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ON DEFINITE RESTRICTIVE RELATIVES IN MOORÉ

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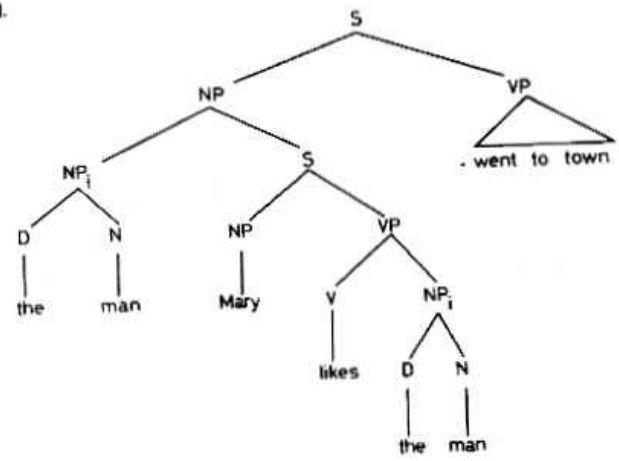
The most widely accepted generative approach to relative clauses is the NP-S analysis where the sentence *the man who Mary likes went to town* is viewed as having the structure in (1) (For simplicity of exposition the AUX nodes have been eliminated from all trees.)

1.



This account assumes that identity in relativization holds between entire NPs, as illustrated in (1) by the circled NP nodes.

There are, however, certain difficulties encountered by this strong form of whole NP coreferentiality, as pointed out in Stockwell, Schachter, and Partee (1972). For example, given the analysis of nominalizations as S exhaustively dominated by NP, there is no way of preventing restrictive relatives on nominalizations, which results in ungrammatical sentences like that in (2).

2. *John's going home early that Joe didn't like upset Mary.

Another problem with this conception of identity is that it predicts false entailments in relatives with non-generic antecedent NPs that contain a quantifier. That is, normally we assume that a sentence with a relative clause entails the sentence underlying the relative clause; for example, *John saw a man who you know* entails *you know a man.* In stipulating identity between NPs, the NP-S analysis wrongly predicts that (3*a*, *c*, *e*) entail (3*b*, *d*, *f*) respectively, since if the antecedent NP of a relative contains a quantifier so must the identical NP in the relative.

3 (*a*) All the boys who left early missed the fun.
(*b*) All the boys left early. (not entailed by (*a*))

(*c*) Every boy who left early missed the fun.
(*d*) Every boy left early. (not entailed by (*c*))

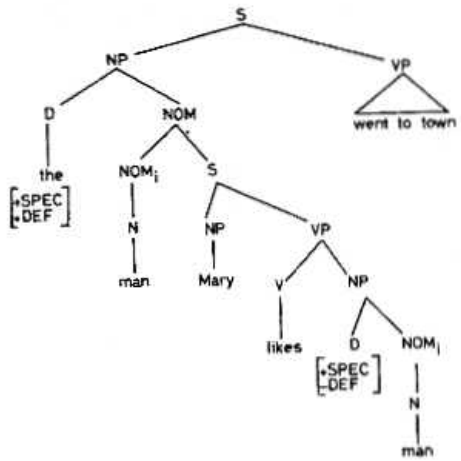
(*e*) No boy who left early missed the fun.
(*f*) No boy left early. (not entailed by (*e*))

Stockwell *et al.* (1972) propose an analysis of relative clauses in which identity is stated between a subpart of NP rather than the entire NP. They identify this subpart as the constituent NOM, as introduced by the expansion rules in (4):

4. NP ⟶ D NOM

   NOM ⟶ { NOM S / Noun } [1]

Given the expansion in (4), the deep structure corresponding to that in (1) is shown in (5)



Identity holds between the circled NOM nodes. Notice that the determiner for the NP, containing the identical NOM in the lower S is specified as a specific-indefinite. The features [± SPECific] and [±DEFinite] are used to define three grades of determiners illustrated in (6):

6(*a*) definite: [+SPEC, +DEF]: *the*

(*b*) specific-indefinite: [+SPEC,—DEF]: *a, a certain, sóme*

(*c*) non-specific-indefinite: [—SPEC,—DEF]: *a*

(6*b*) and (6*c*) distinguish the two senses of the article *a* in sentences like *I'm looking for a house*, where in one sense it is a specific 'house' and in the other it is any 'house'.

Under the NOM-S analysis it is proposed that the determiner for the NP containing the identical NOM in the lower S is always specific-indefinite and that in English the relative transformation, in addition to inserting and moving the WH-word, deletes this determiner. Three arguments advanced in Stockwell *et al.* in favour of this view are presented below.

First, it is the case that relativization of predicate nominals must be blocked, as shown by (7*b*):

7(*a*) That man is a (*certain) doctor.

(*b*) *A doctor that that man is was sued for malpractice.

[1] The recursiveness of NOM corresponds to the recursiveness of NP in the NP-S analysis. This is necessary for the generation of 'stacked' relatives, e.g., *The boy who you know who left town last night* . . . cf. Stockwell et al. for a discussion of this.

Since the determiner for predicate nominals is a non-specific indefinite, as shown by (7*a*), and given an underlying specific indefinite in all relative clauses, (7*b*) will automatically be blocked.

Secondly, the NOM-S approach predicts the proper entailments for relative clauses on non-generic NPs containing quantifiers, as exemplified in (8) where (8*b*, *d*) are entailed by (8*a*, *c*) respectively.

8(*a*) All the boys who left early missed the fun.
(*b*) Some/certain boys left early.
(*c*) None of the people who I know like Harry.
(*d*) I know some person.

Finally, this account of relatives furnishes a plausible picture of proper nouns with determiners. Thus (9*a*) implies (9*b*) but not (9*c*):

9(*a*) I know the Mary Smith who you are talking about.
(*b*) You are talking about a certain Mary Smith.
(*c*) *You are talking about the Mary Smith.

While the above evidence from English in favour of an underlying specific-indefinite determiner in relatives is necessarily indirect, since no trace of such a determiner ever shows up in the surface, Mooré, a Voltaic language spoken in Upper Volta, presents direct evidence to support this view and consequently the NOM-S analysis of relative clauses.

The three grades of determiner illustrated in (6) for English are shown for Mooré in (10):

10(*a*) definite: **wã** 'the, that'
dawa 'man (sg.)' + **wã** = **dawã** 'the man'

(*b*) specific-indefinite: **ninga** 'a certain'
dawa + **ninga** = **daw ninga** 'a certain man'

(*c*) non-specific-indefinite[2]: Ø
dawa = 'a man'

In addition Mooré exhibits the three optional variants for definite restrictive relative clauses shown in (11):[3]

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[2] There is another form for the indefinite determiner: **ayemre** 'a, one'. It may be that both Ø and **ayemre** are ambiguous with respect to specificity, though this needs checking. **ninga** is not ambiguous.

[3] There are actually more variations than this in that the pronoun standing for the relativized noun in (11a, b) may be deleted, e.g. **dawã fo sẽ yã zaamẽ wã . . .**; and also in (11 *a*, *b*) the word **soba** (literally 'possessor') may occur as an object marker when the pronoun is present, e.g. **dawã fo sẽ yã a soba zaamẽ wã . . . .** Also, the final definite determiner **wã** of the relative clause may be deleted. Note that when a subject is relativized the pronoun in the relative clause is permuted to post-verbal position, e.g. **dawã$_i$ sẽ yã a$_i$ fo zaamẽ wã . . .** 'the man who saw you yesterday . . .' (man$_i$ +DEF/ **sẽ** / saw / he$_i$ / you / yesterday/ DEF . . .). Since these other variations have no bearing on the central points made in this paper, I will not deal with them further.

11. 'The man who you saw yesterday went home.'

(*a*) **dawā$_i$ fo sē y ā a$_i$ zaamē w ā kula me.**
mani+DEF / you / sē / saw / him$_i$ yesterday / DEF / went home / me.

(*b*) **daw$_i$ ninga fo sē y ā a$_i$ zaamē w ā kula me.**
man$_i$ / certain / you / sē / saw / him$_i$ / yesterday / DEF / went home / me.

(*c*) **fo sē y ā daw ninga zaamē w ā kula me.**
you / sē / saw / man / certain / yesterday / DEF / went home / me.

In all of the sentences of (11), the complementizer sē marks the relative clause and the definite determiner w ā is the last constituent of the relative. In (11*a*, *b*) the identical noun in the relative has been replaced by the third person singular pronoun a. The facts that are important for our discussion are the following: (*a*) in (11*a*) the antecedent dawa 'man' carries the definite determiner wā; (*b*) in (11*b*) the antecedent carries the specific-indefinite determiner ninga; (*c*) (11*c*) is a 'headless' relative, i.e. there is no antecedent, and the lower identical noun appears in the relative clause in non-anaphoric form with a specific indefinite determiner, which in this case is obligatory. That is, sentences with headless relatives where the lower noun has a definite determiner are ungrammatical, as shown in (12).

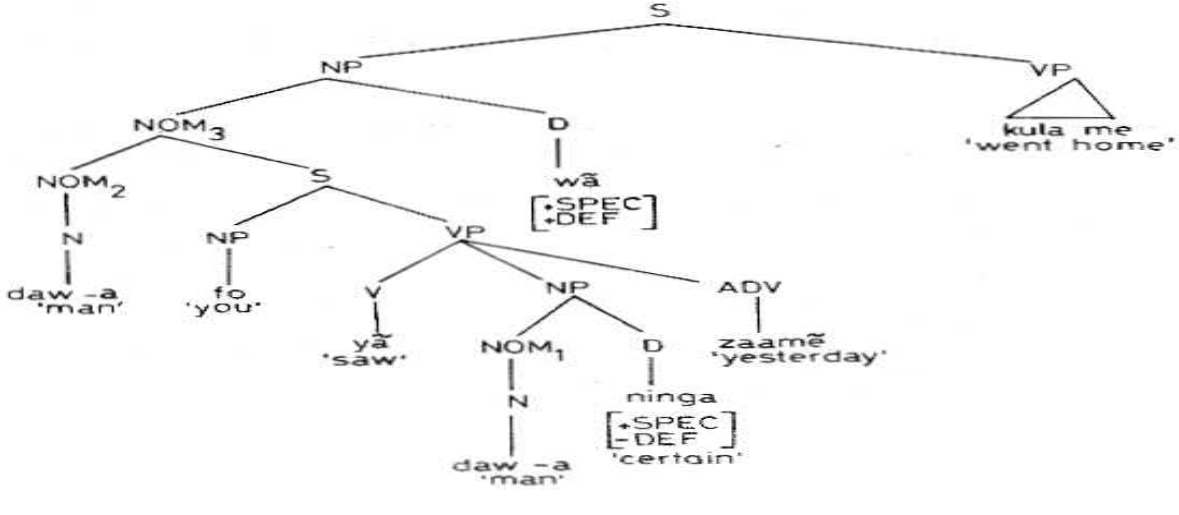
12. ***fo sē yā dawā zaamē wā kula me.**

If we suppose the NP-S analysis for relative clauses, there is no interesting, non-ad hoc way of explaining and relating the divergent forms in (11). On the other hand, the NOM-S analysis provides a natural explanation for these facts.

Let us suppose that the deep structure for all of the Mooré sentences in (11) is that shown in (13). (This structure is somewhat simplified in that AUX nodes have been left out.)

13. Set this with hand.....

13.



The deep structure in (13) will explain the varied facts of Mooré relative clauses in the following way.

First we assume that the complementizer sẽ is either generated in the base structure, following Bresnan (1970), or inserted by a rule which places it in the position between the subject and the predicate of a relative clause.

Next, there is a rule called ANTECEDENT-DELetion. This rule, given in (14), optionally deletes the antecedent NOM of a relative clause when the NP containing the relative has a definite determiner.

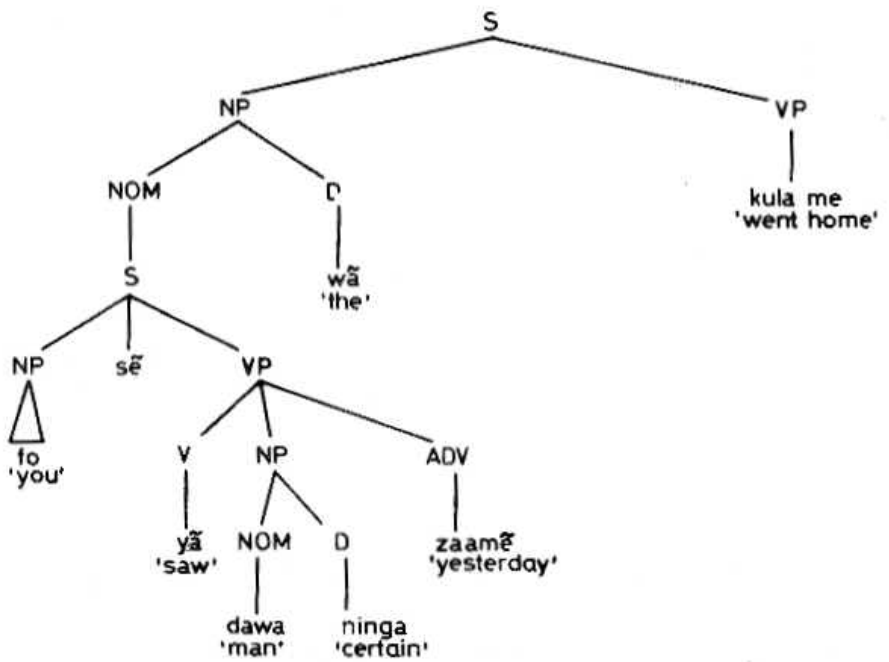
14. ANTECEDENT-DELetion (optional)

W, NOM, [X, NOM, [[+SPEC]] Y]] [+DEF] Z → 1, ∅, 3, 4, 5
S D [-DEF] D S NOM
1 2 3 4 5

condition: 2 = 4

The above rule applies to the structure in (13) to produce headless relatives in sentences like (11*c*), which has the derived structure shown in (15).

15.



The next rule, RELative-PROnominalization, applies obligatorily to pronominalize the identical NOM in the relative clause of a definite NP and to raise the specific-indefinite determiner from the relative clause to the position immediately following the antecedent NOM. This rule operates just in case ANTECEDENT-DEL has not operated and will produce sentences like (11*b*).

16. REL-PRONOM (obligatory)

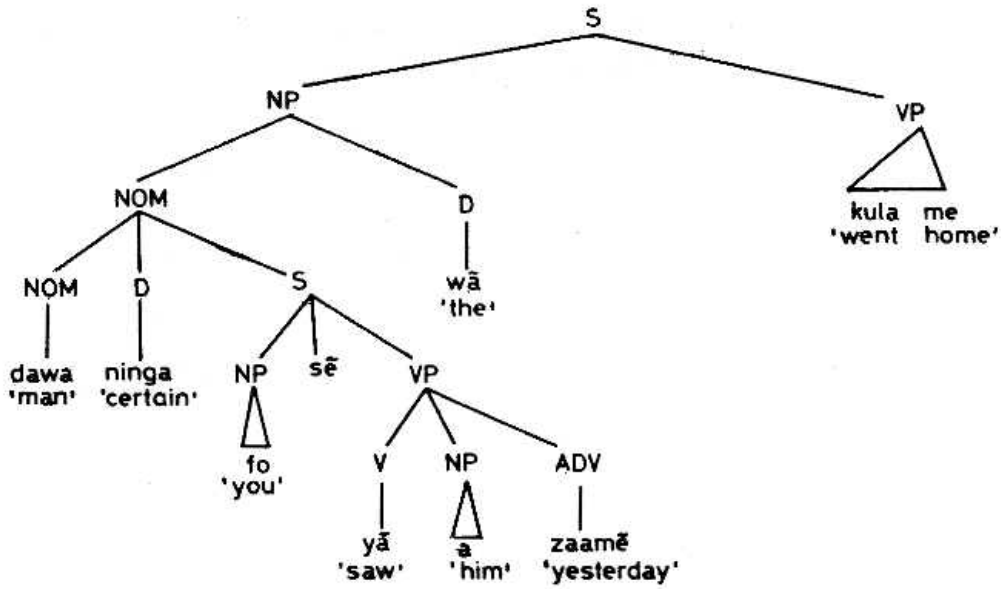
W, NOM, [X [[-PRO]] NOM , [[+SPEC]], Y]] [+DEF] Z
S NOM D [-DEF] D S NOM
1 2 3 4 5 6

⟹ 1, 2, 5, 3, 4 [+PRO] , ø, 6

condition 2 = 4

The derived structure for (11*b*) is shown in (17).

17.



Finally we introduce the rule of DETerminer-REPLACEment, which optionally replaces the specific indefinite-determiner that has been raised by RELative-PRONOMinalization with a copy of the definite determiner that qualifies the entire NP. This rule produces the sentence in (11*a*).

18. DETerminer-REPLACEment (optional)

X, D, S] NOM , D, Y ⟹ 1, 4, 3, 4, 5
1 2 3 4 5

The derived structure for (11*a*) is not given here, since it is essentially the same as that for (11*b*)

All of the above rules apply only to relative clauses contained in definite NPs. Relative clauses in indefinite NPs have only one form, as shown in (19):

19. daw fo sẽ mi kula me. 'A man who you know went home.'
man / you / sẽ / know / went home / me

Note that there is no overt determiner present nor is there any pronoun. Apparently, there is a separate rule for relatives in indefinite NPs which deletes the lower identical NOM and its specific-indefinite determiner. This rule will not be given here.

Finally, the NOM-S analysis for relative clauses receives additional support from Dagbani, a Voltaic language spoken in Northern Ghana. André Wilson in his article 'Relative Constructions in Dagbani' notes certain facts that are similar to those exhibited by Mooré. First, the specific-indefinite determiner appears as the determiner of the antecedent in a definite relative clause; (20*a*) illustrates a noun with a specific-indefinite determiner and (20*b*) a noun with a definite determiner.

20.(*a*) m puhi saan-so. 'I greeted a certain stranger.'
I / greeted / stranger-certain

(*b*) m puhi sana. 'I greeted the stranger.'
I / greeted / stranger-DEF

If the relativized noun in a relative is the subject of its clause, the specific-indefinite on the antecedent is optional as shown in (21):

21.(*a*) sana ŋun sa ka na la tʃaŋya.
stranger-DEF / he / sa / came / yesterday / la / has gone
'The stranger who came yesterday has gone.'

(*b*) saan-so ŋun sa ka na la tʃaŋya.
stranger-certain / he / sa / came / yesterday / la / has gone

If the relativized noun is the object of the relative clause, then the specific-indefinite determiner is obligatory, as shown in (22). (Note that there is no pronominal reflex left in the relative clause. Thus there is no Dagbani equivalent to the Mooré sentence in (11*a*).)

22. { *sana / saan-so } n nə puhi la tʃaŋya.
stranger-certain / I / nə / greeted / la / has gone.
'The stranger who I greeted has gone.'

In addition, in Dagbani objectival relative constructions, there is an optional 'headless' form which corresponds to the Mooré sentence in (11*c*). As in Mooré, the specific-indefinite determiner is obligatory; (23) illustrates the headless relatives in Dagbani.

23. n nə puhi { *sana / saan-so } la tʃaŋya.
I / nə / greeted / stranger-certain / la / has gone
'The stranger I greeted has gone.'

Leaving aside the differences between subjectival and objectival relatives in Dagbani, differences which do not occur in Mooré (but cf. note 3), it is clear that only an analysis like that for Mooré can account for the following two facts: (*a*) the appearance of the specific-indefinite determiner on the antecedent of definite relatives and (*b*) the obligatory appearance of this determiner on the relativized noun of 'headless' relatives. Thus, given a NOM-S deep structure for Dagbani relatives like that in (13), a transformation of ANTECEDENT-DELetion similar to that in (14) will produce sentence (23) and a rule similar to RELative-PRONOMinalization in (16), will produce sentences (21*b*) and (22*a*). The Dagbani counterpart to (16) deletes item 4 rather than pronominalizing it.

In conclusion, we have shown that relative constructions in two Voltaic languages provide strong direct evidence for the NOM-S analysis of relative clauses, which posits that identity relations in relativization hold between a subpart of NP that excludes the determiner and that the determiner of the relativized noun in the lower S is obligatorily specific-indefinite. The evidence that lends support to this hypothesis is the optional replacement of a definite determiner on the antecedent of a relative clause by the specific-indefinite determiner and the obligatory occurrence of this determiner in headless relatives.

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