CHAPTER II

FINITE COMPLEMENT CLAUSES

2.1 INTRODUCTION

In this chapter, we discuss complement clauses which have a finite verb. It will be seen that, in Hindi and Gujarati, such complement clauses are typically introduced by a complementizer particle. In 2.1.1 we present the data. H/G word order patterns are noted in 2.1.2.

2.1.1 Sentential complementation is essentially of two types: complement clauses which occur within NPs and complement clauses which occur within VPs. Sentences (6, 7, 13, 14) are instances of noun phrase complementation; the rest are instances of verb phrase complementation.

1G meM joyuuM ke rameS paacho aavyo
I-ERG saw that Ramesh back came
'I saw that Ramesh came back'

2G mane laagyuuM ke varsaad paRyo
I-ACC felt that rain fell
'I felt that it rained'

3G uSaa kahe che ke e hamNaaj jaSe
Usha-NOM says that she now-EMPH go-will
Usha says that she will go right now'

4G em banyu ke vaaghe tyaarej aankh miicII lidhii
thus made-was that tiger-ERG just then eyes shut took
It so happened that the tiger shut its eyes right then'

5G  em kahevaay che ke deolaali naa havaapaaNii ghaNaa thus said is that Deolali of climate very saaraa good

'It is said that the climate of Deolali is very good'

6G  evi suucanaa amne maLii che ke mukhya roantri such information we-ACC got is that chief minister paKRaayaa che caught is

We have received the information that the chief minister has been arrested'

7G  evo paaTh tane SikhvaaRiiS ke hammeSaa yaad such lesson you-ACC teach-will that forever remember raheSe stay-will

'I will teach you such a lesson that you will remember it always'

8H  maiM ne dekhaa ki rameS vaapas aayaa I ERG saw that Ramesh back came

'I saw that Ramesh came back'

9H  mujhe lagaa ki Saantanu jiit gayaa I-ACC felt that Shantanu win went

'I felt that Shantanu won'

10H  uSaa kahtii hai ki baariS hogii Usha say-HAB is that rain fall-will

'Usha says that it will rain'
11H **yuuM huaa** ki Ser ne tabhi **chalaang maari**
thus happened that **lion-ERG** just then **leap** hit-past
It so happened that the lion leapt right then'

12H **aisaa maanaa** jaataa hai ki **moTe log haMsmukh hote**
thus believed go is that fat people Jolly happen
haIM
are
'It is believed that fat people are jolly'

13H **aisii suucanaa** **hame milii hai ki mukhya mantrii**
such information **we-ACC** got is that chief minister
giraftaar hue
arrest happened
We have received the information that the chief minister was
arrested'

14H **yah baat kisii se na kahnaa ki kyaa baat huii**
this talk no one-to neg tell that what happened
'Don't tell anyone what happened'

2.1.2 The canonical phrase structure of H/G is SOV. The
unmarked word order would therefore be subject-complement-verb.
The verb is always **final**, all other elements precede it. Exam-

15G **ajay bhaakrii khaay che**
Ajay bread eat-HAB is
'Ajay is eating bread'

16G **maniSaae potaanii jaat ne manaavii**
Manisha-ERG refl.of self-ACC consoled
'Manisha consoled herself

17H sumanaa ne kitaab paRhii
Sumana-ERG book read-past
'Sumana read the book'

18H maniSaa aaj reDio nahiM sunegii
Manishaa today radio not listen-will
Manisha will not listen to the radio today'

The head-final order is maintained irrespective of the category of the phrase:

19aG safed ghoRo (AP)
white horse

20aG saumaa vadhaare sundar (AP)
all-from more beautiful
'the most beautiful of all''

21aG khursii nii upar (PP)
chair on top
'on top of the chair'

19bH safed ghoRaa

20bH sabse zyaadaa sundar

21bH kursii ke uupar

We notice from examples (15-21) that the complement precedes the head in H/G. But sentential complements do not follow this language-specific rule. Examples (1-14) demonstrate that in sentential complements, the complement follows the verbal head,
flouting the head-final nature of Hindi and Gujarati. The patterns presented in (1-14) may be summarized in the form of three observations:

(i) There is only one type of tensed complement in H/G: the **ki-clause**.
(ii) The **ki** element occurs in the complement-clause-initial position.
(iii) The **ki-clause** occurs in the sentence-final position.

The above description is, of course, only a prelude to the formulation of the problem that has preoccupied scholars studying such clauses since at least the late 1960s. What this problem is will reveal itself in a natural way once we take a closer look at the Hindi and Gujarati complement clauses (as in the examples above) and at some of the earlier results of this preoccupation.

2.2 OUTLINE OF EARLIER WORK

In this section we present some pre-GB literature on finite complement clauses (2.2.1) as well as those developments in X-bar theory which are relevant to the issues addressed in this chapter (2.2.2).

2.2.1 One of the earliest seminal works on English complement clauses is, of course, Rosenbaum (published in 1967 but available...
Rosenbaum’s classification of complement structures has been the basis for virtually all linguists working in the area of complementation, including those working on Indo-Aryan languages like Hindi. Of special interest is Rosenbaum's pioneering analysis of the function of the complementizer, which has led Bresnan and others to base-generate the COMP node.

Positing the COMP node as a sister of the S node, Bresnan (1970, 1972) formulated the PS rule S' --- COMP S (where S' dominates both COMP and S). She rejects Rosenbaum's 'Complementizer Placement' transformation in favour of a PS hypothesis. An important contribution of Bresnan is her idea that verbs are subcategorized for the type of complement that they may take. The [±WH] feature composition of COMP is another of Bresnan’s ideas, based on Baker’s (1970) proposal of the Q-universal hypothesis. Bresnan’s analysis raised to a higher level of generality the study of phenomena like question movement and relative clause formation, which are widespread among the languages of the world.

A further refinement of this analysis, proposed in order to accommodate languages which permit two elements under the COMP node, was Chomsky & Lasnik's (1977) universal principle that a WH-element is moved to the left of COMP. Certain languages permit declarative complementizers (like that) to occur on the right as well as exhibiting question-movement to the left: it was observed that there are no instances (in any language) where the WH-element moves but not to the left. Chomsky & Lasnik's univer-
sal principle **concerning wh-movement** accounts for this phenomenon. The language-specific Doubly-Filled COMP filter was proposed at the same time (Chomsky & Lasnik, 1977) for languages which do not allow more than one element in the COMP position.

The structure of COMP underwent several other changes over the years, including, among others, the hypothesis that a language can have more than one COMP. This was more or less a reversal of the earlier conflating of Baker's Q morpheme and the lexical complementizer element under a single COMP node. By and large one finds that, in the literature, the COMP has been split into the Q-node (to the left, in the initial position) and the complementizer-node (for the declarative complementizer).

An interesting off-shoot of the development of the structure of COMP is Bal (1990). This differs from the earlier studies in its proposal of splitting the COMP not into a Q-node and a declarative complementizer-node but into two declarative COMPs. Bal has proposed this to account for certain Oriya facts. Oriya has two complementizers, is. and boli. is occurs in the clause-initial position (as does the H/G complementizer) and boli occurs in the clause-final position. Later we will take a more detailed look at Bal's proposal regarding je, and compare it with discussions by others of the Hindi k.

2.2.2 Before moving to more specific problems, let us take a look at the changes in X-bar theory (proposed in Chomsky, 1986b) that have a bearing on our discussion so far. One finds that the Chomsky (1986b) model has incorporated many of the proposals outlined above in its new streamlined version of the X-bar theory. In such a version, COMP and INFL -- which, we can now say with hindsight, become the first "functional heads" -- are treated like lexical categories as far as the head-complement relations are concerned; C(complementizer) is therefore the head of its maximal projection CP (S' in the earlier system) -- as X is the head of XP -- and I is the head of its maximal projection IP (S in the earlier system). Thus we get a structure for English that looks like this:

![Diagram of English structure](image)

Given the above diagram, in the Chomsky (1986) model, wh-movement takes place to [SPEC, CP] and not, as was the case until then, to C. There is thus no further need for a proposal that advocates two COMP positions. The Q-element would now be in SPEC CP and the lexical complementizer would be in C. Various details of the Proposals of Reinhart, Bayer and others can be accommodated for
in this system with only minor modifications.

The Chomsky (1986) analysis thus provides a universal configurational reduction of the whole range of problems to a new version of X-bar theory which, subsuming as it does a theory of functional heads, can address issues that earlier, more descriptive efforts could not handle. This analysis avoids, in particular, the formal problems of these earlier theories with respect to the structure of projections -- ending up with two heads for S', or having to split the COMP node into two further nodes. More important from the H/G perspective, the Chomsky (1986) version of the X-bar theory predicts that the order of constituents is a matter of choice based on the head-initial/head-final parameter; its application to a head-final language like H or G therefore, is now a smooth matter of switching on the appropriate option. Moreover, proposed universals like Baker's Q and Bresnan's complementizer substitution, as well as Chomsky & Lasnik's idea that wh-movement is to a pre-Comp landing site, can be subsumed under this analysis. The consequence that the Q-element always occurs to the left now follows from the fact that [SPEC, CP], the position where the Q-element lands, always does occur to the left, now that all specifiers precede what they specify, universally, unlike heads and complements, which vary (cross-linguistically) according to parametric choice.
2.3 POISING THE QUESTION

The discussion in section 2.2 leads us very naturally to articulate, in the form of two subquestions, the question that we had promised would be appropriately revealed at the end of the discussion: the general sub-question -- what is COMP, where does it occur in a tree? and the more language-specific sub-question -- how do we account for the occurrence of the H/G $ki/ke$ to the right of the matrix verb when the SOV order of H/G predicts that, given the complement-head pattern, it should occur to the left? We begin our study of the problem by addressing the first sub-question below in 2.3.1 and move on to the second one in 2.3.2.

2.3.1 Having summarized the general literature on COMP, we now take a look at three relatively recent positions on complementizers, Davison (1989, 1991), Dasgupta (1990), and Bal (1990).

Davison (1989) maintains that the H $ki$ occurs in [SPEC, CP]. Her argument is that $ki$ is not a complementizer item at all. Her discussion of the issue implies that, according to her, a complementizer is an element which occurs in the COMP position. She gives examples from Dakhini, a closely related language (but influenced by the Dravidian language Telugu), as evidence. In Dakhini, $ki$ occurs in the post-verbal C position; moreover, sentences in Dakhini allow $ki$ clauses to occur in positions that are impossible in H. These (and these alone) are her arguments for contrasting the "real" complementizer $ki$ of Dakhini with the $ki$ of Hindi. Davison's thesis is that a complementizer cannot
occur in that position in Hindi at all (as it can in Dakhini). Because of government and Case facts. Bal (1990), on the other hand, maintains that his ie is a COMP, which has [+WH1 features, and which therefore moves (wh-movement) to SPEC CF. See p. 30 for an outline of Bal (1990),

The question this raises is, is ki base-generated in SPEC CF? If not, where does it come from? And, at what stage of the derivation does the movement take place and why (driven by what principle)? We have seen that Davison believes that ki is not a complementizer and does not occur in C. But, she does not mention movement as an explanation for the actual position in which ki occurs; specifically, movement from C to SPEC CP. If not base-generated, ki has to move to SPEC CP. In such a case, where the movement from C could be for reasons of Case and government (as mentioned above, Davison states that a complementizer in C vioJat.es Case and government conditions and results in ungrammatical sentences), it means that ki was a complementizer -- or, at least, did occur in C -- at some stage in the derivation. These questions need to be resolved in detail for Hindi as well as for Gujarati. Davison’s reason for not having ki in C is simply that the C is situated to the right. Hindi being a head-final language; ki occurs to the left of the V (in the PF representation). But, what would drive ki out of the C position if it originates there? If it does not originate there, where does it originate and why?

Davison’s account seems to me to lack precision on these
matters and to embroil itself in other problematic issues (under what circumstances can a functor move to a Spec?). Bal's (1990) proposal seems to be preferable in this respect as it avoids these specific loopholes (see below, on p. 13 here for details). However, it does not seem to be directly useful in explaining the H/G facts as it rests crucially on the Oriya complementation pattern of two complementizers (mentioned above on p. 7 here).

Another recent contribution to the complementizer debate is Dasgupta (1990). According to Dasgupta, the reason that the Bangla je occurs CP-initially is that it is base-generated in the lower C and cliticizes by head-to-head movement to the main verb. je cannot occur in the "true complementizer" position because of reasons discussed in Dasgupta (1990/). In Bangla it is relatively easy to regard je as a clitic; Dasgupta (in press) gives fairly clear morphological evidence that this is so. In H/G, however, this is not so directly established as kl/ke does not occur as a "true" morphological clitic. It can be argued, however, that kl/ke is an affix in the generalized sense of Webelhuth (1992) and, as an affix, it needs to cliticize. This argument is further strengthened by the unacceptability of sentences such as (23H) in Hindi (the corresponding Gujarati version is similarly unacceptable):

23H * hame lagaa ki baarish hogii aur ki bhiizenge
we-ACC felt that rain happen-will and that we-NOM soak-will
'We felt that it would rain and that we would be drenched'

Contrast this with (24H) in Hindi (a similar contrast is available for Gujarati):

24H  **hamko lagaa ki** baarish hogii **aur ham bhiigenge**

Here we see that **ki** lacks a contentive host; **aur** in (23H) is a functor. It could thus be argued that in Bangla, Hindi and Gujarati, **je/ki/ke** needs a contentive host, providing further evidence that the **ki/ke** is a clitic in need of a host. We can explain the raising of the clitic to the main verb, as outlined in Dasgupta (1990) (see above), as a strategy for government -- incorporation to the main verb would make it possible for government to the right to take place -- working at an approximation at which directionality of government is still a tenet of the theory. For a further discussion of the current trends which make notions like government redundant, see ch. 1 and section 2.4 below.

Bal (1990) solves the issue the Chomsky (1986b) way: **is** occurs in the [SPEC, CP] position. But SPEC CP typically hosts only **WH-elements**. Bal therefore goes on to prove that is has [+WH] features. He does this by proving the morphologically identical relative marker is to be a **WH-element** and then assuming that the complementizer is also has [+WH] features. This happy coincidence, unfortunately, is not available in H/G. It is not
possible to claim that the complementizer *ki* exhibits the [+WH] properties shown in Bal (1990). How, then, should we account for its peculiar position vis-a-vis the canonical COMP-head structure?

Let us try to see if we can salvage the core of Bal’s proposals for our purposes.

In Oriya, a relative clause, which typically occurs to the left of its antecedent (or "head"), base-generates its relative pronoun *in situ* within the IP (an object pronoun in preverbal position, a subject pronoun in clause-initial position, etc.). Optionally, the relative pronoun moves to the leftmost position within the relative clause. As we shall see, there is evidence that this movement is a case of wh-movement rather than scrambling, and thus has a SPEC CP landing site. This movement is obligatory when the relative clause itself moves to matrix-clause-final position and thus follows its antecedent. Here are some examples given by Bal:

25 [jadu jaahaaku maarithilaa] se aaji aasibaa
   Jadu whom    had-beaten    he today will-come
26 * se aaji aasibaa [jadu jaahaaku maarithilaa]
27 se aaji aasibaa [jaahaku jadu maarithilaa]

(25) has the relative pronoun *jaahaku* as an *in-situ* object within the correlative clause which is in the canonical position to the left of the matrix clause. Bal claims that the ungrammat-
icality of (26) is due to the relative pronoun not moving to [SPEC, CP] even though the relative clause is postposed to the right. This is part of his evidence against a conceivable scrambling analysis — if merely scrambling (an optional process) were involved it would be difficult to explain why (26) is ungrammatical. There is also additional evidence involving multiple relativization against scrambling. Having thus established je-movement as a case of wh-movement, and provided examples to show the similarity of je-movement to the better studied case of movement of wh-words, Bal claims wh-status for i-words in Oriya. Next he extends this argument a step further:

28 mun jaaNe [je raama maache khaae]  
I know je Ram fish eats  
29 mun [raama je maache khaae] jaaNe  
30 * mun jaaNe [raama je maache khaae]

Examples (28)-(30) show the similarity of the movement of the je particle of complement clauses with that of the relative pronoun je of postposed relative clauses. Thus, (29) is the canonical position of the complement clause, with je generated in an IP-internal position; (28) shows movement of je into [SPEC, CP] of the extraposed complement clause — akin to the movement of a postposed or extraposed relative clause; (30) is the ungrammatical version, like (25) above in the case of the relative clause, providing evidence for a wh-movement hypothesis of the je "complementizer" (Bal doesn't call it one).
On the basis of these arguments Bal suggests that the WH-status of relative pronouns be extended to the _ja_ of complement clauses. There is an obvious parallel: in clauses that occupy the canonically governed *pre-matrix-verb* position, _ja_ occurs IP-internally; this *in situ* _ja_ wh-moves to the Spec CP of the relative or complement clause when this clause is extraposed to the right of the verb. We have seen that, in Oriya, a clause that has moved to post-matrix-verb position typically exhibits wh-movement; thus, it is easy to explain the movement of _ia_ to the complement clause-initial position once it has been declared a wh-element.

This outline of Bal’s position on the problem of the _ja_ particle indicates that we can construct a well motivated explanation for the occurrence of _ki_ in complement-clause-initial position if we assume that Hindi and Gujarati are like Oriya -- another *V-final* language -- in this respect. That is, we construct a hypothesis along the above lines and, to substantiate our arguments, look to Oriya where we find richer evidence than in H/G. The parallel is clearer in Oriya because Oriya has _ja_ in [SPEC, CP] both as a *relative* pronoun and as a complementizer, whereas H/G have a phonologically non-*ja-* complementizer _ki/ke_ and do not have a morphologically equivalent pronoun providing us with such a neat picture.

Let us see what happens in H/G relative clauses similar to Bal's examples given above as (24)-(26):
31H [raam Jise pasand hai] vo aaj aayegii
[Ram whom is-liked ] she today come-will
32H * vo aaj aayegii [raam jise pasand hai]
33H vo aaj aayegii [jise raam pasand hai]
31G [raam jene game che] e aaje aavSe
32G * e aaje aavSe [raam jene game che]
33G e aaje aavSe [jene raam game che]

These examples clearly demonstrate that in H/G too there is a restriction on the relative pronoun: it has to obligatorily move to the SPEC CP of its clause if that clause is extraposed to the right.

Let us propose, then, that Bal’s position on the Oriya relative pronoun je simply carries over to the H/G relative pronoun jo which may be analyzed as a WH-element without separate argumentation. Now, note that Hindi ki. and Gujarati ke, like Oriya ia., must occur initially in a postverbal complement clause, as shown below at (34) vs. (35), while ki/ke are impossible in a matrix-initial complement clause either in complement clause-initial or in complement clause-final position, as we see at (36) (a construction that is grammatical only if either nothing or the poorly understood element Haissaa/GeyuM ‘so’ links the complement clause to the matrix material. In these respects, ki/ke patterns with the Oriya particle je and thus may be treated as a WH-element.
mujhe lagtaa hai [ki raam ko vo pasand hai]
I feel [that Ram-DAT s/he is-liked ]

mujhe lagtaa hai [raam ko vo pasand hai ki]

raam ko vo pasand hai] (aisaa) mujhe lagtaa hai

this

mane lagtaa che [ke raam ne e game che]

* mane lagtaa che [raam ne e game che ke]

[raam ne e game che] (evuM) mane laage che

this

One way to run this extension of Bal to H/G is to place ki/ke in the relative morphological system and treat its lack of 1- as an exceptional feature in H/G, contrasting with the regularity we see in Oriya/Bangla morphology. This is not unheard of. Consider the how/as and comment/comme holes in the pattern in English and French wh morphology, a paradigm which -- but for these solitary exceptions -- uses exactly the same forms for INT(errogative) and REL(ative) functions:

**English:**
INT: why where when what which how
REL: why where when what which as

**French:**
INT: qui quand quel(le) comment
REL: qui quand quel(le) comme

Given the existence of such a "hole in the pattern" in the
wh morphological paradigms of better researched languages, we need not let the absence of ±- in feJL and kg. stop us from assuming that Hindi ki and Gujarati ke are as Relative as jo.

Another implementation would make use of the presence of the k phoneme, an Interrogative trait, in Hindi ki and Gujarati ke. One might treat it either as a k-word, with an attenuated or bleached Int(errogative, "+"WH) feature, or as an element that is neutral between relativity and interrogativity. We leave the details open, assuming only that ki/ke is a wh-element.

Regardless of such details, there are two problems with this analysis.

(1) Ki never occurs IP-internally as the Oriya ja (like the Bangla ja) does (see ex. 29 for Oriya). Therefore (a) its exact parallel with the Oriya particle -- and with the Hindi/Gujarati relative pronoun -- breaks down (see ex. 25 for Oriya) and (b) the movement of this particle from such an IP-internal site to [SPEC, CP] is correspondingly rendered less plausible for H/G.

(2) Embedded questions do not follow the same pattern. In Oriya the following paradigm is available (exx. from Bal, (1990)):

37a jadu kaahaaku maarithilaa? (root clause)
37b tume bhaabucha [jadu kaahaaku maarithilaa]? you are-thinking Jadu whom had-beaten 'who do you think Jadu had beaten?'
38 kaahaaku tume bhaabucha [jadu________maarithilaa]
    'who do you think Jadu had beaten?'
In (37) the **wh-phrase** is *in situ*, in the embedded object position. (38) is a version of (37b) with long **wh-movement** of fcflahaaku. **Bal** argues that (38), where the wh-phrase has moved out of its base generated position into a [SPEC, CP] position, constitutes evidence for the existence of **wh-movement** in Oriya and thus supports his analysis of relatives. A similar paradigm, however, is unavailable for H/G:

39aH  ?tumhe lagtaa hai [saritaa kisko pasand kartii hai]  
   'who do you think Sarita likes?'
40aH  * kisko turaha lagtaa hai [sarita____pasand karti hai]
39aG  * tane laage che [saritaa kone pasand kare che]
40aG  * kone tane laage che [saritaa____pasand kare che]

It should be noted that a sentence like (40aH) is accepted by many Linguists. Also to be noted is that (39) and (40) are both improved by the addition of the **ki** complementizer.

39bH  tumhe lagtaa hai [ki saritaa kisko pasand kartii hai]
40bH  ?kisko tumhe lagtaa hai [ki saritaa____pasand kartii hai]
39bG  ??tane laage che [ke saritaa kone pasand kare che]
40bG  ?kone tane laage che [ke saritaa____pasand kare che]

    Even if it is accepted that the wh-phrase is base generated in the position shown in (39), on the basis of evidence from noun-complementation (assuming that the ill-understood aisa/evuM
it is difficult to justify overt *wh-movement* to SPEC CP in H/G solely on the basis of the data presented here. Although we shall return to an overt wh-movement account in our final discussion, there is no descriptive basis for a general South Asian wh-preposing process, spanning all interrogatives and relatives. Any particular applications of *Move-WH* that occur are driven by licensing requirements, which need to be understood in more detail. The data adduced by *Bal* do not help us in this enterprise.

2.3.2 Suppose -- though not on these grounds -- that we do accept a version of *Bal’s* analysis regarding the occurrence of *ki* in [SPEC, CP] instead of the normal C; a bigger question still remains: that of the occurrence of the entire complement clause in post-verbal instead of the "normal" pre-verbal object position.

The obvious thing to say about the order of constituents in a sentence containing a complement clause is that the order is XP → X (S) (to use the earlier terminology for the moment) or, more precisely, head-complement, or subject-verb complement, because that is what it appears to be in a given sentence. Whether or not this is the underlying PS remains to be seen.
Subbarao (1984) maintains that, for Hindi at any rate, the "real" PS is NP →(S)N for noun phrase complementation (Subbarao does not study verb phrase complementation). That is to say, according to him, the complement clause precedes the head and maintains the natural SOV order of the language. As evidence, rather weak actually, he argues that, (i) as sentences involving scrambling are frequent in Hindi, the surface structure is no indication of the actual word order which apparently is one reason for choosing fS)NP over the other option; (ii) such a step will preclude the necessity of adding extra rules to the grammar -- a rule of extraposition already exists in Hindi for independent reasons, which can account for the rightward movement of the complement clauses, instead of adding a further rule that would move non-finite complement clauses to the left of the head; (iii) the rules necessary for the constituent structure NP →N(S) are said to be "...highly suspect and extremely unmotivated..."; (iv) evidence from other verb-final languages is given to demonstrate the head-final character of Hindi and NP →(S)N is suggested as a PS rule common to these other languages.

Jain (1975), in his account of Hindi complements, uses the notions of non-discrete grammars -- "nouniness", "verbiness" and island hierarchy -- and those of relational grammars. He suggests including the relation "complement of" fin the sense of Quirk and Greenbaum (1973) besides those of "subject" and "object". According to Jain, movement of the finite complement
clause to the right is obligatory but only if the complement clause bears the relation "complement of" to the verb is the movement a clear case of extraposition. Here Jain differs from Subbarao who, as we saw, accounts for all such movement by means of extraposition. Jain, on the other hand, maintains that in sentences where the complement clause is in "subject" or "object" relation, the ki clause (optionally but preferably) moves away from its dummy head noun, past the main predicate by means of S-leaking. Examples (6) and (13) above for example, could be analyzed by Jain as instances of S-leaking, preferred to the NP complements remaining in situ. (6) and (13) are repeated below along with their in situ counterparts (6G') and (13H'):

6G  evi sucanaa amne malii che ki mukhya mantrii pakRaayaa che  
6G' evi sucanaa ke roukhya mantrii pakRaayaa che amne malii che  
13H  aisii sucanaa hame milii hai ki mukhya mantrii giraltaar hue  
13H' aisii sucanaa ki mukhya mantrii giraltaar hue hame milii hai

Thus, according to Jain, only those complement clauses which are in a "complement" relation to the verb, that is, in our terminology, verb phrase complements, are moved by extraposition.

Let us now look at some more recent researches into the matter. If we start off with the simple assumption that the clause in question is truly a complement of the matrix verb, we are already in a somewhat tight corner: the complement clause must occupy an A-position. A number of works dealing with this issue take the position that the complement clause is base gener-
ated in the A-position typically occupied by the object and is extraposed to the right, retaining its link with the A-position by means of co-indexing.

In Srivastav's (1991) discussion of scope islands in Hindi, her treatment of complements involves the canonical object position being occupied by a "pleonastic" element like ye or a dummy NP ve baat to which the normal Case and theta roles are assigned. The CP is co-indexed with this. Consider the following example:

42H maiM ye/ye baat jaantaa huM [ki saritaa ghar jaayegii]

Here ye/ve baat is in the canonical argument position, assigned Case and theta roles by the matrix verb. Srivastav claims that the complement clause itself is base generated in the adjunct position and is co-indexed with the pleonastic element. In the case of examples like (34), this explanation can be extended by postulating a trace or pro in the argument position which is co-indexed with (specifically, which forms a chain with) the complement clause.

There has been a non-committal attitude to the question of whether the co-indexed element is a trace or pro (see Srivastav (1991/), Bal (1990) among others). In general it is assumed that if an extraposition analysis is chosen for the complement clause,

41
The argument position is occupied by a trace (left after movement of the complement clause). It can also be argued that instead of being base generated in the argument position and then moved out, the complement clause is actually base generated in the post-verbal adjunct position and co-indexed with a pro in the argument position.

Bal (1990) argues that complement clauses are extraposed. He claims that it is "natural" to have the complement clause base generated in the object position, because the complement clause is, in effect, the object of the matrix verb. In the case of noun-complement clauses, Bal finds it self-evident that the complement clause should be co-indexed with the real object NP because the verb assigns the theta role to the head NP in object position and not to the clause. But where the complement clause is extraposed from is not clear from Bal's account of noun-complement clauses. Crucially, Bal considers sentences of the following sort to be extraposed noun-complement clauses:

43 nun e kathaa jaaNe [je satis bides jiba]  
'This fact know je Satish abroad will-go  
'I am aware of the fact that Satish will go abroad'

He thus rejects Bayer's (1990) statement that only those CPs which require an overt complementizer are extraposed while others are in complement position (Bayer (1990) in Bal (1990)). For Bal the difference is simply a matter of extraposition-from-N in the case of extraposed noun-complement clauses and extraposition in
the case of verb complement clauses.

Bayer himself (Bayer 1993, 1994) has several problems with Srivastav's and Bal's analyses. For instance, he maintains, contra Srivastav, that (i) the Bangla je appears obligatorily if an overt pleonastic (he calls it an "expletive") is present and (ii) overt extraction out of an extraposed CP is possible while it is impossible out of a true adjunct. Bayer seems to feel that Srivastav doesn't provide an adequate explanation for (i); he provides evidence from Bangla, Hindi, Oriya where a wh-phrase has been moved out of a clause in the post-verbal position, one which Srivastav would consider an adjunct. (But see later in 2.4.2 for a discussion of the status of such wh-extraction cases in H/G).

Bayer's conclusion is that such extraposition is essentially a case of argument shift in the sense of Mahajan (1990). In this, Bayer follows Hoekstra (1987).

Over the years Hoekstra has made a fairly extensive study of Dutch complement clauses (Hoekstra 1983, 1984, 1987 etc.). His influential Unlike Category Condition (UCC) is an attempt to conflate two hypotheses once proposed by Kayne: (1) NP cannot be

'As can only happen if this CP goes to an A-position. Extraction can only be out of A-positions. Extraposed constructions are traditionally islands out of which extraction is impossible. Payer (1991) shows that Bangla/Hindi do have wh-movement out of extraposed CP's although such movement is traditionally considered impossible. However, as mentioned above, I have empirical problems (for at least H/G) regarding these Mahajan/Srivastav type examples of wh-movement. (Bangla and Oriya may well be different for parametric reasons.)
governed by N' or N and (2) no node carrying a [+V] feature can be an argument. What this means in effect is that NP can only be governed by [-N] nodes. Thus, since N never governs NP, it cannot take NP as complement. Generalizing this, UCC says that at S-structure no element of a category [aV,SN] may govern [aV,SN]. At S-structure a category with one set of features, say [-V,+N], may not govern a category with the same set [-V,+N] of features. Thus, nouns never take NP-complements at S-structure (*the destruction the city), adjectives never take AP-complements (*John is likely [ap dead]).

How does the UCC account for the obligatory post-verbal position of Dutch sentential complements? In Dutch, although the V governs to the left and complements normally occur preverbally, clausal complements are postverbal. Thus, *[...S' V]. The UCC takes care of this if we assume that S' has the features [+V,-N], like those of V. Then, it follows that if S' were to occur to the left of V, i.e., in V-governed position, the UCC would be violated. Hoekstra in fact suggests that S' is a projection of INFL and that INFL bears the features [+V,-N] – i.e., is "verbal".

With this background, let us return to Hindi and Gujarati. The problem, as we noted, arises only in finite complement clauses in object position, where the complement clause cannot occur in the canonical V-governed position. One way out, as we saw, is to say that the complement clause, being verbal, cannot be governed by the verb and therefore has to occur (either moved as in Hoekstra, Bal, or base generated as in Srivastav) in a position
not governed by the verb. Another alternative is to claim that the complement clause is not a complement of the verb at all. not a subordinate construction of a full clause. Rather, it is a full clause in itself. conjoined to the "matrix" by means of \textit{ki}. Automatically, then, we would be claiming that \textit{ki} is a conjunction and not a complementizer.

This route is chosen by Dwivedi (1994), who draws on McGregor (1977) to show that Hindi \textit{ki-clauses} are not subordinate. She provides further evidence from Hindi to claim that there is no selectional restriction between the matrix verb and the \textit{ki} clause -- if there were, one would expect different types of complement clauses to be marked by different complementizers. In Hindi, the morphological shape of \textit{ki} remains constant, throughout the range of interrogative and declarative complement clauses, providing \textit{indirect} evidence, according to Dwivedi, for her claim that the verb does not select the complement clauses. Therefore the complement clauses are not really \textit{arguments}, not complements of the verb. Such a stand precludes the necessity of accounting for either a base generated complement clause, which has to be \textit{extraposed} -- and providing justification for the extraposition to take place -- or for a complement clause generated \textit{post-verbally} and coindexed with an empty element inside the matrix clause. The "complement clause" in question, according to Dwivedi, is simply a clause co-ordinate to the matrix sentence, an instantiation of the formal notion of asymmetrical co-ordination which drives her account. \textit{Ki}, under these assumptions, is a connector. Recall that Davison (1989) has a similar view about
the status of *ki* at any rate, if not about the "complement clause" as a whole. Dwivedi's structure is as follows:

Dwivedi's account would work well were it not for the fact that in Hindi — as in Gujarati — *ki* clauses can occur as NP-complements, *in an obviously embedded position*. Moreover, Dwivedi's account works only if we postulate a sort of null complement in the object position of the verb, to which the *ki* clause is related. This important point has not been made explicit in Dwivedi (1994).

The issue can be brought into sharper focus if we return to Bayer (1993) briefly. In an attempt to resolve the paradox between the application of* the Uniformity of Theta Assignment Hypothesis (UTAH) suggested in Baker (1988) and the fact that SOV languages like German and Bangla (the two languages discussed in Bayer (1993)) regularly display finite clauses post-verbally, Bayer proposes that, contra Mahajan (1990), Srivastav (1991a), etc., the "extraposition" of the finite clause to the right is, in fact, a case of scrambling, more exactly of argument shift, as
mentioned above, in the sense of Mahajan (1990). Bayer has discussed extraposition in terms of argument shift. Given a Bangla D-structure as follows

45 [ ... [ ... [ ... [CP [TP [Je ]...]]] V ] T ] Agr ]

after the V is raised to T/AGR, the CP can move into an L-related (or, in the old parlance, an "A-") position by rightward movement. CP is visible for the V (and is thus an argument of V) if there is an initial head. This head can be either la or ø; if 0, it must be head-governed by V.

Indeed, CP-visibility is Bayer's main reason for having the CP move or extrapose to an A-position. Bayer's version of UTAH maintains that if two maximal phrases receive the same theta-role from a head (i.e., the same head), then they have the same D-structure. One implication of this is that a verb which theta-marks its complement to the left cannot do so to the right; in other words, we cannot postulate distinct D-structures for those XPs which occur (i.e., which are base generated) as complements to the left of the verb and those which are base generated to the right of the verb. Under UTAH, therefore, the post-verbal finite complement clauses in H/G that we are interested in here must be explained in terms of movement (of the Move-a kind). Since extraction from the post-verbal clause is possible, according to Bayer, (again see 2.4.2 for a different view on H/G extraction), he argues that a conventional extraposition movement to an non-A-position cannot work. Instead, he suggests that what actually
takes place is a rightward application of argument shift right, with the result that the complement clause is post-verbal but in an A-position. Bayer's account differs from earlier accounts like Mahajan (1990). Srivastav (1991a/b), which postulate extraction from the clause before its extraposition to a non-A-position takes place.

Bayer's account thus proposes that the post-verbal complement clause is indeed a complement, i.e. an argument, occurring to the right of the V by means of argument shift. This explains the wh-extraction that Bayer notes for Bangla and reports for Oriya (following Bal (1990)) and Hindi (following Srivastav (1991b)). We return to the possibility of extraction in H/G on pp. 57 58, where the analysis of the Hindi and Gujarati complement clauses is presented in detail. Meanwhile, Bayer does not tell us why only the C-head of the complement CP should

Bayer disagrees with the Hoekstra (1984) UCC (see p. 43) as in the following German sentence he focuses on. the V raises to the head of the infinitival zu, an I-element, thus giving it a [+V] feature:

(1.) Hans hat f PRO zu rauchen anfzgehört
Hans has to smoke stopped
'Hans has stopped smoking'

In such a case, the UCC is unable to explain the occurrence of the complement clause in the V-governed position, since both the V and the complement clause share the verbal feature. This then rules out forced extraposition of the sort advocated by Hoekstra. In this connection. He explains Dutch infinitivals with lexical subjects in obligatory pre-verbal position by saying that the Case Filter forces the infinitival to occur pre-verbally; for reasons of Case-assignment to the lexical subject of the infinitival. He assumes that government is unidirectional; the V in Dutch governs to the left and thus Case assignment, under government, is also to the left.
be in the unmarked final position. He merely states that his condition of "CP-visibility" requires that the CP in question should be visible to the V in order to be head governed by it. This, according to him, can be done in two ways, both via Spec-Head agreement: have an empty Spec of CP which can be deleted; or, have the C give its features to the Spec. In both cases the features of C are then visible to V. But how does this explain the overt presence of the H/G ki/ke in front of the CP?

2.4 ANALYSIS

We see that the above discussion of relevant literature on the subject has brought us back to the two problems we started with in Section 2.3, with no clear answers as yet. In the following two subsections I propose to spell out a hypothesis now which addresses the current problems.

2.4.1 We continue with Bayer's inability to account in a principled manner for the ki in clause-initial position. We may explain the strange behaviour of the C head of H/G finite complement clauses either by saying simply that ki is strange: it has quirky selectional properties in that its complement is to the right¹ (note that Kayne (1993) claims that complement-head is the unmarked order of constructions in UG; I do not however undertake

¹ For a "quirky" view of COMP moving into CONJ, see Dasgupta (1980) on "conjunctionization" and alternative conjunctionization."
an investigation into this claim, finding it to be well outside the scope of this dissertation) and, we might add, in that the matrix "selector" of \textit{ki} is to the left (this is somewhat reminiscent of certain of Dwivedi's (1994) arguments). Otherwise, we can choose the more formally precise option in line with Davison (1989, 1991 etc.) which states that \textit{ki} is in Spec of CP. WH-elements routinely move to SPEC. \textit{Ki}, we claim is a -WH (relative) element, just as all COMP items are either -WH or +WH, although \textit{ki} is not phonologically cognate to the -WH relative COMP \textit{JQ} in H/G (see above, pp. 30-31, 35-36 for details). We thus arrive at a structure like 46:

\[(46) * \ldots [\text{CP} \text{ ki Syaam aayegaa C]} V \]

2.4.2 The problem with (46) which makes it unstable and forces the clause to move is the obvious lack of adjacency between \textit{ki} and the V. In order to be licensed by the V, \textit{ki} (which is parametrically different in this respect from English \textit{that}, French \textit{que}, German \textit{dass}, and resembles more closely an English type null finite complementizer -- for reasons we do not propose to explore here) must be next to it (a point stressed in Bayer's work). We can obtain this configuration by extraposing the \textit{ki}-clause -- an option which thus "must" be exercised to ensure that the derivation satisfies general licensing requirements of the theory''.

\[\text{1. A similar case can be found in English where as. has no phonological Wh content but is the relative counterpart of how.}\]

\[\text{2. On the necessity of immediate adjacency of finite CP and C to the matrix V, vis-a-vis the flexibility to be found in non-finite CPs, see section 2.5.2.}\]
Only if the C is licensed will the CP be theta marked; licensing ki presumably suffices to license the C it is coindexed with.

The structure of a finite complement clause example such as *raam laantaa thaa ki Svaam aayegaa*, the acceptable version of (46) above, would then be as follows:

Some quick questions and answers may be in order at this juncture.

How does (47) make ki Svaam *aayegaa* adjacent to the V when we take a close look? It does not; adjacency to the verb was an
expository simplification for what roust at a more rigorous level be called adjacency to the extended head chain of the V, in this case a chain headed by the matrix C.

Why do we want to go as far as the extended head chain? For empirical reasons, whose explorations would take us too far afield. We restrict ourselves to looking at verbal complexes of the type vaad rakhne ko kahaa 'told to remember' in (48) and to note the ungrammaticality of (49):

48H maiM ne raam ko t yaad rakhne ko kahaa ki ham
  I  ERG Ram DAT t in-mind keep C told that we
  Saam ko vaapas jaayeMge
  evening in back will-go

49H * maiM ne raam ko t yaad rakhne ko kî ham
  I  ERG Ram DAT t in-mind keep C that we
  Saam ko vaapas jaayeMge kahaa
  evening in hack will-go told

Even though kahaa 'told' and vaad rakhne ko 'to remember' head distinct Complete Functional Complexes (CFCs) and cannot be taken to have fused into a truly unitary verb, clearly we have to assume that vaad rakhne ko kahaa is an extended head chain going all the way up to the matrix C, from which this index-complex licenses the ki-clause thematically associated with vaad rakhne ko 'to remember', not with the actual verb kahaa 'told' that it is closer to.
An interesting question that should be raised, but outside this work, is, what makes these extended head chains (or verbal complexes) tick? We are not concerned here with investigating whether they have a single indivisible index all the way through or which site annexes the others to ensure index sharing. Perhaps they have a single index from the tail to the junction and then a shared, complex index from the junction to the head of the chain. Maybe they leave the indices distinct in the overt syntax and carry out some sort of chain composition at LF, possibly with head movement or index movement. All we need is the existence of verbal complexes.

If at a careful level "strict adjacency to the verb" must be taken less seriously than we thought, why not abandon the restriction entirely? Because no argument or adjunct may occur between the verbal complex and the finite complement clause. Thus, (50) is grammatical only if neither the complement raam ko nor the adjunct dilli meM is interposed:

50H maiM ne yaad rakhne ko kahaa (*raam ko ) (*dilli meM)  
I ERG in-mind keep C told Ram DAT Delhi LOC  
ki ham Saam ko vaapas jayeMge  
that we evening in back will-go

How does this account square with what has been said about the isomorphism between the ki-complements and iq-relatives? In both cases, we postulate the licensing of an embedded Spec of CP
on the right by a matrix C on the left under strict adjacency. This hypothesis can be fleshed out for the relative case by proposing that the antecedent in the matrix IP is quantification-al, or (at least minimally) focused, undergoes Quantifier Raising at LF, and indexes the matrix C; call this the Matrix C Empowerment (MCE) analysis\(^1\). MCE has several advantages. It can explain the observation, first made in Dasgupta (1980), that right-adjoined relative clauses in South Asian languages (unlike the left-adjoined type in correlative structures) do not permit more than one relative pronoun:

\begin{verbatim}
51H jis ko jo caahiye us ko vo de do
  who DAT what is-wanted him/her DAT that give AUX
  'For x,y such that x wants y, give y to x'

52H *us ko vo de do jis ko jo caahiye
  him/her DAT that give AUX who that what is-wanted
\end{verbatim}

MCE can impose only one nominal index on the matrix C -- from either us ko 'him/her' or vo 'that', not from both; hence the facts. (51) uses the quite different free relative mechanism and escapes this formal problem.

A second advantage of MCE is its ability to handle the asymmetrical distribution of null antecedents:

\begin{verbatim}
53aH turn jis se baat kar rahe the, maiM pro nahiM pahcaantaa
\end{verbatim}

1. MCE for relatives is an idea due to Davison.
you who with talk do ing were I pro not know
'I don't know the person you were talking to'

53bH roaiM use/*pro nahiIM pahcaantaa jis se tum baat kar
T him/r/*pro not know who with you talk-to do
rahe the
ing were

54aH tum jahaaM jaaoge, raaiM pro nahiIM jaauuMgaa
you where will-go, I pro not will-go

54bH maiM vahaaM/*pro nahiIM jaauuMgaa jahaaM tum jaaoge
I there/*pro not will-go where you will-go

The MCE explanation says that in the b-examples only a phonologi-
cally overt item can be focused, undergo QR and empower C. Again, the a-examples are free relatives and can get away with it as they refrain from empowerment.

These considerations indicate that the licensing of ki, like that of jo, must be a nominal index binding process, unlike the routine Case marking of a complement by its V. Thus, a verb taking a ki-complement goes through the matrix C and deploys a non-verb-driven mechanism to license the SPEC CP, the coindexed embedded C and thereby the entire CP. This ensures that this CP, which lacks Case -- the favourite device for licensing it -- is licensed so that the Full Interpretation principle is not violat-
ed. We postulate that the Case relation between the verb and the
argument chain is discharged at the nominal trace of the argument while the theta-relation between the verb and the argument chain is discharged directly at the extraposed CP, via the extended head chain.

Why can and must ki move to from C to [SPEC, CP]? It can go there because it is a wh-element. It must move to take Case and to ensure the licensing described above. In terras of MPLT, it must move in the overt syntax because wh features universally require overt checking -- and because, in H/G morphology, it is ki. itself, not some invisible affix thereof, that bears the WH-feature and must move overtly.

We have decided on extraposition, then, as the means to move the complement clause to the post-verbal position. This leads us to postulate the complement clause as occurring in a non-argument (adjunct) position at S-structure. How then do we explain the extraction facts of Srivastav (1991b) cited in Bayer (1994) as well as those of Mahajan (1990) and others? I suggest that in H/G long preposing of wh out of post-verbal clauses is not permissible as a rule and that fortuitously acceptable cases that seem to instantiate such extraction might in reality be the result of other processes, the detailed study of which lies outside the scope of the present work. All the informants that I have consulted agree that the following are ungrammatical:

1. Following Stowell (1981) we say that a trace of a CP can be recategorized as an NP-trace for "local" reasons in the course of the derivation.
55H * kaun [k] raam ne socaa [ki e] yahaaM aayegaa
   who Ram ERG thought that e here come-will

56H * kis ko [k] raam jaan gayaa [k] Syaam e pyaar kartaa hai
   whom ACC Ram understood that Shyam e love does

57H * kyaa [k] raam ne socaa [ki Syaam e kar sakegaa]
   what Ram ERG thought that Shyam e can-do-FUT

Extraction of a relative element has been similarly found ungrammatical:

58H * jo [k] raam ne socaa [ki e] is Sahar meM rahaa
   who this city in stayed
   vo maraal
   he died

59H * jis ko [k] raam ne socaa [k] Syaam e pyaar kartaa hai
   whom
   vo zaruur aayegi
   she surely will-come

60H * jo [k] raam ne socaa [k] Syaam e boltaa hai vo
   what
   sac hail
   true is

Moreover, the grammaticality of (55H-59H) does not improve if the
**wh-element** is moved out to a non-initial focus position:

61H * raam ne kaun socaa [ki e1 yahaaM aayegaa]

62H * raam kis ko1 jaan gayaa [ki Syaam e1 pyaar kartaa hai]

63H * raam ne kyaa socaa [ki Syaam e1 kar sakegaa]

64H * raam ne jo1 socaa [ki e1 is Sahar meM raha vo maraa]

65H * raam ne jis ko1 socaa [ki Syaam e1 pyaar kartaa hai vo zaruur aayegii]

66H * raam ne jo1 socaa [ki Syaam e1 boltaa hai vo sac hai]

2.5 CONCLUSION

We thus have an account of finite complement clauses which explains the position of **ki** and, in doing so, provides a rational way of accounting for the extraposition of the complement clauses. 2.5.1 recapitulates the arguments presented in this chapter. 2.5.2 discusses the discrepancy in behaviour between finite and non-finite complement clauses.

Evidence that leftward wh-movement to sentence-initial position is not highly favoured in Hindi comes from Laxmi Bai and Misra (1994). In this empirical study it has been shown that **wh-fronting** is not a good questioning **strategy** in Hindi. The **fronting** of indirect objects **constitutes** the worst type of **IO** question **formation**; the fronting of **wh direct objects** is only next to the worst as a **stratagem** for **DO-questioning**. The preferred position for **WH-elements** is **in situ**. However, **wh subjects** when moved to **pre-verbal position** (but **within** the clause), that is, away from their **in situ sentence-initial** position, are **preferred**. (i) is preferred to <ii) except in cases of focus etc.:

(i) kaun yahaaM aayegaa?

(ii) yahaaM kaun aayegaa?

Although Laxmi Bai and Misra's study is limited to simple sentences, the **interesting** point for our purposes here is that Hindi **tends** to avoid leftward movement of **WH-elements**.
2.5.1 Beginning with the presentation of the data, we moved in this chapter to certain observations about the data; this led in turn to the problems mentioned in section 2.3 and their subsequent resolution. A brief summary follows:

(i) Given that H/G are head-final languages, why does ki in the ki clauses presented here occur sentence initially?

(ii) Given that H/G are head-final and that the head governs to its left, why do we find the complement clauses to the right of the verb in non-canonical position where no non-clausal complements occur?

A number of fairly recent works discuss these two problems. Bal (1990), Davison (1989), Dasgupta (1990), deal with (i) above, while Srivastav (1991), Bayer (1993, 94), Bal (1990) again, and Hoekstra (1984 etc.) suggest various solutions for (ii). I recapitulate in brief these discussions regarding both (i) and (ii).

(i) The obviously deviant behaviour of the ki head of the finite complement clause has led Bal (1990), Davison (1989), Dasgupta (1990) and Dwivedi (1994) to propose a [SPEC, CP] site for the ki. The gist of Bal's argument is that the Oriya ja (corresponding to our ki) moves into [SPEC, CP] if that CP has been extrapolosed. Bal regards this as a case of WH-movement, akin to that of the relative je which WH-moves to [SPEC, CP] when the correlative clause containing the je is postposed to the right of the matrix V. In both cases, that the cases concerning the two types of je, Bal consider the movement to be obligatory. Davison's motivation
for having the Hindi **ki** in [SPEC, CP] is quite different from that of **Bal**. She claims that **ki** is not a complementizer at all, but is more like a **conjunction**, and thus cannot occur in C. **Das-gupta** suggests that the Bangla **je** is a clitic which is generated in C and **cliticizes** by head-to-head movement to the matrix V. **Dwivedi**, in keeping with her notion that the complement clause in question is a co-ordinate construction, claims that the Hindi **ki** is a "connector".

(ii) Our discussion of the H/G finite complement clause occurring post-verbally includes an examination of several fairly diverse accounts dealing with the problem, for both **IA** and Germanic languages. **Srivastav** (1991) argues for an extraposition analysis for Hindi, where the extraposed complement clause is **co-indexed**, and forms a chain with a trace or a **pro** in the argument position. **Bal** (1990) has a similar view. **Bayer** (1993, 1994) on the other hand, proposes that the complement clause, in German as well as in Bangla and possibly in Dutch and Oriya, moves to the right of V not by extraposition but by the **scrambling-type** process of Argument Shift. In this view, the complement clause is not adjoined but is moved to an **A-position**. The two major conditions proposed in recent times that apply to post-verbal clauses are the **CRP** of **Stowell** and the **UCC** of **Hoekstra**. They appear to provide a strong enough motivation for the **movement** of the complement clause. **Hoekstra**, for instance, explains the postverbal occurrence of Dutch finite complement clauses by pointing out that the **UCC** forces the finite complement clause to the right of the verb: the complement clause is said to be a projection of an
INFL with verbal properties and hence roust move to a non-governed position. However, Bayer points out that certain German sentences with a [+V] INFL do occur in preverbal position. He prefers an account which does not involve forced extraposition for reasons of government but argument shift for reasons of C-licensing. Dwivedi (1994) takes a slightly more unorthodox position. She claims that the complement clause is in fact a co-ordinate structure, conjoined to the "matrix" clause and therefore necessarily an adjunct.

In 2.4 we claimed that the complement clauses are indeed moved out as a result of extraposition and provided data which correctly rules out wh-extraction from these moved clauses. In answer to the question raised in 2.3, repeated in this section as (i) and (ii), we claim, in brief, that,

(i') ki occurs sentence-initially because, being a WH-element (with the feature [~WH]), it moves into [SPEC, CP] as a case of wh-movement.

(ii') Having moved into SPEC, ki. is "too far away" to be licensed by the V. The entire complement clause therefore, extraposes to a position where the C (ki, now in SPEC) is adjacent to a "licensor" and thus ensures theta-role assignment on the CP.

Next, in continuation of our analysis, we attempted a tightening of the account by arguing for the more rigorous step that, rather than the V, it is in fact the extended head chain of the V to which adjacency is required. We looked at some verbal com-
plexes (48-49) and found that they form extended head chains that are headed by the matrix C.

Next, we attempted to tie up this account with our discussion on ki-complements and io-relatives. We postulated that the embedded SPEC CP on the right is licensed by a matrix C on the left under strict adjacency; we proposed MCE to account for relatives and extended it to ki-complements. Essentially, MCE allows the matrix C to be indexed with the matrix verb. The licensing of ki, therefore, would be a case of non-canonical licensing rather than the normal verb-induced process of complement licensing through Case assigning mechanisms.

2.5.2 Consider the following sentence:

67H raam ne Syaam ko ghar jaane ke liye kahaa

Ram ERG Shyam DAT home go-INF for said

In (67H) the non-finite complement clause not only remains in the canonical V-governed position, the complementizer ke live also occurs in the canonical head-final position. Non-finite complement clauses are dealt with in detail in the next chapter. Here, our interest lies in accounting for the fact that they, unlike finite complement clauses, can remain in situ.

We have claimed that for the CP to be licensed, the complementizer itself needs to be licensed. I am further claiming that in the canonical direction, licensing — limited to Case checking
in the core case -- can take place over what observationally appears to be a distance; the non-finite complement clause and its C-head do not have to be immediately "adjacent" to the V, observationally speaking. In the non-canonical direction, on the other hand, the finite complement clause must be immediately adjacent to the extended head chain of the licensing V. Moreover, it is not uncommon to find that marked behaviour or quirky properties tend to be displayed only in the canonical direction of a given language. Dasgupta (1994) points out, for instance, that ECM does not take place to the right in Bangla. Presumably the licensing of not strictly adjacent non-finite complement clauses to the left of the V is marked in this sense.

The above explanation is complete when we state that the complementizer (here, ke liye) has no motivation to move into [SPEC, CP] the way ki does. This means that the C-head of a non-finite complement clause is always adjacent to the V in the relevant sense (if not always strictly to the V) and the complement clause can thus be licensed. This is unproblematic in H/G as PPs are normally to be found on the canonical side of the verb; a situation such as the one above, where the complement clause is in the canonical position, merely illustrates this unmarked behaviour: that a CP headed by an adpositional complementizer occurs in the standard PP position should require no comment.