

Deriving subject and antisubject orientation

Sakshi Bhatia & Ethan Poole

University of Massachusetts Amherst
 {sakshibhatia, ejpoole}@linguist.umass.edu

1 Introduction

- In Standard Binding Theory, the distribution of anaphors and pronouns is dictated by Condition A and Condition B:

- (1) a. **Condition A**
 Mary_i showed Susan_j **herself**_{i/j/*k}.
- b. **Condition B**
 Mary_i showed Susan_j **her**_{*i/*j/k}.

⇒ *The problem*

Conditions A and B state the distribution of anaphors and pronouns in terms of c-command. However, in many languages, **c-command alone is insufficient** to account for the distribution of anaphors and pronouns.

- *The view from Hindi-Urdu*
 The case study in this presentation is anaphoric and pronominal possessors in Hindi-Urdu:
 - *Subject orientation*
 The anaphoric possessor *apnaa* must corefer with the subject and cannot corefer with, e.g., a goal. It is (descriptively) SUBJECT ORIENTED.
 - *Antisubject orientation*
 The pronominal possessor *uskaa*, however, cannot refer with the subject. It is (descriptively) ANTISUBJECT ORIENTED.

⇒ Subject and antisubject orientation do not fall under the purview of Conditions A and B. Deriving these two constraints is the goal of this talk.

* *Structure of this talk*

1. We review subject and antisubject orientation in Hindi-Urdu. We give particular attention to dative–nominative structures, where the two constraints break down.
2. Next, we propose that:
 - The locus of subject and antisubject orientation is Voice⁰, the functional head responsible for binding the anaphoric possessor *apnaa*.
 - Subject orientation reduces to the locality of A-movement: only the highest DP, typically the external argument, is eligible for movement to [Spec, VoiceP].
 - Antisubject orientation results from the requirement to use *apnaa* whenever the derivation would allow. This requirement is in the spirit of Reinhart & Reuland (1993).
3. Last, we examine a point of speaker variation. We argue that these speakers have access to an impoverished form of *uskaa-apnaa*, masquerading as *uskaa*.

2 Subject and antisubject orientation

- *Section outline*
 In this section, we review subject and antisubject orientation of anaphors and pronouns in Hindi-Urdu. We then show how these constraints break down in dative–nominative structures.
- *Standard Binding Theory still active*
 Conditions A, B, and C are active in Hindi-Urdu (Dayal 1994). Subject and antisubject orientation are *in addition* to the standard binding constraints.

2.1 Anaphors and pronouns

- *Anaphors* → *Subject oriented*

Anaphors in Hindi-Urdu are SUBJECT ORIENTED. They must be bound by the subject (to use the term descriptively) of the clause:¹

(2) a. **Binding**

anu-ne_i apne-aap-ko_{i/*j} maar-aa
 ANU-ERG ANA -DOM hit-PFV
 ‘Anu_i hit himself_{i/*j}’

b. **Quantifier binding**

[har laṛke-ne]_i apne-aap-ko_{i/*j} maar-aa
 every boy-ERG ANA -DOM hit-PFV
 ‘Every boy_i hit himself_{i/*j}’

- *Pronouns* → *Antisubject oriented*

Pronouns, on the other hand, are antisubject oriented. They cannot corefer with the subject of the clause:

(3) a. **Coreference**

anu-ne_i us-ko_{*i/j} maar-aa
 ANU-ERG PRON-DOM hit-PFV
 ‘Anu_i hit him_{*i/j}’

b. **Quantifier binding**

[har laṛke-ne]_i us-ko_{*i/j} maar-aa
 every boy-ERG PRON-DOM hit-PFV
 ‘Every boy_i hit him_{*i/j}’

- Moreover, word order permutations do not affect the binding possibilities in either (2) or (3).

2.2 Anaphoric and pronominal possessors

- In addition, Hindi-Urdu has both an anaphoric possessor *apnaa* and a pronominal possessor *uskaa*. Their behaviour mirrors their nonpossessive counterparts.

¹ Subject orientation holds for both the anaphors from the Persio-Arabic stock *khud* and the one from the Sanskrit stock *apne-aap*. We present data only for *apne-aap*.

- *Anaphor Agreement Effect, no problem!*

- What makes the anaphoric and pronominal possessors an interesting empirical domain is that they can both in principle occur in a nominative argument. We will see this in dative–nominative structures.
- This is not possible with the ordinary anaphor *apne-aap* because of the Anaphor Agreement Effect, which prohibits anaphors in positions construed with agreement (Rizzi 1990; Woolford 1999):²

(4) a. **Transitive**

*apne-aap_i anu-ko_i maar-aa (cf. 2a)
 ANA ANU-ERG hit-PFV
 Intended: ‘Anu_i hit himself_i’

b. **Dative–nominative structure**

*anu-ko_i apne-aap_i pasand he
 ANU-DAT ANA like be.PRS
 Intended: ‘Anu_i likes himself_i’

- *Anaphoric possessor* → *Subject oriented*

Like the anaphor, the anaphoric possessor must corefer with the subject (for most speakers). It is subject oriented:

(5) **Binding**

a. **Transitive**

raam-ne_i [apnii_{i/*j} kitaab] paṛh-ii
 Ram-ERG ANA.GEN book read-PFV
 ‘Ram_i read his_{i/*j} book’

b. **Ditransitive**

raam-ne_i anu-ko_j [apnii_{i/%j/*k} kitaab] dii
 Ram-ERG ANU-DOM ANA.GEN book give.PFV
 ‘Ram_i gave Anu_j his_{i/%j/*k} book’

(6) **Quantifier binding**

a. **Transitive**

[har laṛke-ne]_i [apnii_{i/*j} kitaab] paṛh-ii
 every boy-ERG ANA.GEN book read-PFV
 ‘Every boy_i read his_{i/*j} book’

² We treat unmarked DPs as bearing nominative case.

b. **Ditransitive**

[har laṛke-ne]_i anu-ko_j [apnii_{i/%j/*k} kitaab] dii
 every boy-ERG Anu-DOM ANA.GEN book give-PFV
 ‘Every boy_i gave Anu_j his_{i/%j/*k} book’

• **Pronominal possessor → Antisubject oriented**

Like the pronoun, the pronominal possessor *cannot* corefer with the subject.
 The pronominal possessor is antisubject oriented:

(7) **Coreference**

a. **Transitive**

raam-ne_i [us-kii_{*i/j} kitaab] paṛh-ii
 Ram-ERG PRON-GEN book read-PFV
 ‘Ram_i read his_{*i/j} book’

b. **Ditransitive**

raam-ne_i anu-ko_j [us-kii_{*i/j/k} kitaab] dii
 Ram-ERG Anu-DAT PRON-GEN book give-PFV
 ‘Ram_i gave Anu his_{*i/j/k} book’

(8) **Quantifier binding**

a. **Transitive**

[har laṛke-ne]_i [us-kii_{*i/j} kitaab] paṛh-ii
 every boy-ERG PRON-GEN book read-PFV
 ‘Every boy_i read his_{*i/j} book’

b. **Ditransitive**

[har laṛke-ne]_i anu-ko_j [us-kii_{*i/j/k} kitaab] dii
 every boy-ERG Anu-DAT PRON-GEN book give-PFV
 ‘Every boy_i gave Anu_j his_{*i/j/k} book’

• **Nonsubject quantifiers → Only pronominal possessor**

Quantifiers not in subject position can bind the pronominal possessor, but not the anaphoric possessor:

(9) a. **Pronominal possessor ✓**

raam-ne_i [har laṛke-ko]_j [us-kii_{*i/j/k} kitaab] dii
 Ram-ERG every boy-DAT PRON-GEN book give-PFV
 ‘Ram_i gave every boy_j his_{*i/j/k} book’

b. **Anaphoric possessor ✗**

raam-ne_i [har laṛke-ko]_j [apnii_{i/%j/*k} kitaab] dii
 Ram-ERG every boy-DAT ANA.GEN book give-PFV
 ‘Ram_i gave every boy_j his_{i/%j/*k} book’

• **Scrambling**

– In general, like for their nonpossessive counterparts, word order permutations do not affect the binding possibilities of *apnaa* or *uskaa* in ordinary transitive and ditransitive structures (Dayal 1994).

(10) a. **Anaphoric possessor**

[apnii_{i/%j} kitaab] raam-ne_i t paṛh-ii (cf. 5a)
 ANA.GEN book Ram-ERG read-PFV
 ‘Ram_i read his_{i/%j} book’

b. **Pronominal possessor**

[us-kii_{*i/j} kitaab] raam-ne_i t paṛh-ii (cf. 7a)
 PRON-GEN book Ram-ERG read-PFV
 ‘Ram_i read his_{*i/j} book’

– However, it is possible to scramble a DP above the subject in order to bind *uskaa* in the subject itself (Mahajan 1990; Dayal 1994). This is not possible with *apnaa*, however.

(11) a. **Anaphoric possessor**

*[har laṛke-ko]_i [apnii_i behen-ne] t maar-aa
 every boy-DOM ANA.GEN sister-ERG hit-PFV
Intended: ‘For every boy *x*, *x*’s sister hit *x*’

b. **Pronominal possessor**

[har laṛke-ko]_i [us-kii_i behen-ne] t maar-aa
 every boy-DOM PRON-GEN sister-ERG hit-PFV
 ‘For every boy *x*, *x*’s sister hit *x*’

⇒ Scrambling can feed binding *uskaa* (11b), but it cannot ameliorate antisubject orientation (10b).

* *Interim summary*

The anaphoric possessor and pronominal possessor are in COMPLEMENTARY DISTRIBUTION in ordinary transitive and ditransitive structures.

(12) **Anaphoric and pronominal possessors in Hindi-Urdu**

	<i>apnaa</i>	<i>uskaa</i>
Condition A	✓	✗
Subject antecedent	✓	✗
Nonsubject antecedent	✗	✓
Quantifier binding	✓	✓

2.3 Dative–nominative structures

- In dative–nominative structures, the experiencer is dative and the theme is nominative:

(13) raam-ko miiraa dikh-ii
 Ram-DAT Mira appear-PFV
 ‘Ram saw Mira’ (lit. Mira became visible to Ram)

- Standardly, the dative experiencer is considered the subject and the nominative theme is considered the object. However, we will see that this labelling is misleading.
- Subject orientation breaks down*
 Crucially, the complementarity of *uskaa* and *apnaa*, which was discussed in the previous section, does not extend to dative-nominative structure.

– *Dative argument*

The dative can serve as the antecedent of either *uskaa* or *apnaa*:

(14) a. **Anaphoric possessor**
 raam-ko_i [apnii_{i/*j} behen] dikh-ii
 Ram-DAT ANA.GEN sister appear-PFV
 ‘Ram_i saw his_{i/*j} sister’

b. **Pronominal possessor**
 raam-ko_i [us-kii_{i/j} behen] dikh-ii
 Ram-DAT PRON-GEN sister appear-PFV
 ‘Ram_i saw his_{i/j} sister’

– *Nominative argument*

The nominative can also serve as the antecedent of either *uskaa* or *apnaa*:

(15) a. **Anaphoric possessor**
 raam_i [apnii_{i/*j} behen-ko] dikh-aa
 Ram ANA.GEN sister-DAT appear-PFV
 ‘Ram_i was seen by his_{i/*j} sister’

b. **Pronominal possessor**
 raam_i [us-kii_{i/j} behen-ko] dikh-aa
 Ram PRON-GEN sister-DAT appear-PFV
 ‘Ram_i was seen by his_{i/j} sister’

⇒ *Quantifier binding*

Although coreference with *uskaa* is possible, binding can only occur with *apnaa*, never with *uskaa* (Reese 2002):³

(16) a. **Anaphoric possessor**
 [har larke-ko]_i [apnii_{i/*j} behen] dikh-ii
 every boy-DAT ANA.GEN sister appear-PFV
 ‘Every boy_i saw his_{i/*j} sister’

b. **Pronominal possessor**
 [har larke-ko]_i [us-kii_{*i/j} behen] dikh-ii
 every boy-DAT PRON-GEN sister appear-PFV
 ‘Every boy_i saw his_{*i/j} sister’

- (16b) is surprising given that scrambling can otherwise feed binding *uskaa*.

* *Section summary*

(17) **Anaphoric and pronominal possessors in Hindi-Urdu**

	Elsewhere		Dative–nominative	
	<i>apnaa</i>	<i>uskaa</i>	<i>apnaa</i>	<i>uskaa</i>
Condition A	✓	✗	✓	✗
Subject antecedent	✓	✗	✓	✓
Nonsubject antecedent	✗	✓	✓	✓
Quantifier binding	✓	✓	✓	✗

³ Example (16b) is the judgement reported in Reese (2002).

2. Fake indexicals

Kratzer (2009) documents instances of so-called “fake indexicals” where first- and second-person pronouns can receive a bound-variable interpretation only when the ϕ -features of the verb match those of the pronoun:

(22) Φ -agreement → Bound reading possible

Wir sind die einzigen, die unseren Sohn
 we are the only.ones who.PL 1PL.POSS.ACC son
 versorg-en
 take.care.of-1/3PL

‘We are the only ones who are taking care of our son’

[Kratzer 2009:191]

(23) No ϕ -agreement → Bound reading not possible

Ich bin der einzige, der meinen Sohn versorg-t
 I am the only.one who.PL 1SG.POSS.ACC son take.care.of-3SG
 ‘I am the only one who is taking care of my son’ [Kratzer 2009:191]

→ Because AGREE is involved, functional heads must be involved in binding as well (see also Reuland 2011).

⇒ Accepting that a functional head is responsible for binding *apnaa*, Voice⁰ is the lowest possible head that could do so.

3.2 Antisubject orientation

* Proposal

The anaphor *apnaa* is used whenever the derivation would allow:

(24) ANAPHORIC PREFERENCE (preliminary version)

Whenever the binder has moved to [Spec, VoiceP], use *apnaa*.

- In an ordinary transitive clause, the subject will have moved to [Spec, VoiceP]. Therefore, according to (24), this bleeds the ability to use a coreferring pronominal possessor:

- (25) a. $[\text{VoiceP } \text{---} \text{Voice}_{[r]}^0 [\text{vP DP } v^0 [\text{VP } [\text{DP } \textit{apnaa}_r \text{ NP}] V^0]]]$ ✓
 b. $[\text{VoiceP } \text{---} \text{Voice}_{[r]}^0 [\text{vP DP } v^0 [\text{VP } [\text{DP } \textit{uskaa}_r \text{ NP}] V^0]]]$ ✗

⇒ No coreference restriction

Thus, there is no general prohibition on coreference with a pronoun from a c-commanding position, only a preference to bind using the anaphor *apnaa* whenever possible.

• Reinhart & Reuland

The Anaphoric Preference in (24) is in the spirit of the idea in Reinhart & Reuland (1993) that the complementarity of anaphors and pronouns is the result of the requirement to use an anaphor whenever the predicate is reflexive and vice versa.

- We will return later to an idea towards incorporating our proposal with Reinhart & Reuland’s (1993) proposal.

3.3 Dative–nominative structures

• Reminder

Recall that in dative–nominative structures, either the dative or the nominative can corefer with *apnaa* and *uskaa*, but quantifier binding requires *apnaa*.

* Structure of dative–nominative predicates

We propose the following structure for dative–nominative predicates wherein the dative is an external argument introduced by v_{EXP}^0 and the nominative is an internal argument of the verb itself:

- (26) $[\text{vP DAT } v_{\text{EXP}}^0 [\text{VP NOM } V^0]]$

- The evidence for treating the nominative as the internal argument of the verb comes from instances where the nominative argument determines the particular interpretation of the verb:

- (27) a. **roumi-ko** *bhuukh* lag rahii he
 Roumi-DAT hunger contact PROG be.PRS.SG
 ‘Roumi is feeling hungry’ [Bhatt 2003:6]
- b. **laṛke-ko** *coṭ* lag-ii
 boy-DAT wound contact-PFV
 ‘The boy was hurt’

- This criterion is the foremost employed in Kratzer (1996) (also Marantz 1984) to argue for syntactically and semantically distinguishing between internal and external arguments:

- (28) a. throw a baseball
 b. throw support behind a candidate
 c. throw a boxing match
 d. throw a party [Marantz 1984]

* *Dative-nominative structures are reversible*

Davison (2004) argues that dative-nominative structures are REVERSIBLE:

- Either the nominative or the dative can A-move to the subject position, here [Spec, VoiceP].
- Subsequent \bar{A} -scrambling derives any deviations from the base-generated word order.

• *Reversibility* → *Subject orientation*

Reversibility allows either the nominative or the dative to raise to [Spec, VoiceP] and thus to bind the subject oriented anaphor *apnaa*.

- (29) [VoiceP DAT Voice⁰ [_{VP} t NOM V⁰]]
-

- (30) [VoiceP NOM Voice⁰ [_{VP} DAT t V⁰]]
-

• *Ability to use apnaa* → *Antisubject orientation*

We propose that binding requires the use of *apnaa* in dative-nominative structures because such a derivation is always available for either argument, given the reversibility.

⇒ Therefore, the inability to bind with *uskaa* in dative-nominative structures stems from a stronger version of the Anaphoric Preference:

(31) ANAPHORIC PREFERENCE (*final version*)

Whenever the binder has moved or **could have moved** to [Spec, VoiceP], use *apnaa*.

- (31) also rules out scrambling to bind *uskaa* in dative-nominative structures because either argument could have moved to [Spec, VoiceP].

3.4 Section summary

• *Subject orientation*

Binding the anaphor *apnaa* is facilitated by the functional head Voice⁰.

• *Antisubject orientation*

Whenever the binder has moved or could have moved to [Spec, VoiceP], use *apnaa*.

• *Dative-nominative structures*

The reversibility of dative-nominative structures allows a derivation in which either the dative or the nominative has raised to [Spec, VoiceP]. This permits binding *apnaa* and bleeds the ability to bind *uskaa*.

4 Variation

• *Quick recap*

As discussed in section 2, the pronominal possessor *uskaa* does not allow quantifier binding in dative-nominative structures:

- (32) a. **Dative binding into nominative**
 *[har laṛke-ko]_i [us-kii_i behen] dikh-ii
 every boy-DAT PRON-GEN sister appear-PFV
 ‘Every boy_i saw his_i sister’

- b. **Nominative binding into dative**
 *[har laṛkaa]_i [us-kii_i behen-ko] dikh-aa
 every boy PRON-GEN sister-DAT appear-PFV
 ‘Every boy_i was seen by his_i sister’

- Again, (32) is surprising given that scrambling can generally feed binding *uskaa* outside of dative-nominative structures (Mahajan 1990; Dayal 1994):

- (33) **Scrambling to bind uskaa**
 [har laṛke-ko]_i [us-kii_i behen-ne] t maar-aa (=11b)
 every boy-DOM PRON-GEN sister-ERG hit-PFV
 ‘For every boy *x*, *x*’s sister hit *x*’

⇒ *Speaker variation*

Interestingly, some speakers do in fact allow a bound reading in dative–nominative structures with *uskaa*, contra (32). For these speakers, both (34a) and (34b) allow bound readings:

- (34) a. **Dative binding into nominative**
 [har larke-ko]_i [us-kii_i behen] dikh-ii
 every boy-DAT PRON-GEN sister appear-PFV
 ‘Every boy_i saw his_i sister’
- b. **Nominative binding into dative**
 [har larkaa]_i [us-kii_i behen-ko] dikh-aa
 every boy PRON-GEN sister-DAT appear-PFV
 ‘Every boy_i was seen by his_i sister’

- This variation is summarised in the table below:

(35) **Speaker variation in dative–nominative structures**

	Group A		Group B	
	<i>apnaa</i>	<i>uskaa</i>	<i>apnaa</i>	<i>uskaa</i>
Condition A	✓	✗	✓	✗
Subject antecedent	✓	✓	✓	✓
Nonsubject antecedent	✓	✓	✓	✓
Quantifier binding	✓	✗	✓	✓

- Group A characterises the judgements that we have discussed thus far (32). Group B is the speaker variation that we are now introducing (34).

* *Proposal*

We propose that speakers who allow binding of *uskaa* in (34a) and (34b) have access to an impoverished form of the complex anaphor *uskaa-apnaa*, which must be bound, but crucially is not subject oriented:

- (36) **Underlying form of (34b)**
 [har larkaa]_i [uskii-apnii_i behen-ko] dikh-aa
 every boy COMPLEX.GEN sister-DAT appear-PFV
 ‘Every boy_i was seen by his_i sister’

- The derivation of (36) proceeds as follows:
 1. The dative moves to [Spec, VoiceP], precluding the use of *apnaa*.
 2. The nominative moves above [Spec, VoiceP] to bind *uskaa-apnaa*.
 3. *uskaa-apnaa* is impoverished as *uskaa* in the morphology.

• *Properties of uskaa-apnaa*

In ordinary transitive (37) and ditransitive structures (38), *uskaa-apnaa* must be bound. However, crucially, it cannot be bound by the subject:

- (37) *anu-ne_i [uskii-apnii_{i/j} kitaab] parh-ii
 Anu-ERG COMPLEX.GEN book read-PFV
Intended: ‘Anu_i read his_{i/j} book’

- (38) ram-ne_i mohan-ko_j [uskii-apnii_{*i/j/*k} kitaab] dii
 Ram-ERG Mohan-DAT COMPLEX.GEN book give.PFV
 ‘Ram_i gave Mohan_j his_{*i/j/*k} book’

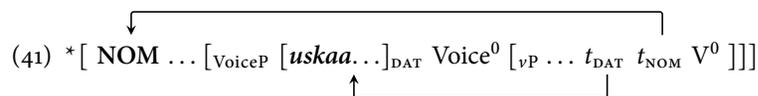
(39) **Anaphoric and pronominal possessors in Hindi-Urdu**

	<i>apnaa</i>	<i>uskaa</i>	<i>uskaa-apnaa</i>
Condition A	✓	✗	✓
Subject antecedent	✓	✗	✗
Nonsubject antecedent	✗	✓	✓
Quantifier binding	✓	✓	✓

- Under our analysis, *uskaa-apnaa* is unable to refer to the subject because the subject always moves to [Spec, VoiceP]. Unlike dative–nominative structures, this movement is deterministic because of locality and not reversible.
- Unlike *uskaa*, *uskaa-apnaa* is not in direct competition with *apnaa* in dative–nominative structures.
- Thus, although movement of the binder to [Spec, VoiceP] still requires using *apnaa*, it is also possible to move the DP containing *uskaa-apnaa* to [Spec, VoiceP] and then move its binder to some higher c-commanding position:

- (40) [NOM ... [VoiceP [uskaa-apnaa ...]_{DAT} Voice⁰ [vP ... t_{DAT} t_{NOM} V⁰]]]
-

- For *uskaa*, this derivation would be ruled out because *uskaa* is in direct competition with *apnaa*:



5 Conclusion

5.1 Summary

- We discussed subject and antisubject orientation of anaphoric and pronominal possessors respectively in Hindi-Urdu. Crucially, these two constraints do not fall under the purview of Standard Binding Theory (e.g. Chomsky 1981).
 - We proposed that the locus of subject and antisubject orientation is Voice⁰, the functional head responsible for binding the anaphoric possessor *apnaa* wherein the binder of *apnaa* must move to [Spec, VoiceP].
 - Subject orientation reduces to the locality of A-movement: only the highest DP, typically the external argument, is eligible for movement to [Spec, VoiceP].
 - Antisubject orientation is the result of the Anaphoric Preference to use *apnaa* whenever possible:
- (42) **ANAPHORIC PREFERENCE**
Whenever the binder has moved or could have moved to [Spec, VoiceP], use *apnaa*.
- Following Davison (2004), we argued that dative–nominative structures are *reversible*. This allows either argument to bind *apnaa* and, given (42), bleeds the ability to bind using the pronoun *uskaa*.
 - We considered interspeaker variation: some Hindi-Urdu speakers allow a bound interpretation of *uskaa* in dative–nominative structures. We proposed that these speakers have access to an impoverished form of the complex anaphora *uskaa-apnaa*, which must be bound, but crucially is not subject oriented.

5.2 Further questions and extensions

• *Deriving the Anaphoric Preference*

- Reinhart & Reuland (1993) define the requirement to use an anaphor in terms of coargumenthood: If the two arguments of a predicate are the same, the predicate is reflexive and thus must occur with an anaphor.
 - How can the anaphor requirement be relaxed from strict coargument to account for languages like Hindi-Urdu?
 - Ideally, this should be done without sacrificing the otherwise widespread empirical coverage of Reinhart & Reuland’s (1993)’s theory.
 - The mobility of possessors in Hindi-Urdu might play a role:
- (43) [kis sheher-ki]_i raam [t_i laṛkiyō-se] mil-aa
which city-GEN Ram girls-COM meet-PFV
‘Which city was it that Ram met the girls from?’ [Bhatia et al. 2011]
- Bhatia et al. (2011) have shown that, with respect to the mobility of possessors in particular, Hindi-Urdu patterns as an NP language, according to Bošković’s (2008) diagnostics.
 - The connection between being an NP language and having anaphoric possessors has been explored in Despić (2015), though not within the binding framework in Reinhart & Reuland (1993).
 - Therefore, this provides a promising direction for deriving the Anaphoric Preference.

• *A second point of speaker variation*

- For some speakers, subject orientation is preferred, but not strictly required.
- This raises the empirical question of whether this point of variation and the ability to bind using *uskaa* in dative–nominative structures correlate.
- If the two covary, it would suggest that they have a common source.

Acknowledgements:

Many thanks to Rajesh Bhatt and Gurmeet Kaur for help with the data, and to the Syntax–Semantics Reading Group at the University of Massachusetts Amherst for their helpful feedback. The second author is supported by the National Science Foundation Graduate Research Fellowship under NSF DGE-0907995.



- Bhatia, Sakshi, Jyoti Iyer, Ayesha Kidwai, & Raj Laxmi Singh. 2011. The NP/DP distinction in Hindi-Urdu. Handout from LISSIM 5 Workshop “Diagnostics for NP/DP”.
- Bhatt, Rajesh. 2003. Experiencer subjects. Handout from MIT course “Structure of the Modern Indo-Aryan Languages”.
- Bošković, Željko. 2008. What will you have, DP or NP? In *Proceedings of the 37th Meeting of the North East Linguistic Society (NELS 37)*, ed. Emily Elfner & Martin Walkow, 101–114. Amherst, MA: GLSA.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Davison, Alice. 2004. Non-nominative subjects in Hindi/Urdu: VP structure and case parameters. In *Non-nominative subjects*, ed. Peri Bhaskararao & Karumuri Venkata Subbarao, volume 1, 141–168. Amsterdam: John Benjamins.
- Dayal, Veneeta. 1994. Binding facts in Hindi and the scrambling phenomenon. In *Theoretical perspectives on word order issues in South Asian languages*, ed. Miriam Butt, Tracy Holloway King, & Gillian Ramchand, 237–261. Cambridge, UK: Cambridge University Press.
- Despić, Miloje. 2015. Phases, reflexives, and definiteness. *Syntax* 18:201–234.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In *Phrase structure and the lexicon*, ed. Johan Rooryck & Laurie Zaring, 109–137. Dordrecht: Kluwer.
- Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40:187–237.
- Mahajan, Anoop. 1990. The A/A-bar distinction and movement theory. Doctoral Dissertation, Massachusetts Institute of Technology, Cambridge, MA.
- Marantz, Alec. 1984. *On the nature of grammatical relations*. Cambridge, MA: MIT Press.
- Poole, Ethan. 2015. Deconstructing quirky subjects. In *Proceedings of the 45th Meeting of the North East Linguistic Society (NELS 45)*, ed. Thuy Bui & Deniz Özyıldız. Amherst, MA: GLSA.
- Reese, Brian. 2002. (Non)coreference effects and bound variable anaphora in Hindi experiencer predicates. Ms., University of Texas at Austin.
- Reinhart, Tanya, & Eric Reuland. 1993. Reflexivity. *Linguistic Inquiry* 24:657–720.
- Reuland, Eric. 2011. *Anaphora and language design*. Cambridge, MA: MIT Press.
- Rizzi, Luigi. 1990. On the anaphor-agreement effect. *Rivista di Linguistica* 2:27–42.
- Woolford, Ellen. 1999. More on the Anaphor Agreement Effect. *Linguistic Inquiry* 30:257–287.

Appendix: Deriving reversibility

• *Two accounts of reversibility*

There are two conceivable accounts of the reversibility of dative–nominative structures:

1. *Base-generation*

There are two base-generated orders: dative-over-nominative and nominative-over-dative. Whichever argument is highest moves to [Spec, VoiceP]:

$$(44) \quad [\text{VoiceP} \text{ DAT Voice}^0 [\text{vP } t \text{ NOM } V^0]] \quad \text{DAT-NOM}$$


$$(45) \quad [\text{VoiceP} \text{ NOM Voice}^0 [\text{vP } t \text{ DAT } V^0]] \quad \text{NOM-DAT}$$


2. *Movement*

There is only one base-generated order, dative-over-nominative, and the nominative argument is somehow able to A-raise over the dative argument:

$$(46) \quad [\text{VoiceP} \text{ DAT Voice}^0 [\text{vP } t \text{ NOM } V^0]]$$


$$(47) \quad [\text{VoiceP} \text{ NOM Voice}^0 [\text{vP } \text{DAT } t \text{ } V^0]]$$


→ We assume some version of the movement account.

• *Equidistance analysis*

Davison (2004) argues for a version of the movement account. She proposes that the dative and the nominative are EQUIDISTANT from Voice⁰ (T⁰ in her system) such that either one can raise to [Spec, VoiceP] without violating Minimality.

• *Remarks*

- The base-generation analysis cannot account for the tight association between the nominative argument and the interpretation of the verb.
- However, Davison’s (2004) equidistance analysis requires both arguments to be base-generated in the same maximal projection, i.e. VP, in order for them to be equidistant from the relevant functional head. This cannot account for the external–internal argument distinction either.

⇒ Thus, the source of the reversibility of dative–nominative structures is a topic that warrants future research.