

Minimality and *wh*-licensing in Malayalam

1. Introduction: Malayalam (Dravidian) is characterized as a *wh*-in-situ language, but *wh*-phrases in embedded clauses cannot take matrix scope (Madhavan 1987). This restriction is surprising in light of two facts (*i*) the *wh*-in-situ strategy is not clause-bounded in other *wh*-in-situ languages like Japanese and Korean, and (*ii*) Malayalam finite embedded clauses are otherwise transparent to syntactic and semantic operations. Similar restrictions in languages like Hindi, Bangla and Iraqi Arabic have led some researchers to conclude that *wh*-in-situ languages may vary parametrically in locality of *wh*-agreement (Ouhalla 1996, Simpson 2000). I will argue instead that the *wh*-in-situ strategy is uniformly non-clause-bounded. Failure to license *wh*-phrases across a clause boundary can be shown to result from the interaction of *wh*-agreement and independent operations affecting embedded clauses. In Malayalam, *wh*-licensing is disrupted by obligatory \bar{A} -movement of finite CPs, which creates a minimality violation. The features on the head of the embedded clause triggering clausal movement in the first place are sufficiently similar to *wh*-features that they block Agree between a higher C and an embedded *wh*-phrase. **Scope of embedded *wh*-words:** In ordinary questions, *wh*-phrases inside finite clausal complements fail to take matrix scope. For cases like (1), where the embedding verb can take both interrogative and declarative complements, we only have an indirect question interpretation. When the embedding verb is restricted to declarative complements, an in-situ *wh*-phrase within it leads to ungrammaticality (2):

- (1) [Sita eethu pustakam vaayichu ennu] Raman-ə ariyaam
 [Sita which book read COMP] Raman-DAT know
 ✓ Embedded Q: ‘Raman knows which book Sita read.’
 ✗ Matrix Q: ‘For which book x does Raman know that Sita read x?’
- (2) * [Sita eethu pustakam vaayichu ennu] Raman vicaarichu?
 [Sita which book read COMP] Raman thought
 Intended: ‘Which book did Raman think Sita read?’

Position of finite clauses: Malayalam is SOV in simplex sentences, but finite complements obligatorily appear clause-initially (cf. Dryer 1980).

- (3) a. Sita War and Peace vaayichu ennu Raman vicaarichu
 Sita War and Peace read COMP Raman thought
 ‘Raman thought that Sita read *War and Peace*’
- b. ?? Raman Sita War and Peace vaayichu ennu vicaarichu
 Raman Sita War and Peace read COMP thought

Clauses overtly move to this preposed position and this movement displays \bar{A} -properties. Fronted clauses obligatorily reconstruct for binding and scope, license parasitic gaps, and are island-sensitive. I will take clausal fronting to be feature-driven \bar{A} -movement, triggered by a feature [*fr*] on a left-peripheral head H.

4. Wh-licensing tracks clausal fronting. I argue that it is the clausal fronting seen in (3), rather than finiteness per se, that correlates with the apparent clause-boundedness of *wh*. Crucial evidence comes from *non-finite* clauses, for which fronting is optional. When the clause remains in the preverbal object position, embedded *wh*-phrases are licensed (4a); when the clause fronts, *wh*-licensing fails (4b).

- (4) a. Raman [**eethu pustakam** vaayikk-aan] b. * [**eethu pustakam** vaayikk-aan]
 Raman [which book read-INF] [which book read-INF]
 shramichu? Raman shramichu?
 tried Raman tried?
 ‘Which book did Raman try to read?’

5. Proposal: Adopting a generalized view of Minimality as a constraint on Agree as in (5), I analyze the ungrammaticality of (2) above as resulting from a Minimality violation.

- (5) A probe K must Agree with the closest XP bearing features relevant for K.

Since Pesetsky (1982), it has been noted that \bar{A} -movement operations interact with each other even when the movements involved are of different types. Such interactions — analyzable as relating to (5) — have led to proposals that define intervention for Minimality in terms of identity of intermediate-level feature-classes, rather than single features (Rizzi 2001, Starke 2001). In this spirit, I assume here a feature-geometry for \bar{A} -elements, with probes that may be relativized to different points in the hierarchy (cf. Harley and Ritter 2002, Bejar and Rezac 2009 for parallel proposals in the A-domain). Specifically, I will suggest that C in Malayalam is a flat probe that looks for an $[\bar{A}]$ -feature. Both $[wh]$ and $[fr]$ features are part of the \bar{A} -family. I take these more specific features to entail the higher-level $[\bar{A}]$ -feature. The obligatoriness of finite-clause fronting means that all finite clauses will bear $[fr]$. Non-finite clauses that undergo fronting will also bear this feature. Importantly, if an embedded clause whose head bears $[fr]$ dominates a *wh*-element, agreement between *wh* and a higher-clause C will be blocked by Minimality — the $[fr]$ -feature on the clause head is a closer goal for the $[\bar{A}]$ -seeking C than the *wh* within the clause. The head of a non-finite clause that remains in its base position (e.g. 4a), on the other hand, will not involve any \bar{A} -features to begin with; so, no intervention should take place.

6. Circumventing intervention: Crucial for this account is the fact that the head H triggering clausal fronting is introduced *above* C, so the $[\bar{A}]$ -feature on the frontable clause is still active when C is merged, and thus capable of blocking *wh*-agreement. If a head with a similar \bar{A} -probe were to be merged *below* C, we might expect Agree between the lower head and the embedded clause to deactivate the potential intervener, permitting later Agree between C and a *wh*-phrase within the clause. This is precisely what happens in cleft configurations, a counterexample to the traditional claim that *wh*-in-situ in Malayalam is clause-bounded. Embedded *wh*-phrases inside clefted finite CPs *can* take matrix scope (6):

- (6) [Sita **eethu pustakam** vaayichu ennu] aane Raman vicaarich-athe?
 [Sita which book read COMP] COP Raman thought-NOMNL
 ‘Which book was it that Raman thought Sita read?’

This is because the order of operations is reversed in clefts: *clefting precedes wh-agreement*. The head that triggers clefting Agrees with the clause head first, rendering its $[\bar{A}]$ -features inactive before C is merged.

7. Further support: Failure to license wide-scope *wh*-phrases in embedded clauses is argued to be a consequence of how two types of \bar{A} -dependencies interact. By this logic, intervention-related ungrammaticality need not be restricted to *wh*-questions. This prediction is borne out. Clausal fronting to the sentence-initial position is optional in cleft configurations, but is grammatical only if the clefted constituent does not start out as a subconstituent of the fronted clause (7). It is not possible to cleft an element inside an embedded clause that subsequently fronts (8).¹ The ungrammatical cleft in (8) is structurally parallel to the ungrammatical *wh*-question in (2), except that (8) involves two movement steps. In both, agreement between a higher \bar{A} -probe and the appropriate goal in the embedded clause cannot take place because the head of the dominating clause also bears $[\bar{A}]$ -features.

- (7) [_{CP} Sita *War and Peace* vaayichu ennu] Raman_i aane [_{t_i} t_{CP} paranj-athe]
 [Sita *War and Peace* read COMP] Raman COP [said-NOMNL]
 ‘It’s Raman who said that Sita read War and Peace.’
- (8) * [_{CP} Sita t_i vaayichu ennu] *War and Peace*_i aane [Raman t_{CP} paranj-athe]
 [Sita read COMP] War and Peace COP [Raman said-NOMNL]
 ‘It’s War and Peace that Raman said that Sita read.’

8. Beyond Malayalam: Parallel locality restrictions have been observed in e.g. Hindi (Mahajan 1990, Dayal 1996), Bangla (Simpson and Bhattacharya 2003) and Iraqi Arabic (Simpson 2000). The analysis sketched above extends straightforwardly to Hindi, which mirrors Malayalam in that finite clauses obligatorily *extrapose* rather than front. In Bangla, extraposition is optional, and *wh*-licensing correlates with clause position, similarly to Malayalam non-finite clauses. Iraqi Arabic, being SVO across-the-board, does not offer overt evidence for extraposition. However, Moulton (2014) argues that even in SVO-languages, finite CPs move further to the right. If this holds for IA, then the present account may explain the *wh*-licensing restrictions in this language, as well.

¹Note that there is no ban on remnant movement altogether.