CHAPTER II

THE SCOPE OF HINDI WH

INTRODUCTION

In recent years, substantive work has been done on question formation strategies in the languages of North India. Hindi question formation has been investigated, for example, by Davison (1984, 1988, 1994), Gurtu (1985), Mahajan (1987, 1990, 1993), Bains (1990) and Srivastav (1990, 1991a, 1991b). Dasgupta (1980) and Bayer (1990, 1993) deal with Bangla questions and Wali (1988) with questions in Kashmiri and Marathi. The primary focus of these studies is to accommodate certain locality effects manifested by wh in-situ in these languages within the principles of universal grammar. In this chapter I look at Hindi wh in-situ, drawing on my own previous work (Srivastav 1990, 1991a) as well revisions and modifications prompted by the work of other scholars. I show that the scope properties of Hindi wh in-situ can be explained in terms of the phrase structure of the language if subordination is recognized as a constraint on LF movement as well as S-structure movement.

1. HINDI IN THE TYPOLOGY OF WH MOVEMENT

1.1. Hindi as an In-Situ Language

Let us begin by seeing where Hindi fits into the typology of wh languages. In general, two language types are recognized with respect to question formation strategies: languages in which the wh word occurs in clause-initial position and those in which it remains in situ. The first is exemplified by English (1a), the second by Chinese (1b):

(1) a. What did Lisi buy?
   b. Lisi mai-ke sheme?
   Lisi bought what
   “What did Lisi buy?”
   c. [cp what, [g Lisi buy]]

Within the Principles and Parameters framework (1a) is analyzed as the result of S-Structure movement of what from an A to an A’ position, specifically to spec of CP. (1b) appears to lack such movement but Huang (1982) argued that, in fact, Chinese and English do not differ in that respect. As he pointed out, wh expressions in any language would have to move to spec of CP in order to ensure interpretation since they are quantification expressions. While this occurs at S-structure in English it happens at LF in Chinese. The difference between English and Chinese, then, is not in the presence or absence of wh movement but in the level at which such movement takes place. (1a-b), on his account, have distinct S-structure representations but identical LF representations, as shown by (1c).

Of course, languages are not parameterized simply in terms of the level at which wh movement takes place. English, for example, has LF movement of wh in addition to movement at S-structure while Romanian has only S-structure movement:

(2) a. Who, tį has seen what?
    b. Cine, ce ț a văzut tį?
    who what has seen
    c. [cp what, who, [1 tį has seen tį]]

In an English multiple wh question only one wh moves at S-Structure to spec of CP, the others remain in situ. At LF, however, they move and adjoin to spec of CP in order to be interpreted. This can be compared to the Romanian example in (2b) in which all wh’s must move to Spec at S-Structure (Comorovski 1989, Rudin 1988). The option of movement at LF is never exercised in such languages. The LF representations of multiple wh’s in both languages are the same. The difference between English and Romanian is that English does not allow multiple wh to be present in Spec position at S-structure while Romanian does. There are other languages, such as Italian, in which multiple wh’s are disallowed altogether (Calabrese 1984). One might hypothesize a language-specific constraint against the presence of multiple wh in Spec at any level in Italian. Though languages display considerable diversity in question formation strategies it seems possible to have a uniform theory of wh movement based on certain universal principles, namely the necessity for wh elements to move to A’ positions combined with a parameterization of the possibility of cooccurrence of multiple wh in Spec of CP.

Turning to Hindi, we see that it belongs with languages like Chinese in disallowing S-structure movement of wh expressions. The examples in (3) show that in simple sentences Hindi wh’s do not move to clause-initial position:
(3) a. tum kahaaN jaa rahe ho 
you whoA go-PROG-PERF
“Where are you going?”
b. tum kisi-koi pasand karte ho 
you who-A like do-PERF
“Whom do you like?”
c. tum-ne kisi-koi kitaab di 
you-E who-D book give-P
“What did you give the book to?”
d. tum-ne us-ko kyaa diya 
you-E he-D what give-P
“What did you give him?”

Hindi differs from Chinese, however, in permitting wh expressions to be fronted. Such fronting is not only optional, it is not necessarily to clause-initial positions. (3d), for example, has the following variants:

(4) a. kyaa tum-ne us-ko diya 
what you-E him-D give-P
b. tum-ne kyaa us-ko diya 
you-E what him-D give-P
c. tum-ne us-ko diya kyaa 
you-E him-D what give-P
“What did you give him?”

Overt wh movement in Hindi is therefore generally taken to be an instance of scrambling, not movement to Spec of CP. The general consensus is that typologically, Hindi is an in-situ language.

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1 There is a weak tendency for wh expressions to occur in preverbal position, as noted by Mahajan (1990) and Rains (1989). There is no fixed position, however, to which wh expressions must move.
2 See Mahajan (1990), Déprez (1989) and Dayal (1994a) for discussion of the precise nature of scrambling in Hindi.

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1.2. Some Unexpected Effects

The difference between Hindi and in-situ languages like Chinese surfaces when we examine the behavior of wh inside finite complements. Consider the Chinese example in (5), which is ambiguous between a direct and an indirect question interpretation:

(5) ni zhidaot a zuo-lee sheme 
you know he did what
“What do you know he did?” AND
“You know what he did.”

The ambiguity of (5) is explained in Huang’s account by the fact that the wh may move at LF to the embedded spec position or to matrix spec since the matrix verb zhidaot “know” can select a + or – wh complement.

In English too the verb know selects either + or – wh complement, yielding (6a) or (6b):

(6) a. Who, does John know [cp, t[wh], will come]? 
b. John knows [cp, who, [t[wh], will come]]

Since wh-movement is obligatory at S-structure and wh movement at LF does not originate from operator positions (Chomsky 1986a), the scope of English wh is transparent at S-structure.

Hindi being an in-situ language, we would expect the Hindi counterpart of (5) to be ambiguous. In point of fact, an example like (7), has only an indirect question reading:

(7) tum jaante ko [i us-ne kyaa kiyaa] 
you know-PERF that heE what do-P
“You know what he did.” NOT
“What do you know he did?”

Since the verb jaante “know” can select –wh complements and the wh expression is in an A position at S-Structure, it is not immediately clear why matrix scope is blocked. The primary challenge in an analysis of Hindi questions, then, is determining the factors which prohibit matrix scope for Hindi wh in-situ inside finite complements.

A related issue has to do with the strategy employed to get direct question interpretation in structures like (7). It has been noted by Gurtu (1985) and Mahajan (1987) that though Hindi does not
ordinarily have overt wh movement, such movement is used to
question out of finite complements.3

(8) kyaa, tum jaante ho ki us-ne t kiya am
what you know-PR that ho-B do-P
"What do you know that he did?"

The extraction strategy illustrated here is somewhat controversial and
will address the issue of its status in section 3.1. The point to note
here is that the paradigm in (7) and (8) is unexpected given the
standard view of wh movement. Huang, for example, presents the
following evidence to show that LP movement is less restricted than
S-structure movement. In (9a) topicalization out of Chinese relative
clauses at S-structure is banned while LP wh movement from the same
position is perfectly acceptable:

(9) a. *[Lisi, ni zai xihuan [(wo piping t ) de wenzhang] ]
List you most like I criticize DE article
"Lisi is the person such that you like the articles where I
criticized him."
b. ni zai xihuan [(wo piping she ) de wenzhang]
you most like I criticize who DE article
"Who is the person such that you like the articles where I
criticized him?"

In Hindi, on the other hand, LF movement from finite embedded
clauses is blocked in (7), while S-structure movement is permitted in
(8). This seems to suggest that LF movement may be more restricted
than overt movement. A second challenge in the analysis of Hindi
questions, then, is to reconcile the possibility of overt extraction out of
finite complements with its impossibility at LF. And we need to ensure
that whatever account is proposed for Hindi fits in with a universal
theory of wh movement.

3 The primary strategy for the purpose is scope marking, which we discuss in
Chapter III.
LOCALITY IN WH QUANTIFICATION

One way of describing the scope facts in (11a-b) is the following. The complement originates inside VP, specifically to the left of V, as in (11a) from where extraction of wh is licit. The complement may be optionally scrambled to the right of VP, and adjoined presumably to IP or CP. Extraction from this adjoined position is not possible:

(12) \[ \text{[\text{\textup{wh}} \{\text{\textup{v}} \ldots \text{\textup{v}}\} \{\text{\textup{x}} \ldots \text{\textup{x}}\}]} \]

I should point out that extraposition of a non-finite complement does not lead to ungrammaticality, per se. For example, if (11b) contained a non-finite complement like War and Peace or an ordinary quantifier like har kitiab “every book” instead of a wh expression like kyaas “what”, the sentence would be completely acceptable. Thus the source of the ungrammaticality cannot be the extraposition but the wh expression inside the complement clause.\(^5\) As noted already, Hindi non-finite clauses do not constitute appropriate scope domains for wh expressions, ruling out a narrow scope interpretation. The wide scope reading that was originally possible is now lost, showing that the postverbal adjoined position is a scope island for wh expressions.

Generalizing from cases of non-finite complementation to finite complementation, it seems quite plausible to assume that the postverbal position blocks matrix scope reading of wh in-situ in these cases as well. Let us accept for now the descriptive fact that finite clauses always occur postverbally. A legitimate question to consider at this point is whether they are generated in that position or whether they originate preverbally and are then extraposed. Put another way, we might wonder whether finite complements in Hindi have the status of arguments or adjuncts.

\(^5\) There are examples of sentences in which the wh intervenes between the main verb and the aux of the matrix verb and the non-finite verb follows the auxilliary. In these cases, wide scope is not blocked:

(i) tum kaise kya ko pakarat
you want-PR what AUX-req-INF
“What do you want to eat?”

I will not deal with such sentences since I think they involve scrambling of a special sort. Perhaps the wh is scrambled out of the non-finite phrase first and adjoined to the right of the verb clausulae. When the verb raises to INF, the wh expression is raised along with it. The rest of the non-finite phrase subsequently adjoins to the right of IP. Here, it suffices to note that the whole complement phrase does not occur postverbally in this case. IP movement of the wh phrase does not have to move out of the postverbal phrase.

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Consider (13), a variant of (7), in which an overt DP appears in the preverbal position:

(13) tum yeh jaante ho ki us-ne kyaa kiyaas
you this know-PF that he-E what do-P
“You know what he did.”

Intuitively, yeh “this” stands in place of the finite clause. In this sense it is a dummy element (but see section 3.2). Hindi being an SOV language in which case and theta role are assigned to the left, we conclude that the dummy yeh in (13) is in argument position and absorbs case and theta role. The actual complement is base generated in adjoined position and is conjoined with the argument position, as shown in (14a). The postverbal position cannot be considered an argument position:

(14) a. \[ \text{[\text{\textup{wh}} \{\text{\textup{v}} \ldots \text{\textup{v}}\} \{\text{\textup{x}} \ldots \text{\textup{x}}\}]} \]

b. \[ \text{[\text{\textup{wh}} \{\text{\textup{v}} \ldots \text{\textup{v}}\} \{\text{\textup{x}} \ldots \text{\textup{x}}\}]} \]

On analogy with this, I will suggest that the finite complement in structures where there is no preverbal element is also in adjoined position. (7), for example, may be derived via extraposition or be base-generated in adjoined position and conjoined with a null argument in preverbal position, as shown in (14b). The latter option is quite plausible since Hindi freely allows null arguments. The data so far leave the choice between the two possibilities underdetermined.\(^6\) In either case, the correlation with the non-finite case in (11b) is established. The finite complement is in an adjoined position and the absence of wide scope readings correlates with this fact. Before going into an explanation of how adjunction interferes with matrix scope, however, let us see why finite and non-finite clauses differ with respect to positioning.

\(^6\) As we will see, an extraposition analysis is crucially needed to explain cases of overt wh extraction out of these clauses.
2.2. Finiteness and Case Resistance

Hindi, as mentioned earlier, is an SOV language. Thus, ordinary objects occur to the left of the verb and display case-marking (see Mohanan 1990 for an extensive discussion of the Hindi case system):

(15) a. raam dadhi-ko jaan-ko jaanta hai
Ram man-A John-A know-PR
"Ram knows the man/John."

b. raam jaan -ke baare meN jaanta hai
Ram John about know-PR
"Ram knows about John."

If we take case marking and theta-role assignment to be uniformly to the left in Hindi, an explanation for the apparent SVO order with finite complementation can be given in terms of the Case Resistance Principle (CRP) proposed by Stowell (1981). According to Stowell, the +tense feature located in CV is incompatible with case. CP’s must therefore be in adjoined positions at S-structure. The CRP predicts that CP’s will be barred from the preverbal case position in Hindi. They can only appear adjoined to IP or CP and be linked to an argument position to the left of the verb. The example in (13) displays this in a transparent manner, and a similar analysis for cases like (7) would seem to be the null hypothesis.7

Invoking the CRP in Hindi might seem problematic, at first, for an analysis of non-finite complementation, since CRP also disallows infinitives from appearing in cased positions. As we saw in (10), though, non-finite complements do appear in the canonical object position in Hindi. If the present account is to be maintained Hindi non-finite complements cannot be CP’s, as they have generally been taken to be. Subbarao (1984), Mahajan (1987), Davison (1984) and (1994), for example, consider them left branching CP’s, an analogue of infinitives. Here I would like to suggest that this approach to non-finite complementation is incorrect. The complements at issue are not infinitives of category CP, but gerundive constructions which are nominalized IP’s. The CRP does not bar them from appearing to the left of the verb since gerundive nominalized expressions crucially lack the +tense feature.

It is easily verified that Hindi non-finite complements have the typical characteristics of gerunds. For example, they behave like

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7 Details aside, this is a fairly standard view. Bayer (1990) and (1993), however, argues that the finite CP is a bona fide argument of the verb. Mahajan (to appear) also argues for this, following Kayne’s (1994) proposal.

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nouns in terms of distribution and case marking, as demonstrated by the following:

(16) a. raam [ghar jaanaa] caahtaa hai
Ram [house-go-INF] want-PR
"Ram wants to go home."

b. raam Ravi-ko [jaane]ko-ke liye kaheega
Ram Ravi-D [go-INF]-Afor will say
"Ram will tell Ravi to go.

In (16a) the gerundive suffix -nai has nominative case, i.e. it has no inflection. In (16b) it can take accusative case marking -ko or the postposition ke liye and the gerundive suffix itself is in oblique case -ne. In (16c-d) the gerund displays genitive case inflecting for gender, in agreement with the noun ikkaa or hukum. The non-finite suffix -nai is consequently in oblique case. An ordinary noun phrase like latRaa, “boy” would show identical morphology if it occurred in similar contexts. Even though the natural English translations of the sentences in (16) use an infinitive, the morpheme -nai seems to be closer to the nominal suffix -ing that we see in gerunds.

Non-finite clauses also trigger verb agreement, as shown by Butt (1993). In this respect they behave like ordinary noun phrases. Verbs in Hindi agree with the highest nominative argument. In (17) the subject is nominative and the verb agrees in gender and number with it, singular feminine in (17a) and singular masculine in (17b):

(17) a. ana Hindihi/hsaab nahiiN jaantii hai
Ana Hindi/nath not know-PR
"Ana doesn’t know Hindi/math."

b. ravi hindihi/hsaab nahiiN jaantaa hai
Ravi Hindi/nath not know-PR
"Ravi doesn’t know Hindi/math."
(18) is a dative subject construction and agreement is now with the nominative object, singular feminine in (18a) and singular masculine in (18b):

(18) a. anu-ko rávi-ko hindii nahiN aati hai
    Anu-D/Ravi-D Hindi not come-PR
    "Anu/Ravi doesn’t know Hindi.”

b. anu-ko rávi-ko bisaab nahiN aata hii
    Anu-D/Ravi-D math not come-PR
    "Anu/Ravi don’t know math.”

In (19) the object is a gerund whose internal agreement is determined by its own argument structure. In (19a) the embedded object is feminine, in (19b) it is masculine. The point of significance here is that this agreement percolates up to the matrix verb because the gerund functions like an object of the matrix verb:

(19) a. mujhe gari calaanii aati hai
    I-D car drive-INF come-PR
    "I know car-driving.”

b. mujhe taaNa biN calaannaa aata hai
    I-D buggy drive-INF come-PR
    "I know buggy driving.”

Finally, overt subjects of Hindi non-finite complements show genitive case, just like gerunds:

(20) a. raam [ramaan-kaa ghaar par rahnaa] pasand kartaa hai
    Ram Rama-G house at stay-INF like do-PR
    “Ram likes Ram’s staying at home.”

b. raam [ramaan-ke aante] -ke baare meN janta hai
    Ram Rama-G come-INF about know-PR
    “Ram knows about Ram’s coming.”

The variation between a controlled PRO, as in the examples in (16), and a genitive overt DP in subject position is typical of gerunds, not ordinary infinitives. As such, an analysis of Hindi non-finite complements as gerunds seems fairly plausible. Their occurrence in case-marked positions is therefore predicted by the CRP.8

8 It seems that Hindi may not have infinitives at all. For example, the complements of ECM verbs never have verbs:

A consequence of this analysis of non-finite complementation is that the interpretation of wh embedded inside them is explained. Let us assume an analysis of gerunds such as Baker (1985) and Milsark (1988) and take the gerund to be an NP whose head is a +N category. Consider the following:

(21) a. tum [kyaNa karNaa] jaante ho
    you what do-INF know-PR
    "What do you know to do?”

b. tum [bartan kaise dhonaan] caante ho
    you dishes how wash-INF want-PR
    "How do you want to wash the dishes?”

c. tum [vahaN kaise jaanN] kit soo nahi ho
    you there how go-INF-G think-PROG-PR
    "How are you thinking of going there?”

Since gerunds are nominalized IP’s, there is no spec position inside the gerund that the wh could move to. In order to be interpreted, then, the embedded wh moves to matrix spec. Note that this movement is licit since the gerund, being in complement position, is L-marked by the verb in the sense of Chomsky (1986a) and does not constitute a barrier for wh extraction. (21a) involves no subjacency violation, as shown in the following LI:9

(22) [cy what, [you [praN t doing know]]

(23) shows further proof that there is no landing site for wh inside the complement:

This suggests that the complement must be an adjectival phrase rather than an infinitive.

9 I do not represent, for ease of exposition, the intermediate adjectives of wh required in the Barriers model. The main point of the argument would be maintained in a full derivation.
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The adverbial clause CP, in these examples is not L-marked by the verb and therefore constitutes a barrier. Under standard assumptions the movement in (24a) violates subjacency because it crosses the adverbial CP, and the matrix IP. It does not, however, violate ECP since the verb saw lexically governs the WH trace. The movement in (24b) violates the ECP in addition to subjacency. The trace of the WH is not lexically governed so that antecedent government must hold of the A' chain created by WH movement. CP, being a barrier prevents antecedent government in one link of the A' chain. The difference between a subjacency violation and an ECP violation is reflected in a perceived difference in the level of ungrammaticality of (24a) and (24b).

Let us return to the case of Hindi finite complements. Recall that in (7), repeated below as (25a), the WH in-situ is an argument. (25b) shows that the facts hold uniformly for arguments and adjuncts:

(25a) a. tum jaante ho ki us-ne kyaa kiyaa you know-PR that he-E what do-P "You know what he did."
b. tum jaante ho ki us-ne yeh kaam kaise kiyaa you know-PR that he-E this work how do-P "You know how he did this work."
c. [Cry, what/how, [IP, you, ...] know [Cry', [IP, he did t/he did the work t]]]

The impossibility of matrix scope for the embedded adjunct WH in (25b) is expected under the view that CP, the finite complement, is a syntactic adjunct. The explanation would be essentially parallel to that of (24b). CP, would block government of t', from matrix Spec, leading to an ECP violation. The problem is in explaining the impossibility of matrix scope for the embedded argument WH in (25a). As in the case of (24a), ECP is satisfied since the original trace is lexically governed. Thus the only possible violation here is a subjacency violation. However, it is generally assumed that while ECP applies at S-structure and Lf, subjacency applies only at S-structure. This has been argued most forcefully by Huang (1982) on the basis of contrasts like the following in Chinese:

(26a) a. [shel xie de shu] zui youqi who write DE book most interesting "Books that who wrote are most interesting?"

2.3. Adjunction and LF Wh Movement

While the status of Hindi finite complements as syntactic adjuncts goes some way towards explaining the absence of wide scope interpretations of embedded WH's, a full account of the facts requires further elaboration. To see this, consider the following cases of extraction out of adjuncts in English:

(24a) a. *[Which man, did Bill go home after he saw t]? b. *[Why, did Bill go home after he saw John t]? c. [Cry, which man/why, did [IP, Bill go home] [Cry', after [IP, he saw t/he saw John t]]]]

10 There are differences between adjuncts with respect to the level of ungrammaticality. I abstract away from that here to make a more general point.
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h. *[a weisheme xie de shu] zui youqiu
   he why write DE book most interesting

"Books that he wrote why are most interesting?"

Both structures involve LF movement of wh out of a complex DP, a potential Subjacency violation. (26a) is an acceptable direct question because the trace of the subject wh is lexically governed in Chinese, showing that subjacency is not operative at this level. The trace of the wh in (26b), on the other hand, is not lexically governed. The unacceptability of this sentence shows that ECP is operative at LF.

The problem that confronts us in the case of Hindi finite complementation is the fact that LF movement of adjuncts as well as argument wh expressions are blocked. Let us analyze the implications of this problem, adopting for concreteness the modification of the Barriers model proposed in Cinque (1990).\(^{11}\) Cinque, following Rizzi (1990), separates two types of relations that wh expressions may enter into. Binding relations are formed by those wh expressions that are inherently "referential" and have the potential to belong to a preestablished set in the discourse. That is, wh expressions that have the potential to be D-linked, in the sense of Pesetsky (1987). Government relations, on the other hand, are formed by all wh expressions. The binding relation correlates with the notion of long wh movement, the government relation with that of successive cyclic movement. Under this approach, a single barrier is sufficient to create a subjacency or an ECP violation but there is a difference between what counts as a barrier for binding and what counts as a barrier for government:

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(27) a. Every maximal projection that fails to be (directly or indirectly) selected in the canonical direction by a category nondistinct from [+V] is a barrier for binding.
   b. Every maximal projection that fails to be directly selected by a category nondistinct from [+V] is a barrier for government.
   c. A nonpronominal EC must be properly head-governed by a head nondistinct from [+V].

For our purposes, an important piece of Cinque’s proposal is that directionality is brought into the picture. Even if the adjointed complement in Hindi were to be treated as indirectly selected by the verb, as has been argued for example by Bayer (1990), it would count as a barrier for binding since it is not in the canonical direction for Hindi. However, the larger question of the relevance of subjacency at LF remains unaffected in this proposal. Subjacency effects are here subsumed under the first clause requiring direct or indirect selection in the canonical direction. Though the issue is not addressed directly, this clause is not expected to apply at LF since the scope properties of wh in-situ in Chinese or English do not show subjacency effects. In order to incorporate the Hindi facts, we might say that languages differ with respect to the relevance of subjacency at LF. LF movement in Hindi, unlike LF movement in Chinese or English, respects subjacency. This statement is not only somewhat implausible, but as we will see below, it is also empirically untenable in its simplest form.

Consider the following, which have wh expressions inside ordinary adjuncts. Argument wh expressions yield well-formed questions but adjunct wh expressions are unacceptable:

(28) a. vo [raam-koh dekhne ke baad] ghar gayii she Ram-A see-INF after home go-P
   "She went home after seeing Ram."
   b. vo [kisi-koh dekh-ke baad] ghar gayii she who-A see-INF after home go-P
   "Who did she go home after seeing?"

(29a) us-ne [bas-ne jaate samail] us-koh dekhaa she-2 bus-INS going time she-A see-P
   "She saw her while going by bus."
   b. turn-ne [kaise jaate samail] us-koh dekhaa you-2 how going time she-A see-P
   "For what x, you saw her while going in manner x?"
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Argument-adjunct asymmetries of this kind, we saw, are generally ascribed to the fact that subjacency, though not the RCP, is inoperative at LF. Given that we have independent evidence that subjacency is operative at LF in Hindi, this explanation cannot be used. To explain the contrast in (23a)-(29), I will therefore adopt the proposal in Nishigauchi (1986, 1990) that such apparent long-wh movement at LF is, in fact, due to pied-piping of the containing clause.12 As he demonstrates, there are independent reasons why adjuncts don’t trigger the feature percolation needed for pied-piping, resulting in the argument-adjunct asymmetry we see here. But now, note that if such argument-adjunct asymmetry we see here. But now, note that if such argument-adjunct asymmetry we see here...
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completely acceptable. In order to understand what is at issue, let us get a sense of what such questions mean.

These questions are not simple requests for information but have a contrastive meaning. An accurate translation for (30a) for example, contrastive meaning would be something like *Who do you (as opposed to others) think will come?* It is possible that the questioner already has some information with regard to the value of *who*; it is not the new information being sought. (3b) She is interested in the value of *who* with respect to the opinion the addressee holds — hence the focus on you rather than on who. In this sense, (30) does not represent the standard procedure for who. While its meaning is that of a direct forming direct questions. While its meaning is that of a direct question, there is also a contrastive aspect to its meaning. Indicated by the stress.

I propose that the questions in (30) involve long-distance scrambling of the embedded *wh*. While ultimately the *wh* must move into Spec position in order to be interpreted, at S-structure the *wh* moves from the lower clause and adjoins to the matrix IP. Adjoining moves from the lower clause and adjoins to the matrix IP. Adjunction of *wh* has been claimed for some of the Slavic languages, namely Serbo-Croatian, Polish and Czech (Radin 1985) as well as for Chinese (Tang 1988). Tang, for example, shows that though Chinese *wh* typically remains in situ, it may move at S-structure as an instance of topicalization. She argues that the semantic and syntactic properties of such movement are distinct from those of LF movement of *wh* which is required in order to get a direct question interpretation, such movement is not forced. LF movement can undo scrambling and it may still be possible to get an indirect question reading. (30a) for example, could be interpreted as an indirect question reading.

An interesting consequence of this approach is that though further movement into matrix Spec position is required in order to get a direct question interpretation, such movement is not forced. LF movement can undo scrambling and it may still be possible to get an indirect question reading. (30a) for example, could be interpreted as an indirect question reading. It may say (30a) with this intended meaning. This fits in with an analysis of overt extraction as long-distance scrambling rather than movement to Spec since the former but not the latter can be undone at LF (Saito 1985).

Another advantage of treating extraction as scrambling is that we can get the right order for wh and complementizer, noted in Mahajan (1987):

(31) a. ravi soccta hai ki kaun tum soceti ho ki tay aayegaa
Ravi think-PR who you think-PR that come-F
"Ravi wonders who you think will come"

b. *ravi soccta hai kaun ki tum soceti ho ki tay aayegaa
Ravi think-PR who you think-PR that come-F
Here, the complementizer *ki* "that" in the intermediate clause occurs before the extracted *wh*. This is to be expected if the *wh* is IP-adjoined but in an analysis where extraction is standard distance movement, some further explanation is needed.

Mahajan (1987) suggests that in Hindi *ki* "that" is in pre-Spec position. The possibility of a complementizer preceding Spec has been proposed by Sutter (1991) for Spanish. Thus it may be possible that Hindi, like Spanish, has the following structure C [[C [C Spec]]] with Spec occurring in the higher C. Another possibility is that *ki* is not a complementizer at all, but a quotative particle of some kind, as has been argued by Dwivedi (1994). Certainly, it does have some unusual properties. For example, in a finite complementation structure a pause can intervene quite naturally after *ki* and before the subordinate clause. It is much less natural between the matrix clause and *ki*. Further, it does not lend itself to regular co-ordination as shown below:

(32) a. *vo jaattii hai ki anu aayii aur ki ravi gayaa she know-PR that Anu come-P and that Ravi go-P
"She knows that Anu came and that Ravi left."

b. *vo jaattii hai ki anu aayii aur ravi gayaa she know-PR that Anu come-P and Ravi go-P
"She knows that Anu came and Ravi left."

The ungrammaticality of (32a) shows that no maximal projection may intervene between a matrix and a *ki* clause. One might speculate here that right-adjoined clauses in Hindi are licensed by being in a canonical government configuration with a g-projection of the pronominal element with which it is coindexed, in the sense of Kayne (1983). This is satisfied in the case of IP co-ordination subordinated under *ki* as in (32b) but not with regular CP co-ordination as in

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13 I would like to thank J. Abe for pointing out this possibility. Incidentally, Hindi *soccta* can be translated as wonder since it can take *wh* complements too.
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(32a). Admittedly, though, this is a rather unusual property for complementizers.
There is, however, one piece of evidence suggesting that ki may be a complementizer after all. Anticipating our discussion of Hindi
relative clauses here, let me note that wh elements tend to move overtly
and occur next to the head noun. Normally, there is no
complementizer but it is possible to get sentences in which the two
complementizer in these cases:

(33) a. vo baat jo ki anu jaantii hai vo nahiiN-kah saktii
that matter which that Anu know-PR she not
say can-PR
"The thing which Anu knows she cannot say."
b. ek lakii ji-ko ki ravi sectaa hai ki sab cune
a girl who-A that Ravi think-PR that all choose-F
"A girl whom Ravi thinks everyone will choose."

If ki were to precede elements in Spec (33a-b) should be
grammatical, while in the case of (31b). The facts can be explained,
however, if we take the wh element in relative clauses to move to Spec
in order to satisfy the adjacency requirement between
head and wh that is specific to relativization.15 I will therefore take
Hindi to have a regular CP projection, with ki in C and wh elements
moving at LF to a Spec position preceding it.
In this subsection I have tried to place in perspective the
possibility of overt movement in Hindi. The central claim I have
advanced is that such extraction is an instance of long-distance
movement. And I have argued that special
scrambling, not wh movement. And I have argued that special
properties of the Hindi complementizer notwithstanding, the order of
properties of the Hindi complementizer notwithstanding, the order of
extracted wh and complementizer is compatible with such an analysis.
Let us consider now whether long-distance scrambling of Hindi wh
takes place out of the postverbal position, in violation of subcyclicity.

Note that it is possible to conjoin two ki clauses if a the preverbal pronoun
is repeated in the second conjunct:
(i) us-ne kaha ki anu sayi sur yeh bhii ki ravi gayaa
she-say-PR that Anu come-PO and this too that Ravi go-P
"She said that Anu came and also that Ravi left."

(34) *kaun tum yeh soc te ko [cyo ki t aayegaa]
who you this think-PR that come-P
"Who do you think will come?"

That the contrast is not restricted to wh extraction can be shown by
testing with other expressions that clearly originate in the embedded
clause. Consider, for example, an indefinite like koi-bhii. As shown
in (35), bhii is like English any in requiring the presence of negation
or modality (see also Davison 1978 and Dayal 1995a):

(35) a. koi-bhii lakii jaa saktii hai
some-PSI girl go can-PR
"Any girl can go.
"
b. koi-bhii lakii nåhiN gayii
some-PSI girl not go-P
"No girl went."
c. *koi-bhii lakii gayii
some-PSI girl go-P
"Any girl went."

Given this fact, we know that the topicalized expression in (36a) must
originate in the embedded clause and move at S-structure to the
matrix. As shown by the ungrammaticality of (36b), the presence of
the preverbal pronoun blocks such movement:

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3.2. Finite Complements at D-Structure

In order to assess the role of subcyclicity in overt extraction, let us
bring into the picture structures like (13) in which there is an overt
pronoun in preverbal position. There is a clear contrast between
them and bare finite complementation with respect to extraction. In
this section I want to look closely at both structures with a view to
gaining a better understanding of movement phenomena.

yeh complements, as I will refer to finite complements co-indexed
with pronouns in preverbal positions, do not allow wh scrambling.
This is shown by the contrast between (30a) and (34) below:

14 The parallels with complementation in Dutch and German which have

15 The order of ki jo is not completely unacceptable, presumably because the need

16 The parallels with complementation in Dutch and German which have
(36) a. koi-hii laRkii, ravi kahtaah hai ki t, nahiN anyii some-PSI girl Ravi say-PR that not come-P
   "No girl, Ravi says came."
   b. koi-hii laRkii, ravi yeh kahtaah hai ki t, nahiN anyii some-PSI girl Ravi this say-PR that not come-P
   "No girl, Ravi says it that came."

Any explanation for overt wh extraction that takes the complement to be transparent at S-structure must contend with the difference made by the presence of the pronoun. Clearly a constraint like subjacency must constrain S-structure movement in Hindi in these cases.

Further proof that Hindi S-structure movement respects subjacency comes from relative clauses, which also do not allow extraction.17,18

(37) a. *kisi bace-ko, [vo laRkii some child-A that boy [jis-ne, t, maara]] yahaaN hai who-PR hit here be-PR
   "The boy who hit some child is here."

17 Dwivedi (1994) notes that it is possible for referential NP's, but not quantifiers or wh expressions, to be extracted from relative clauses. She calls this type of extraction referential NP topicalization and demonstrates that its properties are distinct from the kinds of extraction under discussion here. Note, incidentally, that referential NP topicalization is also possible in finite complement structures with preverbal pronouns:

(i) amu-ko tum jaantaah ho ki Amu-A you know-PR that [vo laRkii [jis-ne pro, maara]] yahaaN kahtaah hai that boy who-PR hit here lives
   "Amu, you know that the boy who hit her lives here."
(ii) amu-ko tum yeh jaantaah ho ki Amu-A you know-PR that ravi-ne pro, maara
    "Amu, you know that Ravi hit her."

18 Dwivedi (1994) questions the validity of (37b) as a relevant example since the corresponding structure with the wh left in situ is ungrammatical. This, under the present account, is due to the directionality clause of subjacency, which we have identified as operative at LF. Note that if it were possible to extract wh at S-structure or LF, an acceptable interpretation could be defined. The intended meaning is given in the translation.

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b. *kis bace-ko, tum jaanti ho ki [vo laRkii which child-A you know-PR that boy [jis-ne, t, maara]] yahaaN hai who-PR hit here be-PR
   "Which child is such that you know that the boy who hit her/him is here?"

It is clear that the explanation for extraction out of bare finite complements cannot be that S-structure movement in Hindi is in violation of subjacency. As we will see, a straightforward explanation that maintains standard constraints on movement is available.

Recall that in section 2.1 it was left open whether the finite complement is base-generated in postverbal position or moves to that position at S-structure. Under either derivation the right adjoined position is a barrier for binding and government chains formed by wh movement at LF. The presence or absence of a preverbal element is irrelevant as shown schematically in (14), repeated below:

(38) a. [crp [w [v...this...]] [cr, ]]
   b. [crp [w [v...pro/A-...]] [cr, ]]

Turning to S-structure movement, we can represent the extraction possibilities as in (39):

(39) a. [crp [w [v...this...]] [cr, ]]
   b. [crp [w [v...pro/A-...]] [cr, ]]

I take the presence of an overt pronoun to indicate that the finite complement is base-generated in adjoined position. No movement can take place out of such complements because it would be in violation of subjacency. In the case of bare finite complementation, however, we may hypothetize that it originates in the preverbal position which, being selected by the matrix verb, freely allows extraction. Subsequent to extraction, the complement must extrapose in order to satisfy the CRP. All further movement is blocked once
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Extrapolation occurs, hence the impossibility of wh-in-situ to get wide scope. Supporting evidence for this explanation of wh extraction is that non-finite complements show similar behavior. (40a) shows that overt extraction is compatible with extrapolation:

(40) a. kis-se anu tā pasand kartii hai who-INS Anu like do-PR
   [cp ravi-kān tā baat kērēnā ] Ravi-G talk do-INF
   “Who is such that Anu likes Ravi’s talking to him?”
   b. *anu tā pasand kērēn hai Anu like do-PR
   [cp ravi-kān kērēn ] Ravi-G who-INS talk do-INF
   “Who is such that Anu likes Ravi’s talking to him?”

Since non-finite complements typically occur in preverbal position, it seems entirely reasonable to suggest that extraction occurs prior to extrapolation (40a). Recall that the preverbal position was shown in section 2 to allow wide scope readings for wh-in-situ. Once extrapolation takes place, however, extraction is blocked, as shown in (40b).

A question that remains to be settled is the relationship between the elements in preverbal position and the CP in adjointed position in finite complementation structures. We know that extraposed constituents are standardly interpreted in their base positions. I assume this is done by lambda abstracting over the trace and inserting the meaning of the moved constituent by lambda conversion at the adjunction point. Turning to yeh complements, one possibility is to treat yeh, the pronoun in preverbal position, semantically as a spell-out of a trace. Another is to treat it as an expletive that is replaced by the CP at LF. In either case, complete semantic uniformity between structures with or without the preverbal pronoun is predicted. In point of fact, the presence of a preverbal pronoun has a clear, if subtle, effect on the meaning of the sentence. This suggests a different relationship between the two.

19 Syntactic reconstruction leaves open the possibility of extraction after reconstruction, incorrectly predicting wide scope readings for wh-in-situ. I therefore adopt what one might call semantic reconstruction of extraposed elements.

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In order to give a sense of the difference between the two structures, I draw on the discussion in Rothstein (1995) of English structures where pronouns are coindexed with right-adjoined phrases:

(41) a. It seems [CP that we are all going to be late].
   b. It, was widely believed [CP that the earth was flat].

(42) a. I regretted [ii] [CP that he was late].
   b. They never mentioned [ii] to the candidate [CP that the job was poorly paid].

Arguing against Postal and Pullum (1988) and Authier (1991), Rothstein makes a crucial distinction between the pronominal elements in (41) and (42). According to her, the pronouns in (41) are pleonastics with no semantic content and must be replaced by the CP at LF. Pleonastics only appear in case-marked theta-bar positions. The pronouns in (42), on the other hand, are case-marked as well as theta-marked pronouns and have semantic content. As such, they are not subject to expletive replacement. The LF representations of (42a)-(42b) differ depending on the presence of the pronoun. The syntactic difference corresponds to a semantic difference. The pronouns in these cases are free and denote specific entities recoverable from discourse, the adjoined phrase being licensed via predication. According to her the pronoun contributes an aspect of specificity to the sentence since it refers to “some fact already broached” (Bolinger 1977). (43a), for example, is appropriate as a report of the fact that John and Mary made an announcement that is new to the speaker. (43b) is more appropriate if the speaker is reporting that John and Mary have made a public announcement of an event that she already knew to have occurred:

(43) a. John and Mary have announced that they have got married.
   b. John and Mary have announced it that they have got married.

Returning to the Hindi cases, we have analyzed the pronominal position to be case-marked and theta-marked on the basis of extraction facts. A pronoun in that position therefore would not be considered a pleonastic in Rothstein’s terms but would be expected to have semantic content. The Hindi counterparts of the sentences in (43) show the same difference in meaning that Rothstein identifies and we may assume that distinctions similar to the ones in English
apply to the Hindi cases. Interestingly, English shows similar effects to Hindi with respect to extraction. The versions without the pronoun allow extraction but not those with it.20

(44) a. Who, don’t you believe Mary will marry t?  
   b. *Who, don’t you believe that Mary will marry t?

There is another respect in which the Hindi and English cases are similar. Consider the following contrasts:

(45) a. I don’t believe John has been here in weeks.
   b. *I don’t believe that John has been here in weeks.

(46) a. mainN nahiN samajhii humN ki koi-bhi aayaa hai
   1  not believe-PR  that some-PSI come-PREF-P
   “I don’t believe anyone has come.”
   b. *mainN yeh nahiN samajhii humN ki koi-bhi aayaa hai
   1  this not believe-PR that some-PSI come-PREF-P
   “I don’t believe that anyone has come.”

English in weeks is a polarity sensitive item that needs negation to license it, as does Hindi bhi. This is shown by the fact that the adjoined CP’s in (45a) and (46a) are ungrammatical as root clauses. The sentences also become unacceptably when matrix negation is deleted. Note now that negation in these sentences is crucially interpreted in the embedded clause, enabling PSI licensing to take place. That is, a Neg-raised interpretation is needed in (45a) and (46a).21 The question then becomes why neg-raising is blocked by the presence of a pronominal in (45b) and (46b).

Under one view neg-raising is syntactic movement of negation from a lower to a higher position. When movement takes place from a CP that is in adjoined position subjacency is violated. In the analysis presented here the presence of a pronoun indicates base-generation of

20 The extraction facts have also been noted by Cardinaletti (1990) for parallel examples in German.
21 Dwivedi (1994) finds polarity sensitive items in bare complementation structures like (46a) to be less robust than I do. This may be because neg-raised readings are easily affected by the choice of lexical items, as discussed at length by Horn (1989).

the CP in adjoined position and neg-raising is expected to be impossible in (45b) and (46b). It is not clear, however, whether neg-raising involves movement. Horn (1989) argues argues against this position, suggesting that negation is generated in the matrix clause but gets a lower clause construal. This construal is conditional on the nature of the difference between matrix negation and embedded clause negation. Rothstein’s view that the pronoun in these cases refers to a proposition recoverable from discourse suggests a substantive enough difference to rule out the possibility of a lower clause construal for negation, in Horn’s sense. Thus the facts in (45) and (46) are explained even if movement of negation is not at issue.

In this section I have argued that overt wh extraction out of Hindi finite complements occurs prior to extraposition. Support for this view comes from the fact that extraction is blocked in the case of yeh complementation. The finite complement in these cases is analysed as base-generated in adjoined position. The contrast in extraction possibilities depending on the presence of a preverbal pronominal shows that appearances notwithstanding, wh movement at S-structure respects subjacency. Subjacency, then, is a principle that is relevant in Hindi at S-structure as well as LF.

4. ALTERNATIVES TO SUBJACENCY AT LF

4.1. Hindi as an SVO Language

My goal in the sections above has been to show that the behavior of Hindi wh fits in with known properties of wh movement and phrase structure. However, the investigation lead to one conclusion that is not standard. I have argued that if argument-adjunct asymmetries out of ordinary adjuncts are due to long-distance LF movement of wh expressions, subjacency must be operative at LF in Hindi since all extraction out of postverbal complements is blocked at this level. In this section I want to briefly note two proposals that have been made in the literature that obviate the need for appealing to subjacency at LF. Before doing so, however, I want to address a challenge to the fundamental premise of my account that Hindi is uniformly an SOV language and the postverbal finite complement a syntactic adjunct.

Kaye (1994) has proposed that all languages are underlingly SVO and apparent SOV order is a result of DP movement to Spec of higher projections (see, however, Hartmann and Büring (1994) and Rothbach’s (1994) for arguments against such a view). Kayne’s proposal, if correct, would turn the discussion of Hindi complementation around so that finite complementation would instantiate the base order and non-finite as well as ordinary DP
complementation the derived order. Mahajan (to appear), following Kayne, argues that Hindi is underlyingly SVO. He bases his discussion primarily on ordinary DP’s, not clausal complements but the implications for wh movement are obvious. The finite complement, being directly selected by the verb, could no longer be considered a government or a binding barrier. This would be a welcome enough result as far as overt movement goes, but the question that has been central in the discussion of Hindi wh is the status of the finite complement for LF movement. Under a proposal where Hindi was underlyingly SVO, current notions about wh movement would have to be modified in order to ensure that Hindi wh in-situ do not take wide scope. One such modification is suggested by Mahajan (1990 and 1994) and Kim (1991) who argue that wh movement is an instance of QR, in some if not all languages.

22 One of the issues Mahajan discusses is variable binding of elements in the postverbal position:

(i) har nadmi (yeh) sectan hai ki vo tez hai
every man (this) think-PR that he smart is
"Every man thinks that he is smart."

The bound variable reading of the embedded pronoun is accounted for under the present proposal in the following way. In the case of complements generated in the preverbal position, pronouns bound by c-commanding DP’s at D-structure are allowed to be semantically reconstructed. For yeh-complements, I assume that the proposition each man stands in the think relation to is indeed fixed. However, it is the character rather than the content of the proposition, in the sense of Kaplan (1977), that comes into play. The reference of yeh varies with each man and can be identified with different propositions, depending on which individual the pronoun is mapped onto.

Dutch and German show the same SOV-SVO alternation that Hindi does but wh expressions are obligatorily fronted. Since wh movement is possible out of finite complements, they are standardly taken to be arguments (Cinque 1990). Proposals adapting Kayne’s approach to complementation, such as van Gelderen (1994) or Hadder (1993), fit in with this perspective. However, two current papers arguing against Kayne’s proposal are Hartmann and Büring (1994) and Wiltschko (1993). Hartmann and Büring, in particular, argue for an analysis of German that is strikingly similar to the one developed here for Hindi. They too claim, for example, that wh movement out of finite complements occurs prior to extraposition.

4.2. Wh Movement as Quantifier Raising

Mahajan (1990, 1994) suggests that Hindi wh expressions are quantificational expressions that undergo QR instead of movement to Spec of CP. Under this view, since QR is a strictly local operation, the locality effects in the scope of Hindi wh in-situ follow without reference to constraints on long-distance movement. While I am in general sympathy with the idea of bringing locality into LF, I do not think that wh movement at LF and regular QR can be conflated. The thesis I am exploring in this book is that wh movement at LF is to the most local Spec CP position but such movement is constrained by subjacency (as well as the ECP). This view is akin, but not identical, to the view of wh movement as QR. In particular, it maintains distinctions necessary to account for two crucial differences between wh movement and QR. One, wh movement in embedded contexts is sensitive to the selectional properties of the embedding verb while QR is impervious to it. Two, wh expressions are more restricted in the domain over which they can take scope than quantifiers. The first needs no illustration but it might be worthwhile to demonstrate the second in relation to Hindi.

As we saw in section 2.2 non-finite complements, being gerunds, are not of the right category for wh expressions to take scope over them. They are, however, appropriate scope domains for quantifiers. This is shown in (47):

(47) a. koii laddik [ravi-kaa har laRke-se
some girl Ravi-G every boy-INS
baat karna] pasand kartii hai
talk do-INF like do-PR
"Some girl likes Ravi’s talking to every boy."
b. anu [ravi-kaa kis-se baat karna] pasand kartii hai
Anu Ravi-G who-INS talk do-INF like do-PR
"Who is such that Anu likes Ravi’s talking to him?"

The universal cannot take scope over the existential in (47a). This shows that QR of har laddik “every boy” to the matrix is blocked, and further, that QR to the complement is possible. This contrasts with (47b) which has a direct question interpretation, showing movement of wh from embedded position to matrix Spec. One way of maintaining the view that wh movement is an instance of QR would be to say that all movement at LF is to the closest scope position. Recall, however, that when the complement is extraposed as in (40b), the closest scope position for the wh expression is still the matrix clause. But the structure is unacceptable, showing that an otherwise
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possible movement is blocked. This can only be explained if constraints that take into account the syntactic status of the adjoined position are operative at LF.

4.3. Complementation as Co-Ordination

A very different proposal that also does away with the need to refer to constraints on LF movement in Hindi is made by Dwivedi (1994). Briefly, she argues that finite complements in Hindi are not subordinate structures at all. Instead, they represent a special kind of asymmetric co-ordination. The key idea here is that Hindi ki “that” is not a genuine complementizer but a co-ordinator that combines CP’s. What is traditionally known as the matrix clause is, in reality, the first conjunct of this co-ordinator and what is traditionally known as the embedded clause, its second conjunct:

(48)  
\[
\begin{array}{c}
\text{Spec} \\
\text{CP} \\
\text{ip} \\
\text{ki} \\
\text{CP} \\
\text{IP}
\end{array}
\]

A consequence of this is that wh in-situ inside the second conjunct is forced to take scope over its own clause. Movement to matrix Spec is ruled out since the embedded Spec position is not c-commanded by the matrix spec position. The question of whether subjacency regulates wh movement at LF would therefore be moot.

Let me note here that Dwivedi’s account is not incompatible with the proposal made in sections 2 and 3. As far as I can see, there are two crucial differences. One, I assume an argument position inside the matrix clause. Two, I allow the embedded clause to adjoin to any (maximal) projections higher than IP. This is in the spirit of proposals such as Guéron (1980) and Guéron and May (1984) and May (1985). The possibility of adjoinment at the level of CP carries exactly the same implications for wh movement as Dwivedi’s proposal given in (48). Long-distance movement is blocked by general principles and subjacency need not be invoked. The issue of the relevance of subjacency only comes in if adjoinment to IP is allowed. It seems to me that the facts discussed in section 3.2 constitute fairly strong evidence that IP-adjunction must be allowed. For example, we saw that PSI bhi in (36a) originates in the embedded clause and moves

out as an instance of long-distance scrambling. Its landing site must be higher than its site of origin, so that it can c-command its trace:24

\[
\begin{array}{c}
\text{Spec} \\
\text{CP} \\
\text{ip} \\
\text{ki} \\
\text{CP} \\
\text{IP}
\end{array}
\]

But then, wh movement out of the embedded clause to the matrix Spec should also be possible since the Spec position too would c-command the site of origin. A constraint like subjacency that takes into account the status of the adjoined position must be responsible for blocking such movement at LF.25

To sum up this section, I have mentioned two proposals that would not require a modification of the view expounded by Huang and Chomsky that LF wh movement is immune to subjacency. While I do not pretend to have done full justice to these proposals, I hope to have pointed out what I consider to be key problems with them. It is quite possible that the basic proposals could be preserved if alternatives are developed for tackling the problems pointed out here. My main goal, though, has been to show that the scope properties of Hindi wh in-situ in right adjoined positions can be accounted for within standard assumptions if subjacency is brought into the picture at LF.

24 Recall that extracted wh expressions do yield direct question interpretations (cf. 30), showing that extraction is to a position lower than Spec of the matrix CP.
25 Recall from Chapter 1 that in Hindi wh in-situ inside finite relative clauses do not yield direct question interpretations. An explanation along the lines suggested by Dwivedi would not extend to such cases.
CHAPTER III

LOCALITY IN SCOPE MARKING

INTRODUCTION

We saw in Chapter II that Hindi finite complements constitute strong islands for wh extraction at LF. In this chapter I want to turn to scope marking, a structure which seems to defy this generalization. Briefly, a scope marking structure contains a wh in the matrix clause and a wh in the embedded clause but answers to the question specify values only for the embedded wh. It is generally believed that an answer specifies values for a wh expression only if it has matrix scope. Answers to scope marking structures are therefore taken to indicate that the scope of the embedded wh is extended by the matrix wh. Under this view the LF representation of scope marking is identical, in essential respects, to that of extraction. In this chapter I point out that the facts of Hindi preclude a syntactic analysis of scope marking in terms of extraction. I also show that scope marking and corresponding extraction structures are semantically distinct. The analysis I develop maintains the syntactic distinction between the two structures at all levels of syntactic representation. The matrix wh in a scope marking structure is interpreted as a regular wh quantifier and the embedded wh is interpreted in its own clause. The two are connected by the fact that the embedded clause serves as the restriction for matrix quantification. The considerable overlap in meaning between scope marking and extraction structures is captured without losing crucial distinctions. This approach to scope marking suggests that the diagnostic of using specification of values in the answer as an indicator of matrix scope is flawed.¹

¹ The analysis of scope marking structures I present here is essentially that of Dayal (1994b). It, however, includes new data and discussion of subsequent analyses. I would like to thank Christians Pellbaum and Beatrice Santorini for discussion of the German data in Dayal (1994b). I am also grateful to Josef Bayer, Peter Hoss, Anna Szabócska and two NALS reviewers for comments on an earlier draft of that paper. Thanks also to Dana McDaniel for some very important questions and to Miriam Butt and Sigrid Heck for an extensive set of comments. I am grateful to have had so much feedback in such a short time.