1. The Phenomenon of Long Distance Agreement

1.1 The basics of agreement in Hindi-Urdu

Most prominent non-overtly case-marked argument triggers agreement:

(1) a. Nominative subject, Accusative object, both non-overtly case-marked

\[
\text{Rahul} \quad \text{kitaab} \quad \text{parh-taa} \quad \text{thaa}
\]
Rahul.M book.F read-Hab.MSg be.Pst.MSg

‘Rahul used to read (a/the) book.’

b. Ergative subject, Accusative object, only object is non-overtly case-marked

\[
\text{Rahul-ne} \quad \text{kitaab} \quad \text{parh-ii} \quad \text{thii}
\]
Rahul-Erg book.F read-Pfv.F be.Pst.FSg

‘Rahul had read the book.’

c. Ergative Subject, Overtly marked accusative object

\[
\text{Rahul-ne} \quad \text{kitaab-ko} \quad \text{parh-aa} \quad \text{thaa}
\]
Rahul-Erg book.Acc read-Pfv.MSg be.Pst.MSg

‘Rahul had read the book.’

Things that agree: Participles, Adjectives, Subjunctives, Futures, finite forms of \( \text{be} \)

The main verb and associated auxiliaries all agree with the same argument.

(2) \[ \text{tum} \quad \text{har} \quad \text{samay} \quad \text{sigret} \quad \text{pii-te} \quad \text{rah-te} \quad \text{ho} \]
you.Pl every time cigarette drink-Hab.PI ‘stay’-Hab.PI be.Prs.2PI

‘You keep smoking cigarettes all the time.’

The future is the only form that agrees in Person, number, and gender. That it agrees in all three is not surprising because it is a morphologically complex form that consists of the subjunctive ending, which agrees in number and person, and a participial form, which agrees in number and gender.\(^1\)

Bare verbs, and certain adjunct constructions (-V kar ‘having V-ed’) do not display any agreement.

\* Diagnosing Finiteness, \( \_ \)-completeness.

\[
\begin{array}{c|ccc}
\text{tall} & \text{M} & \text{F} \\
\text{Sg} & \text{lambaa} & \text{lambi:} \\
\text{Pl} & \text{lambaa} & \text{lambi:} \\
\end{array}
\]

\[
\begin{array}{c|ccc}
\text{be.Pst} & \text{M} & \text{F} \\
\text{Sg} & \text{thaa} & \text{thi:} \\
\text{Pl} & \text{the} & \text{thi:} \\
\end{array}
\]

\( \text{be} \) in the present tense and subjunctives only agree for Person and Number.

\[
\begin{array}{c|ccc}
\text{M} & \text{F} \\
\text{Sg} & -0-gaa & -0-gaa \\
\text{MPl} & -0-ge & -0-ge & -0-ge \\
\text{FSG} & -0-gii & -0-gii & -0-gii \\
\text{FPl} & -0-gii & -0-gii & -0-gii \\
\end{array}
\]

\( \text{be} \) in the present tense agreements:

\[
\begin{array}{c|ccc}
\text{Sbjv} & \text{1} & \text{2} & \text{3} \\
\text{MSg} & -0-\text{e-gaa} & -0-\text{gaa} \\
\text{MPl} & -0-\text{e-ge} & -0-\text{ge} \\
\text{FSG} & -0-\text{e-gii} & -0-\text{gii} \\
\text{FPl} & -0-\text{e-gii} & -0-\text{gii} \\
\end{array}
\]

\( \text{be} \) in the future agreements:

\[
\begin{array}{c|ccc}
\text{MSg} & -0-\text{e-gaa} & -0-\text{gaa} \\
\text{MPl} & -0-\text{e-ge} & -0-\text{ge} & -0-\text{ge} \\
\text{FSG} & -0-\text{e-gii} & -0-\text{gii} & -0-\text{gii} \\
\text{FPl} & -0-\text{e-gii} & -0-\text{gii} & -0-\text{gii} \\
\end{array}
\]

\( \text{be} \) in the present tense and subjunctives only agree for Person and Number.

- Diagnosing Finiteness, \( \_ \)-completeness.

\( ^1 \)The subjunctive ending and the participial form in the Hindi future are very closely bound now and no element may intervene between them. According to Kellogg (1993), in an earlier stage, certain focus particles could intervene between the subjunctive ending and the participial form.
1.2 Long Distance Agreement

Long Distance Agreement (LDA):

(3) Vivek-ne [kitaab parh-nii] chaah-ii
    Vivek-Erg book.F read-Inf.f want-Pfv.f
    ‘Vivek wanted to read the book.’

1.2.1 Environments

LDA is only possible with arguments of non-finite complements.

(4) a. Nadia-ko [gaarii chalaanii] aa-tii hai
    Nadia-Dat car.F drive-Inf.f come-Hab.f be.Prs
    ‘Nadia knows how to drive a car.’

b. Nadia-ne [per kat-ne] di-ye
    Nadia-Erg trees cutr.o Obl let-Pfv.PI
    ‘Nadia let the trees get cut.’

c. Nadia-ne [Sarosh-ko gaarii chalaan-ne] di-i
    Nadia-Erg Sarosh-Acc car.F drive-Gen.Obl let-Pfv.F
    ‘Nadia let Sarosh drive the car.’

(5) a. Firoz-ne soch-aa ki [Mona ghazal gaat-tii hai]
    Firoz-Erg think-Pfv.3MSg that Mona.f ghazal.f sing-Hab.f be.Prs
    ‘Firoz thought that Mona sings ghazals.’

b. *Firoz-ne soch-ii ki [Mona ghazal gaat-tii hai]
    Firoz-Erg think-Pfv.3FSg that Mona.f ghazal.f sing-Hab.f be.Prs

Constraints on LDA: no internally licensed subjects:

(6) a. Embedded infinitival clause can have a genitive subject:
    Firoz-ne [Shabnam-kaa rojii khaa-naa] chaah-aa thaa
    Firoz-Erg Shabnam-Gen bread.f eat-Inf want-Pfv.3MSg be.Pst.MSg
    ‘Firoz had wanted Shabnam’s eating bread.’

b. LDA not possible in presence of genitive subject of infinitival clause:
    *Firoz-ne [Shabnam-kaa rojii khaa-nii] chaah-ii thii
    Firoz-Erg Shabnam-Gen bread.f eat-Inf.F want-Pfv.3FSg be.Pst.F

For LDA possible if there is no subject:

    Firoz-ne [rojii khaa-nii] chaah-ii thii
    Firoz-Erg bread.f eat-Inf.F want-Pfv.3FSg be.Pst.F
    ‘Firoz had wanted to eat bread.’

1.2.2 Optionality

It has been noted by several authors that LDA is optional (Hook (1979), Davison (1988), Mahajan (1989, 1990), Butt (1995)).

(7) (from Mahajan 1989)

a. LDA:
    Ram-ne [rojii khaa-nii] chaah-ii
    Ram-Erg bread.f eat-Inf.F want-Pfv.F
    ‘Ram wanted to eat bread.’

b. no LDA:
    Ram-ne [rojii khaa-naa] chaah-aa
    Ram-Erg bread.f eat-Inf.M want-Pfv.M
    ‘Ram wanted to eat bread.’

(8) (from Butt 1995)

a. LDA:
    Nadia-ko [gaarii chalaanii] aa-tii hai
    Nadia-Dat car.F drive-Inf.f come-Hab.f be.Prs.Sg
    ‘Nadia knows how to drive a car.’

b. no LDA:
    Nadia-ko [gaarii chalaan-naa] aa-taa hai
    Nadia-Dat car.F drive-Inf.M come-Hab.M be.Prs.Sg
    ‘Nadia knows how to drive a car.’

1.2.3 Directionality of LDA

LDA always goes bottom up.

(9) (from Mahajan 1989)

a. Infinitival verb shows default agreement:
    Mona [kutte-ko dekh-naa] chaah-tii thii
    Mona.f dog.M-Acc see-Inf.M.5sg want-Hab.f be.Pst.f
    ‘Mona wanted to see the dog.’

b. Infinitival verb agrees with matrix subject:
    *Mona [kutte-ko dekh-nii] chaah-tii thii
    Mona.f dog.M-Acc see-Inf.F.5sg want-Hab.f be.Pst.f
1.2.4 Parasitic Agreement

The infinitival verb agrees with its object only when there is LDA.

(10) a. LDA + infinitival agreement:
   Shahrukh-ne [tehnii kaat-nii] chaah-ii thii
   Shahrukh-Erg branch.F cut-Inf.F want-Pfv.M=Def be.Pst.F
   ‘Shahrukh had wanted to cut the branch.’

   b. infinitival agreement but no LDA:
      *Shahrukh-ne [tehnii kaat-nii] chaah-aa thaa
      ‘Shahrukh wanted to cut the branch.’

   c. LDA but no infinitival agreement:
      *Shahrukh-ne [tehnii kaat-naa] chaah-ii thii
      ‘Shahrukh wanted to cut the branch.’

   d. no infinitival agreement, no LDA:
      Shahrukh-ne [tehnii kaat-naa] chaah-aa thaa
      ‘Shahrukh wanted to cut a/the branch.’

(11) a. no LDA and no infinitival agreement:
    Shahrukh [tehnii kaat-naa] chaah-taa thaa
    Shahrukh.M branch.F cut-Inf.M want-Pfv.MSg be.Pst.MSg
    ‘Shahrukh wants to cut the branch.’

   b. infinitival agreement but no LDA:
      *Shahrukh [tehnii kaat-niinit] chaah-taa thaa
      Shahrukh.M branch.F cut-Inf.F want-Pfv.MSg be.Pst.MSg

Infinitival agreement is parasitic on LDA. Further when LDA takes place, Infinitival Agreement must take place.

2 Previous Analyses

2.1 Mahajan (1989)'s Analysis

2.1.1 The Analysis

The central idea behind Mahajan’s analysis of agreement in Hindi-Urdu:

- Imperfective Participle: assigns accusative
- Perfective Participle: cannot assign accusative
- Infinitival verb: optionally assigns accusative

Mahajan’s system:

(12) \[ r' \cdot [[LVR \cdot \{[v \cdot NP_{v0} [NP_{v0} V] Agr^p]] ^p']] \]

Auxiliary verbs, of which there may be many, come with their own AgrP.

(13) NP_{v0} NP_{v0} V Aux
    \[ \{[v \cdot [\text{LVR} \cdot \{[v \cdot NP_{v0} [NP_{v0} V] Agr^p]] ^p']] \text{ Aux}^p]] Agr^p'] ^p'] \]

Each verb moves to its associated Agr^p. The highest V+Agr head moves to \( ^p' \).

- Moving through [Spec,AgrP] triggers agreement.
- The presence of overt case-markers blocks agreement.

Case 1: Nominative Subject, Non-Perfective Verb, Subject Agreement:

(14) \[ r' \cdot [[LVR \cdot \{[v \cdot t \cdot rotii \cdot tii \cdot khaa-taa]] thaa]] \]
    Ram_M branch.F bread.f eat-Hab.MSg be.Pst.MSg
    ‘Ram used to eat bread.’

- Nominative is assigned in [Spec,IP] by finite \( ^p' \).
- Imperfective Participles assign accusative \( m\text{-situ} \).

Case 2: Ergative Subject, Perfective Verb, Object Agreement:

(15) \[ r' \cdot [[LVR \cdot \{[v \cdot t \cdot rotii \cdot tii \cdot khaa-ii \cdot thii]] \]
    Ram-Erg branch.f eat-Pfv.f be.Pst.f
    ‘Ram had eaten bread.’

- Ergative is inherent case, but needs to be licensed by finite \( ^p' \).
- Perfective participles do not assign case.
- Object case is licensed in [Spec,AgrP] by Agr^p governed by finite \( ^p' \).
Case 3: Ergative Subject, Perfective Verb, Long Distance Agreement:

(16) [L. Ram-ne, [[lgr, rotii, [[i, f PRO t, [lcr, PRO t, khaa-nii] t, ]] chaah-ii]] thii]
    Ram-Erg bread.f eat-inf.f want-Pfv.f be.Pst.f
    ‘Ram wanted to eat bread.’

- Infinitival verb optionally does not assign case.
- Object case is licensed in the highest [Spec,AgrP] by Agr which is governed by finite P.

Case 4: Ergative Subject, Perfective Verb, No Long Distance Agreement:

(17) [L. Ram-ne, [[lgr, rotii, khaa-naa] t, ]] chaah-aa]
    Ram-Erg bread.f eat-inf.MSG want-Pfv.MSG
    be.Pst.MSG
    ‘Ram wanted to eat bread.’

- Infinitival verb assigns case to the object in-situ.

2.1.2 The Assumption behind the Analysis

Mahajan’s proposal that perfective participles do not assign case transposed to English is equivalent to the claim that in (18), the object does not receive case from the past participle.

(18) John has eaten the apple.

Such a proposal has been made in Hoekstra (1984), where have seemingly re-transitivizes the past participle and assigns accusative to the object. Support for this idea comes from reduced relatives like (19).

(19) a. I like the book [read by John].
    b. *I like the person [read the book].

The facts with Hindi reduced relatives based on the past participle are similar (but not identical, cf. Iatridou et al. (2000)).

2.1.3 Some Problems

Central to Mahajan’s proposal is his assumption concerning the inability of perfective participles to assign accusative case and the optional inability of infinitives to assign accusative. It is not clear that this assumption is tenable. It is easy to show that infinitival verbs can assign accusative case.

(22) a. [viin . aa vina bajaa-naa]
    aasaan nah˜ı: Neg hai be.Prs
    ‘It is not easy to play the vina.’

b. [Salma-ko taash-m˜e card-in haraa-naa]
    aasaan easy nah˜ı: Neg hai be.Prs
    ‘It is not easy to defeat Salma at cards.’

The optional inability of infinitives to assign accusative is hard to argue against, but it is also unclear what would constitute independent evidence for it. It is easier to find environments which seem to show that perfective participles do assign accusative case.

(23) a. Lataa-ji-ne yeh gaanaa gaa-yaay ho-gaa
    Lataa-Hon-Erg this song.MSG sing-Pfv.MSG be-Fut.MSG
    ‘Lataa-ji must have sung this song.’

b. [Lataa-jii-kaa/*Lataa-jii-ne Lataa-Hon-Gen/Lataa-Hon-Gen]
    yeh gaanaa gaa-yaay ho-naa namumkin
    Lataa-Hon-Gen/Lataa-Hon-Gen this song sing-Pfv be-Inf impossible
    hai be.Prs
    ‘Lataa-ji’s having sung this song is impossible.’

c. [Ashaa-ji-kaa yeh gaanaa gaa-yaay ho-naa] [Lataa-jii-ke yeh
    Ashaa-Hon-Gen this song sing-Pfv be-Inf Lataa-Hon-Gen Obl this
    gaa-ya ye ho-ne]-se zyaadaa mumkin hai
    song sing-Pfv.Obl be-Inf.Obl-than more possible be.Prs
‘Ashaa-ji’s having sung this song is more possible than Lataa-ji’s having sung this song.’

In addition, there is a limited set of transitive verbs that permit nominative subjects.2

(24) a. laa ‘bring’ (does not allow for Ergative subjects):
   Madhu phal laa-ii thii
   Madhu.f fruit.m bring-Pfv.F be.Pst.F
   ‘Madhu had brought fruit.’

b. bol ‘speak’ (marginally allows for Ergative subjects):
   Nupur kuchh bol-ii thii
   Npur.f something.m speak-Pfv.F be.Pst.F
   ‘Nupur had said something.’

c. samajh ‘understand’ (also allows for Ergative subjects):
   mE vo baat nahii samjh-aa
   I that thing Neg understand-Pfv.MSg
   ‘I did not understand that thing.’ (from Mahajan 1989)

More productively, transitive verbs that otherwise require ergative subjects in the perfective do not allow for ergative subjects when combined with certain Compound Verbs.

(25) Mahesh phal khaa ga-yaaye baith-aa
    Mahesh fruit eat GO-Pfv/SIT-Pfv
    ‘Mahesh ate up the fruit.’

There are two cases to be licensed in (24) and (25) - that of the subject and the object, and if the perfective participle is not assigning case, then we have only one case licenser. In Mahajan’s system, with ordinary transitive two things have to happen together:

(i) licensing of ‘inherent’ ergative,
(ii) non-assignment of accusative by the perfective participle

Conversely, with cases like (24) and (25), there has to be:

(i) non-licensing of ‘inherent’ ergative,
(ii) assignment of accusative by the perfective participle

This leaves unexplained (for Mahajan) why we do not find verbs with the following properties:

(i) licensing of ‘inherent’ ergative,
(ii) assignment of accusative by the perfective participle

Given Mahajan’s system, such verbs would assign ergative case but we would not find any object agreement.

● It makes for a simpler system if we assume that the idiosyncrasy of the verbs in (24) is limited to their ability to license Ergative case on their subjects.

2A similar state of affairs is found in Marathi, and curiously with these very verbs. (pg. 132, Pandharipande (1997))

Participial Relatives: the main evidence for proposing that perfective participles do not assign accusative case came from past participial relatives. However, the force of this argument is undercut by the facts from Marathi. Marathi patterns with Hindi w.r.t. the case-agreement facts.

(26) Marathi, from Pandharipande (1997)

a. rodz sandhyākālī ti gāna mhanat asāyīśi
ev'eryday evening-loc she song-3sn sing-imper be-inf-hab-3sf
   ‘Every evening, she used to be singing a song.’

b. mulīne gānī mhaṭṭī
girl-Erg song-3pl.n sing-pst-3pl.n
   ‘The girl sang songs.’

c. tyāne muḷīḷā pāhlī
   he-Erg girl-acc see-pst-3sn
   ‘He saw the girl.’

However, past participial relative clauses in Marathi do allow for overt objects.

(27) Marathi, from Pandharipande (1997)

[ty-ane āmāntrān patrikā dīlēll ī] sangī māṇśa lagnā-lā
   he-Erg invitation card give-pst.part-pl all-pl.n people-pl.m wedding-Dat
   come-pst-3pl.m
   ‘All the people who he had sent (given) invitation cards had come to the wedding.’

A related issue is that extrapolating from past participial relatives to past participles in general requires an additional assumption that identifies the past participle with the passive participle. These have the same form in many (but not all) Indo-Aryan languages, but it not clear if we can identify them synchronically.

(28) a. Active:
   Parth-ne yeh mez banaa-yīi thīi
   Parth-Erg this table.f make-Pfv.f be.pst.f
   ‘Parth had made this table.’

b. Passive:
   yeh mez Parth-dwāraa banaa-yīi gayīī thīi
   this table.f Parth-by make-Pfv.f PASS-Pfv.f be.pst.f
   ‘This table had been made by Parth.’

The passive auxiliary as well as a by-phrase can appear in the past participial relative demonstrating that what we have is indeed a passive participle.
(29) [Parth-dwaaraa banaa-yii (gayii)] mez terhii hai
Parth-by make-Pfv.f PASS-Pfv.f table.f crooked.f be.Psr.Sg
‘The table made by Parth is crooked.’

Spurious Case Licensing
Long Distance Agreement for Mahajan involves the object of the embedded clause getting case in the highest [Spec,AgrP] of the matrix clause. There is no obvious reason why the embedded subject should not be able to do the same. However, this is not possible.

(30) ‘Ram-ne [Mohan Dilli jaa-naa] chaah-aa
Ram-Erg Mohan Delhi go-Inf want-Pfv
That the source of the ungrammaticality is case is shown by the grammaticality of (31).

(31) Ram-ne [Mohan-kaa Dilli jaa-naa] chaah-aa
Ram-Erg Mohan Delhi go-Inf want-Pfv
‘Ram wanted/desired Mohan’s going to Delhi.’

Overt Movement
Mahajan suggests that the movement to [Spec,AgrP] is overt. There seems to be evidence against this (see also Davison (1991)).

(32) picchle saal Adnaan-ne [roz Shehlaa-kii madad kar-nii] chaah-ii
last year Adnaan-Erg everyday Shehlaa-Gen.f help.f do-Inf.f want-Pfv.f
‘Last year, Adnaan wanted to help Shehlaa every day.’

2.2 Butt (1995)’s Analysis

2.2.1 Infinitival Clauses as NP’s

- Morphology

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<th>Nom.MPl</th>
<th>Nom.F</th>
<th>Dat/Acc</th>
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<td>larkhe</td>
<td>larkii</td>
<td>larkhe-ko</td>
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<td>kar-naa</td>
<td>kar-ne</td>
<td>kar-nii</td>
<td>karne-ko</td>
</tr>
</tbody>
</table>

- Ability to take on case endings and other modifiers that target nominals.

(33) a. Accusative:
    Anjum-ne Saddaf-ko [haar banaa-ne]-ko kah-aa
    Anjum-Erg Saddaf-Dat necklace make-Inf.Obl-Acc say-Pfv
    ‘Anjum told Saddaf to make a necklace.’
    b. Genitive:
        [un-ke aa-ne]-kii baat mahatvapuurn hai
        they-Gen.Obl come-Inf.Obl-Gen.f matter.f important be.Prs.Sg
        ‘The matter of their coming is important.’

(33b) also shows that infinitival clauses can license genitive subjects.

(34) -vaalaa modification

a. -vaalaa can modify nouns and adjectives:
    sabzii-vaalaa aa-yaa hai vegetable.f-VAALA.m come-Pfv.MSg be.Prs.Sg
    ‘The one associated with vegetables (i.e. the vegetable seller) has come.’
    b. -vaalaa cannot modify participle/finite verbs:
        larkii haar banaa-tii-vaalii hai
girl.f necklace.m make-Hab.F-VAALA.f be.Prs
        ‘The boy is the studious type./The boy is about to start studying.’

Absence of infinitival questions/relative clauses in Hindi:

(35) a. Infinitival Complement, no embedded question reading:
    tum kyaa kar-naa jaan-te ho?
you.Pl what do-Inf know-Hab.MSg be.Prs.2Pl
    ‘What do you know how to do?’
    (Embedded question reading unavailable: You know what to do.)
    b. Finite Complement, embedded question reading present:
        tum jaan-te ho [ki us-ne kyaa ki-yaa]
you.Pl know-Hab.Pl be.Prs.2Pl that he-Erg what do-Pfv.MSg
        ‘You know what he did.’

(36) *[gariib˜ o-ko paisaa punya kamaa-taa hai
    poor.Pl.Obl-dat give-Inf money good-deed earn-Hab be.Prs
Dayal (1996) takes the above to show that infinitival clauses lack CPs in Hindi. Butt (1995) takes them to show that infinitival clauses are NPs.

It is clear that infinitival clauses in Hindi have many nominal properties. But does this mean that they are NPs? One possibility is that the gerund/infinitival distinction exists in Hindi despite the surface forms being the same. Potential evidence comes from the interpretation of infinitival clauses.

(37) a. infinitival in subject position:
[(Tina-kaa) Karachi go-Inf dangerous be.Prs.Sg
'(Tina's) going to Karachi is dangerous.'

b. control infinitival:
Dhruva-ne Karachi go-Inf.Obl-Gen.f attempt.do-Pfv.f
'Dhruva tried to go to Karachi.'

c. complement infinitival, with overt genitive subject:
?Dhruva-ne meraa Karachi go-Inf want-Pfv
'Dhruva wanted my going to Karachi.'

While the facts are subtle, the intuition is pretty clear that control infinitivals feel semantically different from most other instances of infinitivals. As the glosses indicate, an English infinitival seems appropriate for control infinitivals, but not for the others.

2.2.2 The Basic Analysis

Butt (1995)'s analysis of LDA reduces LDA to two instances of local agreement.

(38) Ram-ne rotti bread.f eat-Ger.f want-Pfv.f
'Ram wanted to eat bread.'

1. infinitival agrees with its object, and comes to have the features of the object.
2. The matrix verb agrees with the infinitival, which is its object, and comes to have the features of the infinitival, and by transitivity the features of the embedded object.

2.2.3 Some Problems

Parasitic Nature of LDA

(39) ok/NTR Ram rotti bread.f eat-Inf.f want-Hab.MSg be.Pres.Sg
'Ram wants to eat the bread.'


2.2.4 The Basic Proposal

Dissociation of Case and Agreement

Agreement within the clausal system is triggered by finite T° with associated unvalued \( \delta \)-features.

(40) Anil-ne larkiyã dekh-\( \delta \)/ dekh-aa
Anil-Erg girls.PL see-Pfv.FPl/ see-Pfv.D
'Anil saw girls.'

'Noun Incorporation' does not actually block agreement in Hindi.

3 Handling Long Distance Agreement

3.1 Basic Proposal

Dissociation of Case and Agreement

AGREE is the process by which a head \( X^0 \) with a complete set of unvalued un-interpretable features (the Probe) identifies the closest \( Y^0/YP \) in its c-command domain with the relevant set of visible matching (i.e. non-distinct) interpretable features (the Goal), and uses the interpretable features of \( Y^0/YP \) to valuate its un-interpretable features.

Using AGREE, finite \( T^0 \) identifies the nearest argument with visible \( \delta \)-features and uses them to valuate its \( \delta \)-features.

(41) AGREE is the process by which a head \( X^0 \) with a complete set of unvalued un-interpretable features (the Probe) identifies the closest \( Y^0/YP \) in its c-command domain with the relevant set of visible matching (i.e. non-distinct) interpretable features (the Goal), and uses the interpretable features of \( Y^0/YP \) to valuate its un-interpretable features.

Using AGREE, finite \( T^0 \) identifies the nearest argument with visible \( \delta \)-features and uses them to valuate its \( \delta \)-features.

(42) a. subject agreement:
Mona amruud khaa-tii thii
Mona.f guava.m eat-Hab.F be.Pst.F
'Mona used to eat guavas.'

b. object agreement:
Ram-ne imlii tamarind.f eat-Pfv.F be.Pst.F
'Ram had eaten tamarind.'

c. default agreement:
Mona-ne kitaab-ko parh-aa thaa
Mon.f-Erg this.book.f-Acc read-Pfv.MSg be.Pst.MSg
'Mona had read this book.'

Participial Agreement:

(43) a. \( T^0[uF] \ldots [PRT^0[uF] \ldots [v^0 \SUBJ[vF] v [v^v \OBJ[vF]]]] \)
(PRT = Habitual, 42a)

b. \( T^0[uF] \ldots [PRT^0[uF] \ldots [v^0 \SUBJ-Erg[vF] v [v^v \OBJ[vF]]]] \)
(PRT = Perfective, \( v \) transitive, 42b)
• Covaluation (cf. López (2002))
• LDA:

(44) Ram-ne [roṭii khaa-nii] chaah-ii thii
Ram-Erg bread.f eat-Inf.f want-Pfv.f be.Pst.f
‘Ram had wanted to eat (the) bread.’

LDA and Object Agreement:
(45) T[uF] [Subj-Erg V Inf[uF] ... OBJ[øF]]

3.2 Working through the cases
The current proposal needs to make the following background assumptions. First, it is
assumed that the ø-features of overtly case-marked NP’s are not visible. The second as-
sumption is that PRO has no visible ø-features. The analyses of Long Distance Agreement
discussed earlier in this paper need to make comparable assumptions.

(46) (Nepali, from Verma and Sharma (1979), pg. 47)
   a. Ergative Subject:
      maile gaiko aaitvaar dhairai
      I-Erg gone Sunday a-lot alcohol eat-Pst.1Sg
      ‘I drank a lot last Sunday.’
   b. Nominative Subject:
      ma asti somvaar sku:lma: dhi:lo a:˜e
      I-Nom last Monday school-in late come-Pst.1Sg
      ‘I was late to school last Monday.’

(47) (Gujarati, from Cardona (1965), pg. 75)
   a. mEN tehmahri behEn-one bolawi
      I-Erg your sisters-Acc invited.F
      ‘I invited your sisters.’
   b. pustek ‘book’ is Neuter
      mEN a pustek-ne waNcyuN
      I-Erg this book-Acc read.N
      ‘I read this book.’

Subbarao (2001):
1. the effect of overt case-marking on agreement should be treated as an instance of para-
metric variation and not as a universal.
2. PRO in Hindi-Urdu must be ‘overtly case-marked’. (cf. Sigurdsson (1991) for PRO in
Icelandic)

3.2.1 Long Distance Agreement Environments
Minimality and AGREE: Long Distance Agreement can only involve arguments of infini-
tival clauses.

Firoz-ne soch-aa ki [Mona ghazal gaa-tii hai]
Firoz-Erg think-Pfv.3MSg that Mona.f ghazal.f sing-Hab.f be.Prs
‘Firoz thought that Mona sings ghazals.’
   *Firoz-ne soch-ii ki [Mona ghazal gaa-tii hai]
Firoz-Erg think-Pfv.3FSg that Mona.f ghazal.f sing-Hab.f be.Prs

Because of the minimality condition on AGREE, the matrix T in (48a) cannot attract the
features of B over the intervening finite T in the embedded clause. However, we also
need to explain why the matrix T cannot attract the features from the embedded T.
Two possible explanations:
(i) the Phase Impenetrability Condition (PIC) of Chomsky (1999) - finite CPs are strong
phases.
(ii) a finite T with unvalued ø-features can only AGREE with ‘real’ ø-features i.e. inter-
pretable ø-features associated with a nominal, and not the uninterpretable ø-features of
another inflectional head.

In addition to obeying Minimality, AGREE is also subject to the following structural con-
straint. A head can AGREE with a complement, the specifier of a complement, the com-
plement of a complement, the specifier of the complement of a complement, and so on.
However, a head is not allowed to look inside specifiers for the purposes of AGREE.

Here X can AGREE with (the features of) YP, ZP, WP, and UP. However X cannot AGREE
with (the features of) RP and SP.

This structural aspect of the AGREE operation helps to explain the impossibility of Long
Distance Agreement in (49).

(49) a. [mehnat kar-naa/*kar-nii] achchhaa/*ii ho-taa/*ii hai
   hardwork.f do-Inf.D do-Inf.F good.D/F be-Hab.D/F be.Prs
   ‘It is good to work hard.’
b. Ram-ko [imlii khaa-naa/*khaa-nii] pasand thaa/*thii
   ‘Ram liked to eat tamarind.’

Minimality effects on AGREE also surface in another direction. If a maximal projection is of the kind that potentially has φ-features, T/BC cannot AGREE with the φ-features of a maximal projection from inside it.

(50) *X/BC [B] ... [A ... B ...]
   (Both A and B are the same kind of category)

(51) a. Embedded infinitival clause can have a genitive subject:
   Firoz-ne [Shabnam-kaa rotii khaa-naa] chaah-aa
   Firoz-Erg Shabnam-Gen bread.f eat-Inf want-Pfv.3MSg
   ‘Firoz wanted Shabnam’s eating bread.’

b. LDA not possible in presence of genitive subject of infinitival clause:
   *Firoz-ne [Shabnam-kaa rotii khaa-nii] chaah-ii
   Firoz-Erg Shabnam-Gen bread.f eat-Inf.F want-Pfv.3FSg
   ‘Firoz wanted to eat bread.’

c. LDA possible if there is no subject:
   Firoz-ne [rotii khaa-nii] chaah-ii
   Firoz-Erg bread.f eat-Inf.F want-Pfv.3FSg
   ‘Firoz wanted to eat bread.’

3.2.2 Directionality

It was noted earlier that agreement always goes bottom-up, never top-down.

(52) (from Mahajan 1989)
   a. Infinitival verb shows default agreement:
      Mona [kutt˜o-ko dekh-naa] chaah-tii thi
      Mona.f dog.MPl-Acc see-Inf.M.Sg want-Hab.m be.Pst.f
      ‘Mona wanted to see the dog.’

b. Infinitival verb agrees with matrix subject:
   *Mona [kutt˜o-ko dekh-nii] chaah-tii thi
   Mona.f dog.MPl-Acc see-Inf.F.Sg want-Hab.m be.Pst.f
   ‘Mona wanted to see the dog.’

This feature of agreement follows from the way AGREE operates.

(53) a. Long Distance Agreement:
   Before AGREE: T'[uF] ... [Inf'[uF] ... DP'[oF]]
   After AGREE: T'[oF] ... [Inf'[oF] ... DP'[oF]]

b. ‘Downward’ Agreement:
   Before AGREE: T'[uF] ... DP'[oF] ... [Inf'[uF] ...]
   *After AGREE: T'[oF] ... DP'[oF] ... [Inf'[oF] ...] (unattested)

3.2.3 Parasitic Agreement

The trigger for LDA (and agreement in general) is finite T'. All other categories with unvalued φ-features can only valuate their φ-features parasitically by entering into a relationship with a finite T' that is seeking a DP with interpretable features and then being potentially covaluated by T'. This is what derives the parasitic nature of agreement discussed earlier.

(54) a. LDA + infinitival agreement:
   Shahrukh-ne [tehiii kaat-nii] chaah-ii
   Shahrukh-Erg branch.F cut-Inf.F want-Pfv.F
   ‘Shahrukh wanted to cut the branch.’

b. infinitival agreement but no LDA:
   ‘Shahrukh-ne [tehiii kaat-nii] chaah-aa
   Shahrukh-Erg branch.F cut-Inf.F want-Pfv.M
   ‘Shahrukh wanted to cut the branch.’

c. LDA but no infinitival agreement
   ‘Shahrukh-ne [tehiii kaat-naa] chaah-ii
   Shahrukh-Erg branch.F cut-Inf.M want-Pfv.F
   ‘Shahrukh wanted to cut the branch.’

Generating (54c) would require ‘skipping’ the intervening Inf'.

(55) a. no LDA, no infinitival agreement
   Shahrukh [tehiii kaat-naa] chaah-taa hai
   Shahrukh.m branch.f cut-Inf.M want-Hab.MSg be.Prs
   ‘Shahrukh wants to cut a/the branch.’

b. infinitival agreement but LDA
   *Shahrukh [tehiii kaat-nii] chaah-taa hai
   Shahrukh.m branch.f cut-Inf.F want-Hab.MSg be.Prs
   ‘Shahrukh wants to cut a/the branch.’

3.2.4 Agreement not Case

The current analysis dissociates Case from Agreement. Therefore it does not predict spurious case-licensings. As discussed earlier, this was a problem for Mahajan (1989).

(56) *Ram-ne [Mohan jaa-naa] chaah-aa
   Ram-Erg Mohan go-Inf want-Pfv

(57) Ram-ne [Mohan-kaa jaa-naa] chaah-aa
   Ram-Erg Mohan-Gen go-Inf want-Pfv
   ‘Ram wanted Mohan’s leaving.’
3.3 What about Optionality?

3.3.1 Optionality

LDA is optional. Local Agreement is not.

3.3.2 Deriving Optionality

To derive the optionality of Long Distance Agreement, we need an optional element somewhere. Mahajan (1989) had infinitives optionally assigning case and Butt (1995) had optional incorporation.

Long Distance Agreement can be reduced to the well-known optionality of Restructuring. The predicates that allow for Long Distance Agreement in Hindi-Urdu (e.g., chaah ‘want’, de ‘permit’) have been termed restructuring verbs in the literature on restructuring/clause union.

(58)

a. Restructuring Infinitive, LDA: T'[A]......[Inf][A].....[DP][A]]
   Ram-ne [mujhe kahaanii sun-aa-nii] chaah-ii thii
   Ram-Erg I.Dat story.f hear-CAUS-Inf.f want-Pfv.f be.Pst.f
   ‘Ram had wanted to tell me a story.’

b. Non-restructuring Infinitive, no LDA: T'[Default]......[Inf][Default].....[DP][A]]
   Ram-ne [mujhe kahaanii sun-aa-naa] chaah-aa thaa
   Ram-Erg I.Dat story.f hear-CAUS-Inf.MSG want-Pfv.MSG be.Pst.MSG
   ‘Ram had wanted to tell me a story.’

Wurmbrand’s Proposal

Another option: a categorial ambiguity analysis: ‘infinitival’ clauses could be systematically ambiguous between infinitivals (which permit and require LDA when possible) and gerunds (without LDA).

3.3.3 The Interpretive Effects of Long Distance Agreement

The presence of Long Distance Agreement has been noted in the literature to have certain interpretive effects. The general claim is that embedded objects that agree long distance with the matrix predicate are more specific than embedded objects that do not. Mahajan (1989) provides a clearer proposal when he relates the presence of long distance agreement with wide scope over the matrix predicate. Consider the following contrast.

(59) (from Mahajan (1989))

a. LDA:
   Naim-ne [har kitaab parh-nii] chaah-ii
   Naim-Erg every book.f read-Inf.f want-Pfv.f be.Pst.f
   every > want: For every book, Naim wanted to read it.
   want > every: Naim’s desire: to read every book

b. no LDA:
   Naim-ne [har kitaab parh-aa] chaah-aa thaa
   Naim-Erg every book.f read-Inf.f want-Pfv.f be.Pst.f
   want > every: Naim’s desire: to read every book
   Unavailable: every > want: For every book, Naim wanted to read it.
The interpretive correlations can now be derived. Long Distance Agreement involves restructuring infinitives and restructuring infinitives allow for optional covert movement of the object out of the infinitival clause to a position above the matrix predicate. This leads to the observed ambiguities. The absence of Long Distance Agreement indicates a non-restructuring infinitive. Non-restructuring infinitives block covert movement of the object out of the infinitival. Consequently the wide scope reading is blocked. We still need to explain why Long Distance Agreement makes the reading where the embedded object takes scope over the matrix predicate more salient: a pragmatic explanation.

### 3.4 (Non)-Interaction with Scrambling

It seems to be true of the Indo-Aryan languages that scrambling does not affect agreement.

(62) Scrambling out a finite clause:

Mina, Brian-ne mujh-se kah-aa/*kah-ii  [ki ˚t kal biimaar
Mina.f Brian-Erg me-Instr say-Pfv.MSg/say-Pfv.F that  yesterday ill
thai]   
be.Pst

‘Mina, Brian told me, was ill yesterday.’

This is also true of short-scrambling, albeit somewhat vacuously, in Hindi.

(63) a. Mona-ne Shalu-ko kitaab di-i
Mona-Erg Shalu-Dat book.f give-Pfv.F
‘Mona gave a book to Shalu.’

b. Mona-ne kitaab, Shalu-ko ˚t di-i
Mona-Erg book.f Shalu-Dat give-Pfv.F
‘Mona gave a book to Shalu.’

A less vacuous demonstration comes from Kashmiri.

(64) Kashmiri

a. (pg. 107, Hook and Koul (1984))
   ma:ji  cav-InEv
   me-athi kur dOd
   mother.Erg drink.Caus-Caus.3MSg I-dat-by girl milk.3MSg
   ‘Mother had me give milk to the girl.’

b. (Sadaf Munshi, p.c.)
   dOd  cav-InEv  ma:ji  me-athi kur
   milk.3MSg drink.Caus-Caus.3MSg mother-Erg I-dat-by girl
   ‘Mother had the girl be given milk by me.’

(65) Kashmiri

a. (pg. 107, Hook and Koul (1984))
   ma:ji  cav-InEv
   me-athi kur dOd
   mother.Erg drink.Caus-Caus.3MSg I-dat-by girl milk.3MSg
   ‘Mother had me give milk to the girl.’

b. (Sadaf Munshi, p.c.)
   dOd  cav-InEv  ma:ji  me-athi kur
   milk.3MSg drink.Caus-Caus.3MSg mother-Erg I-dat-by girl
   ‘Mother had the girl be given milk by me.’

(66) (pg. 107, Hook and Koul (1984))

ma:ji  cav-Ino:v
me-athi  korI  dOd
mother.Erg drink.Caus-Caus.3MSg I-dat-by girl.Dat milk.3MSg
‘Mother had the milk given to the girl by me.’

Scrambling is to positions that are invisible for scrambling (cf. Kidwai (2000), who argues that even short scrambling is to non-A positions).

OR

The Goal is located not by structural prominence alone. Instead the search for the Goal examines successively more deeply embedded DP’s that enter into a case-relationship with a head on the verbal spine.

### 4 Extensions and Implications

#### 4.1 Long Distance Agreement in Kashmiri

An important aspect of the Hindi-Urdu dialect discussed here has been the parasitic nature of infinitival agreement. In Kashmiri, however, infinitival agreement is not parasitic on Long Distance Agreement (cf. Subbarao & Munshi 2000).

(67) a. Infinitival Agreement, LDA

Raam-an che hameeSl yotshImutI [panlIs necivis khAAtrI koorI
Ram-Erg be.Prs.F always wanted.FPl self.Dat son.Dat for girls
vuchini]
see-Inf.FPl
‘Ram has always wanted to see girls for his son.’

b. Infinitival Agreement, no LDA

Raam-an chu hameeSl yotshImutI [panlIs necivis khAAtrI koorI
Ram-Erg be.Prs.MSg always wanted.MSg self.Dat son.Dat for girls
vuchini]
see-Inf.FPl
Infinitival agreement also takes place when Long Distance Agreement is not even a possibility.

(68) (Sadan Munshi p.c.)
   a. Raam chu yatsaan [koori vuchini]
      Ram be.Prs.MSG want-Impfv girls see-Inf.FPl
      ‘Ram wants to see the girls.’
   b. Zoon che yatsaan [koori vuchini]
      Zoon.f be.Prs.F want-Impfv girls see-Inf.FPl
      ‘Zoon wants to see the girls.’

In Kashmiri, we find that infinitival verbs agree with their objects (if non-overtly case-marked) quite generally:

(69) (from Wali & Koul 2000)
   a. *[mohnIn’ yi philim vuchin’] chu mumkin
      Mohan-Gen-FSg this film.FSg see-Inf.FSg be.Prs.MSG possible
      ‘Mohan’s seeing this film is possible.’
   b. [mohnIn’ kitab tsu:zi nin’] chu ha:ran kun
      Mohan-Gen-FSg book.FSg steal-Inf.FSg be.Prs.MSG surprising
      ‘Mohan’s stealing the book is surprising.’

The difference between Hindi-Urdu and Kashmiri was reduced to the nature of infinitival agreement in the two languages. In Kashmiri infinitival agreement is obligatory while in Hindi-Urdu it is parasitic on Long Distance Agreement.

4.2 Long Distance Agreement in Tsez

Polinsky and Potsdam (2001) discuss a case of Long Distance Agreement found in the Nakh-Daghestanian language Tsez.

(71) (ex. 48 from Polinsky and Potsdam (2001))
   a. Embedded object triggers agreement:
      eni-ʃ [už-ā magalu b-āc’-ru-li] b-iyo xo
      mother-DAT boy-ERG bread. III.abs III-eat-PSTPRT-NMLZ III-know-PRES
      ‘The mother knows the boy ate the bread.’
   b. Embedded subject triggers agreement:
      eni-ʃ [uži ʃ-ā-y-ru-li] ʃ-iyo xo
      mother-DAT boy.abs I-arrive-PSTPRT-NMLZ I-know-PRES
      ‘The mother knows the boy arrived.’

In addition, Polinsky and Potsdam (2001) demonstrate that the agreement trigger in Tsez has to be an embedded topic, which undergoes covert movement to the edge of a Topic Phrase as shown in (72).

(72) (ex. 94 from Polinsky and Potsdam (2001))
   eni-ʃ [ʃʃọr’ magalu [ʃʃọr’ r. už-ā t b-āc’-ru-li]
   mother-DAT bread.III.abs boy-ERG III-eat-PSTPRT-NMLZ
   TopP ]] b-iyo xo
   III-know-PRES
   ‘The mother knows the boy ate the bread.’

The matrix predicate head-governs the embedded topic in (72) and Polinsky and Potsdam (2001) take this configuration to be the one relevant for Long Distance Agreement. LDA Triggers are embedded topics:

(73) (ex. 64 from Polinsky and Potsdam (2001))
   babi-r [kidb-ā eni-r kumek b-oxy-oxsi-li]
   father-DAT girl-ERG mother-DAT help. III.abs III-make-PRSPRT-NMLZ.IV
   r-iyo xo/’b-iyo xo
   IV-knows/III-knows
   ‘The father knows that the girl is helping the mother.’

The noun kumek ‘help’ that triggers local agreement is part of a light verb (N–V) construction. It does not refer and cannot serve as a topic. It does not move to [Spec,TopP] and consequently it is unable to trigger Long Distance Agreement.
4.3 AGREE and Agree

- AGREE and Agree diverge on the requirements they put on the Goal.

Why the activity condition on Goals seems necessary for Agree:

(74)  a. “John is certain [t, will win].
   b. “[John to seem [t, is intelligent]] would be surprising.

In contrast to Agree, it is possible for a Probe to enter into an AGREE relationship with an inactive Goal (cf. Lavine and Freidin (2001), and López (2002)). This was the case for Long Distance Agreement in both Hindi-Urdu and Tsez. The case requirements of the agreement trigger are met in the embedded clause where it appears.

- A constraint against Internal Merge of Inactive Goals.

References


