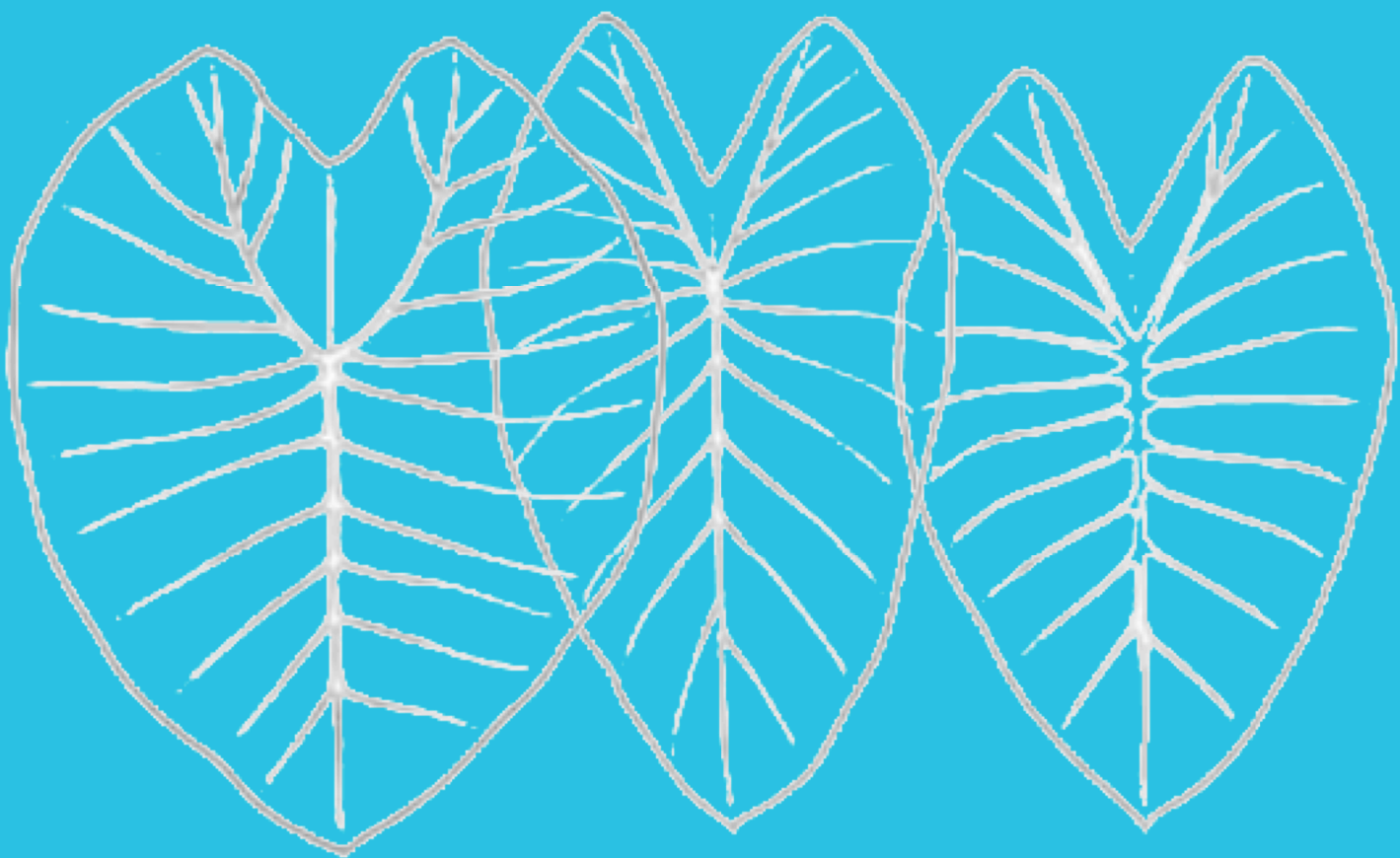
Proceedings of TripleA 5

Fieldwork Perspectives on the Semantics of African, Asian and Austronesian Languages



Ed. by M. Ryan Bochnak, Miriam Butt,
Erlinde Meertens & Mark-Matthias Zymla

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Polar question particle *-aa* in Malabar Malayalam[1]

Sarath Chandran Manthodi, EFL University, Hyderabad
Rahul Balusu, EFL University, Hyderabad

Abstract. This paper provides an account for the properties of the polar question particle *-aa* in Malabar Malayalm, which is, in some crucial aspects, similar to its Hindi counterpart *kyaa*. Using instances of its occurrence in polar and alternative questions, and non-occurrence in *wh*-questions and declarative disjuncts, we discuss the unique manner in which *-aa* attaches only to clausal disjuncts and try to provide a semantic account for this pattern. Data from other major Dravidian languages have also been used for this purpose. We argue that *-aa* qualifies as a polar question particle since it resides in ForceP and has a presuppositional requirement of a singleton-set question as its complement. An additional supporting argument for this claim is that it exhibits all the diagnostic patterns of a root phenomenon. The second claim of the paper, that *-oo* in Malayalam is a polar question operator, is supported by the fact that it occurs only in polar and alternative questions. Like in more standard Hamblin semantics, we take the line that there is a distinction between the question operator that forms polar questions and the question operator that forms *wh*-questions, because the first takes a single proposition for its complement, whereas the second takes a set of propositions.

1 Introduction

The goal of this paper is to investigate the distribution and properties of the question particle *-aa* in a particular dialect of Malayalam, Malabar Malayalam, spoken in the northern regions of Kerala adjacent to Kannada speaking Karnataka, and come up with a syntactic and semantic account that explains its profile. The presence of the question particle *-aa* in Malabar Malayalam, that is otherwise absent in Standard Malayalam which uses *-oo* for this function, provides an interesting window into the polar/alternative vs. *wh*-question dichotomy, and matrix vs. embedded question particle dichotomy based on morpho-syntactic evidence rather than intonation. We also examine differences between polar question particles like *-aa* and question-operator particles like *-oo*, both of which are present in Malabar Malayalam, like in the adjacent Kannada, Tamil, and Telugu.

We find that the question particle *-aa* of Malabar Malayalam is the Polar Question Particle (PQP) à la Bhatt & Dayal (2018) that occurs in the ForceP projection above the CP, and thus is mostly restricted to matrix contexts. It also has a singleton-set restriction on its complement, a presupposition, relegating its occurrence to polar questions only. Alternative questions with *-aa* are essentially disjunctions of polar questions that are clausal disjuncts, and the disjuncts are larger than CP. These do not involve any movement driven by scope. Smaller disjuncts on the surface are never derived by reduction in Malabar Malayalam, but by clefting. All instances of sub-clausal *-aa* are attachments to cleft pivots, diagnosed both by their syntax and semantics. When *-aa* attaches to both disjuncts, seemingly sub-clausally, it has a narrow focus function, which we derive by a cleft pivot focus mechanism, that is a property of clefts, a rampant strategy in general in Malayalam. Finally, *-aa* cannot occur in Split Questions, as it cannot have a sub-clausal derivation.

[1]We would like to thank the audience of TripleA 5, Konstanz, 2018 for comments and discussion.

In section 2 we discuss the distribution and behavior of *-aa* in various constructions, especially the clausal attachment pattern , the syntactic levels at which it occurs and contrast with the standard variant *-oo*. In section 3, we attempt to come up with a syntactic and semantic explanation of the data we have provided in the previous sections using cross-linguistic data and comparison with old Malayalam. In the final section we summarize our findings and provide a broad explanation of the signature properties of the PQP *-aa*.

2 The distribution of *-aa* in Malabar Malayalam

The particle *-aa* in Malabar Malayalam occurs only in polar/alternative questions, not *wh*-questions, and typically in matrix contexts. It should not be confused with the phonologically shortened form of the copula *aanə*, equative-BE, that occurs in clefts or exclamatives, (1).

(1) a. endə goal-aa(nə)?
what goal-EQ
'What a goal!'

b. ravi pustakam-aa(nə) vaayicc-adə
ravi book-EQ read-CLM
'It is a book that Ravi read.'

2.1 *-aa* in matrix contexts

The *-aa* particle occurs in matrix polar and alternative questions in Malabar Malayalam. Polar questions in Malayalam are marked syntactically, with *-aa* in Malabar Malayalam, and *-oo* in Standard Malayalam. In Dravidian languages in general, an overt syntactic cue is needed, unlike in languages like Hindi (and other Indo-Aryan languages like Bangla, Gujarati, Punjabi, etc) where polar questions are indicated prosodically, and only optionally a Q-particle, polar *kyaa*, occurs (Bhatt & Dayal 2018). Rising Declaratives are also absent in Dravidian.

The location of *-aa* in polar questions in Malabar Malayalam is always clause final, except in clefts. Even in clefts we show that it is clause final, here the clause being the copular pivot clause, with or without an overt copula. In alternative questions, it appears clause finally on both clausal disjuncts. Gapping or reduction never happens. Therefore there are no instances of real sub-clausal *-aa*. Information structural effects involving focus are achieved through clefts, and here the *-aa* appears on both pivot clauses of the cleft structure.

2.1.1 *-aa* in Polar Questions

Polar questions in Malabar Malayalam, like in the surrounding Dravidian languages, Kannada, Telugu & Tamil, but not standard Malayalam, surface with the question particle *-aa*, (2), in matrix clauses. Without the particle *-aa*, the polar question is ungrammatical (without any bias), (3).

(2) ravi pustakam vayicc-aa?
Ravi book read-PQP
'Did Ravi read the book?'

(3) *ravi pustakam vayiccu?
Ravi book read
'Intended: Did Ravi read the book?'

Wh-questions do not surface with any question particle (4)-(5):

(4) ravi endə vayiccu?
Ravi what read
'What did Ravi read?'

(5) ravi endaa(nə) vayiccadə ?
Ravi what read
'What is it that Ravi read?'

A sub-clausal positioning of *-aa* is not possible, (6). There can be boolean disjunction within the polar question, (7), and naturally, it takes scope under the question operator. There is no ambiguity in the sentence, and an alternative reading is simply not available.

(6) *ravi pustakam-aa vayiccu?
Ravi book-PQP read
'Did Ravi read the book?'

(7) ravi pustakam-oo patram-oo vayicc-aa?
Ravi book-DISJ paper-DISJ read-PQP
'Did Ravi read the book or the paper?' [Y/N]

The boolean disjunction can also be that of non-finite clauses, (8). How high up can the boolean disjunction go in finite clauses? It cannot go up to the level of two full clauses, TPs (9).

(8) R vayikuga-oo ezhutuga-oo ceyd-aa?
R read-inf-disj write-inf-disj do-PQP
'Did Ravi read or write?' [Y/N]

(9) *nii poy-oo avan vann-oo-y-aa
you went-DISJ he came-DISJ-PQP
'Intended: Did you go or he come?'

It cannot go up to the evidential marker (which is possibly a little lower in the TP domain), (10), though the *-aa* by itself occurs outside the evidential marker, on the verb, (11).

(10) *nii poy-oo avan vann-oo-nn-aa
you went-DISJ he came-DISJ-EVID-PQP
'Int: Apparently, did you go or he come?'

(11) pustakam vaayicc-enn-aa?
book read-EVID-PQP
'Did *pro* apparently read the book?'

It cannot go upto the MoodP either, (12), which is in line with the claim by Jayaseelan (2014) that Coord(ination)P and MoodP compete for the same slot in the C-domain of Dravidian.

(12) *nii poy-um-oo (all-engil) avan vann-um-oo -aairukyum-aa
you go-FUT-DISJ not-if he come-FUT-DISJ -might-PQP
'Intended: Might, you go or else he come?'

Malayalam derives all these disjunctions using the clefting strategy (not illustrated here).

2.1.2 *-aa* in Alternative Questions

In alternative questions *-aa* occurs on both juncts, (13)-(14). The contrastive connective, *all-engil* 'not-if' occurs optionally in disjunctions, in XOR-YOR(-ZOR...) tuple structures, similar to other contrastive connectives cross-linguistically (Szabolcsi 2018).

(13) nii pooy-aa avan vann-aa?
you went-PQP he came-PQP
'Did you go or did he come?'

(14) nii pooy-aa all-engil avan vann-aa?
you went-PQP not-if he came-PQP
'Did you go or else did he come?'

Interestingly, finite clauses can be disjoined, (15), but not conjoined, as declaratives, (18). Though, even in the disjunction, the disjunction marker *-oo* does not surface (16), possibly because

the clause final *-oo* is confused for the question particle *-oo* which also occurs clause finally [2]. The only way for *-oo* to surface in these disjunctions is to coordinate non-finite clauses, (17). The only way to conjoin these clauses is also by coordinating them as non-finite forms, (19).

(15) nii poyi all-engil avan vannu
you went not-if he came
'You went or else he came.'

(16) *nii poy-oo all-engil avan vann-oo
you went-DISJ not-if he came-DISJ
'Intended: You went or else he came.'

(17) nii pook-uka-oo avan var-uka-oo cey-tu
you went-inf-disj he came-inf-disj do-past
'You went or he came.'

(18) *nii pooy-um avan vann-um
you went-conj he came-conj
'Int: You went and he came.'

(19) nii pook-uka-um avan var-uka-um cey-tu
you went-INF-CONJ he came-INF-CONJ do-PAST
'You went and he came.'

The same is true of polar alternative questions (i.e. alternative questions with positive and negative versions of the proposition), each alternative surfaces with an *-aa*, (20)- (21).

(20) avan vaayicc-aa (all-engil) vaayicc-illa(y)-aa?
He read-PQP not-if read-not-PQP
'Did he read or (else) not read?'

(21) avan vaayicc-aa illa(y)-aa?
He read-PQP not-PQP
'Did he read or not?'

So far we have seen only full clauses as juncts in alternative questions. Is it possible to have either or both parts of the alternative question as sub-clausal juncts? This is possible in both Hindi with *kyaa* (Bhatt & Dayal 2018) and in Telugu with *-aa* (Balusu 2018). It turns out sub-clausal juncts are just not possible in alternative questions in Malabar (or Standard) Malayalam, (22)-(23).

(22) *ravi kaapi-aa caay-aa kuDiccu?
Ravi coffee-PQP tea-PQP drank
'Intended: Did Ravi drink coffee or tea?'

(23) *ravi kaapi kuDicc-aa caay-aa?
Ravi coffee drank-PQP tea-PQP
'Did Ravi drink coffee or tea?'

But what Malayalam does allow is verbal disjuncts, (24)-(25). We treat them as involving gapping (24), or across-the-board extraction, (25).

(24) ravi kaapii kuDicc-aa kalaŋ-aa?
Ravi coffee drank-PQP throw-PQP
'Did Ravi drink coffee or throw it?'

(25) aa maaŋa ravi kaDicc-aa kalaŋ-aa?
that mango Ravi bite-PQP throw-PQP
'Did Ravi bite that mango or throw it?'

2.1.3 *-aa* in Cleft Structures

A case where *-aa* disjuncts seem to appear sub-clausally on the surface involves clefting, (26). But these are also, in fact, clausal disjuncts, with *-aa* suffixed to the null copula, (27), of the pivot clause in a biclausal cleft structure, with pivot and cleft clauses (Jayaseelan & Amritavalli 2005).

[2] Jayaseelan (2014) notes that both conjunction and disjunction of finite clauses are bad in Malayalam.

(26) R coffee-aa tea-aa kuDicc-adə?
R coffee-PQP tea-PQP drank-CLM
'Is it coffee or tea that Ravi drank?

(27) R C aan-aa T aan-aa kuDicc-adə?
R C EQ-PQP T EQ-PQP drank-CLM
'Is it coffee or tea that Ravi drank?'

As seen in (27), the PQP attaches to the copula *aanə*, in line with the clausal attachment hypothesis. Of course, this is also possible in polar cleft questions, (28)-(31). It is also possible to have disjunction in the cleft pivot, (32)-(33).

(28) ravi coffee-aa kuDicc-adə?
Ravi coffee-PQP drank-CLM
'Is it coffee that Ravi drank?

(29) ravi coffee aan-aa kuDicc-adə?
Ravi coffee EQ-PQP drank-CLM
'Is it coffee that Ravi drank?

(30) ravi coffee kuDicc-ad-aan-aa?
Ravi coffee drank-CLM-EQ-PQP
'Is it drinking coffee that Ravi did?

(31) ravi coffee kuDicc-ad-aa?
Ravi coffee drank-CLM-PQP
'Is it drinking coffee that Ravi did?

(32) R C-oo T-oo aan-aa kuDicc-adə?
R C-DISJ C-DISJ EQ-PQP drank-CLM
'Is it Coffee or Tea that Ravi drank? [Y/N]

(33) R C-oo T-oo kuDicc-ad-aa?
R C-DISJ T-DISJ drank-CLM-PQP
'Is it drinking C or T that R did? [Y/N]

The cleft constructions are how information structural effects are achieved in Malayalam polar and alternative questions, as the above examples demonstrate. Thus, the sub-clausal placement strategy that Hindi (Bhatt & Dayal 2018) and Telugu (Balusu 2018) adopt to deliver information structural effects of focus and topic, is replaced in Malayalam by clefting, to deliver the same information structural effects of focus and topic, and the sub-clausal strategy remains unavailable.

2.2 *-aa* in Embedded contexts

In embedded contexts, the preferred question particle is actually *-oo*. It surfaces in both polar and alternative questions, (34)-(35).

(34) avan vaayicc-oo ((all-engil) vaayicc-illa(y)-oo) ennə ñaan coodiccu
He read-DISJ not-if read-not-DISJ QC I asked
'I asked if he read (or (else) did not read).'

(35) nii pooy-oo all-engil avan vann-oo ennə ñaan coodiccu
you went-DISJ not-if he came-DISJ QC I asked
'I asked whether you went or he came.'

Embedded *wh*-questions do not surface with the particle -oo, or any particle at all, (36)-(37).

(36) ravi endə vaayicc-nnə coodiccu
Ravi what read-QC asked
'(I) asked what Ravi read.'

(37) *ravi endə vaayicc-oo-nnə coodiccu
Ravi what read-DISJ-QC asked
'Intended: (I) asked what Ravi read.'

In embedded contexts *-aa* is not acceptable under plain responsive, i.e. veridical predicates, (38), marginal with negated responsive, i.e. under non-veridical predicates, (39), and acceptable though less preferred to *-oo* under rogative predicates, (40)-(41).

(38) *avan kazhich-aa-nnə ariyam
He ate-PQP-QC know
'Intended: (I) know if he ate.'

(39) ??avan kazhich-aa-nnə enikkə ariy-illa
He ate-PQP-QC I-DAT know-not
'I don't know if he ate.'

(40) ?avan kazhich-aa ennə ñaan codiccu
He ate-PQP QC I asked
'I asked if he ate.'

(41) avan kazhich-aa ennə codikkə
He ate-PQP QC ask-IMP
'Ask if he ate!'

2.3 Malabar Malayalam vs. Standard Malayalam in questions

Matrix polar, (42), and alternatives questions, (43), surface with the particle *-oo* instead of *-aa* in Standard Malayalam. The particle *-aa* never shows up in Standard Malayalam, neither in matrix contexts nor in embedded contexts.

(42) ravi pustakam vayic-oo?
Ravi book read-DISJ
'Did Ravi read the book?'

(43) avan vaayicc-oo oraŋi-oo?
He read-DISJ slept-DISJ
'Did he read or sleep?'

So, in Standarad Malayalam, all polar and alternative questions, whether in matrix or embedded contexts are marked with *-oo*, and never with *-aa*. *Wh*-questions are completely unmarked, be it in matrix or embedded contexts.

2.4 Correlatives, Indefinites and Declarative Disjunctions

2.4.1 Correlatives

Correlative constructions in Malabar Malayalam do not permit the use of *-aa* at the clausal level, even though the correlative clause has a clause final particle. Instead, *-oo* is the particle that attaches clause finally, like in Standard Malayalam, and demonstratives *adə* and *eedə* are used to indicate coreference, (44).

(44) ravi eedə$_i$ pustakam vaayicc-oo adə$_i$ enikkə iStamayi
Ravi which book read-DISJ that I-DAT liked
'I liked the book that Ravi read .'
(Lit. 'Which book Ravi read, that I liked.')

2.4.2 Indefinites

Indefinites also follow the pattern of correlatives in using *-oo* instead of *-aa* to indicate epistemic ignorance, as shown in (45).

2.4.3 Declarative Disjunctions

Disjunctions in simple declaratives are also indicated by *-oo*, (46). The morpheme *-aa* is never used as a declarative disjunction, contra the claim of Jayaseelan (2014) for Malayalam dialects.

(45) aar-oo ennə talli
who-DISJ me hit
'Someone hit me.'

(46) ravi padikkuv-oo uraŋuv-oo cheyyuka-aanə
Ravi studying-DISJ sleeping-DISJ doing
'Ravi is studying or sleeping.'

2.5 Polar Question Particle signature of *-aa*

As we saw in all the above subsections, the particle *-aa* in Malabar Malayalam is restricted to polar and alternative questions. Sub-clausal attachment of *-aa* is not possible, unlike say polar *kyaa* in Hindi. The particle *-aa* also displays selectiveness in embedding, or quasi-subordination (Dayal & Grimshaw 2009). A summary of all the findings is given in (47). The particle *-aa*, unlike *-oo*, has only one life –a Q-particle, in Malabar Malayalam. This is also the same in Kannada, Telugu, and Tamil. It shows up only in polar questions and alternative questions in matrix contexts, and displays selectiveness in embedding in embedded contexts.

(47)

	Malabar Malayalam	**Standard Malayalam**
Matrix		
Polar questionss	-aa	-oo
Alternative questions	-aa	-oo
Wh-questions	—	—
Embedded		
Polar questions	-oo (*/??/?-aa)	-oo
Alternative questions	-oo (*/??/?-aa)	-oo
Wh-questions	—	—
Indefinites	-oo	-oo
Boolean Disjunction	-oo	-oo
Correlative	-oo	-oo

3 Analysis

3.1 An earlier account of *-aa*

Amritavalli (2013) analyses the *-aa* in Dravidian as a question operator in the matrix clause, (48), and proposes that *-aa* is covert in *wh*-questions, (49), using examples from Kannada.

(48) makkaLu ba-nd-ar-aa KANNADA
children come-pst-3pl-Q
'Did the children come?'

(49) yeSTu jana sattaru ~~aa~~
how-many people die.pst.3pl Q
'How many people died?'

Similarly, Amritavalli (2013) proposes that the *-aa* in embedded *wh*-clauses in Kannada is a covert interrogative complementizer that co-coccurs with the quotative complementizer *anta*, (50),

and that the *-aa* in embedded polar questions in Kannada is an overt interrogative complementizer that co-coccurs with the quotative complementizer, (51).

(50) [[idanna yaaru baredaru]-~~aa~~ anta] keeLide/kaNDu.hiDide KANNADA
this-ACC who wrote Q QC asked/discovered
'(I) asked/discovered who wrote this.'

(51) tande [[makkalu ba-nd-ar-aa] anta] keeLidaru KANNADA
father children come.pst.3pl-Q QC asked
'The father asked if the children had come.'

Since *aa-anta* complements may be ambiguous between a matrix and an embedded question reading, (52), and since the particle *-aa* need not always scope under *anta*, as we see in matrix clauses, Amritavalli (2013) infers that *-aa* can occur either as an interrogative complementizer in the embedded clause or as a question operator in the matrix clause.

(52) BBC [[[yeSTu jana sattaru]$_{IP}$ ~~aa~~]$_{Q}$ anta]$_{CP}$ heeLitu . / ? KANNADA
BBC how-many people die.pst.3pl Q QC said
(i) . = 'The BBC said how many people died.'
(ii) ? = 'How many people did the BBC said died?'

3.2 Our analysis of *-aa* in Malabar Malayalam

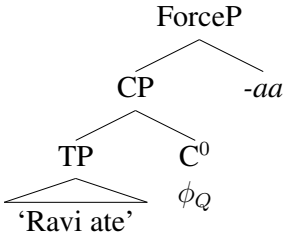
For the analysis of *-aa* as a question operator to go through, Amritavalli (2013) needs to posit a covert *-aa* in matrix *wh*-questions, and to analyse it as an interrogative complementizer in embedded contexts, again a covert *-aa* in embedded *wh*-questions. Transposing this analysis into Malabar Malayalam will again need a number of covert *-aa* morphemes to make the question operator analysis viable. This account will also not be able to account for the selective embedding of *-aa* under rogative vs. responsive predicates that we find in Malabar Malayalam.

As shown in the previous section, what we find is that the *-aa* of the Malabar dialect parallels the distribution of polar *kyaa* in Hindi, as explicated in Bhatt & Dayal (2018) in some crucial respects –first and foremost, it is necessarily limited to polar and alternative questions, never seen in *wh*-questions. Second, it shows selectivity in embedding, i.e, it is perfectly fine in rogative-imperatives, and ungrammatical under veridical-responsive predicates. This portends an analysis of the syntax and semantics of *-aa* along the lines of Bhatt & Dayal (2018), that can explain these properties –a morpheme residing higher up in the clausal spine than the question operator, to explain its matrix prediliction; and a morpheme that comes with a presupposition of a singleton propositional set complement, to explain its polar question restriction.

3.2.1 *-aa* in polar questions

As far as the matrix vs. embedded contrast in the distribution of *-aa* is concerned, it shows the hallmark properties of a root phenomenon. Therefore it should be located on the clausal spine above normal embedded height. It should also be above the location where the interrogative vs. declarative split is determined, since it does not occur in declarative clauses. Following Bhatt & Dayal (2018) we take this position to be minimally the ForceP above C[+Q], as shown in (53).

(53)



Next, how do we explain the selectivity in embedding of *-aa*, its appearance in quasi-subordinated embedded polar questions, but not otherwise? This is a larger pattern than just Malabar Malayalam *-aa*, or Telugu/Kannada/Tamil *-aa*, or even Hindi *kyaa* (Bhatt & Dayal 2018). It is also seen in embedded inversion in English (McCloskey 2006). Following these authors we analyse quasi-subordinated embedded polar questions as involving an extra CP layer, the ForceP layer, as shown in (54). Thus, those subordinations that involve a ForceP like rogative predicates and non-veridical responsive predicates allow for *-aa* to be embedded under them, but those predicates that only take upto the interrogative-C layer like veridical-responsive predicates do not allow *-aa* to be embedded under them, as we saw in the previous section on the patterning of *-aa* in Malabar Malayalam.

(54) a. rogatives and non-veridical responsive: $[_{ForceP}\ [_{CP}\ \text{C}^0_{+Q}\ [_{TP}\ ]]]$
b. veridical responsives: $[_{CP}\ \text{C}^0_{+Q}\ [_{TP}\ ]]$

Finally, how do we explain the restriction of *-aa* to only polar and alternative questions, and its non-occurrence in *wh*-questions? This is the trademark distribution of polar question particles according to Bhatt & Dayal (2018), who propose all such particles to encode a presupposition of a singleton-set denoting complement. We thus follow them in proposing a similar presupposition for the Malabar Malayalam *-aa* as shown in (55).

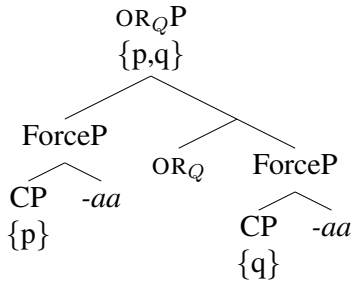
(55) $[\![-aa]\!] = \lambda Q_{\langle st,t\rangle} : \exists p \in Q[\forall q \in Q \rightarrow q = p].Q$

Going by this lexical entry, since it takes a set of propositions, it cannot combine with declaratives. But since the set of propositions it takes is the singleton set, it cannot combine with *wh*-questions. Thus *-aa*'s distribution is restricted to polar questions. Then going by this denotation, when it occurs in alternative questions, it should also compose with only a singleton-set. This is the property we will turn to next.

3.2.2 *-aa* in alternative questions

The data in the previous section has laid out that in alternative questions in Malabar Malayalam, *-aa* must occur on each junct (unlike in Hindi which allows a single *kyaa* in an alternative question). This makes it clear that each *-aa* in an alternative question is composing with a polar question, and together all the polar questions are disjoined to form an alternative question. This is also, surface single *kyaa* appearance disregarding, the analysis proposed by Bhatt & Dayal (2018) for alternative questions in Hindi. The polar questions suffixed with *-aa* are disjoined by an interrogative disjunction operator (optionally spelt out as *all-engil*), as shown in (56), and it has the semantics shown in (57).

(56)



(57) $[\![\text{OR}_{\text{Q}}]\!] = \lambda Q_{\langle st,t\rangle} \lambda Q'_{\langle st,t\rangle} . Q \cup Q'$

Interestingly, we saw in (15)-(19) that finite declarative clauses cannot be disjoined by the boolean disjunctive particle *-oo*. They have to be coordinated only as non-finite clauses. The reason for this, following Jayaseelan (2014), is that declarative disjunction (OR_{BOOL}P) and MoodP compete for the same slot in the TP domain. But we have seen from the data that polar juncts can be disjoined (to form alternative questions), and the above tree is a representation of it. Thus, interrogative disjunction of finite clauses, which happens above CP, is fine in Malabar (and Standard) Malayalam, whereas the boolean disjunction of finite clauses, which needs to happen in TP, is ruled out because the finiteness projection and the coordination projection are competing for the same slot. Thus in Malayalam (and other Dravidian languages), we see the opposite pattern of what is normally observed in the literature –disjunction of interrogative finite clauses is allowed but disjunction of declarative finite clauses is disallowed.

We also saw that deletion in the second disjunct is fine when it is verb stranding (24)-(25), but not fine when it is not, (22)-(23). This is another constraint in alternative questions in Malabar Malayalam, that is not found in Telugu or Hindi, where there can be one (seemingly) small disjunct on the surface, but the other one is a surface apparent large disjunct. So the elision in (58) is fine in Malabar Malayalam, whereas the elision in (59) is not good. However, a similar structure in Telugu is fine, (60).

(58) [ravi kaapii kuDicc-aa] [~~ravi kaapii~~ kalaŋ-aa]?
Ravi coffee drank-PQP throw-PQP
'Did Ravi drink the coffee or throw it?'

(59) *[ravi kaapi kuDicc-aa] (all-engil) [~~ravi~~ caay ~~kuDiccaa~~ -aa]
Ravi coffee drank-PQP if-not tea -PQP
'Intended: Did Ravi drink coffee or tea?' [Alt]

(60) [ravi coffee taageeD-aa] (leedaa) [~~ravi~~ tea ~~taageeD~~ -aa] TELUGU
Ravi coffee drank-PQP if-not tea -PQP
'Did Ravi drink coffee or tea?' [Alt]

Thus in Malabar Malayalam tupling with *-aa* (disjuncts of size ForceP) unambiguously leads to alternative questions. The only way to get a polar question interpretation is to have small disjuncts with the boolean disjunctive particle *-oo*, and this does not have an alternative question interpretation. Why doesn't the low occurring boolean disjunction operator get to scope over the question operator that *-aa* signals higher up in the clause, therefore delivering an alternative question interpretation? This is the puzzle we take up in the next subsection.

3.2.3 Scope of *-aa* and boolean disjunction in questions

Why cannot a sentence like (61a) have an alternative question interpretation where the disjunction indicated by the *-oo* is scoping over the question operator indicated by the *-aa*, as shown in (61b)?

(61) a. #ravi kaapi-oo caay-oo kuDicc-aa?
Ravi coffee-DISJ tea-DISJ drank-PQP
'Intended: Did Ravi drink coffee or Did Ravi drink tea?'

b. OR_{BOOL} > -aa > CP[+Q]

If boolean disjunction takes scope over *-aa* (and the question operator below it), the problem is the type-mismatch between what *-aa* delivers and what boolean disjunction expects, as shown in (62). Thus, an alternative question interpretation is not possible for a sentence like (61a).

(62) a. $[\![$coffee or tea$]\!]$ = $\lambda \text{P}_{\langle e,t \rangle}$. P(coffee) $\vee$ P(tea)

b. $[\![-aa]\!] = \lambda Q_{\langle st,t \rangle}.Q$

3.2.4 Information structural effects of *-aa* in cleft questions

Both in Hindi (Bhatt & Dayal 2018) and Telugu (Balusu 2018), sub-clausal or clause-medial positioning of the PQP has information structural effects, with the material to the left of *kyaa* as being not-at-issue or given and the material to the right of *kyaa* as being not specified for this, in Hindi, and the sub-clausal material that *-aa* attaches to in Telugu as being at-issue, and the rest of the material as being not-at-issue.

In Malabar Malayalam (and Standard Malayalam) sub-clausal *-aa* is not possible, as we saw in the last section. The particle *-aa* has to be clause final or verb final. To achieve information structural effects of not-at-issue and at-issue in polar and alternative questions, the strategy employed is that of clefts, discussed in §2.1.3. The cleft pivot, which is marked with *-aa*, is at-issue, and the rest of the cleft clause is not-at-issue. This information structural partition falls out naturally from the syntax-semantics of clefts, as is widely discussed in the literature, which we will not go into here. The partitioning can be tested with favored continuations in gapping (63), and Y/N congruence (64), as discussed in Bhatt & Dayal (2018):

(63) a. ravi coffee-aa kuDicc-adə?
Ravi coffee-PQP drank-CLM
'Is it coffee that Ravi drank?...

b. Tea-aa? 'or Tea?'

c. #Uma-aa ? 'or Uma'

(64) a. ravi coffee-aa kuDicc-adə?
Ravi coffee-PQP drank-CLM
'Is it coffee that Ravi drank?

b. alla, Tea-aa(nə) 'No, it was Tea.'

c. # alla, Uma-aa(nə) 'No, it was Uma.'

3.3 An earlier account of Malayalam *-oo*

Jayaseelan (2001) proposes that all Malayalam questions—both polar questions and *wh*-questions—are marked by a clause final *-oo*, and that there is a superficial deletion rule in Malayalam that deletes an underlying *-oo* in *wh*-questions, as shown in (65)-(66).

(65) aarə wannu-~~oo~~?
who came-DISJ
'Who came?'

(66) avan [aarə wannu-~~oo~~ ennə] parañña/coodiccu
he who came-DISJ QC said/asked
'He said/asked who came.'

Jayaseelan (2001, 2012) then makes the theoretical claim that the question operator is the disjunction operator universally (C[+Q] = disjunction operator). In Malayalam the question particle *-oo* is a realization of the question operator, C[+Q]. Therefore the homophony of Q-particle and disjunction marker *-oo* is not accidental in Malayalam, and this also explains why the question operator (always abstract in English), is realized as the disjunction marker *-ka* in Japanese. This analysis is therefore an attempt at a unifying analysis, both within the language, and also cross-linguistically with patterns seen in languages like Japanese and Sinhala, as shown in (71).

3.4 Our analysis of *-oo* in Standard and Malabar Malayalam

What is the syntax and semantics of the particle *-oo* seen in polar and alternative questions in matrix and embedded contexts in Standard Malayalam and in embedded contexts in Malabar Malayalam? It cannot be the interrogative complementizer (C_{Int}) for four reasons. First, it occurs in matrix contexts in Standard Malayalam. Second, it doesn't occur with *wh*-questions, either in matrix or embedded contexts in Standard or Malabar Malayalam. Third, this *-oo* co-occurs with another complementizer, the quotative complementizer, in both Standard and Malabar Malayalam, and in fact always needs this complementizer in embedded contexts, (67). Fourth, it occurs on both alternatives, (68), instead of occurring once subordinating the entire embedded clause if it were a complementizer. For the same reasons it is not the clause-typing particle of Cheng (1997) either.

(67) ravi pustakam vaayicc-oo *(ennə) ñaan coodiccu (=34)
Ravi book read-DISJ QC I asked
'I asked if Ravi read the book'

(68) nii pooy-oo all-engil avan vann-oo *(ennə) ñaan coodiccu (=35)
you went-PQP not-if he came-PQP QC I asked
'I asked whether you went or he came.'

We propose that this *-oo* is a realization of the question operator, C[+Q], but unlike Jayaseelan (2001), we restrict its occurrence to polar/alternative contexts, those that it actually surfaces in, because it has a singleton-set complement requirement, a presupposition. Thus, in a sense, it is the CP equivalent of the ForceP *kya:*/*-aa* that also have a singleton-set presupposition. We encode its meaning as shown in (69). This is in line with what a standard compositional approach to questions requires in a Hamblin semantics, that the question operator for polar questions and *wh*-questions to be different. Thus the polar question operator contrasts with the multi-member set forming question operator that occurs with *wh*-questions.

(69) $[\![[_{-oo}\ \alpha_{\langle st \rangle}]]\!] = \lambda w.A(w)$ where $[\![\alpha]\!] = \{A\}$
defined only if
$\exists p \in \alpha[\forall q \in \alpha \rightarrow q = p]$

Our analysis thus departs from the unificatory attempt of all occurrences of *-oo* of Jayaseelan (2001) for Standard Malayalam. Besides the theoretical gain of unification, the empirical evidence that Jayaseelan (2001) advances for the presence of *-oo* in *wh*-questions is the data from old Malayalam. But on closer examination, we find that these *wh-* contexts are actually non-intrusive contexts, as shown in (70), like those seen in Telugu and Kannada, that Balusu (2018) discusses. In non-intrusive questions, like canonical questions, the speaker raises an issue and thereby signals that (s)he wishes to have it resolved. But unlike canonical questions, the speaker signals that (s)he does not wish to put the addressee on the spot for providing the answer. So the addressee can comply without volunteering the answer, either because (s)he does not have it or because (s)he does not wish or is not willing to provide it. Thus there a form of 'softened' questions. There is no clear evidence for a direct *wh*-question with an *-oo* particle even in old Malayalam.

(70) a. aarə wannu-(w)oo aa-(w)oo?
who came-DISJ PARTICLE-DISJ
'(I wonder/I ask you) who came?'

b. maharSi nintiruwaDi entu-nimittam-aakil-oo iwiDam nookki ezhunaLLi?
great-sage (hon.title) what-reason-be-DISJ this-place seeing came(hon.)
'For what reason is it that the great sage has been pleased to come to this place?'

Across languages, the same particle does appear in *wh*-questions and polar/alternative questions, in languages like Japanese and Sinhala, as shown in (71), from Slade (2011). But we also find that there is a *wh*-question and polar/alternative-question particle split in Tlingit. Thus this adds further evidence to the analysis we are advancing here that the *-oo* in Malayalam is a polar/alternative-question operator. As for the unification of *-oo* in its various manifestations in Malayalam, we observe that even here, whether it occurs in disjunction, or indefinites, or correlatives, it always composes with a singleton-set, an existential or a referent. We set aside a detailed and compositional semantic unification of these occurrences for now.

(71)

	Japanese	Stan.Mal.	Mal.Mal.	Tlingit	Sinhala
Matrix Polar/Alternative Qs	ka	oo	aa	gé	de
Embedded Polar/Alternative Qs	ka	oo	oo	gé	de
Wh-questions	ka			sá	de

3.4.1 Scope of *wh*-phrases with *-oo*

Our semantics of the question operator *-oo* would prevent *wh*-phrases from occurring with it, because they would violate its singleton-set denoting requirement. But there are sentences where a *wh*-phrase occurs in a clause with the question operator *-oo*, as shown in (72), though Malayalam would actually prefer the cleft construction, (73), as observed in Jayaseelan (2001).

(72) john [aar pooy-oo enn] coodiccu?
John who went-disj QC asked
(i) 'Who did John ask whether (he) went?'
(ii) *'John asked who went.'

(73) John [aar pooy-oo enn] aanə coodiccadə?
John who went-disj QC EQ asked-CLM
'It is whether who went that John asked?'

In (72), if *-oo* is a question operator without a singleton-set requirement, it should be able to deliver the embedded *wh*-question interpretation as in (72)ii. But this is ungrammatical. The *wh*-word has to be interpreted outside the scope of the embedded *-oo*, in the scope of the silent matrix question operator, which does not have a singleton-set requirement, delivering the reading in (72)i. The same is again true of an unconditional as in (74), taken from Jayaseelan (2001), where the *-oo*'s singleton-set requirement prevents the *wh*-word from being interpreted in its scope, and instead it is interpreted upstairs under the unconditional *-um*.

(74) aar wannu-(w)oo enn coodicc-aal-um, awar maRupaDi paRay-illa
who came-disj C ask-if-conj they reply say-neg
'No matter for which x, (you) ask if x has come, they will not reply.'

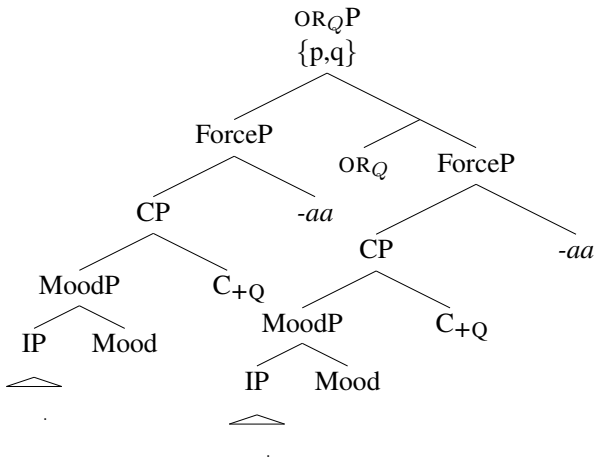
4 Conclusion

Malabar Malayalam *-aa* has two of the three signature properties for a PQP that Bhatt & Dayal (2018) discuss –restriction to polar/alternative questions, and selectiveness in appearing inside embedded polar/alternative questions. The property it does not possess is sub-clausal or flexible syntactic positioning, it always occurs clause finally. We analyse the lack of this property as a result of the predominance of the clefting strategy in Malayalam in general for forming questions and in particular for focusing sub-clausal constituents. It is thus well-suited for being identified as another PQP cross-linguistically, that resides in ForceP and has a presuppositional requirement of a singleton-set question as complement. In the larger South Asian linguistic picture, we surmise that the Dravidian languages in relative contact with the Indo-Aryan languages developed the PQP *-aa*, and that this PQP seeped further south into Malabar Malayalam with its close proximity to Kannada and Tamil. Thus we find a PQP in the furthest south of the Indian peninsula.

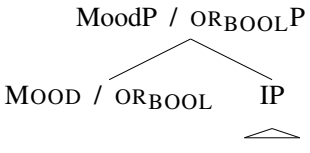
The second major claim of our paper is that the particle *-oo* in Malayalam, both Standard and Malabar, is the polar question operator. This jives well with the surface patterning and distribution of *-oo* in the data. And, in principle, if theoretically there is a possibility for a question particle that presupposes a singleton-set denotation for its complement, there is also a possibility for a question operator that presupposes a singleton-set denotation for its complement. We propose that the Malayalam *-oo* is such a question operator.

An interesting contrast that we explain in our paper is the ability of two finite clauses to be disjoined as an alternative question but not as declaratives. This we attribute to the disjunction operator that coordinates two question clauses (ForcePs in this case, since they contain *-aa*) being at a height where it does not compete for the same slot with the finiteness marking MoodP, (75), in the narrow C domain of the Dravidian languages (Jayaseelan 2014), as opposed to the disjunction operator that coordinates two finite clauses which is at a height where it competes for the same slot in the C-domain as the finiteness instantiating morpheme that resides in MoodP, (76).

(75)



(76)



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