

## **Object Shift and Specificity: Evidence from *ko*-phrases in Hindi**

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### **1 Claims**

In the literature, at least two ways of marking specificity have been proposed - either structurally by moving out of the VP (Diesing (1992)) or morphologically as in Turkish (Enç (1991)). We discuss data from Hindi which marks specificity in a way very similar to Turkish, by the postposition *ko*. We claim that while the presence of morphological marking of specificity is necessary, it is not sufficient. To be interpreted as specific, an NP/DP has to satisfy the structural condition and be morphologically marked.

The crucial data supporting our claim come from double object constructions. These data suggest a very restrictive shortest-move-obeying view of scrambling. We discuss the nature of the specificity-induced movement and the nature of the site in which specificity is licensed. Finally, we also discuss a connected alternation seen with the verb ‘send’. We extend our analysis of the specificity-*ko* to handle the dative-*ko*.

### **2 Uses of *ko***

The postposition *ko* appears on experiencer arguments, dative objects and it can appear on accusative objects (Cf. (1a,b, and c) respectively).

- (1) a. Ram ko gussaa aa-yaa  
Ram KO anger came-Pfv  
Lit. ‘Anger came to John, John became angry.’(experiencer)
- b. Ram ne Aditi ko kitaab dikhaa-ii  
Ram Erg Aditi KO book.f show-Pfv.f  
‘Ram showed a book to Aditi.’(dative)
- c. Ram-ne Jason-ko dekh-aa  
Ram-Erg Jason-KO see-Pfv  
‘Ram saw Jason.’(specificity)

When *ko* appears on accusative objects, it marks specificity/animacy.<sup>1</sup> We discuss the specificity-marking *ko* in the first half of the paper and connect it to the dative *ko* in the second part.

## 2.1 What is specificity?

Several views of specificity abound in the literature. According to Fodor and Sag (1982), an NP is considered specific if it has wide scope over an operator. Thus, in (2), the specific reading of ‘a child’ is the reading where it has scope over the subject. When the subject takes scope over ‘a child’, it is interpreted as non-specific.

- (2) Every woman talked to a child in fifth grade. (from Enç (1991))

Enç (1991) provides a non-scopal account according to which specific NPs must satisfy a Familiarity Condition, which requires that there be a discourse referent corresponding to the specific indefinite. Enç treats specific NPs as covert partitives, and, as such, they are ‘weakly linked’ to previously established discourse referents, unlike definites, which are ‘strongly linked’. This means that they are novel (this is indicated on their first index), but they are weakly linked to previously established discourse referents by their second index, which is definite. The relation is a part-whole relation: the discourse entities introduced are part of a set of familiar referents.

For Diesing (1992), specificity in indefinites corresponds to a presuppositional reading. Specific NPs move out of the VP and are interpreted as presupposing their restrictor.

Working on Hindi data, Singh (1994) argues that *ko* is a marker of presuppositional specificity, which for her means that the *ko*-marked NP has to “denote an object that exists previously, and furthermore is known to exist”. Cf. (3).

- (3) Ram-ne cake(\*-ko) banaa-yaa  
Ram-Erg cake-KO make-Pfv  
‘Ram baked a cake.’(from Singh (1994, pg. 84))

We adopt Diesing (1992)’s view of specificity and show that *ko*-marked NPs obey Diesing’s structural conditions on specificity. It should be noted that the accounts mentioned above are not mutually incompatible. In particular, Diesing (1992) connects Enç’s treatment to her own. According to Diesing (1992), the morphologically marked NPs could move out of the VP either overtly by Spellout or covertly at LF. Diesing (1992) considers both these options but does not choose between them leaving them, for further research (Diesing (1992), pg. 88). We take that line of research further and show that at least for Hindi this movement has to be overt.

## 3 The proposal

All specificity-*ko*-marked DP/NPs scramble out of the VP before Spellout. Consequently, (1c) has the structure in (4).

- (4) Ram-ne Aditya-ko<sub>i</sub> [<sub>VP</sub> t<sub>i</sub> dekh-aa]  
 Ram-Erg Aditya-KO see-Pfv  
 ‘Ram saw Aditya.’

Specific NP/DPs in Hindi obey the following conditions: (i) a specific NP/DP has to be out of the VP (as in Diesing (1992)); (ii) it has to be out of the VP by Spellout; (iii) if it is an object, it also has to be morphologically marked (as in Turkish; Cf. Enç (1991)).<sup>2</sup>

The necessity of morphological marking is demonstrated by (5).

- (5) Ram-ne Jason<sub>i</sub>-\*(ko) [<sub>VP</sub> t<sub>i</sub> dekh-aa]  
 Ram-Erg Jason.m-KO see-Pfv.m  
 ‘Ram saw Jason.’

Proper names of animates are inherently definite and consequently specific. However, moving out of the VP is not enough; *Jason* in (5) has to be explicitly *ko*-marked also.

### 3.1 Evidence for the proposal

The evidence given so far does not conclusively show that *ko*-marked DP/NPs scramble out of the VP at structure; it is merely compatible with it. Adverb placement tests such as the ones used for German by Diesing (*ja doch* marks the VP boundary) are unreliable in Hindi because adverbs do not seem to have a fixed position.

Our evidence comes primarily from the double object construction. The base order for the double object construction can be taken to be Subj-IO-DO-Verb. Cf. (6).

- (6) Ram-ne [<sub>VP</sub> Anita-ko chitthii bhej-ii]  
 Ram-ERG Anita-KO letter.f send-Pfv.f  
 ‘Ram sent the letter to Anita.’

If specificity-*ko*-marked NPs obligatorily need to move out of the VP by Spellout, we would expect the DO *chitthii*, in case it is *ko*-marked, to obligatorily scramble out of the VP. This is exactly what is observed. Cf. (7).

- (7) Ram-ne chitthii-ko<sub>i</sub> [<sub>VP</sub> Anita-ko t<sub>i</sub> bhej-aa]  
 Ram-ERG letter-KO Anita-KO send-Pfv  
 ‘Ram sent the letter to Anita.’

This object shift is obligatory. Hindi has relatively free word order, so in general when the case-marking underspecifies grammatical function, we get ambiguity. Cf. the ambiguous ((8)a and b). However, (8c), which involves object shift, has only one reading.

- (8) a. billi machhlii khaa-tii hai  
 cat.f fish.f eat-hab.f be.prs  
 ‘The cat eats the fish.’  
 ‘Cat, The fish eats.’
- b. Ram-ne Sita-se Lila-se chitthii likhvaa-yii  
 Rame-Erg Sita-Instr Lila-Instr letter.f write.caus-Pfv.f  
 ‘Ram made Sita make Lila write the letter.’  
 ‘Ram made Lila make Sita write the letter.’
- c. Ram-ne Bill-ko Lila-ko di-yaa  
 Ram-Erg Bill-KO Lila-KO give-Pfv  
 ‘Ram gave Bill to Lila/\*Ram gave Lila to Bill’

Unlike (8a,b), where word order does not provide any information, in (8c) word order plays a crucial role: the first *ko*-marked phrase is interpreted as the THEME, while the second *ko*-phrase is interpreted as the GOAL.

#### 4 The nature of Movement - A (L-related) or A' (non L-related)?

##### 4.1 Some facts about scrambling in Hindi

The unmarked/base word order in sentences involving double object verbs like *give* is Subject-IO-DO-Verb - this phenomenon is known as *scrambling*.

Scrambling has been the focus of much recent work by Frank, Lee and Rambow (1992), Hoji (1985), Mahajan (1990), Webelhuth (1989), and Saito (1992), among others. The following tests (among others) have been developed to investigate its properties.

The first test involves anaphor binding. Assuming that c-command is necessary at LF for a binding relationship to be well-formed, if binding relations are preserved by scrambling that destroys a relationship of c-command at Spellout, it indicates that reconstruction is a possibility<sup>3</sup> and that the movement can be an A'/non L-related movement.<sup>4</sup>

The second test involves variable binding/weak crossover (WCO) phenomena. This test is based on the observation that it is necessary for the quantificational expression to c-command the pronoun from an A/L-related position for variable binding at Spellout. This can be seen in (9).

- (9) a. \*He<sub>i</sub> knows that [every boy<sub>i</sub> is intelligent].  
 b. Every boy<sub>i</sub> knows that [he<sub>i</sub> is intelligent].  
 c. Every boy<sub>i</sub> loves his<sub>i</sub> mother.  
 d. \*His<sub>i</sub> mother loves every boy<sub>i</sub>.  
 e. \*Who<sub>i</sub> does his<sub>i</sub> mother love t<sub>i</sub>?

- f.  $Op_i$  [... $x_i$ ... $x_j$ ...] (where  $x_i$  and  $x_j$  do not c-command each other)

(9a,b) show that overt c-command is necessary for variable binding. (9c,d,e) show that the c-command has to be from an A-site. Thus in (9e), ‘Who’ c-commands the pronoun but not from an A-site. The impossibility of variable binding in the configuration shown in (9f) is known as weak crossover.<sup>5</sup> By the diagnostic introduced above, if a WCO violation is amnestied by scrambling, i.e. variable binding is a possibility from the scrambling site, it indicates that the landing site is an A/L-related site and that the movement is an A/L-related movement.

The third test we use involves Condition C violations. If a Cond. C violation is not amnestied by scrambling, it indicates that reconstruction has to obligatorily take place and that the movement is A'/non L-related.

#### 4.1.1 Anaphor binding

Reciprocals are used in place of reflexives because reflexives are subject-oriented in Hindi.

- (10) a.  $unh\ddot{o}ne_i$  laRkiy\ddot{o}-ko $_j$  [ek-duusre $_{i/j}$  kii kitaab\ddot{e}] d\ddot{i}-\ddot{i}  
 they girls-KO each-other Gen books give-Pfv  
 ‘They $_i$  gave the girls $_j$  each-other $_{i/j}$ ’s books.’
- b.  $unh\ddot{o}ne_i$  [ek-duusre kii kitaab\ddot{e}] $_{i/*j}$  laRkiy\ddot{o}-ko $_j$  --- d\ddot{i}-\ddot{i}  
 they each-other Gen books girls-KO give-Pfv  
 ‘They gave each-other’s books to the girls.’
- c. [ek-duusre kii kitaab\ddot{e}] $_{i/*j}$   $unh\ddot{o}ne_i$  laRkiy\ddot{o}-ko $_j$  --- d\ddot{i}-\ddot{i}  
 each-other Gen books they girls-KO give-Pfv  
 ‘They gave each-other’s books to the girls.’

The scrambled NP can reconstruct to the site between the Subject and the IO, as the possibility of binding in (10c) shows, but not to its base site, as the impossibility of coreference with the IO in (10b) shows.

#### 4.1.2 Variable binding/WCO

- (11) a. \* $unh\ddot{o}ne$  [us-kii maa]-ko $_i$  har laRkaa $_i$  lautaa-yaa  
 they his mother-KO every boy return-Pfv  
 \*‘They returned his $_i$  mother every boy $_i$ .’
- b.  $unh\ddot{o}ne$  har laRkaa $_i$  [us-kii maa]-ko $_i$  --- lautaa-yaa  
 they every boy his mother-KO return-Pfv  
 ‘They gave every boy $_i$  to his $_i$  mother.’
- c. \*[har laRkaa] $_i$  [us-kii maa]-ne $_i$  Gerhardt-ko --- di-i  
 every boy his mother-Erg Gerhardt-KO give-Pfv  
 \*‘His $_i$  mother gave every boy $_i$  to Gerhardt.’

Variable binding is not possible from the sentence-initial site but is possible from the subject-IO intermediate site.

### 4.1.3 Condition C

- (12) a. us-ne<sub>i</sub> us-ko<sub>j</sub> [Aditya<sub>\*i/\*j/k</sub>-kii kitaab] di-i  
 Dem-Erg Dem-KO Aditya's book give-Pfv  
 'He<sub>i</sub> gave him<sub>j</sub> Aditya<sub>\*i/\*j/k</sub>'s book.'
- b. us-ne<sub>i</sub> [Aditya<sub>\*i/j/k</sub>-kii kitaab] us-ko<sub>j</sub> \_\_\_ di-i  
 Dem-Erg Aditya's book Dem-KO give-Pfv  
 'He<sub>i</sub> gave Aditya<sub>\*i/j/k</sub>'s book to him<sub>j</sub>.'
- c. [Aditya<sub>\*i/j/k</sub>-kii kitaab] us-ne<sub>i</sub> us-ko<sub>j</sub> \_\_\_ di-i  
 Dem-Erg Aditya's book Dem-KO give-Pfv  
 'He<sub>i</sub> gave Aditya<sub>\*i/j/k</sub>'s book to him<sub>j</sub>.'

Scrambling past the subject does not amnesty Cond. C violations with respect to the subject, as in (12c), but scrambling past the IO does.

### 4.1.4 Assimilating the three tests

These tests give us different results for scrambling to the sentence-initial site and the subject-IO medial site. For the sentence-initial site, Anaphor binding indicates that reconstruction is possible, while Variable binding and Condition C indicate that reconstruction is obligatory. These diagnostics lead us to the position that the sentence-initial position is a non L-related site.

On the other hand, anaphor binding into a DP/NP scrambled into the Subj-IO medial site by the IO is not possible, showing that reconstruction is impossible. A DP/NP scrambled into this site can variable-bind, showing that reconstruction is not obligatory. Scrambling into this site also amnesties Condition C violations, again showing that reconstruction is not obligatory. Combining these diagnostics, we come to the conclusion that movement to the Subj-IO medial site can only be an A/L-related movement and this site can only be an A-site. A corollary is that no A'/non L-related site is available. If A' sites are created by adjunction, this also indicates that adjunction cannot take place at this site.

## 4.2 Movement of the *ko*-marked DO

Applying the scrambling diagnostics to scrambled *ko*-marked DOs, we find that the movement is an A/L-related movement: it amnesties WCO violations and Cond. C violations and does not permit reconstruction for anaphor binding. Cf. (13a, b, and c respectively).

- (13) a. unhõne har laRke<sub>i</sub>-ko [us-kii maa]-ko<sub>i</sub> \_\_\_ lautaa-yaa  
 they every boy-KO his mother-KO returned-Pfv  
 ‘They returned every boy<sub>i</sub> to his<sub>i</sub> mother.’
- b. us-ne<sub>i</sub> [Aditya<sub>\*i/j/k</sub>-kii kitaab]-ko us-ko<sub>j</sub> \_\_\_ di-yaa  
 Dem-Erg Aditya’s book-KO Dem-KO give-Pfv  
 ‘He<sub>i</sub> gave Aditya<sub>\*i/j/k</sub>’s book to him<sub>j</sub>.’
- c. unhõne<sub>i</sub> [ek-duusre kii bahinõ]<sub>i/\*j</sub>-ko laRkõ-ko<sub>j</sub> \_\_\_ di-yaa  
 they each-other Gen sisters-KO boys-KO give-Pfv  
 ‘They<sub>i</sub> gave each-other<sub>i/\*j</sub>’s sisters to the boys<sub>j</sub>.’

## 5 What drives this movement?

We have concluded so far that this movement is an *A/L*-related movement. It still remains to determine whether this movement is like dative-shift, which is case-driven, or whether it is like scrambling. Dative shift has been treated as being a case-driven movement, similar to passivization (Cf. Larson (1988)). We argue that the considerations that led Larson (1988) to draw his conclusions about the English dative shift construction do not carry over to the Hindi case.

Larson (1988) derives ‘John gave Mary the book’ from ‘John gave the book to Mary’. Here we are deriving (7) from (6) (repeated here as (14a and b) respectively). Overt case-marking is being added, not lost.

- (14) a. Ram-ne chitthii-ko<sub>i</sub> [<sub>VP</sub> Anita-ko t<sub>i</sub> bhej-aa]  
 Ram-ERG letter-KO Anita-KO send-Pfv  
 ‘Ram sent the letter to Anita.’
- b. Ram-ne [<sub>VP</sub> Anita-ko chitthii bhej-ii]  
 Ram-ERG Anita-KO letter.f send-Pfv.f  
 ‘Ram sent the letter to Anita.’

A Larsonian treatment would go the other way and derive the general case in (14b) from the more restrictive (14a), a conceptually undesirable move. Deriving (14b) from the more restrictive (14a) is similar to deriving ‘John gave Mary the book’ from ‘John gave the book to Mary’ and has the attendant problems that the putative underlying structure is not available/is awkward for many verbs.

Further, it is unclear how to derive (14b) from (14a) without invoking a lowering rule. Cf. (15)

- (15) a. \*Ram-ne us<sub>i</sub>-ko Patrick<sub>i</sub>-kii kitaab di-i  
 Ram-Erg Dem-KO Patrick’s book give-Pfv  
 \*‘Ram gave him<sub>i</sub> Patrick<sub>i</sub>’s book.’
- b. \*Ram-ne us<sub>i</sub>-ko Patrick<sub>i</sub>-kii bahin-ko di-yaa  
 Ram-Erg Dem-KO Patrick’s sister-KO give-Pfv

\*‘Ram gave him<sub>i</sub> to Patrick<sub>i</sub>’s sister.’

In (15a), the IO c-commands the DO while in (15b) the *ko*-marked DO c-commands the IO. Assuming that the IO stays put, deriving (15a) from (15b) would involve lowering the DO. Noting these problems, we derive (15b) from (15a).

This movement is specificity-driven scrambling. The *ko*-marked DO is interpreted as being specific. By Diesing’s Mapping Hypothesis, specific NPs have to move out of the VP to avoid existential closure.<sup>6</sup>

### 5.1 Why is this movement overt?

At this point a question arises as to why this movement has to be overt. All that is required by the mapping hypothesis is that for a DP/NP to be interpreted as specific, it must be out of the VP at LF. Given the principle Procrastinate, according to which covert movement at LF is more economical than overt movement, the overt nature of this movement is unexpected.

We argue that the overtness of this movement is in line with the overall scope-marking system of the language. Also, the relevant facts from Hindi are similar to the facts about scrambling and specificity in German noted in Diesing (1992). Diesing (1992) notes that in order for an object to receive a specific interpretation, it is necessary for it to overtly scramble out of the VP. We relate this to a fact about how scope relations are marked in Hindi (also in Korean, Japanese, Hungarian etc.). These languages have rigidity effects, i.e., if a c-commanding quantifier precedes another quantifier overtly, it takes scope over it. Cf. the contrast in (16).<sup>7</sup>

- (16) a. Someone saw everyone.  
b. LF:  $\forall y \exists x \text{ saw}(x, y)$   
c. LF:  $\exists x \forall y \text{ saw}(x, y)$
- (17) kisi-ne          sab-ko          dekh-aa  
someone-Erg everyone-KO see-Pfv  
\* LF:  $\forall y \exists x \text{ saw}(x, y)$   
LF:  $\exists x \forall y \text{ saw}(x, y)$

This link between the overall scope-marking system of the language and specificity is to be expected given that in Diesing (1992)’s system, specific interpretation is only available for DP/NPs in certain structural configurations.

## 6 The nature of the landing Site

This movement is *A/L*-related movement. Hence, we expect the landing site to be the specifier of an *L*-related functional projection.

The unambiguity of the multiple *ko* order (Cf. (8b)) indicates that there is no site left in between the subject and the *ko*-marked DO, for the IO to move to. The following is not possible.

- (18) \*Ram-ne Lila-ko<sub>i</sub>(IO) Matt-ko<sub>j</sub>(DO) [<sub>VP</sub> t<sub>i</sub> t<sub>j</sub> di-yaa]  
 Ram-Erg Lila-KO Matt-KO give-Pfv  
 ‘Ram gave Matt to Lila.’

The absence of the above structure corresponds to the absence of reconstruction to the base-site in (10b, c). If an adjoined site were available, then we would expect reconstruction, and the IO would be able to bind into the scrambled DO. We conclude that this movement is to the specifier position of some functional projection, say XP, that is below the subject but above the VP. This conclusion is supported by (19), which involves scrambling beyond the subject.

- (19) Tim-ko Theo-ne Sita-ko di-yaa  
 Tim-KO Theo-Erg Sita-KO give-Pfv  
 ‘Tim, Theo gave to Sita, \*Sita, Theo gave to Tim.’

The sentence-initial *ko*-phrase can only be interpreted as the *ko*-marked DO and not as the IO.

Assuming that the *ko*-marked DO is in [Spec, XP] in the unscrambled sentence (Cf. (20a)), moving the IO to the sentence-initial position would violate *Shortest Move* as it would skip [Spec, XP], which is already full. As a result, the only legitimate structure is (20b), and (20c) is ruled out.

- (20) a. Subject [<sub>XP</sub> DO-Ko<sub>i</sub> [<sub>VP</sub> IO t<sub>i</sub> Verb] X]  
 b. DO-Ko<sub>i</sub> [Subject [<sub>XP</sub> t<sub>i</sub> [<sub>VP</sub> IO t<sub>i</sub> Verb] X]]  
 c. IO<sub>j</sub> [Subject [<sub>XP</sub> DO-Ko<sub>i</sub> [<sub>VP</sub> t<sub>j</sub> t<sub>i</sub> Verb] X]]

For this explanation to work, movement out of the VP to a non L-related (or a mixed site such as the sentence-initial position) site has to be a two-step process – first, there is movement to a VP-external L-related site and then movement from this site to a non L-related/mixed site.

Skipping the subject on the way to the sentence-initial position is permissible because, unlike the movement to [Spec,XP], which is an A-movement, the second movement is non L-related and hence skipping the subject (an L-related position) does not cause a violation of Relativized Minimality.

## 7 Another alternation

The same postposition *ko* is used to mark both specificity and dative case.

- (21) a. Ram-ne chitthii Paris bhej-ii  
 Ram-Erg letter.f Paris send-Pfv.f  
 ‘Ram sent the letter to Paris.’

- b. Ram-ne Elena-ko chitthii bhej-ii  
Ram-Erg Elena-KO letter.f send-Pfv.f  
'Ram sent Elena the letter.'
- c. Ram-ne chitthii-ko<sub>i</sub> Elena-ko t<sub>i</sub> bhej-aa  
Ram-Erg letter.f-KO Elena-KO send-Pfv  
'Ram sent Elena the letter.'

The alternation between (21b) and (21c) has already been discussed. A reflex of the alternation between (21a) and (21b) can be seen in English in (22).

- (22) a. John sent the letter to Paris.
- b. \*John sent Paris the letter.
- c. John sent the letter to Mary.
- d. John sent Mary the letter.

This sensitivity to animacy restrictions is a hallmark of double object constructions (Cf. (22)a and b vs. (22)c and d). We note that the environment where dative shift is blocked in English, (22a, b), is exactly the environment where we get *Subj DO IO Verb* order in Hindi (Cf.(21a)).

If we assume (21a) to reflect the basic *unshifted* order, then we can handle (21a) in a manner parallel to Larson's (1988) treatment. The verb starts as a sister to the IO and raises. However, since Hindi is head-final, this movement is vacuous.

(21b) is derived from a structure like (21a) in a manner similar to the derivation of (21c) from (21b). Both dative-*ko* and *specificity-ko* are thus licensed by movement. This enables us to give a partial explanation for the fact that the same postposition is used for dative case, as well as to mark specificity.

However, there are interesting differences between the landing site for the dative-*ko* NP and the specificity-*ko* NP. The specificity-*ko*-marked NP (DO) is able to skip the dative-*ko*-marked NP (IO), as can be seen in the derivation of (21c) from (21b). The dative-*ko*-marked NP, on the other hand, is not able to skip the site occupied by the specificity-*ko*-marked NP, as the ungrammaticality of (18) shows. We do not have an explanation for the special nature of the specificity-*ko* licensing site. Our speculation is that this peculiarity is linked to the special nature of the subject-IO medial landing site.

## 8 Conclusion

Specificity always involves movement to a VP-external site – morphological marking is insufficient. The movement for specificity reasons is a scrambling movement of the A/L-related kind. We also show that scrambling obeys Shortest Move and propose that scrambling to a sentence initial position is a two step process mediated by a VP-external L-related site.

The treatment of dative *ko* and specificity marking *ko* is unified. It is noteworthy that the language uses the same device for marking specificity that it uses for marking dative objects and experiencer arguments, which are cases where we have prototypical selection of animate and specific arguments.

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1. It is to be noted that the other positions for *ko*, namely dative objects and experiencer arguments, tend to be specific/presuppositional. For example, existential bare plurals are generally not permitted in preposition-less dative constructions in English and German, and the same holds for experiencer arguments. Moreover, in scrambling and clitic-doubling languages we see that there is systematic scrambling and doubling of these arguments.

2. Related to the subject/object asymmetry are some interesting facts about agents in Hindi. Singh (1994) points out that agents in Hindi are always definite. It is not clear to us why there is this link between agency and definiteness and we leave this topic for further research.

3. Belletti and Rizzi (1988) have argued that reconstruction is also possible with A-movement, but we believe that there is ample evidence against this conclusion. Given that their argument is based on psych-movement, and given that their analysis is controversial (cf. Pesetsky 1995, Reinhart and Reuland 1993 et al) we follow standard practice, according to which A-movement generally does not reconstruct.

4. We do not choose between the terms *A'* and L-related here, since the difference between them does not impinge on this paper.

5. The explanation for WCO given here is from Reinhart (1983). An alternate explanation is that of Koopman and Sportiche (1982) and goes by the name of 'The Bijection Principle'. This principle says that an Operator cannot bind two variables simultaneously, and, given that the pronoun and the trace do not c-command each other in a WCO configuration, the operator must bind both, leading to a violation of the principle.

6. A question arises at this point, namely, how does specificity drive scrambling. This is part of the general question – what drives scrambling. It is generally agreed upon that scrambling is an optional, discourse-driven movement. However, there is no consensus about the way in which syntax and discourse representation

meet. Thus, according to some approaches, specificity is a morpho-semantic feature such as Wh, Focus, etc., which drives this movement (Sportiche 1995 et al). Alternatively, it has been proposed that specificity is encoded through special Case licensing VP-externally in some Agr projection. The latter approach attempts to account for the A-movement properties of scrambling (Mahajan 1990 et al). It is beyond the scope of this paper to choose among the various alternatives.

7. Apparently similar rigidity effects appear in German. Bayer and Kornfilt (1994) note that Scrambling bleeds LF-movement (page:42), citing Scherpenisse (1986) for the observation. However Henk van Riemsdijk (p.c.) and Craig Thiersch (p.c.), citing Höhle (1991) note that there are complications once intonation is taken into account.

## 9 References

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