Testing Cinque's hierarchy: Adverb Placement in Hindi

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1   Introduction

In this paper, I investigate the syntactic positioning of adverbial phrases (AdvPs) in Hindi, an Indo-Aryan language with SOV. The motivation of this research is to arrive at a hierarchy of adverbial clausal functional projections in Hindi and see whether adverbs in Hindi follow the hierarchy of AdvPs as proposed by Cinque (1999) to be universal, and at what points the order of AdvPs in Hindi differs from the universal order if it does differ.

The goals of the study relate to the examination of basically two ideas: (i) the hierarchy of AdvPs in Hindi and (ii) the placement of adverbs in Hindi's syntactic structure. The steps taken for the study are, therefore, (1) to find out the hierarchy of AdvPs in Hindi, (2) to investigate if AdvPs in Hindi follow the hierarchy proposed by Cinque completely or show some discrepancies, to enlist any observed differences, and finally (3) to provide a preliminary analysis of AdvPs within the syntactic structure of Hindi.

In section 2, I mention the methodology and the framework undertaken for this study. In section 3, I describe the general syntax of Hindi. In section 4, I present a preliminary analysis of Hindi data within a Cinquean approach. This analysis seeks to find out the unmarked positions of various AdvPs and establish a hierarchy of adverbs in Hindi. The hierarchy established is then compared with Cinque's universal hierarchy. The consequent two sections discuss the placement of adverbial phrases in Hindi clauses on the basis of the preliminary analysis performed on Hindi data and conclude the paper respectively.

2   The methodology and theoretical backdrop

The data is mostly based on my intuitions of Hindi; although, in cases of confusion, question-answer pairs are constructed and given to other native

speakers of Hindi to elicit relevant responses. The informants are also asked to translate a few sentences from English to Hindi or from Hindi to English to confirm the judgments associated with ordering of adverbs.

For analysis, I use a Cinquean approach and assume Kayne's (1994) antisymmetry hypothesis and Chomsky's Minimalist Framework (1995). In the remaining section, I describe Cinque's work on adverbs and functional heads.

Cinque proposes that adverbs occur in a fixed relative order. He argues for a single underlying position and a movement derivation in cases when an adverb shows up at two different positions with the same interpretation. When an adverb appears in two different positions having different interpretations, we have two different adverbs having the same phonological form.

Further, he proposes that adverbs occur in the specifier position of various functional projections[1]. He argues that there is a systematic one-to-one correspondence of the hierarchies of adverbs and clausal functional heads observed in various languages, and concludes that the functional projections in whose specifiers the adverbs appear are projections of these functional heads. See (1) below for his proposed hierarchy[2]:

(1)   [*frankly* Mood-speech act [*fortunately* Mood-evaluative [*allegedly* Mood-evidential [*probably* Mod-epistemic [*once* T(Past) [*then* T(Future) [*perhaps* Mood-irrealis [*necessarily* Mod-necessity [*possibly* Mod-possibility [*usually* Asp-habitual [*again* Asp-repetitive(I) [*often* Asp-frequentative(I) [*intentionally* Mod-volitional [*quickly* Asp-celerative(I) [*already* T(Anterior) [*no longer* Asp-terminative [*still* Asp-continuative [*always* Asp-perfect [*just* Asp-retrospective [*soon* Asp-proximative [*briefly* Asp-durative [*characteristically* Asp-generic/progressive [*almost* Asp-prospective [*completely* Asp-SgCompletive(I) [*tutto* Asp-PlCompletive [*well* Voice [*fast/early* Asp-celerative(II) [*again* Asp-repetitive(II) [*often* Asp-frequentative(II) [*completely* Asp-SgCompletive(II)   (Cinque 1999; 106)

For him, the whole hierarchy may be present in each sentence of each language without any regard to whether the specifier and/ or head of the functional projections are morphologically realized or not. He also shows[3] that there are several DP- related functional projections interspersed among adverb-related functional projections.[4]

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[1] Except for "circumstantial" adverbs that occur in the specifier position of distinct VP "shells".
[2] Notice the matching of functional heads with corresponding adverbs.
[3] His assertion is based on four kinds of evidence: (a) presence of subject DPs in between various adverbs, (b) presence of object DPs in between various adverbs, (c) distribution of floating quantifiers among adverbs, and (d) distribution of the verb.
[4] This assertion is also supported by Kayne's claim that some scrambling is always allowed in OV languages (Kayne 2003), which amounts to the movement of the object to some specifier position

3   General syntax of Hindi

In this section, I briefly discuss some typological features of Hindi. The canonical word order of Hindi is SOV. The IO precedes the DO in unmarked cases as shown in the following example:

(2)   jeen   ne   merii   ko   vo   kitaab   de dii   thii
       Jane   ERG   Mary   to   that   book   gave   was
       'Jane had given that book (DO) to Mary (IO).'

However, the order of IO and DO seems to differ depending on which DP is focused. If the DO DP is focused, it appears before the IO DP, as in (3) below:

(3)   jeen   ne   gulaab   ka   paudha   neha   ko   beca   hai
       Jane   ERG   rose   of   plant   Neha   to   sold   is
       'Jane sold THE ROSE PLANT (DO) to Neha (IO).'

It is possible for the DO DP to occur after the IO DP and still be focused, although in that case, it is phonologically stressed. See example (4) below.

(4)   jeen   ne   neha   ko   GULAAB   KA   PAUDHA   beca
       Jane   ERG   Neha   to   rose   of   plant   sold
       'Jane sold THE ROSE PLANT (DO) to Neha (IO).'

Example (3) represents the contrastive focus whereas example (4) the non-contrastive focus. Example (4) is the most natural response to the question 'What did Jane sell to Neha?" Example (3) will be an appropriate response to questions like 'What did Jane sell to Neha, was it a cactus plant?'
       We may get pro-drop for 1st and 2nd person pronouns (as shown in (5) and (6) below) but not for 3rd person pronouns (as shown in (7) and (8) below).

(5)   main   jaa   rahii   huun
       I   go   -ing   am
       'I am going.'

(6)   pro jaa rahii huun

(7)   vo   jaa   rahii   hai
       she   go   -ing   is

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higher than the verb. The landing site of the object can be higher than some adverbs at least (thus leading to the presence of DP- related projection among the adverb- related projections in the clausal structure).

'She is going.'

(8)   * pro jaa rahii hai

Hindi shows a two-fold Case system, viz. Nom-Acc and Erg-Abs. The Nom-Acc is associated with the non perfect aspect and Erg-Abs with the perfect aspect. See non perfect aspect example (9) which has Nom-Acc Case system:

(9)   laRke   kutte   ko   dekhtee   hain
         boys   dog   to   see   are
         'The boys see the dog.'

In the following perfect aspect examples, we get Erg-Abs Case system:

(10)   laRkoon   ne   kutte   ko   dekhaa
         boys   ERG   dog   to   saw
         'The boys saw the dog.'

(11)   laRkoon   ne   kuttaa   dekhaa
         boys   ERG   dog   saw
         'The boys saw a dog.

Notice, the object in example (10) is Case- marked, whereas in (11), it is not. Masica (Dixon 1994) refers to this variable behavior of object Case- marking as 'identified object marking' as it depends on whether the objects are identified as animate/ inanimate and have definite/ indefinite reference; some people ascribe this variable behavior of objects to animacy and specificity (Bhatt 1996, etc).

4   A preliminary analysis of Hindi AdvPs

In this section, various classes of AdvPs have been examined at various positions in a sentence to establish their most natural positions. In section 4.1, I describe these adverbs' most natural positions in relation to other constituents (such as subject, DO and IO) in the sentence. In section 4.2, I compare the positions of adverbs with respect to one another to establish their relative hierarchy.

4.1   The unmarked positioning of various types of adverbs:

The following classes of adverbs are most naturally positioned clause initially: speech act adverb, evaluative adverb, evidential adverb, epistemic adverb, past tense adverb, future tense adverb and irrealis mood adverb. (12) below provides an example.

(12)　saccii men　main　ne　　bacce ko koii nashiila padarth　nahii　diyaa
　　　honestly　　I　　ERG　child to　any　drug　　　　　not　　gave
　　　'Honestly, I did not give any drugs to the child.' (Speech act adverb)

Cinque calls all the adverbs mentioned above the higher adverbs since they appear higher in the sentence structure. However he includes a few other adverbs in the same class such as the alethic- necessity and alethic- possibility adverbs which show different distribution in Hindi. The alethic- necessity and the alethic- possibility adverb seem to occur after the subject (see (13) for an example), and their most preferred position is after the contrastively focused DPs as illustrated in examples (14) and (15) for the alethic- necessity adverb. Example (13) shows the alethic- necessity adverb's occurrence after the subject and before the non- contrastively focused DP.

(13)　jeen　zaruur　　　APNAA　BAAG　merii　ko　dikhaaegii
　　　Jane　necessarily　her　　　garden　Mary　to　will show
　　　'Jane will necessarily show HER GARDEN to Mary.'

(14)　jeen　APNAA　BAAG　zaruur　　　merii　ko　dikhaaegii
　　　Jane　her　　　garden　necessarily　Mary　to　will show
　　　'Jane will necessarily show HER GARDEN to Mary (whether she shows others' garden or not but she will show her garden necessarily).'

(15)　jeen　MERII　KO　zaruur　　　apnaa　baag　dikhaaegii
　　　Jane　Mary　to　necessarily　her　　garden　will show
　　　'Jane will necessarily show her garden TO MARY (she will necessarily show her garden to Mary specifically, irrespective of whether she shows it to other people as well or not).'

I speculate on a reason for the variable positioning of the adverb with the focused and the non focused objects in terms of change in positioning of DPs. It seems that Hindi has a DP- related position higher than various adverbs such as the Alethic- necessity adverb and the Alethic- possibility adverb.

The adverbs that Cinque classifies as lower adverbs appear clause medially in Hindi, which is compatible with them being lower adverbs in Hindi also. The lower class adverbs that appear higher in the hierarchy of lower adverbs proposed by Cinque appear right after the subject, whereas the ones that appear lower in the hierarchy appear lower in Hindi clausal structure. The lower position of these adverbs is shown by their occurrence after both the DO and the IO in the sentence. The classes of adverbs that appear in the lower region are: manner adverb, celerative (II) adverb, repetitive (II) adverb, frequentative (II) adverb and completive-Sg (II) adverb. See (16) below for an example:

(16) vo   baccoon   ko   kahaanii   acchii tarah se   sunaatii   hai
      she   children   to   story   well   tell   is
      'She tells the story well to children.'   (Manner adverb)

All other lower adverbs appear after the subject; however these lower adverbs also seem to change their positions depending on the focus on DO and/ or IO. The classes of adverbs that most naturally occur after the subject and do not change their positions according to the definiteness or non contrastive focus on DPs are: habitual adverb, repetitive (I) adverb, frequentative (I) adverb, volitional adverb, celerative (I) adverb, anterior tense adverb, terminative adverb, continuative adverb, perfect aspect adverb, retrospective adverb, proximative adverb, durative adverb, generic/ progressive adverb, prospective adverb, SgCompletive (I) adverb and PlCompletive adverb. They do follow the contrastively focused DPs. Example (17) below illustrates the unmarked positioning of one of these adverbs:

(17) jeen   aadatanusaar   apnii kavitaayen   apnee dostoon   ko sunaati hai
      Jane   habitually   her   poems   her   friends   to tell   is
      'Jane habitually tells her friends her poems.' (Habitual adverb)

Consider (18) with noncontrastive focus and (19) with contrastive focus for an illustration of change in positioning of Completive- Sg adverb below.

(18) vincii   ne   puurii tarah se   apnii   roTii   khaaii
      Vinci   ERG   completely   his   bread   ate
      'Vinci completely ate his bread.'

(19) vincii   ne   APNII   ROTII   puurii tarah se   khaaii
      Vinci   ERG   his   bread   completely   ate
      'Vinci completely ate HIS bread (instead of somebody else's bread).'

4.2   Relative positions of the adverbs[5]:

Hindi shows the same ordering of AdvPs for most of the adverbs as Cinque (1999) proposes. However, many pairs of Hindi AdvPs also appear in the opposite order. It has been observed that whenever the opposite order is encountered, either the hierarchically higher AdvP is stressed (see case (b) below) or the lower AdvP directly modifies it, hence one can assume that the lower AdvP appears in the specifier position of the higher AdvP, see case (c) below[6]. In yet other cases,

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[5] I have italicized both the adverbs in each example below and have underlined the adverb that occurs second according to Cinque's hierarchy among the two adverbs.
[6] I am not sure about these cases, since the test of inserting other material in between the two AdvPs does not work, as the sentence is still acceptable. However it could be concluded on the

when the opposite orders are apparently available, I propose that at least one of the AdvPs involved in those orders is indeed different from the ones involved in the expected order and just happens to have the same phonological form. See case (e) discussed below. In some cases, two AdvPs (occurring sequentially in Cinque's hierarchy) cannot go together in the same Hindi sentence, so it is difficult to determine their relative ordering (see case (d) below). However, in those cases, they have been compared with other AdvPs to establish their positions in the hierarchy[7]. Although there is a counterexample case as well where the opposite order seems natural and the expected order seems to show that the higher adverb modifies the lower adverb. See case (f) below.

(a) In the following cases, the AdvPs only occur in the order expected by Cinque's hierarchy, the opposite order is not acceptable.
1. Speech Act Adverb and Evaluative Adverb: The speech act adverb appears before the evaluative adverb within the same sentence as shown in (20) below:

(20)   *imaandaarii se*   *durbhaagyavash*   meerii   ne   miishaa   ko   riports
       honestly   unfortunately   Mary   ERG Misha   to   reports
       dikhaa   dii   thii
       showed   had   was
       'Honestly, Mary had unfortunately shown the reports to Misha.'

The opposite order is not acceptable as the following sentence shows:

(21)   * *durbhaagyavash imaandaarii se* meerii   ne   miishaa ko riports dikhaa
       dii thi

Hence, we get: Mood-speech act > Mood-evaluative.
Similarly, the following pairs of AdvPs always appear in the orders mentioned below[8]:
2. Epistemic Adverb and Past Tense Adverb: Mod-epistemic > T(Past)
3. Repetitive Adverb and Frequentative Adverb: Asp-repetitive(I) > Asp-frequentative(I)
4. Prospective Adverb and Completive- Sg Adverb: Asp-prospective > Asp-SgCompletive(I)
5. Repetitive (II) Adverb and Frequentative (II) Adverb: Asp-repetitive(II) > Asp-frequentative(II)

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basis of this evidence that the lower AdvP is not occurring in the spec position of the higher AdvP, it seems that the lower AdvP is directly modifying the higher AdvP semantically. I still need to find out some criteria to test this point.
[7] However, I could not find out any way to decide the order between those AdvPs.
[8] For data used to make these generalizations, please contact the author.

6. Frequentative (II) Adverb and Completive- Sg (II) Adverb: Asp-frequentative(II) > Asp-SgCompletive(II)

(b) In the following cases, AdvPs may also appear in the opposite order where one of the adverbs may be in "parenthetical" or "focusing" use. In case of 'focusing' uses, the adverb apppearing later in the sentence seems to be stressed.
1. Past Tense Adverb and Future Tense Adverb: The past tense adverb appears before the future tense adverb in the most natural position as in (22) below.

(22) *das   saal   pehle   <u>agle din</u>   vo   aane   vaala   thaa*
        ten   years   ago   next day   he   come   going to   was
        'Ten years ago, he was going to come the following day.'

The opposite order of the AdvPs is also acceptable in the sentence as in (23), however it appears to be focusing use semantically. Here, I tentatively propose a movement derivation of the hierarchically lower AdvP appearing on the left in the clause across the AdvP appearing on the right for this case. If it is indeed movement of the AdvP that leads to the opposite ordering of AdvPs, then this case does not provide any evidence for the opposite to expected order to be the underlying order of AdvPs and does support the claim of the fixed relative ordering of the AdvPs.

(23)   <u>*agle din*</u> **das saal pehle** vo   aane vaala thaa

Hence, the unmarked order of the AdvPs would be T (Past) > T(Future)
Similarly, the following pairs of AdvPs occur in the predicted order mentioned below, however these pairs can also appear in the opposite order with the adverb that appears later being stressed due to 'parenthetical' or 'focusing' use of an adverb in the pair.
2. Future Tense Adverb and Irrealis (mood) Adverb: T (Future) > Mood-irrealis
3. Irrealis (mood) Adverb and Alethic (necessity) Adverb: Mood-irrealis > Mod-necessity
4. Habitual Adverb and Repetitive Adverb: Asp-habitual > Asp-repetitive(I)
5. Frequentative Adverb and Volitional Adverb: Asp-frequentative(I) > Mod-volitional
6. Volitional Adverb and Celerative Adverb: Mod-volitional > Asp-celerative(I)
7. Celerative Adverb and Continuative Adverb: Asp-celerative(I) > Asp-continuative
8. Anterior Tense Adverb and Perfect Adverb: T(Anterior) > Asp-perfect
9. Terminative Adverb and Perfect Adverb: Asp-terminative > Asp-perfect
10. Continuative Adverb and Perfect Adverb: Asp-continuative > Asp-perfect
11. Perfect Adverb and Retrospective Adverb: Asp-perfect > Asp-retrospective
12. Retrospective Adverb and Durative Adverb: Asp-retrospective > Asp-durative

13. Proximative Adverb and Durative Adverb: Asp-proximative > Asp-durative
14. Durative Adverb and Generic/ Progressive Adverb: Asp-durative > Asp-generic/progressive
15. Completive- Sg Adverb and Voice Adverb: Asp-SgCompletive(I) > Voice
16. Completive- Pl Adverb and Voice Adverb: Asp-PlCompletive > Voice
17. Voice Adverb and Celerative (II) Adverb: Voice > Asp-celerative(II)

(c) In the following cases when two AdvPs occur in the opposite to expected order, the hierarchically lower AdvP directly modifies the higher AdvP:
1. Generic/ progressive aspect adverb and prospective aspect adverb: The expected order occurs most naturally in Hindi too as in (24) below:

(24)   jeen   ne   Tipikalii   lagbhag   motii   ko gaaRii   de   hii
        Jane   ERG   typically   almost   Moti   to   car   give   EMPH
        dii   thii
        gave   was
        'Jane typically had almost given the car to Moti.'

        When the opposite order appears, the adverb <u>lagbhag</u> seems to modify the adverb <u>Tipikalii</u> as in (25) below:

(25)   jeen ne lagbhag Tipikalii motii ko gaarhii de   hii   dii   thii
        'Jane had almost typically given the car to Moti.'
        This case too does provide support for a fixed relative ordering of the AdvPs, since the opposite order is just a result of modification of an AdvP by another and hence cannot be considered to point to an opposite ordering than expected between those AdvPs in the clausal structure[9].
        The other similar cases in this category are listed below:
2. Alethic (Possibility) Adverb and Habitual Adverb: Mod-possibility > Asp-habitual
3. Frequentative Adverb and Volitional Adverb: Asp-frequentative> Asp-volitional
4. Volitional Adverb and Celerative Adverb: Asp-volitional> Asp-celerative
5. Celerative (I) Adverb and Continuative Adverb: Asp-celerative(I)> Asp-continuative
6. Celerative (II) Adverb and Repetitive (II) Adverb: Asp-celerative(II) > Asp-repetitive(II)

(d). In the following cases, the pairs of AdvPs cannot co-occur for reasons of incompatibility, such as they contradict each other, e.g., the alethic- necessity

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[9] This is so because the AdvP modifying the other one is part of the phrasal structure of the adverb being modified and so cannot occur as a separate projection in the clausal structure from the projection of the adverb being modified

adverb and the alethic- possibility adverb or do not make much sense together, e.g., celerative and the terminative adverb. These cases show the pairs for which no hierarchical relation in Hindi could be established. They provide neither support, nor counterevidence for Cinque's hierarchy.

1. Alethic- Necessity Adverb (e.g. *zaruur hii* 'necessarily') and Alethic- Possibility Adverb (e.g. *sambhavtah* 'possibly')
2. Celerative Adverb (e.g. *jaldii se* 'quickly') and Anterior Tense Adverb (e.g. *pehle hii* 'already')
3. Celerative Adverb and Terminative Adverb (e.g. *ab or nahii* 'no longer')
4. Anterior Tense Adverb and Terminative Adverb
5. Anterior Tense Adverb and Continuative Adverb (e.g. *abhii bhii* 'still')
6. Terminative Adverb and Continuative Adverb
7. Retrospective Adverb (e.g. *kuch hii der pehle* 'a short while before') and Proximative Adverb (e.g. *kuch der baad* 'after a short while')
8. Completive- Sg Adverb (e.g. *puurii tarah se* 'completely') and Completive- Pl Adverb (e.g. *puurii tarah se* 'completely')

(e). There are some cases when orders opposite to the predicted may occur, however the interpretation of adverbials changes in those cases. The apparent reversal of order derives from the fact that some adverbs can belong to different classes of adverbs (i.e. the same phonological form may represent adverbs belonging to two different classes). The following is an example of such a case:

1. ajiib taur se ('strangely'): The evaluative adverb appears before the evidential adverb as predicted by Cinque's hierarchy. See example (26) below:

(26) *ajiib taur se*   *ripoort ke anusaar*   meerii   ne   vo   nookrii
      strangely   according to the report   Mary   ERG   that   job
      joon   ko   de   dii
      John   to   give   had
      'Strangely, according to the report Mary gave that job to John.'

The opposite order is also possible but notice the change in interpretation of the AdvPs in the following example, where ajiib taur se receives a manner interpretation, rather than an evaluative one:

(27) *ripoort ke anusaar ajiib taur se* meerii ne   vo nookrii joon ko de dii
      'Reportedly Mary gave the job to John in a strange manner.'

Hence, ajiib taur se can function both as an evaluative and as a manner adverb, and the order is as follows (compatible with Cinque):
Mood-evaluative > Mood-evidential > ...> Voice
Thus, I propose that the relative order of the AdvPs is still fixed and the reason why we get both orders is probably because at least one of the two AdvPs

in the pair occurs at two distinct positions, with different interpretations associated with those positions. I suggest that instead of just two AdvPs, there are, in fact, three AdvPs viz. AdvPevaluative, AdvPevidential and AdvPmanner and they occur in the following orders when taken two AdvPs at a time:
AdvPevaluative > AdvPevidential (as in (26) above) and AdvPevidential > AdvPmanner (as shown in (27) above).

Similarly there is another case observed in Hindi for this category:
2. Evidential Adverb and Epistemic Adverb: AdvPepistemicI > AdvPevidential > AdvPepistemicII

(f). There are some cases where the expected order is observed, however the adverb occurring higher in hierarchy seems to modify the adverb occurring next, Cinque does not mention any such cases. The opposite order too seems natural and in that case, none of the adverbs modifies the other. See examples below:
1. Alethic- Necessity Adverb and Habitual Adverb: The alethic- necessity adverb precedes the habitual adverb as in (28), i.e. Asp-habitual > Mod-necessity. However, here the habitual adverb <u>aadatanusaar</u> is being modified by the alethic-necessity adverb <u>zaruur hi</u> occurring prior to it which is unexpected under Cinque's paradigm. The opposite ordering is also acceptable and that too seems natural and there, none of the adverbs modifies the other. See example (29).

(28)　　joon　　*zaruur hii　　aadatanusaar*　　apnaa　kaam　apne　dostoon　ko
　　　　　John　necessarily　habitually　　his　　work　his　　friends　to
　　　　　dikhaataa　　hai
　　　　　show　　　　is
　　　　　'It is necessarily out of habit that John shows his work to his friends.'

(29)　　joon *aadatanusaar　　zaruur hii* apnaa kaam apne dostoon ko　dikhaataa
　　　　　hai
　　　　　'Out of his habit, John necessarily shows his work to his friends. (i.e. It is his habit that he necessarily shows his work to his friends)'

Cinque considers cases of modification of higher adverbs by the lower adverbs, but here we get the opposite case, i.e. Cinque's higher adverb modifies the lower adverb which provides a counterexample to Cinque's hierarchy (example (28)), and we also get the opposite ordering than expected as in (29).

Putting all the above pieces of information together, we arrive at the following hierarchies of AdvPs in Hindi:

(30)(i)　Mood-speech act > Mood-evaluative > Mood-evidential > Mod-epistemic
　　　　　> T(Past) > T(Future) > Mood-irrealis > Mod-necessity > Asp-habitual >

Asp-repetitive(I)>   Asp-frequentative(I)   >   Mod-volitional   >   Asp-celerative(I) > Asp-continuative

(ii)   Mod-possibility > Asp-habitual

(iii)   T(Anterior) > Asp-perfect > Asp-retrospective > Asp-durative > Asp-generic/progressive > Asp-prospective > Asp-SgCompletive(I) > Voice > Asp-celerative(II) > Asp-repetitive(II) > Asp-frequentative(II) > Asp-SgCompletive(II)

(iv)   Asp-terminative > Asp-perfect > Asp-proximative > Asp-durative > Asp-PlCompletive > Voice

(v)   Asp-continuative > Asp-perfect

     In spite of the fact that Hindi shows a flexible word order in its sentences, I would like to suggest that the adverbs have fixed positions[10] and DPs may move across these adverbs to yield the observed variable orders (following Cinque).

5   Placement of AdvPs in Hindi clausal structure

I have classified[11] the adverbs investigated into five classes which I call Adverb Class I, Adverb Class II, Adverb Class III, Adverb Class IV and Adverb Class V on the basis of their position in the clausal structure with respect to other material in the clause[12].

(31)   CP

                   Adverb Class I

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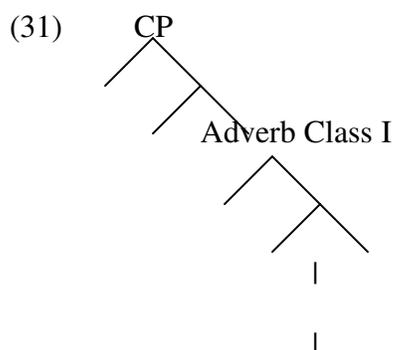
[10] This is supported by the fixed relative ordering of AdvPs in Hindi. See the hierarchy of AdvPs in Hindi arrived at in (30). Note that four of the above mentioned six cases (i.e. cases (a), (b), (c) and (e)) do provide support for the fixed relative ordering of AdvPs. The fifth case (case (d)) does not provide any support, however it also does not provide any counter evidence either, the sixth case (case (f)) however provides counterevidence for Cinque's hierarchy.
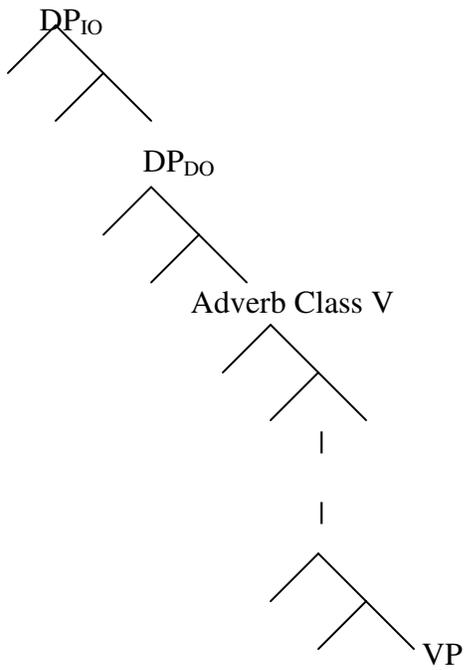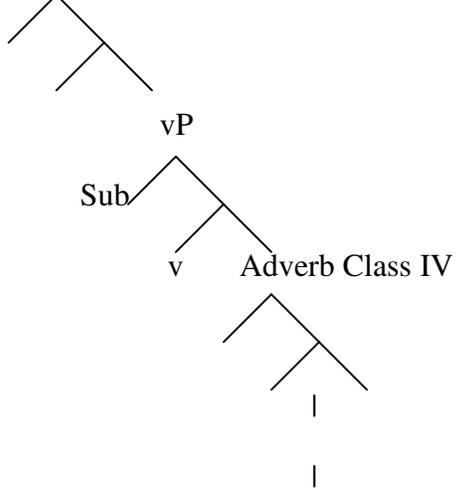[11] Please refer to the Appendix for the AdvPs belonging to the various Adverb Classes.
[12] Please contact the author for the data used for this classification.

Adverb Class II

Adverb Class III

vP

Sub

v   Adverb Class IV

DP_{IO}

DP_{DO}

Adverb Class V

VP
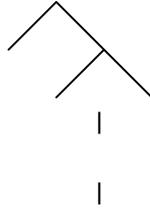
The subject can move as much higher up as to a position between the lowest present functional head associated with the AdvP belonging to the Adverb Class I and the highest present functional head associated with the AdvP belonging to the Adverb Class II. This position seems to be an A- position since the objects cannot move to this position at all. The movement of the subject to this position is licensed under discourse related reasons, probably it is due to focus. I call this position the Discourse- Subject position and leave the details of these discourse- related reasons for further research.

There is a contrastive focus position for objects as well which I call FocP$_{CONTRASTIVE}$. This position occurs below the v- head and above the AdvPs belonging to the Adverb Class IV.

Similarly there seems to be another focus position for objects only; however, this seems to represent non- contrastive focus. I call this position the non- contrsative focus position and represent it by FocP$_{NON- CONTRASTIVE}$. This position occurs after the AdvPs belonging to the Adverb Class IV and before the DP- related position for IO if that is present, otherwise before the DP- related position for the DO and if the verb is intransitive, then it occurs before (i.e. higher than) the AdvPs belonging to the Adverb Class V.

6   Conclusion

This paper has investigated the question of whether Hindi adverbs follow the adverbial hierarchy proposed by Cinque to be universal.

From this investigation, I conclude that Hindi follows the hierarchy of AdvPs proposed by Cinque for the most part. However for certain adverbs, Hindi does not provide any order due to semantic incompatibility between the two AdvPs being considered, for example, no order could be established between the Mod-necessity adverb and the Mod-possibility adverb due to their incompatibility with one another. The pairs of AdvPs that show the opposite orders than the ones predicted by Cinque's hypothesis have been argued to present only apparent exceptions since the unexpected ordering can be derived for independent reasons (such as modification of an adverb by another, or focusing of an adverb etc).

The AdvPs investigated have been classified into five Adverb Classes for the Hindi data on the basis of their positioning in the Hindi clausal structure. The adverbs belonging to these classes occur in the slots for these Adverb Classes, the structure presented above as (31) shows the slots for the five Adverb Classes.

On the basis of the evidence provided by Hindi data concerning adverb placement, we can conclude that Hindi supports Cinque's hypothesis of a universal hierarchy of AdvPs since the hierarchy found for the Hindi adverbs does match with the universal hierarchy proposed by Cinque to a great extent. Hindi also provides support for Cinque's hypothesis of adverbials occurring in fixed positions in the clause structure. However, certain discrepancies show, in my view, that the details of Cinque's hierarchy are not universal. Data shows that all

the adverbs are naturally grouped into a few classes. The data shows that within each class, the order of adverbs may not be as rigidly fixed as it is between adverbs belonging to different classes[13]. Also different languages may not contain all the adverbs from each class; the list provided by Cinque may not be inclusive of all the adverbial phrases possible in languages, presence of some other adverbs, such as AdvPmanner (that has the same lexical form as AdvPevaluative) in Hindi shows this. The hierarchy requires a more precise examination of more cross-linguistic data.

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[13] Please contact the author if you are interested in data considered.

Appendix: The classification of adverbs

Adverb Class I
- Speech act mood adverb (Ex: English- honestly, Hindi- imaandaarii se)
- Evaluative mood adverb (Ex: English- luckily, Hindi- bhaagya se)
- Evidential mood adverb (Ex: English- reportedly, Hindi- ripoorT ke anusaar)
- Epistemic mood adverb (Ex: English- probably, Hindi- sambhavtah)
Adverb Class II
- Past tense adverb (Ex: English- then, Hindi- tab)
- Future tense adverb (Ex: English- then, Hindi- tab)
Adverb Class III
- Irrealis mood adverb (Ex: English- perhaps, Hindi- shaayad)
Adverb Class IV
- Necessity mood adverb (Ex: English- necessarily, Hindi- zaruur)
- Possibility mood adverb (Ex: English- possibly, Hindi- sambhavtah)
- Habitual aspect adverb (Ex: English- habitually, Hindi- aadatanusaar)
- Repetitive aspect adverb (Ex: English- again, Hindi- dubaaraa)
- Frequentative aspect adverb (Ex: English- often, Hindi- aksar)
- Volitional mood adverb (Ex: English- intentionally, Hindi- jaan buujh kar)
- Celerative aspect adverb (Ex: English- quickly, Hindi- jaldii se)
- Anterior tense adverb (Ex: English- already, Hindi- pehle se)
- Terminative aspect adverb (Ex: English- no longer, Hindi- ab aur nahii)
- Continuative aspect adverb (Ex: English- still, Hindi- abhii bhii)
- Perfect aspect adverb (Ex: English- always, Hindi- hameshaan)
- Retrospective aspect adverb (Ex: English- a short while before, Hindi- thorhii der pehle)
- Proximative aspect adverb (Ex: English- after a while, Hindi- thorhii der baad)
- Durative aspect adverb (Ex: English- for a while, Hindi- thorhii der ke liye)
- Generic/ progressive aspect adverb (Ex: English- typically, Hindi- Tipikalii)
- Prospective aspect adverb (Ex: English- almost, Hindi- lagbhag)
- SgCompletive (I) aspect adverb (Ex: English- completely, Hindi- puurii tarah se)
- PlCompletive aspect adverb (Ex: English- completely, Hindi- puurii tarah se)
Adverb Class V
- Manner adverb (Ex: English- well, Hindi- acchii tarah se)
- Celerative (II) aspect adverb (Ex: English- quickly, Hindi- jaldii se)
- Repetitive (II) aspect adverb (Ex: English- again, Hindi- fir se)
- Frequentative aspect (II) adverb (Ex: English- often, Hindi- aksar)
- SgCompletive (II) aspect adverb (Ex: English- completely, Hindi- puurii tarah se)