A NOTE ON SUBJECT POSTPOSING[1]

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1. Preface

In Bokamba [1971], Meeussen [1971] and Takizala [1972] an interesting movement rule which applies to object relative clauses in several Bantu languages of the Congo is described. The rule involves the _postposing_ of the subject of the embedded sentence, thus moving it from the normal pre-verbal position to a post-verb position. For an example, consider the following Dzamba data, taken from Bokamba [1971]:

(1)   Zaki a-bundaki imo-kondo

      'Jack caught the alligator'

(2)   oPetelo a-nyamozi imo-kondo i-mu-bundaki Zaki

      Peter   sold   the-alligator rel-it-caught Jack

      'Peter sold the alligator that Jack caught'

The languages involved are S-V-O languages. In this paper I hope to show that there exists a natural explanation for the subject postposing rule, motivated by the universal principle of _pronoun_ (or subordinator) _attraction_ in relativization. Informally given, this principle is the one by which relative pronouns tend to appear directly adjacent to the head noun modified by the relative clause. In S-V-O languages, in which the order NOUN-MODIFIER is most common in the noun phrase, subject relativization involves no pronoun movement rule, while object relativization would require a rule of movement or copying over the verb (the opposite direction of the subject postposing rule) in order to abide by the pronoun attraction principle.

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[1]For the Dzamba data I am indebted to George Bokamba, for the Swahili data to Salma Mbaye, for the Kihung'an to Alexis Takizala. The Bemba data are from my own field notes. I have benefited from discussing a preliminary draft of this paper with A. E. Meeussen, the late W. Whiteley, E. Voeltz and G. Bokamba. An earlier version of this paper appeared in _Papers from the Eighth Regional Meeting_, (supplement), Chicago Linguistic Society, University of Chicago.

(6)   kit ki-a-swiim-in Kipes zoon

        chair that-ag-buy-past Kipese yesterday

        'The chair that Kipese bought yesterday'

As I hope to show, of these two morphological features, only the one
pertaining to the bound morphemic status of the relative pronoun (or
relative subordinator) is relevant to the subject postposing rule. The
data cited from Kihung'an, above, already suggest this. The case of
Swahili serves as added support.

    There are three morphemic patterns for relative pronouns in Swahili.
In one of those, which is historically the more recent one, the relative
pronoun is not bound to the verb, but rather is carried by the supporting
morpheme (formerly the verb 'say') amba-, as in:

(7)   mtoto a-me-ki-ona kitabu

        child ag-perf-it-see book

        'The child has seen the book'

(8)   kitabu amba-cho mtoto a-me-ki-ona

        book   say-that child ag-perf-it-see

        'The book that the child has seen'

Thus, in this pattern, the rule of subject postposing is not obligatory;
though it is still an option, as in (9) below, which paraphrases (8):

(9)   kitabu amba-cho a-me-ki-ona mtoto

        book   say-that ag-perf-see child

        'The book that the child has seen'

    In the next Swahili pattern, confined to three independent tenses
(-li- 'past', -na- 'present' and -ta- 'future'), the relative pro-
noun is bound to the verbal word, in a prefixal position following the
tense morpheme. In this pattern the rule of subject postposing is
obligatory:

(10)   mtoto a-li-ki-ona kitabu

        child ag-past-it-see book

        'The child saw the book'

I also hope to show how the verbal morphology of the language, and in particular the bound vs. free morphemic status of the relative pronoun (or relative subordinator), plays a controlling role in determining the application of the pronoun attraction principle. Finally, I will attempt to show that the pronoun attraction principle helps explain otherwise baffling data concerning the position of the relative pronoun in some Bantu languages, and that other data cited by Meeussen [1971] fit very well with suggestions I have made (Givón [1971]) concerning diachronic developments in Bantu syntax.

2. Subject postposing and verb morphology

In Dzamba, as well as in the Lomongo-type languages cited by Meeussen [1971], two other morphological features also appear, in addition to the rule of subject postposing:

a. No subject-agreement morpheme appears in the object relative clause;

b. The object relative pronoun is bound as prefix to the verbal word.

These two added traits do not appear in all Bantu languages. In Bemba, for example, neither appears:

(3)   umuana a-a-mweene icitabo

child   ag-past-see book

'The child saw the book'

(4)   icitabo icyo umuana a-a-mweene

book   that child ag-past-see

'The book that the child saw'

In other Bantu languages, such as Kihung'an, subject agreement does occur in object relative clauses, but the object relative pronoun is still a bound prefix to the verbal word -- and the subject postposing rule is obligatory:

(5)   Kipes a-swiim-in kit zoon

Kipese ag-buy-past chair yesterday

'Kipese bought a/the chair yesterday'

stress-focus, cleft, pseudo-cleft and WH-questions in Kihung'an all involve
the deep presence of a relative clause. Now, in cleft constructions in
Kihung'an no overt relative pronoun appears -- and no subject postposing
occurs:

(16)   kwe kít Kipes ka-swiim-in zoono
       it's chair Kipese ag-buy-past yesterday
       'It's a/the chair (that) Kipese bought yesterday'

In pseudo-cleft constructions, however, an overt object relative pronoun
does appear -- and is bound to the verb. And subject postposing is
obligatory:

(17)   (kiim) ki-a-swiim-in Kipes zoon kwe kít
       (thing) that-ag-buy-past Kipese yesterday is chair
       '(the thing) what Kipese bought yesterday is a/the chair'

    In WH-questions in Kihung'an the underlying object relative pronoun
may optionally appear. When it does not appear, no subject postposing
occurs, but when it does appear, subject postposing occurs:

(18)   na Kipes ka-mweene?
       whom Kipese ag-saw
       'Whom did Kipese see?'

(19)   na wu-u-mweene Kipes?
       whom that-ag-saw Kipese
       'Who (is it) that Kipese saw?'

Thus, whenever the subject noun would have intervened between the relative
pronoun and the head noun, it is postposed. When no relative pronoun
appears, the subject of the embedded clause retains its original (pre-verb)
position.

3. Subject postposing and subject agreement
    As seen above, the lack of subject agreement in object relative clauses
is not an obligatory feature coupled to subject postposing. It appears in
Dzamba (and other Lomongo-type Bantu languages), but is absent in both
Swahili and Kihung'an -- when subject postposing is still present. This

(11) kitabu a-li-cho-ki-ona mtoto
      book ag-past-that-it-see child
      'The book that the child saw'

(12) *kitabu mtoto a-li-cho-ki-ona

Finally, Swahili also has a more archaic (see discussion later on)
relativization pattern, now confined to the -a- ('present', 'habitual')
tense only, where the relative pronoun is a bound suffix to the verbal
word. And in this pattern too, subject postposing is obligatory:

(13) mtoto a-a-ki-ona kitabu
      child ag-pres-it-see book
      'The child sees a book'

(14) kitabu a-ki-ona-cho mtoto
      book ag-it-see-that child
      'The book that the child sees'

(15) *kitabu mtoto a-ki-ona-cho

Given the data above, it seems that the following generalization can
be made: whenever the relative pronoun is free -- and thus can be posi-
tioned directly adjacent to the head noun -- the rule of subject postposing
does not apply obligatorily. However, when the (object) relative pronoun
is bound to the verb, as in the case of Dzamba, Kihung'an and the last two
patterns of Swahili, subject postposing applies obligatorily. What is
clearly involved, it seems, is the principle of pronoun attraction. In an
S-V-O language, if the object relative pronoun is bound to the verb, the
subject noun of the embedded sentence is sure to intervene between the
pronoun and the head noun. The subject postposing rule rectifies this
situation, thus rescuing the pronoun attraction principle

The relation between the relative pronoun and the rule of subject
postposing may be further illustrated by the following data from Kihung'an.
As seen in (5), (6) above, subject postposing is obligatory in object
relativization in this language, where the relative pronoun is bound to
the verbal word. Takizala [1972] has shown much evidence to suggest that

(22)   imo-nkanda <u>i</u>-ta-<u>mu</u>-tomaki oPetelo

      the-letter <u>that-neg-it</u>-wrote Peter

      'The letter that Peter did not write'

In (21) above two agreement morphemes -- although pertaining to the same noun -- appear before the verb. Obtaining two agreement morphemes pre-fixed one next to the other before a Bantu verb is not uncommon, see e.g. some of the Swahili and Kihung'an examples above. Swahili also allows three agreeing morphemes before the verb, as in (11) above. However, in that case the subject agreement falls to the left of the tense marker, while the object relative pronoun and the anaphoric object pronoun fall to its right. It may well be that two-in-a-row is a morphemic maximum for Dzamba or perhaps most Bantu languages. This type of constraint is not unreasonable, and may have firm grounding in the perceptual problems that may arise in attempting to find the coreferents of three agreement morphemes strung next to each other before the verb.

Bokamba [1971] has suggested an alternative formal account for the loss of subject agreement in Dzamba object relativization. Briefly, this solution involves an explicit ordering convention, by which the rule of subject postposing be ordered <u>before</u> the copying rule of subject-verb agreement. This would presumably require that the subject-verb agreement rule be formulated in terms of 'noun phrase left of the verb', so as to prevent copying from the right of the verb. There are several reasons why I think this type of a solution is not altogether adequate.

a. The copying rule by which the 'infix' object pronoun in Bantu is obtained involves copying from the right of the verb to a prefixal position. In Givón [1972] I have brought a considerable amount of evidence to suggest that the copying processes involved in both agreement and pronominalization in the grammar occur at the very same point in the grammar. The solution suggested above would split the two, and will further require some mechanism by which to discriminate between an NP to the right of the verb which could not give rise to copied features (the postposed subject) and an NP to the right of the verb which could (the underlying object). This is clearly an undesirable consequence of the formalism.

trait is nevertheless of some interest. Bokamba [1971 and also in private communication] has suggested that a natural explanation for the subject postposing rule of Dzamba should be sought in a different direction, namely a restriction on two NP's preceding the verb in S-V-O languages. This configuration, according to Bokamba, would have resulted in a confusion with respect to subject agreement. In this way both subject postposing and the lack of subject agreement in Dzamba are presumably explained. This explanation is inadequate in several respects. To begin with, we have seen that in Swahili and Kihung'an subject postposing exists but the subject agreement morpheme is retained. The two features are clearly unrelated. Further, English is a clear counter-example to Bokamba's alternative constraint, since two nouns may appear before the verb in object relativization:
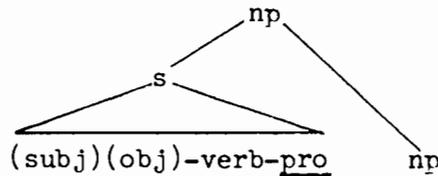
(20)   The man my sister married...
        The house Jack built...
        etc.

The alternative constraint is thus less universal than the pronoun attraction (adjacency) principle. It is still of interest to discover what motivates the loss of the subject agreement morpheme in object relativization in Dzamba, and I suspect the reason may hinge on some language-specific morphemic constraints. Note, first, that in Dzamba object relativization two obligatory prefixal morphemes appear -- both agreeing in gender-number with the deleted object noun (or the equi head noun). One is a prefix-initial vowel (here i- for class 3) which acts as a relative subordinating morpheme. The other is the anaphoric ('infix') object pronoun. Their separateness may be illustrated by using negative relative clauses, where the subordinator falls to the left of the negative morpheme, while the anaphoric pronoun to the right:

(21)   imo-nkanda i-mu-tomaki oPetelo
        the-letter that-it-wrote Peter
        'The letter that Peter wrote'

to this universal may be found in Givón [1971a], though for the purpose
of this discussion the explanation is not relevant.) Now, notice that,
given the principle of pronoun attraction, one would expect to find
relative pronouns (or relative subordinators) in S-O-V/REL-N languages
at a verb-suffix position -- since only then would they be adjacent to
the head noun:

(23)

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                              np
                             /  \
                      s     /    \
                     /  \  /      \
                    /____\/        \
         (subj)(obj)-verb-pro      np
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In other words, in S-O-V/REL-N languages one would expect relative pronouns
(or subordinators) to move to the right over the verb, while in S-V-O/N-REL
languages one expects object relative pronouns to move to the left over the
verb -- all in order to abide by the same universal principle, pronoun
attractions.

5. Some concluding remarks on pronoun attraction

There are some indications that the pronoun attraction rule applies
only to relative pronouns that have merged with a relative subordinating
particle, or where a separate subordinating particle does not exist. Thus,
the 'which', 'what', 'who', 'whom', 'where', 'when' relative pronouns in
English arose as a fusion between a subordinator and an anaphoric pronoun,
and in older stages of English a situation roughly paraphrased by (24)
below prevailed, where the subordinator was attracted to the head noun --
but the (anaphoric) pronoun was not:

(24)   the man that I saw him
                 sub   pro

(25)   the man that he saw me
                 sub pro

The attraction principle in this case applied only to the subordinator,
since the pronoun was still an anaphoric pronoun.

As a similar case one may cite Hebrew, in which the relative subor-
dinator must be adjacent to the head noun, unlike the anaphoric
('resumptive') pronoun which remains in its original syntactic position:

b. On more general grounds, I think it has become somewhat questionable
(see e.g. Koutsoudas [1971], among others) whether syntactic rules are in
fact strictly ordered extrinsically. It now seems that in many if not
most cases, erstwhile extrinsically ordered rules turn out to be intrin-
sically ordered or not at all ordered (above and beyond the convention of
cyclic application from the bottom up).

c. Finally, I have elsewhere attempted to show (Givón [1972]) that subject-
verb agreement rules are cyclic in the sense that they apply within the
comain of the unembedded sentence without reference to its embedded posi-
tion or to entities outside its boundaries. A solution of the type
suggested by Bokamba clashes directly with this claim, since it would
apply only to the agreement of subjects of sentences embedded as object
relative clauses. It thus appears that this solution is undesirable.
Rather, it is formally easy to let the agreement rule apply cyclically as
it may, since it is (cf. Givón [1972]) a feature-copying rule to begin
with. The constraint in Dzamba may be then viewed as a morphemic constraint
at the level of the second lexicon, where the copied gender-number features
of the subject will simply not receive any overt spelling.

4. Pronoun attraction and diachronic change in Bantu syntax

In Givón [1971] it was suggested that of the three relativization
patterns of Swahili, the one involving verb-suffix relative pronoun is the
oldest, and is also the one which gave rise to the other two. Meeussen
[1971] has presented tonological evidence which suggests that the relative
pronouns in Bantu were at some earlier historical stage verb suffixes.
In this section I would like to show that, given the universal principle
of pronoun attraction, this seemingly older state of affairs with respect
to Bantu relative pronouns was not only natural but also predictable. And,
further, that the earlier verb-suffix position of the Bantu relative pro-
noun constitutes added support for my contention (see Givón [1971]) that
at some earlier stage of their history, Bantu languages were S-O-V languages
(rather than the current S-V-O).

Greenberg [1966] has noted that S-O-V languages usually show the
syntactic order MODIFIER-NOUN in their noun phrase. (A natural explanation

antecedent close to its referring pronoun, presumably for some ease in maintaining reference relation. It seems, however, that the attraction principle pertains primarily to subordinating particles, and only incidentally to relative pronouns, when they themselves serve as subordinators. One may perhaps conclude that the attraction principle must have something to do with the perceptual clues by which the boundary between a head noun (in point of fact, head NP) and its modifying clause is signalled.

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(26) haish she-Miryam raata oto etmol

man   that-Mary   saw   him yesterday

'The man who Mary saw yesterday'

One may also cite Bambara, a language which often does not embed a relative clause but rather leaves it conjoined behind the matrix sentence. In this case, an anaphoric pronoun appears in the 'embedded' (conjoined) sentence, but a subordinating particle (min) appears adjacent to the 'head' noun in the matrix sentence:[2]

(27) n ye ce min ye, o ye mbumu san

I past man that see, he past knife buy

'I saw the man who bought the knife'

Finally, in Amharic, currently an S-O-V/REL-N language, it has long been a puzzle why the relative subordinator yä- does not remain at the beginning of the relative clause but rather, if a verb exists in the clause, it migrates to the verb (for detailed discussion, see Hudson [1972]). Amharic does not have a relative pronoun per se, though 'resumptive' ana-phoric pronouns normally occur in relativization. Those are verb-suffixes, arising from an earlier stage when Amharic probably exhibited the Semitic V-S-O syntactic order (for some discussion, see Givón [1971a]). Now, given the universal principle of relative pronoun/subordinator attraction, the position of the Amharic relative subordinator is not only natural but also predicted, since it gets attracted to the position closest to the head noun but still consistent with its morphemic nature as a prefix:

(28) gäbäre tɨnäntɨna yä-säbbärä-t wämbär

farmer yesterday that-broke-it chair

'The chair that a farmer broke yesterday'

Some reasonably natural explanation must surely underlie a principle as seemingly universal as that of pronoun/subordinator attraction. If it were relevant only to relative pronouns, one might be tempted to suggest that the underlying principle has something to do with keeping the

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[2]For the Bambara data I am indebted to Karen Courtenay.

antecedent close to its referring pronoun, presumably for some ease in maintaining reference relation. It seems, however, that the attraction principle pertains primarily to subordinating particles, and only incidentally to relative pronouns, when they themselves serve as subordinators. One may perhaps conclude that the attraction principle must have something to do with the perceptual clues by which the boundary between a head noun (in point of fact, head NP) and its modifying clause is signalled.

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