

Relative Clauses and/or Participials in Malayalam

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1. Structure of relative clauses

1.1. The promotion analysis

Kayne (1994) proposes a uniform base/initial structure for all the world's languages, from which the surface orders are derived by movement. This is in consequence of the Linear Correspondence Axiom (LCA) for linear order (of terminals) and hierarchical structure (of non-terminals) in language.

One consequence of the assumption of Antisymmetry in language is that relative clauses are uniformly CP complements of D:

(1) the [_{CP} [picture]_i] that [_{TP} Bill saw e_i]

In languages like English, the promoted NP moves from within the complement of C out into Spec CP, making the relative clause postnominal. On the other hand, in languages with prenominal relative clauses, which are verb final languages, the structure is:

(2) [_{DP} [_{TP} Bill saw e_i]_j] D [_{CP} [_{NP} picture]_i] C e_j

This is because N cannot come to the final position in the relative clause by moving it in a mirror-like manner compared to the N-initial type of languages. In many of these languages the absence of an overt definite article makes the D null or invisible; however, based on the behaviour of D in Amharic which is an N-final type language with an overt definite article, Kayne proposes that the relative clause itself has to move to Spec DP (stranding the head N in Spec CP), and therefore what moves is not the whole CP but only the TP.

1.2. Alternate analyses

1.2.1. Bhatt (2002)

Bhatt (2002) compares the three most popular generative analyses in the literature, viz., the head external analysis, the matching analysis and the promotion analysis. After extensive discussion

of the various properties of the construction and the repercussions of each analysis, he chooses the structure in (6) below (his (79)), modified from Bianchi's (2000) analysis, as the most plausible one, while concluding that excepting cases of non-trivial pied piping, the promotion analysis seems to be the best theoretical explanation.

(6) [DP the [XP [NP picture] [X' X⁰ [CP [DP which t_{NP}]_i C⁰ [IP Bill liked t_i]]]]]

1.2.2 Ouhalla (2004)

Ouhalla (2004) proposes a different analysis for Amharic and other N-final relatives, because of the similarities with another Semitic language Arabic. Arabic is an N-initial type language with two types of possessive structures, called the *free state* possessive and *construct state* possessive. Ouhalla shows that the structure and properties of relative clauses also closely resemble the two types of possessives. Based on this comparison, and based on the current analyses for the two possessives, he proposes the structures in (3b) and (4b) below for the free state and construct state relatives in (3a) and (4a) respectively:

(3a) l-baTT-a illi ?akalnaa-ha ... (Ouhalla's (1))
 the-duck-FEM the+Agr we.ate-it
 'the duck we ate . . . '

(3b) [DPthe_D-[Nduck]_i [NumPNum [NP[DPthe+agr [TP we ate-it]][N^ce_i]]]]
 (Ouhalla's (18))

(4a) baTT-it illi ?akalnaa-ha ... (Ouhalla's (10))
 duck-FEM the+Agr we.ate-it
 'the duck we ate . . . '

(4b) [DP[N duck]_i [NumP[DPthe+Agr [TPwe.ate-it]] [Num [NP[e]_i]]]]
 (Ouhalla's (17))

The relative clause is thus analysed as a DP with the relative marker, analysed as “the definite article with additional number and gender inflection” (cf. Aoun and Choueiri (1997) *apud* Ouhalla (2004)), as the head, and the initial structure of the relative clause as [D TP] instead of Kayne's [D CP]. In the case of Hebrew, which has the same complementizer in both the constructions, Ouhalla proposes that the Hebrew relative clause is a [C TP] structure, and suggests

that this is a parametric difference within Semitic between languages based on the complementizers. Except for this, the suggested structure for relativization is the same.

For Amharic, which is N-final (see (5a), which is Ouhalla's (19)), he makes the same observation that the relative clause structure and properties resemble that of the possessive, and proposes the structure in (5b) (his (27)):

(5a) lĭj-u yä-gäddälä-w ĭbaab
 boy-the GM-killed-the snake
 'the snake the boy killed'

(5b) [DP D [NumP [DP [TP boy-the GM-killed] the] [Num [NP snake]]]]

Thus the structure of the N-initial Arabic relative clause and N-final Amharic relative clause is the same, a DP that occupies the genitive position Spec Num, and the word order difference is due to the head raising of the N in Arabic to D, which is widely attested in Arabic noun phrases according to Ouhalla.

This analysis also serves to explain why Arabic, even though an N-initial language, displays typological properties typical of N-final languages, viz. the absence of relative pronouns (cf. Downing 1978:392-394, Keenan 1985:149 *apud* Kayne (1994)) and presence of different complementizers in sentential complementation and relative clauses (cf. Keenan 1985:160 *apud* Kayne (1994)). These properties follow from the DP analysis of relative clauses, according to Ouhalla.

2. Malayalam relative clauses

Malayalam, a Dravidian language, also has prenominal or N-final relative clauses like its sister Dravidian languages:

(6) njan vaayicc-a pustakam
 I read.PRF-REL book
 'The book (that) I read'

[Two brief notes on the gloss are in order before we move further: One, I have glossed the verb as having PeRFective aspect instead of PaST tense. Amritavalli and Jayaseelan (2003/2005) argue that there is no Tense projection in Dravidian, which Hany Babu and Madhavan (2003) have

argued against. I am not committed to either position here as it is not crucial to the analysis I propose. Secondly, the verb does have the perfective/past meaning, even though in the relativized examples the morphology does not show up. However this is simply due to a phonological rule that deletes the /u/ vowel (which is the past tense/perfective aspect morpheme) when followed by another vowel /a/ (the relativizer morpheme.) In words with the other past/perfective morpheme ‘-i’ the phonological rule does not apply and the morphology clearly shows up (except for *pooy-i* ‘go-PST’ which becomes *pooy-a*, for unknown reasons): thus *koDutt-u* + *-a* becomes *koDutt-a* but *ett-i* + *-a* becomes *etti-ya*, not *ett-a*. However the verb stem in all cases is clearly in the form it takes in the perfective aspect (as explained in the morphological note in Jayaseelan (2004: fn 2)).]

The morpheme *-a* that has been glossed as REL(ativizer) above is classified in De Vries’ (2002) typology of relative clauses as a relative marker, as opposed to relative pronoun or complementizer. However De Vries does not have any account of what the position or category of *-a* is. Elsewhere (De Vries (2001)) he suggests, in passing, that it is a “temporal affix that can replace T in V”, like in Greenlandic and Korean. However *-a* is not temporal; and it does not replace T. What looks like replacing the Tense morpheme is only the phonological rule mentioned above.

The sentential complementizer in Malayalam is a quotative *ennu* which has been grammaticalized from an earlier Dravidian verb *enr-* ‘say’. Thus, both the typological properties observed for N-final relative clause languages hold for Malayalam. Could this mean the relative clause could be a DP in Malayalam too, as in Amharic (see above)? To extend Ouhalla’s analysis to Malayalam, we have to consider the relativizer-*a* as the head of the relative clause.

2.1. The relativizer *-a*

-a is referred to as a relative marker or relativizer in the literature on Malayalam relative clauses. It has been claimed to have been grammaticalized from a (plural neuter) agreement marker by historical linguists (cf. Andronov (1972, 2003), Krishnamurthy (2003), etc.). Two characteristic features of *-a* are that:

(i) It occurs on the verb in relative clauses (7a), participles (7b) and adjectives (7c), but not in sentential complement structures (7d)

(ii) It cannot stand alone without a nominal following it (8a-b) (cf. Anandan (1985), Jayaseelan (1999), Jayaseelan (2014), Mathew (2005), Menon (2012, 2014), etc.)

- (7a) raamanmeerikku koDutt-a pustakam
Raman Mary-DAT give.PRF-A book
'The book Raman gave to Mary'
- (7b) ooD-unn-a vaNDi
Run-PROG-A vehicle
'running vehicle'
- (7c) puti-ya kuDa
New-Aumbrella
'new umbrella'
- (7d) *[nii vann-a] Raman paRanj-u
2s come.PRF-A Raman say.PRF-PST
'Raman said that you came'
- (8a) njaan kaND-a *(citRam)
1s see.PRF-A picture
'the picture I saw'
- (8b) njaan kaND-a-*(tu)
1s see.PRF-A-3sn
'What I saw' (this is called free relative by Asher and Kumari (1997).)

The property in (ii), exemplified in (8a-b), immediately brings to mind the behaviour of the demonstrative in Malayalam. Malayalam has two demonstratives, the distal *aa* 'that' and the proximal *ii* 'this'. Even though they are free morphemes, they can only occur before nominals, including agreement markers (9a-d). In fact that is exactly how pronouns are formed in Malayalam: by inflecting the demonstratives for gender and number (9c-d) (cf. Jayaseelan 1999).

(9a) aa *(kuTTi)
That child

(9b) ii *(peena)

This pen

(9c) a-(v)an
That-3ms
'He (distal)'

(9d) i-(v)aR
This-3p[+human]
'These (people)'

This seems to be straightforward enough proof for the relativizer-*a* to be considered a nominal (probably D) element.

2.2. Is *-a* the demonstrative?

Anandan (1985) does analyze the relativizer as the distal demonstrative *aa* in his initial analysis. He uses a mechanism of Copying, adapted from Amritavalli (1984) and Battistella (1982), through which the demonstrative comes with an empty feature matrix, and the operation of Copying enables copying the phi features of an overt or covert noun which the demonstrative is modifying. When the noun is covert, the copied phi features show up as agreement markers on the demonstrative. His structure for the relative clause in (10a) is given in (10b), with an empty feature matrix occurring with the Det *aa* for copying phi features:

(10a) *njaan vaayicc-a pustakam*
1s read.PRF-A book

(10b) $[_{NP}[_{S'}[_{S}[_{NP}[_{N}n\text{jaan}]]]_{VP}t_i \text{vaayicc-u}]]_{COMP}[_{NP}[_{DetP}[_{Det'}[_{Det}aa][\]]]_{N'}[_{N} \text{pustakam}_i]]]$

This is now comparable to Kayne's (1994) promotion analysis in (2) above if one makes the necessary adjustments in the derivation (steps 11a-c):

(11a) $[_{DP} aa_D [_{CP} C [_{TP} n\text{jan}_i \text{pustakam}_i \text{vaayicc-u } e_i]]]$

(11b) $[_{DP} aa_D [_{CP} [_{NP} \text{pustakam}_i]_j C [_{TP} n\text{jan } e_j \text{vaayicc-u } e_i]]]$

(11c) $[_{DP} [_{TP} n\text{jan } e_j \text{vaayicc-u } e_i]_k aa_D [_{CP} [_{NP} \text{pustakam}_i]_j C e_k]]]$

However, a problem similar to what Ouhalla (2004) pointed out for Amharic confronts us: in (11c) the D *aa* is not part of the relative clause, which is a TP occupying the Spec DP position of *aa*.

In fact, identifying the relativizer *-a* with the demonstrative *aa* seems to have other problems too. For instance, in some Northern varieties of Malayalam when the demonstrative modifies a noun (phrase), they become a single word, a phonological shortening of *aa* occurs, and the initial consonant of the noun (phrase) is geminated as in (12) below:

- (12) a-kkuTTi
That-child

In these varieties of Malayalam the relativizer does not have the same effect:

- (13) *njaan kaND-a-kkuTTi
1s see.PRF-A-child
'The child I saw'

Thus we have a relative marker that looks and behaves like a demonstrative but is apparently not the same beast. I propose that the relative marker *-a* is a D which has grammaticalized from the distal demonstrative *aa*.

Typological literature shows that this is a common process in languages. Diessel (1999) describes eighteen "channels of grammaticalization" through which demonstratives grammaticalize into third person pronouns, relativizers, complementizers, definite articles, linkers etc. Drawing on the works of Lehmann (1984), Behaghel (1923-32), Paul (1916-20), Lockwood (1968), etc. on Old German, he shows how there are various accounts for the grammaticalization of the demonstrative into a relativizer, in this case a relative pronoun. He quotes examples from Lehmann (1984) which show the same relativizer occurring on attributive adjectives and participial constructions. Moreover the relativizer nominalizes the participial, which looks exactly like the relative clause, with a non-finite verb.

These facts are exactly similar to the facts of Malayalam, and suggests that it is possible for the demonstrative *aa* to have grammaticalized into the relativizer *-a*. It is grammaticalization that has changed its syntactic characteristics and weakened it into a bound morpheme. The feature composition of *-a* (partly retained from the demonstrative *aa*) also requires it to be followed by a full nominal or at least the phi-features of one (cf (7), (8) above).

Thus I assume that *-a* is a D, which can nominalize a participial clause. Though Malayalam does not have a definite article, other secondary evidence for presence of D comes from the diagnostics for DP- vs NP-languages from Boskovic (2008a, 2010). These diagnostics indirectly suggest that Malayalam is a DP language, even though it has no overt definite D.

3. The analysis

Thus I propose that the *-a* in D selects the vP as its complement, forming the participle. Because of its own syntactic makeup (for instance a referential index or feature like that of Baker (2003)), *-a* probes for a nominal to get phi features from. For this it has three options, viz, promotion of an NP from within the vP complement to its specifier (participialization or relativization), or Merge of an external NP (in which case it becomes a noun complement construction), or Merge of a null N with only phi features, which turns up usually as the default 3sn, resulting in nominalization of the participle (the resulting constructions are given in (15a-c)). Further leftward (remnant) movement of D' to some higher Specifier position (for now I will just call it XP like Bianchi (2000) and Bhatt (2002)) gives the final word order. The final structure is as in (15) below. The XP could be NumP as in Ouhalla (2004), Koopman (1999) a.o., however that needs to be worked out separately and is not crucial for the issue at hand.

(14) [XP [D' [TP/vP ...t_i...]] D] [X' [DP NP_i e_D] X]

(15a) *njaan vaayicc-a pustakam*

1s read.PRF-A book

'The book I read'

(15b) *John vann-a vivaram*

John come-A fact/information

'the fact that John came'

(15c) *John vann-a-tu*

John come.PRF-A-3sn

(something like 'that John came', no exact translation possible)

A consequence of such an analysis is to say that Malayalam relative clauses are actually participials. This I think is correct, as suggested by the following adverb test (16) where the speech act adverb 'unfortunately', placed above the root C in (16a), has to obligatorily be inside the vP in (16b):

(16) Context: I did not go to the office today. ...

- (a) niRbhaagyavaSaal enn-e or-aaL anweeSicc-u vann-u
unfortunately 1s-ACC one-person search.PRF-CnjPcpl come.PRF-PST
'Unfortunately a person came looking for me.'
- (b) [niRbhaagyavaSaal enn-e anweeSicc-u vann-a] aaL
unfortunately 1s-ACC search.PRF-CnjPcpl come.PRF-A person
'The person who unfortunately came looking for me.'

In (b) the interpretation cannot be that the situation is unfortunate for the speaker; it is unfortunate for the person who came looking for the speaker. This, I claim, is due to the unavailability of the C projection in the relative clause because it is a participial.

4. Conclusion

I have analyzed Malayalam relative clauses to be DPs with the relativizer as the D head, similar to the analysis for Semitic languages by Ouhalla (2004). This also serves to explain why relative clauses and participials in Malayalam look alike.

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Colophon:

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