Patterns and conditions on cross-clausal agreement in Hindi-Urdu

Long Distance Agreement (LDA) in Hindi-Urdu (HU), as in **(1)**, has always been believed to be optional i.e., that it can always be substituted with a version where the matrix and embedded verb have default phi-morphology of masculine singular (**No-Agreement (NoA)** pattern), as in **(2)**.

1.John-ne **rotii khaan-ii chah-ii**   2.John-ne **rotii** khaanaa chah-aa
  John-ERG bread.**F.SG** eat.Inf.**F.SG** want.PFV.**F.SG** John-ERG bread.**F** eat.Inf.M.SG want.PFV.M.SG
  'John wanted to eat bread.'   'John wanted to eat bread.'

I show this is incorrect; I present facts indicating the distribution of LDA & NoA is largely complementary, if not always; and their acceptability is associated with different discourse contexts. I also bring forward a novel pattern of agreement that no previous work took notice of, referred to as **Step-Up Agreement (SUA)**, and establish new generalizations regarding agreement in the contexts in question.

    Unlike LDA (1), where the matrix verb and embedded infinitive both agree with the direct object of the embedded clause, in the previously unobserved **SUA (3)** the agreement is 'purely' long-distance wherein the agreement is only between the matrix verb and the object of the embedded clause.

3.John-ne **rotii** khaan-aa **chah-ii**
  John-ERG bread.**F.SG** eat.Inf.M.SG want.Perf.**F.SG**
  'John wanted to eat bread.'

   Another form of partial agreement could be where the agreement is only between the embedded object and the infinitive in the embedded clause, with the matrix verb appearing with a default phi-morphology, Previous literature disagrees regarding such a pattern (Mahajan 1990, Butt 1993 note it as dialectal variation & for Bhatt (2005), Kiene (2013) it is unacceptable). In the survey of 47 HU speakers conducted for this study, none reported this pattern as in (4) as acceptable, hence I take it not to be acceptable.

4.*/%John-ne **rotii khaan-ii** chah-aa
   John-ERG bread.**F.SG** eat.Inf.**F.SG** want.Perf.M.SG
   'John wanted to eat bread.'

Based on the patterns revealed by the survey, I establish two empirical generalizations:

Generalization#1: 'Embedded verb only agrees if the matrix verb agrees with the embedded object.'
Generalization#2:'Agreement with the matrix verb does not presuppose LDA.'

I give an account of the above patterns and the generalizations in question that ties two independent observations, the relevance of restructuring (Boeckx 2004, Bhatt 2005) and the nominal nature of infinitives in HU (Davison 1990, Mohanan 1990, Butt 1993).

    Both LDA and SUA require restructuring, while NoA is incompatible with it. This is demonstrated by the tests in (4-8). The first test involves NPI licensing. Restructuring makes the two clauses transparent in a way that a polarity-sensitive item can be licensed with a negation inside the embedded clause (Bhatt 2005); NOA clearly fails this test (4), while like LDA and SUA passes it (5) and (6), respectively.

4.*Ek-bhii larke-ne [Sita-kii **kitaab** nahi parhnaa] chaah-aa   [*NoA]
  one-PSI boy-Erg Sita-Gen.F book.**F.SG** Neg read-Inf.M.SG want-PFV.M.SG
  'Not even a single boy wanted to read Sita's book.'

5.Ek-bhii larke-ne [Sita-kii **kitaab** nahi **parh-nii**] **chaah-ii**   [LDA]
  one-PSI boy-Erg Sita-Gen.F book.**F.SG** Neg read-Inf.**F.SG** want-PFV.**F.SG**
  'Not even a single boy wanted to read Sita's book.'

6.Ek-bhii larke-ne [Sita-kii **kitaab** nahi parhnaa] **chaah-ii**   [SUA]
  one-PSI boy-Erg Sita-Gen.F book.**F.SG** Neg read-Inf.M want-PFV.**F.SG**
  'Not even a single boy wanted to read Sita's book.'

Another diagnostic for restructuring concerns the possibility of having the same adverb in each "clause", which is possible only without restructuring (Cinque 2004). This test shows the same distribution with the three patterns. Only NoA can have the same adverb twice, and both LDA and SUA cannot.

7.*Mary-ne roz **sushii banaan-ii**/na roz **seekh-ii**   [*LDA/*SUA]
  Mary-ERG everyday sushi.**F.SG** cook.Inf.**F.SG**/M.SG everyday learn.Perf.**F.SG**
  'Everyday, Mary learned (how to) cook sushi everyday.'

8. Mary-ne   roz   **sushii** banaan-aa roz   siikh-aa   [NoA]
   Mary-ERG everyday sushi.F cook.Inf.M everyday learn.Perf.M.SG
   'Everyday, Mary learned (how to) cook sushi everyday.'

Several works have argued infinitives in HU can be nominal in nature. The strongest evidence comes from the fact that they can receive cases, which are identical as with nominals, as shown below.

Noun**: BOY ::**   Nom. Sg - lark-**aa ;**   **Nom.Pl -** lark-**e;**   **Acc/Dat -** larke-**ko**
Infinitive: **MAKE::**   banaan-**aa;**   banaan-**e;**   banaane-**ko**

I argue **infinitives in HU are defective** in the sense that they are **neither purely verbal nor entirely nominal**, rather they enter the derivation with both of these characteristics. The verbal feature of the infinitive remains inactive and it needs a functional projection (small *v*) that licenses it. Indeed this defective behavior of the infinitive is responsible for their inability to probe on their own. In the absence of restructuring, **there is no reduction in the structure, as in (9).**

9**. Full Structure-NOA: [Subject [$_{vP}$ [$_{VP}$ [$_{IP}$ [$_{vP}$ PRO [$_{v'}$ [$_{VP}$ OBJ V] v]] Inf] V] v]]**

   Since infinitives cannot probe on their own, the only eligible probe is the matrix small *v*. Following Bhatt (2005) I assume PRO in non-restructuring (9) blocks the agreement relationship between the matrix probe and the embedded object. Since neither the matrix verb nor the embedded infinitive can enter into an agreement relationship with the embedded object, both appear with default morphology (masc.sg), as in (2)/NoA. On the other hand, LDA and SUA are both results of restructuring, as (4)-(8) have shown.

LDA is triggered in a structure like (10) where the **'PRO subject' is absent**.

10. **Partial Structure-LDA: [Subject [$_{vP}$ [$_{VP}$ [$_{IP}$ [$_{vP}$ [$_{VP}$ OBJ V] v] Inf] V] v]]**

The absence of PRO allows matrix small *v* to probe deeper. While searching for candidates that can value the unvalued phi-feature, matrix probe creates a dependency with the closest candidate, the infinitive. However, it has to continue probing since phi-values of the infinitive are unvalued too. Once the phi-features of the matrix probe are valued by the object, the phi-features of the infinitive automatically receive the same value via feature sharing (Frampton & Guttmann 2002). Finally, in the restructured **skeleton of SUA in (11)**, along with PRO, **small v is also absent from the embedded clause.** This makes it impossible for the verbal characteristics of the infinitive to get licensed, allowing the matrix probe to skip the infinitive and form an agreement relationship only with the embedded object.

11. **Partial Structure-SUA: [Subject [$_{vP}$ [$_{VP}$ [$_{IP}$ [$_{VP}$ OBJ V] Inf] V] v]]**

Discourse: For the longest time, it has been believed that LDA is optional, NoA always being an option. Occasional observations that the object in LDA is more specific than in NoA sets the stage for examining the influence of context on the acceptability of individual agreement patterns. I put forward the evidence that their choice is context driven. In scenarios like (12), where the object in question is already present in the discourse, speakers report that they only/strongly prefer the LDA and SUA pattern.

12. Context: In a challenge, after reaching the finish line John can either lift a brick or a metal ball to claim the victory. Bill asked John's coach: What is it that John wants to do? Coach answers:

a. John-ne *iit*   **uthaanii**/aa **chahii**   b.#John-ne   iit   uthaanaa   chahaa
John-ERG brick.**F**   lift.INF.**F**/M   want.PFV.**F**   John-ERG brick.**F** lift.INF.M want.PFV.M
'John wanted to lift the brick.'   'John wanted to lift the brick.'

When the object is not previously mentioned in the context, the acceptability of NoA becomes exponentially higher. I take this to mean that in LDA/SUA, the object is interpreted as a Topic. This is also confirmed by the fact that the object can be moved to clause initial position (Spec TopP) in LDA/SUA but never in NoA patterns (see Butt 1995 for some relevant discussion).

   To sum up, I observe a new pattern of cross-clausal agreement in HU and establish new generalizations regarding the phenomenon, providing an account of the relevant patterns that relies on restructuring and the nominal nature of infinitives in HU. I also observe that the agreement in question is discourse sensitive. In the talk I also show that the proposed account captures agreement in another Indo-Aryan language (Kashmiri) without stipulations that previous works relied on.

Selected references : Bhatt, R. (2005) Long distance agreement in Hindi-Urdu; Butt, M. (1995) The structure of complex predicates in Urdu; Glassman, E. H. (1977) Spoken Urdu.