses. I would be inclined to treat this as accidental homophony.

There are some similar examples in Choctaw. -chah, which is a SS subordinator in an embedded clause, is an imperative suffix in main clauses. I treat these and similar examples as mere homophony. It would be incumbent on anyone who claimed that main clause and embedded clause -chah are the same morpheme to show how the meaning differences could be accounted for.

2. Kyle Johnson (p.c.) notes that there are some English facts which support this conclusion.

- i.) *The men saw [the boys_i [that [pictures of themselves] bothered t_i].

If the head of a relative clause cannot serve as accessible SUBJECT, then the governing category for themselves should be extended to the main clause, and the men should be able to bind the anaphor. Since it cannot, we may assume that the relative clause may serve as a governing category, and the head of the relative clause may serve as SUBJECT. However, some other explanation is needed for the unacceptability of binding by the head. In the SR data I appealed to the status of SR markers as A-bar anaphors, and the impossibility of A-bar binding by the head of a RC. But this explanation is not possible for English, since themselves is an A-anaphor.

These facts are in striking contrast to the Chinese facts discussed by Aoun (this volume), where the governing category of an anaphor within a RC seems to extend into the main clause.

Finally, since the intuitive notion of accessible

SUBJECT is 'possible antecedent', it seems conceptually unsatisfying to determine the governing category for an A-bar anaphor by reference to a SUBJECT in an A-position.

3. Alternately, the RC is base generated with an empty NP node and the head moves into this position at LF.

4. Peggy Speas (p.c.) suggests that we might also allow the nominalizing element -shka to serve as head of the RC.

REFERENCES

- Aoun, J. (1981) The formal nature of anaphoric relations. PhD thesis, MIT.
- Aoun, J. (1985) A grammar of anaphora. Cambridge, MA: MIT Press.
- Aoun, J. (to appear) Generalized binding. Dordrecht: Foris.
- Chomsky, N. (1981) Lectures on government and binding. Dordrecht: Foris.
- Cole, Peter. (1982) Imbabura Quechua. Lingua Descriptive Series, v. 5. Amsterdam: North-Holland.
- Finer, D. (1984) The formal grammar of switch-reference. PhD thesis, UMass Amherst.
- Jacobsen, W. (1983) Typological and genetic notes on switch-reference systems in North American Indian languages. in Haiman, J. and P. Munro, eds. Switch-reference and universal grammar. Amsterdam: John Benjamins.
- Pesetsky, D. (1982) Paths and Categories. PhD thesis, MIT.
- Safir, K. (1985) Binding in relatives and LF', paper presented at the 4th Annual West Coast Conference on Formal Linguistics.
- Saxon, L. (1984) Disjoint anaphora and the binding theory, to appear in Proceedings of the 3rd Annual West Coast Conference on Formal Linguistics.