

Long-Distance Agreement, Improper Movement and the Locality of Agree

Background: As is well-known, Hindi allows for long-distance agreement (LDA) between a matrix verb and the direct object of an embedded infinitival verb (see Bhatt 2005 and references cited there). LDA is generally optional and alternates with M.SG default agreement:

- (1) Raam-ne roṭii khaa-**ni** caah-**ii** / khaa-**naa** caah-**aa**
 Ram-ERG bread.F eat-INF.F.SG want-PFV.F.SG / eat-INF.M.SG want-PFV.M.SG
 ‘Ram wanted to eat bread.’

The agreement/A-movement correlation: I present novel evidence showing that the optionality of LDA is only apparent. LDA correlates with whether or not A-subextraction takes place. Hindi uses both A- and \bar{A} -scrambling, which are subject to different locality conditions. Moreover, \bar{A} -scrambling, but not A-scrambling, is subject to weak crossover (Mahajan 1990). In (2) the direct object *har billii* ‘every cat’ is scrambled above the matrix subject *us-ke malik-ne* ‘its owner’, a movement step that could be either A- or \bar{A} -scrambling. LDA is not affected and remains optional. In (3) the object is likewise scrambled but here the pronoun embedded inside the matrix subject is coindexed with it. This movement must be A-movement as \bar{A} -movement would incur a crossover violation. In contrast to (2), LDA becomes obligatory in (3).

- (2) har billii₁ us-ke₂ malik-ne t₁ ghumaa-**ni** caah-**ii** / ghumaa-**naa** caah-**aa**
 every cat.F its OWNER-ERG walk-INF.F.SG want-PFV.F.SG / walk-INF.M.SG want-PFV.M.SG
 ‘Its₁ owner wanted to walk every cat₂.’

- (3) har billii₁ us-ke₁ malik-ne t₁ ghumaa-**ni** caah-**ii** / *ghumaa-**naa**
 every cat.F its OWNER-ERG walk-INF.F.SG want-PFV.F.SG / walk-INF.M.SG
 caah-**aa**
 want-PFV.M.SG
 ‘For every cat *x*, *x*’s owner wanted to walk *x*.’

This pattern generalizes. In (4) and (5) it is the indirect object that is scrambled above the matrix subject. If it is not coindexed with the pronoun inside the subject DP, as in (4), LDA is optional. (5), by contrast, contains a coindexed pronoun and LDA becomes obligatory.

- (4) har bacce-ko₁ us-kii₂ maã-ne t₁ **film** dikhaa-**ni** caah-**ii** /
 every child-DAT his mother-ERG movie.F show-INF.F.SG want-PFV.F.SG /
 dikhaa-**naa** caah-**aa**
 show-INF.M.SG want-PFV.M.SG
 ‘His₂ mother wanted to show a movie to every child₁.’

- (5) har bacce-ko₁ us-kii₁ maã-ne t₁ **film** dikhaa-**ni** caah-**ii** /
 every child-DAT his mother-ERG movie.F show-INF.F.SG want-PFV.F.SG /
 *dikhaa-**naa** caah-**aa**
 show-INF.M.SG want-PFV.M.SG
 ‘For every child *x*, *x*’s mother wanted to show a movie to *x*.’

In both examples, the LDA controller *film* ‘movie’ remains in its base position and may receive an interpretation as a weak indefinite. This strongly suggests that LDA is not correlated with A-movement of the direct object *per se*. Rather, LDA is obligatory if *any* DP A-moves out of the embedded clause. Conversely, finite clauses, which are islands for A-scrambling but do allow \bar{A} -extraction are also opaque for LDA. This motivates the new empirical generalization in (6).

(6) Generalization

- a. If *any* element is A-moved out of the embedded clause, LDA is obligatory.
- b. Clauses that are opaque for A-extraction are also opaque for LDA.

Improper movement and improper agreement: (6) suggests a correlation between movement and agreement that is not straightforwardly accounted for: If a clause allows A-movement out of it, it also allows ϕ -Agree into it. If it disallows such movement, it is likewise opaque for ϕ -Agree. Partial opacity for A-movement but not \bar{A} -movement is generally subsumed under an effect of a constraint against *improper movement*. Despite the variety of accounts of improper movement (e.g., May 1979, Müller & Sternefeld 1993, Abels 2008), none of them (with the notable exception of Williams 2003) generalizes to the movement–agreement correlation because they are formulated as constraints on movement and hence do not generalize to the operation Agree. Under virtually all analyses of improper movement, then, the agreement restriction would have to be stated separately from the movement restriction, clearly missing a generalization.

Proposal: Given the presence of agreement morphology in the embedded clause, I assume that these clauses are at least TPs and that the verbal ϕ -probe is located on T. Following the literature on restructuring, I will treat the embedded clause as ambiguous between being a TP or an AspP, where Asp is higher than T. The movement–agreement link embodied in (6) receives a principled account once improper movement is treated as resulting from a general locality constraint on Agree rather than Move. I adopt Chomsky’s (2000) view that movement is feature-driven and requires prior Agree between the moving element and the head projecting the landing site. In analogy to *wh*-movement, I will treat scrambling as triggered by a $[\Sigma]$ feature, which may in principle be present on various heads. Assuming that binding configurations are cyclically read off TPs, A-scrambling reduces to movement to TP, while \bar{A} -scrambling is scrambling to any head higher than T. Against this background, I suggest that Agree is subject to the following locality condition:

- (7) Given a functional sequence $fseq \langle X_1 > X_2 > \dots > X_n \rangle$,
 Agree of X_k across X_m is impossible if $\langle \dots > X_m > \dots > X_k > \dots \rangle$

(7) states that any given head may not probe across a projection that is ‘larger’ than itself in terms of *fseq*. The locality of Agree is thus relativized. AspP, for instance, is opaque for a probing T head but transparent for probes located on Asp and C. (7) furthermore derives a generalized ban on improper movement, i.e., movement from one projection to a projection lower in *fseq*, since such movement would require an Agree relation that (7) rules out.

Application: If the embedded clause is a TP, it is transparent for the probes on matrix T and, consequently, both a $[\Sigma]$ - and a $[\phi]$ -probe on T can probe into it. As a consequence, A-scrambling out of the embedded clause is possible and so is ϕ -Agree into it. If there is a potential target in the infinitival clause, LDA is obligatory. If, on the other hand, the embedded clause is larger than a TP (AspP or CP), it is opaque for T-probing. Both LDA and A-scrambling are hence impossible. Because of the relativized character of (7), AspPs and CPs are still transparent for probes located on C. \bar{A} -scrambling, i.e., $[\Sigma]$ -probing by C followed by Move, is thus still possible. The sentences in (3) and (5) are necessarily TPs (because they allow A-subextraction) and LDA is obligatory. Finite clauses are necessarily CP and LDA is ruled out. Finally, the sentences in (1), (2) and (4) are ambiguous between a TP and an AspP structure and LDA is hence optional.

Extensions: A system based on (7), while deriving the movement–agreement correlation in (6), is still flexible enough to yield a typology of LDA. The locus of the relevant variation is the placement of the ϕ -probes. If they are located on T, the Hindi pattern results. If they are located on, e.g., a Top head, LDA is possible into finite clauses but not across a Force head. Under the assumption that Force hosts complementizers and interrogative force, we can follow the analysis laid out in Bošković (2007) for Tsez: Interrogative embedded clauses and those containing a complementizer block LDA in Tsez. Finally, if the relevant ϕ -probe is located on Force, every embedded clause will be penetrable for LDA. Chukchee provides an example of this.