SPEAKER AND ADDRESSEE IN NATURAL LANGUAGE: HONORIFICITY, INDEXICALITY AND THEIR INTERACTION IN MAGAHI

BY

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ABSTRACT OF THE DISSERTATION

Speaker and Addressee in Natural Language: Honorificity, Indexicality and their Interaction in Magahi

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Natural language uses first and second person pronouns to refer to the speaker and addressee. This dissertation takes as its starting point the view that speaker and addressee are also implicated in sentences that do not have such pronouns (Speas and Tenny 2003). It investigates two linguistic phenomena: honorification and indexical shift, and the interactions between them, and show that these discourse participants have an important role to play. The investigation is based on Magahi, an Eastern Indo-Aryan language spoken mainly in the state of Bihar (India), where these phenomena manifest themselves in ways not previously attested in the literature. The phenomena are analyzed based on the native speaker judgements of the author along with judgements of one more native speaker, and sometimes with others as the occasion has presented itself.

Magahi shows a rich honorification system (the encoding of "social status" in grammar) along several interrelated dimensions. Not only 2nd person pronouns but 3rd person pronouns also morphologically mark the honorificity of the referent with respect to the speaker. Agreement

morphology also tracks honorification in the form of subject agreement and a special type of allocutive/addressee agreement. Addressee agreement in Magahi is unique in that it is found in all kinds of finite embedded clauses, showing evidence against the standard claim that addressee agreement is a root clause phenomenon (Miyagawa 2012, 2017 and others). I take every finite clause to syntactically represent the speaker (SP) and the addressee (ADD), as co-ordinates of FinP (cf. Bhadra 2017), in addition, I argue that all DPs have a semantic honorificity feature (e.g., iHON), which has a relational semantics (cf. Portner et al. 2019a), where one of its arguments is the DP it attaches to. The second argument is a variable bound by the closest SP coordinate found in FinP. Thus, each DP expresses its social status relative to the speaker, independently of other DPs in the clause. This differs from accounts such as Portner et al. (2019a), where honorification is fixed once and for all at the level of the clause. Subject agreement/honorification is a result of T agreeing with the subject and Addressee agreement/honorification is a result of Fin agreeing with the ADD coordinate. The relatively complex patterns of honorification in nominal and verbal domains are explained within this system under a unified account. The other phenomenon investigated is Indexical Shift. First and second person pronouns in Magahi can optionally shift under an attitude verb to refer to the higher subject and object. What is interesting about Magahi is the interaction of indexical shift with honorific marking on other elements such as 2nd person pronouns, 3rd person pronouns and addressee agreement. They also shift when there is indexical shift. There are other complex interactions between the two that are covered. A key distinction that plays a role in the explanation is between binding of person pronouns via SP and ADD co-ordinates of Fin (cf., Baker 2008) by the arguments of the immediately higher predicate, mediated by the attitude verb (von Stechow 2003), vs binding by matrix SP and ADD co-ordinates. Because indexicality and honorification are both sensitive to binding, complex interactions between them are predicted. The domain of investigation includes declarative clauses as well as interrogatives and imperatives. Honorificity and indexical shift have been studied in a large number of languages at this point and there is a sizable literature on their syntactic and semantic properties. This dissertation,

in addition to accounting for honorificity and indexicality in a previously unstudied language, highlights the advantages of studying these two phenomena together. It thus argues for a more intrinsic connection between honorificity and indexicality in the grammar of natural language.

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Dedication

To Daadi and Daada

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Chapter 1

Introduction

1 Overview

This dissertation focuses on two linguistic phenomena: honorification (e.g., the encoding of "social status" in grammar) and indexical shift in Magahi, an Indo-Aryan language, spoken in Eastern India, mainly in the state of Bihar. It studies several mechanisms that are involved in the two phenomena and proposes a unified account of their syntactic and semantic properties. The dissertation takes as its starting point the view that the speaker and addressee are implicated even in sentences that do not have 1st and 2nd person pronouns (Speas and Tenny 2003). Investigating the two phenomena and their interactions, the dissertation shows that these discourse participants have an important role to play in the grammar of natural language.

1.1 Some Background on the Status of Speaker and Addressee

The syntactic representation of discourse participants can be traced back to Ross (1970). Ross argues that the illocutionary force of a sentence is a part of the linguistic meaning of the sentence, known in the literature as the "Performative Hypothesis". Ross proposes that every well-formed sentence has a "performative clause" at deep structure (DS), whose semantic contribution is such that (a) the subject of the clause refers to the speaker of the sentence, (b) the indirect object refers to the addressee of the sentence, and (c) the predicate is a performative verb. In the implicit version, the performative clause is deleted at the surface structure (SS) through transformations

(e.g., the underlined clause in (b) examples of (1)-(3)). For example, the declarative sentence 'Mary is a culprit' in (1a) might have the DS in (1b), the interrogative sentence 'Is the exam tomorrow?' in (2a) might have the DS in (2b), and the imperative sentence 'Pass the salt' in (3a) might have the DS in (3b), (examples from Speas and Tenny (2003: 338)).

(1) a. Mary is a culprit.

    b. I <u>tell you</u> that Mary is a culprit.   DS

(2) a. Is the exam tomorrow?

    b. I <u>ask you</u> whether the exam is tomorrow.   DS

(3) a. Pass the salt.

    b. I <u>request you</u> that you pass the salt.   DS

The performative analysis claims to capture the relationship between a linguistic form and the illocutionary force it expresses (Austin 1962, Searle 1969). However, the performative hypothesis came under attack on semantic grounds (see Chierchia and McConnell-Ginet 1990, Speas and Tenny 2003 and references cited in there). I mention some of them here. Levinson (1983) argues that a single sentence can express a whole set of illocutionary forces. For example, sentence (3a) can also be used as a 'order', 'warn', or 'advise' etc. Thus, it may not have only the possibility of the DS in (3b), but also the DS in (4).

(4) Possible DS for (3a)

    a. I <u>request you</u> that you pass the salt.

    b. I <u>order you</u> that you pass the salt.

    c. I <u>advise you</u> that you pass the salt.

    d.   I warn <u>you</u> that you pass the salt.

If illocutionary force were a part of linguistic meaning, then we would have to say that every utterance is ambiguous in multiple ways. Further, as pointed by Speas and Tenny (2003), there is no way of ruling out the possibility that the performative clause can be recursive at DS, which we do not see in its explicit version. For example, there is a possibility that DS of (1a), 'Mary is culprit' could be 'I told you that I told you Mary is culprit'.

    The most serious problem for the Performative Hypothesis that was pointed out, however, is its relation to truth conditions. The implicit version is not semantically identical to the explicit version, as the Performative Hypothesis claims. For example, (5a) and (5b) do not have the same truth conditions: to utter (5a) is necessarily to say something true; the same cannot be said for (5b) (example from Chierchia and McConnell-Ginet 1990).

(5)   a.   I say to you that grass is purple.

      b.   Grass is purple.

Similarly, Sadock (1974) has argued using a command with the explicit performative clause has a much more significant impact than uttering the implicit version.

    Another serious problem with the theory is that all performative utterances bear a truth value. In this line, all the three sentences (e.g., declaratives, interrogative, imperatives) in (6) will have truth values. While this is right for declaratives, it poses serious problems for interrogatives and imperatives. These clause types have to be interpreted in very different ways, differences that the Performative Hypothesis blurs.

(6)   a.   I tell you that Mary is a culprit   = Mary is a culprit.

      b.   I ask you whether the exam is tomorrow   = Is the exam tomorrow?

      c.   I request you to pass the salt   = Pass the salt.

In recent generative literature, there is an attempt to revive the Performative Hypothesis, known as the neo-performative hypothesis. Speas and Tenny (2003) propose that speaker and addressee are syntactically represented in a higher functional projection of a clause, namely Speech Act Phrase (SAP), above CP. Moreover, there is only one SAP per sentence. In this theory, the explicit and implicit versions have different syntaxes, for example, the examples in (9) have the syntactic representations in (7)-(9).

(7) a. [SPEECH ACT PHRASE SA [CP Mary is a culprit]]

b. [SPEECH ACT PHRASE SA [CP I tell you [CP that Mary is a culprit]]]

(8) a. [SPEECH ACT PHRASE SA [CP Is the exam tomorrow]]

b. [SPEECH ACT PHRASE SA [CP I ask you [CP whether the exam is tomorrow]]]

(9) a. [SPEECH ACT PHRASE SA [CP Pass the salt]]

b. [SPEECH ACT PHRASE SA [CP I request you [CP that you pass the salt]]]

The semantic challenges for the Performative Hypothesis have also been addressed in recent developments in theories of discourse, starting with Stalnaker (1978, 2002). A key distinction that is relevant here is between what has come to be known as at-issue content that applies to the material inside CP and not-at-issue content that characterizes material in SAP. I will present details in Chapter 2, but for now, it suffices to note that at-issue content is interpreted in the standard way so that the distinctions between the semantic contributions of declaratives, interrogatives and imperatives is maintained. The content of the SAP determines the nature of the speech act and what constraints the speech act imposes on discourse participants (see Chierchia and McConnell-Ginet 2000, Murray 2014, Krifka 2014, among others).

After Speas and Tenny, a variety of phenomena have been investigated by a number of generative linguists in the support of the idea of syntactic representation of speaker and addressee, such

as interpretation of pronominal elements (Baker 2008, Georgi 2010, Charnavel 2015 and others), syntax and pragmatics/semantics of vocative phrases (Hill 2007, 2013), syntax of discourse adverbs and particles (Haegeman and Hill 2013, Lam 2014, Woods, 2014 and others), morphosyntax of allocutive/addressee agreement (Miyagawa 2012, 2017; Zu 2015, 2018; McFadden 2017, 2019). Based on these studies, it is argued that the speaker and the addressee are present only in root clauses, as co-ordinates of SAP.

This dissertation investigates honorification in Magahi and claims that the syntactic representation of the speaker and the addressee is also sensitive to finiteness. They are presented in syntax as co-ordinates of FinP as well (cf. Bhadra 2017, Alok 2019, Alok and Baker 2018, Baker and Alok 2019). The claim is based on the empirical fact that allocutive/addressee agreement is found in all kinds of finite clauses in Magahi. The dissertation also shows that these finite sensitive co-ordinates play an important role in indexical shift and its interaction with (the shifted) honorification.

1.2 Some Background on Magahi and Hindi

In this subsection, I will briefly present the geographical and socio-political status of Magahi. Magahi is widely spoken in the Eastern states of India, namely in Bihar and some parts of Jharkhand, West Bengal, and Orissa. Verma (1991) identifies three distinct geographical dialects of Magahi.[1]

- Central Magahi (spoken in the middle part of the state of Bihar: Patna, Jehanabad, Gaya, Hazaribagh etc.)

- Eastern Magahi (spoken in Begusarai and Monghyr in Bihar)

- South-Eastern Magahi (spoken in Jharkhand, around Ranchi, and some parts of Orissa)

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1. Grierson (1903) has classified South-Eastern and Eastern varieties together (see also Jeffers 1976).

In this dissertation, central Magahi, which is spoken in and around Jehanabad and Gaya, is investigated.

Socially, Magahi is considered a dialect of Hindi. This social attitude towards Magahi is due to the close lexical similarity of the two languages and its political representation. For example, in the last census of India, many speaker of Hindi declared Magahi as their mother tongue (see census 2011).[2] The area where Magahi is spoken (and most parts of Northern India) is now popularly known as the "Hindi belt", where Hindi is an official language and the medium of education, media, etc.

Linguistically, Magahi and Hindi share many features. Magahi is an SOV, primarily head final language, with free word order and wh in situ. In both languages, wh-expressions cannot scope out of finite clauses and typically use "scope marking" constructions instead (e.g., see Dayal 1991, 1994, 1996, 2000, Lahiri 2000, Mahajan 2000 for Hindi). Moreover, Magahi also allows pro- drop of all arguments, and has complex verb constructions, differential object marking etc.

However, there are also some differences. Hindi is a split ergative language while Magahi is a nominative-accusative language. Magahi has only person and honorificity agreement with the subject while Hindi shows ϕ-agreement in person, number, gender and honorificity with the subject.[3]

With respect to the core phenomena investigated in this dissertation, there is some overlap between Magahi and Hindi but also significant distinctions. With respect to indexicality, Dwivedi (1994) notes shifted readings for the 1st and the 2nd person pronouns, for Hindi, which she analyzes as a result of direct quotation. An in-depth study of indexicals in Hindi within recent approaches to indexical shift has not yet been done. Both Hindi and Magahi mark honorificity of the subject on the verb. In both languages, 2nd person and 3rd person pronouns show honorificity

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2. Census 2011

3. In some of these respects, the eastern dialect of Hindi aligns with Magahi rather than Standard Hindi, which has been the subject of most studies within generative linguistics.

distinctions. The feature of Magahi that most differentiates it from Hindi is a rich honorificity system in the form of agreement that marks the social relation and solidarity between the speaker and the addressee (Verma 1991). Magahi is thus an allocutive language, unlike Hindi. Regarding the interpretation of indexicals such as 1st and the 2nd person pronouns, this dissertation demonstrates that Magahi is an indexical shift language.

Summing up, Magahi is closely related to Hindi in most respects but in term of honorificity it represents a distinct language system ("allocutive" vs "non-allocutive" distinction). Some of what I will say in this dissertation will apply to Hindi and I will note those properties when I first introduce them. More specifically, while I believe that what I say about indexicality may have relevance for Hindi, the discussion of Magahi (allocutive) honorificity is not intended to bear directly on Hindi.

1.3 The Core Phenomena

In this section, I lay out the important characteristics of honorification and indexical shift and highlight several novel generalizations that emerge from their study in Magahi.

1.3.1 Honorification in Magahi

Magahi shows a rich honorification system along several interrelated dimensions. Three levels of honorificity relations are marked in Magahi grammar: non-honorific (NH i.e., a person is socially equal or inferior to the speaker), honorific (H i.e., a person is socially superior to the speaker), and high honorific (HH i.e., a person is socially even more superior to the speaker). This honorificity relation is manifested in both verbal and pronominal domains, with some unique properties. First, the three-way honorificity contrast can be easily seen with 2nd person elements in the verbal domain.

(10) a. *Tu*   *Santee-aa-ke*   *dekh-l-**eN***
          you.NH Santee-FM-ACC saw-PRF-2.NHS
          'You saw Santee.'   (said to a friend or a younger brother)

      b. *Tu*   *Santee-aa-ke*   *dekh-l-**a***
          you.NH Santee-FM-ACC saw-PRF-2.HS
          'You saw Santee.'   (said to father/grandfather)

      c. *Apne*   *Santee-aa-ke*   *dekh-la-**thi(n)***
          you.HH Santee-FM-ACC saw-PRF-2.HHS
          'You saw Santee.'   (said to a father-in-law or a teacher)

In example (10), the morphemes *-eN*, *-a*, and *-thi(n)* encode the honorificity of the 2nd person subject: *-eN* indicates that the subject is NH to the speaker; *-a* indicates that the subject is H to the speaker; and the morpheme *-thi(n)* indicates that the subject is HH to the speaker. This goes beyond the better-known two-way *T/V* distinction that is found in many European languages such as the *tu* vs. *vous* contrast in French.[4]

Magahi also marks honorificity of 3rd person subjects in the verbal domain. In example (11), the suffix *-ai* indicates that the subject is NH to the speaker. This contrasts with the suffix *-thi(n)*, seen in (12), which indicates that the subject is H or HH.

(11) *Santee-aa **okraa/unkaa**   dekh-l-**ai***
      Santee.FM him.NH/him.(H)H see-PRF-3-NHS
      'Santee saw him (= *okraa* = a friend / = *unkaa* = father/a teacher).'

(12) *MaasTar-saaheb/paapaa Santee-aa-ke   dekh-la-**thi(n)***
      Teacher-SAAHEB/father   Santee-FM-ACC see-PRF-3-(H)HS
      'The teacher/father saw Santee.'

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4. Readers might notice that the same three-way contrast is not seen on the 2nd person pronominal subject though. We see only a two-way contrast: *tu* vs *apne*. I argue that the three-way (abstract) distinction is available in syntax, but this distinction is lost in the surface morphology and yields syncretism. The same is argued for honorification on 3rd person pronouns (cf. chapter 2).

Second, as illustrated in (11), 3rd person pronouns also show honorificity distinctions. The pronominal form *okraa* indicates that the referent of the pronoun is NH to the speaker, such as a friend of the speaker, while the form *unkaa* indicates that the referent of this pronoun is either H or HH to the speaker, such as the speaker's father or teacher.

The realization of honorific features on the verb includes standard agreement with the higher nominative argument. Thus, the honorificity of the object is not marked on the verb.[5]

Another aspect of Magahi honorification is that Magahi finite verbs optionally mark the honorificity of the addressee (Verma 1991, Alok to appear). The phenomenon is sometime called performative honorification, or allocutive agreement, or addressee agreement (Harada 1976, Verma 1991). I use the latter term in this dissertation. Example (13a) shows only subject agreement. Examples (13b)-(13d), on the other hand, mark agreement with the addressee as well: (13b) is uttered to a NH addressee; (13c) is addressed to an H addressee; and (13d) is spoken to a HH addressee.

(13)   a.   *Ham jaait   h*-i
           I   go.PROG be-1
           'I am going.'   (said to anybody)

        b.   *Ham jaait   h-i*-au
           I   go.PROG be-1-NHS.NHA
           'I am going.'   (said to a friend)

        c.   *Ham jaait   h-i*-o
           I   go.PROG be-1-NHS.HA
           'I am going.'   (said to father)

        d.   *Ham jaait   h-i*-ain
           I   go.PROG be-1-NHS.HHA
           'I am going.'   (said to a teacher)

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5. The marker *-aa* used with the DP Santee, glossed as a familiarity marker (FM, Alok 2012), is also an indicator that Santee is in an NH relation to the speaker, which can be seen as an NH agreement morpheme on the verb in (11). However, being an object in (10) and (12), it does not trigger agreement on the verb.

The phenomenon of addressee agreement (Add-Agr) has been analyzed a root clause phenomenon, based on the study of Japanese, Basque, and Korean (Oyharçabal 1993; Miyagawa 2012, 2017; Pak 2015; Akitaka 2019; Portner, Pak and Zanuttini 2019a and others). [6] Add-Agr has been studied in a number of other languages as well: Verma (1991) for Magahi; Zu (2013, 2015, 2018) for Jingpo; Antonov (2015) for Pume, Nambikwara, Mandan, and Beja; Bhattacharya (2010, 2016) for Maithili, Magahi, Angika and Kurmali; Kaur (2017) for Punjabi; McFadden (2017, 2020) for Tamil; Haddican (2018, 2020) for Galician and some Southern Basque varieties. In these studies, it is mostly argued that the locus of Add-Agr is the very highest phrase of the clausal spine such as *Speech Act Phrase* (SAP, Miyagawa 2012, 2017) or *Context Phrase* (cP, Portner et al. 2019a) (but see Haddican 2018, 2020 for the claim that it is lower in the clause).

Magahi Add-Agr is unique in two respects. First, Add-Agr and subject honorification combine features for spell out, suggesting that heads involved in both phenomena are syntactically adjacent. Second, Add-Agr is associated with finiteness. That is, unlike Japanese, Basque, and Korean, it is available in all finite clauses in Magahi, main and embedded.[7] As for the first property, compare (14a) to (14b) first. Both sentences are spoken to a friend and both have a 3rd person subject. However, they are minimally different in the honorificity level of the subject: in (14a), the subject Santee is NH to the speaker and in (14b) the subject grandfather is H to the speaker. Example (14a) has the honorific marker *-au* on the verb whereas (14b) has a different suffix *-thu(n)*.

(14) a. *Santeeaa   dauR-l-au*
          Santee.FM run-PRF-NHS.NHA
          'Santee ran.'   (said to a friend)

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6. In this dissertation, the term 'root clause' is used as defined by Emonds (1969). (a) A root will mean either the highest S in a tree, an S immediately dominated by the highest S, or the reported S in direct discourse (Emonds 1969:8).

7. Some other languages in which a wider distribution of Add-Agr in embedded clauses has been reported are Tamil (McFadden 2017), Galician and some Southern Basque varieties (Haddican 2020).

b. *Baabaa*   *dauR-la-**thu(n)***
grandfather.H run-PRF.HS.NHA
'Grandfather ran.'   (said to a friend)

c. *Baabaa*   *dauR-la-**thi(n)***
grandfather.H run-PRF.HS.HHA
'Grandfather ran.'   (said to a teacher)

Now, comparing (14b) to (14c), we find that in both examples the subject is H to the speaker. However, (14b) is spoken to a NH addressee while (14c) is uttered to a HH addressee. As it can be seen, (14c) shows the suffix *-thi(n)*, reflecting agreement with the socially superior addressee as well as with the honorable subject 'grandfather'.

As for the second property, Add-Agr is freely available on any kind of finite clause including embedded clauses in Magahi. Here, I present a few crucial examples of embedded contexts. Examples (15)-(17) show that Add-Agr is even possible on the complement of a direct perceptual predicate, in relative clauses, and in noun complement clauses. All these sentences are spoken to a friend, a non-honorific addressee, thus there is an NH addressee marker *-au* on the embedded verb as well as the matrix verb.

(15) Perceptual predicate

Santeeaa *khuus* *h-au*   *[ki* *Banteeaa* *bhag* *gel-**au**]*
Santee.FM happy be-NHS.NHA COMP Bantee.FM escape went-3-NHS.NHA
'Santee heard that Bantee ran away.'   (said to a friend)

(16) Relative clause

a. *Laikwaa* *[je*   *uhaaN* *khaRaa* *h-**au**]*   *hamar* *bhaai* *h-au*
Boy.FM   REL.PRO there   stand   be-3-NHS.NHA my   brother be-3-NHS.NHA
'The boy who is standing there is my brother.'   (said to a friend)

b. *Laikwaa [je roj kalaas aawa ha-l-**au**]*   *u*   *bimaar ho gel-au*

Boy.FM REL daily class come be-PRF-3-NHS.NHA DEM sick be went-3-NHS.NHA

'The boy who used to come to the class everyday has fallen sick.'   (said to a friend)

(17) Noun complement clause

*Aphawaah [ki Santeeaa inaam jitl-**au**]*   *sahii ha-l-au*

rumor   COMP Santee.FM prize won-3-NHS.NHA true be-PRF-3-NHS.NHA

'The rumor that Santee won the prize was true.'   (said to a friend)

Summing up, this subsection establishes the following generalizations.

(18) a. Magahi shows honorification on both the 2nd person pronoun and the 3rd person pronoun.

     b. Any NP in a clause bears honorification in Magahi. Its realization in the verbal domain is constrained syntactically.

     c. Addressee agreement is not a root clause phenomenon in Magahi. It is possible in all finite clauses whether it is a main clause or an embedded clause.

     d. Addressee agreement and subject agreement (e.g., the apparent cases of subject honorification) are fused as a single agreement morpheme.

The investigation of these generalizations will lead us to an in-depth investigation of the mechanism that is involved in marking honorification, not only on 2nd person pronouns, but also on 3rd person pronouns. These will also lead us to investigate the feature system that is involved in a three-way honorificity contrast in Magahi. Further, these generalizations will shed light of the mechanism of agreement that is involved in Magahi honorification, and allow us to examine the syntactic representation of the speaker and the addressee in the grammar of natural language.

I turn to indexicality in the next subsection.

1.3.2 Indexical Shift in Magahi

Kaplan (1977) argues that indexicals such as 1st and 2nd person pronouns are "directly referential". That is, they always get their reference from the utterance context. Consider the English sentences in (19). The 1st person pronoun 'I' refers to the utterance speaker whether it is in the matrix clause, as in (19a), or in the embedded clause, as in (19b). There is no reading in English where 'I' can refer to the matrix subject, John.

(19) a. I am rich. (I = speaker)

  b. John said that I am rich. (I = speaker, not = John)

However, since Schlenker's (1999) seminal work, many languages have been attested where embedded indexicals can get their reference from the reported context: Amharic (Leslau 1995, Schlenker 1999, Anand 2006); Chaha (Schlenker 1999); Japanese (Sudo 2012, Maier 2014); Korean (Pak et al. 2008, Park 2016); Kurmanji (Akkuş 2018); Laz (Demirok and Öztürk 2015); Malayalam (Anand 2006), Matses (Munro et al. 2012); Mishar Tatar (Podobryaev 2014); Navajo (Platero 1974, Speas 2000); Nez Perce (Deal 2014); Poshkart Chuvash (Knyazev 2019); Slave (Rice 1986, 1989, Anand and Nevins 2004); Tamil (Sundaresan 2011, 2012, 2018); Telegu (Messick 2016); Tsez (Polinsky 2015); Uyghur (Sudo 2012, Shklovsky and Sudo 2014); Zazaki (Anand and Nevins 2004, Anand 2006, Akkuş 2018). This phenomenon, where an indexical expression can pick its reference, not against the utterance context, but the reported context, is known as indexical shift in the literature. Magahi is an indexical shift language (Alok and Baker 2018). It optionally allows the embedded 1st and 2nd person pronouns to have a shifted reading. As shown in example (20), the embedded 1st person pronoun in the complement of dyadic verbs (e.g. with one individual argument in addition to its CP argument) such as *sochanaa* 'think' and kahnaa 'say' can refer to the matrix subject (e.g. the shifted reading).

(20) a. *Santeeaa   sochlai   ki   ham tej   hi*
          Santee.FM thought.NHS COMP I   smart   be.1S
          'Santee thought that I (= Santee, or = speaker) am smart.'

    b. *Santeeaa   kahlai   ki   ham Ram-ke   dekhli*
        Santee.FM thought.NHS COMP   I   Ram-ACC   saw.1s
        'Santee said that I (= Santee, or = speaker) saw Ram.'

One may wonder whether the examples in (20) are instances of direct quotations (i.e., reporting Santee's original utterance such as Santee thought, "I am smart." and Santee said, "I saw Ram."). However, as shown in (21), the embedded clause with a shifted indexical can allow long distance NPI licensing, showing that the embedded complement clause is transparent with respect to grammatical dependencies, as we expect if it is an instance of true subordination rather than a quotation.

(21) *Santeeaa   *(na) kahalai   ki   ham koii-o-ke   dekhali*
      Santee.FM NEG   said.3.NHS   COMP I   somebody-even-ACC saw.1s
      'Santee did not say that I (= Santee, or = speaker) saw anyone.

There is also a Magahi specific property that suggests that the shifted reading may not be a direct quotation. We notice a kind of negative interaction between Add-Agr and indexical shift. There is no indexical shift under dyadic verbs if the complement clause bears Add-Agr, as in (22).

(22) *Santeeaa   sochlai   ki   ham tej   hi-au*
      Santee   thought.NHS   COMP I   smart be.1S.NHA
      'Santee thought that I (= speaker, **not** = Santee) am smart.'   (said to a friend)

Example (22) minimally differs form (20a) in that in (22) the complement clause bears Add-Agr. Indexical shift is impossible in such an environment. This restriction on the shifted reading in the presence of Add-Agr would be mysterious if there were no indexical shift in Magahi (see chapter 4 for the explanation).

Now, consider (23) and compare it to (20b). In (20b), the superordinate verb is a speech verb 'say' while, in (23), the verb is its semantic inverse 'hear'. In the former case, the higher subject Santee is the source/author of the information while in the latter case it is receiver. Regardless of this, the embedded 1st person can shift to Santee. This indicates that the 1st person shifts to the higher subject in Magahi, regardless of the subject's thematic role.

(23) *Santeeaa sunlai   ki   ham parichha paas ho   ge-l-i*
      Santee.ꜰᴍ heard-3s ᴄᴏᴍᴘ I   exam   pass become go-ᴘꜱᴛ-1s
      'Santee heard that I (=speaker, or = Santee) passed the exam.'

We saw that dyadic verbs allow indexical shift of 1st person pronouns. However, they do not allow shifting of 2nd person pronouns. Rather, the presence of a 2nd person pronoun also blocks the shift of the 1st person pronoun. Therefore, (24) has only the unshifted reading.

(24) *Santeeaa sochlai   ki   ham toraa dekhli*
      Santee.ꜰᴍ thought.ɴʜꜱ ᴄᴏᴍᴘ I   you   saw.1s
      'Santee thought that I (=speaker, not = Santee) saw you (= addressee, not =Santee).'

On the other hand, example (25) shows that a 2nd person pronoun can shift to the matrix object under 'tell'. [8] As we will see, this is a property of a triadic verb (e.g. with two individual arguments plus the CP argument) more generally.

(25) *Santeeaa Banteeaa-ke   kahlai   ki   ham toraa dekhli hal*
      Santee.ꜰᴍ Bantee.ꜰᴍ-ᴅᴀᴛ told.3ɴʜꜱ ᴄᴏᴍᴘ I   you   saw.1 be.ᴘꜱᴛ
      (i) 'Santee told Bantee that I (=Santee) had seen you (=Bantee).'
      (ii) 'Santee told Bantee that I (= speaker) had seen you (= addressee).'
      (iii) *'Santee told Bantee that I (=Santee) had seen you (= addressee).'
      (iv) *'Santee told Bantee that I (=speaker) had seen him (= Bantee).'

8. The verb root *kah* is ambiguous. It can be used as dyadic verb 'say' or as a triadic verb 'tell'.

Example (25) also shows that when the 2nd person pronoun shifts, a 1st person pronoun must shift as well. As a result, (25) has only two meanings out of four possible meanings; the embedded 1st and 2nd person pronouns can refer to either the utterance speaker and the addressee or it can refer to the matrix subject (i.e. Santee) and the object (i.e. Bantee). This is a manifestation of the Shift Together constraint, a well-known constraint on the shifted reading (Anand and Nevins 2006, Anand 2006). However, an interesting pattern emerges under a dyadic verb like 'think' with a 2nd person pronoun and a 1st person *pro* (I use simply 'pronoun' to refer to the overt form of the pronoun and '*pro*' to refer to the covert form of the pronoun): it gives rise to a mixed reading, where the 1st person *pro* refers to the matrix subject and the 2nd person pronoun refers to the utterance addressee, as in (26).

(26) *Santeeaa sochlai ki pro toraa dekhl-i*
Santee thought.3s COMP pro.1 you-ACC saw-1
(i) 'Santee thought that I (=Santee) saw you (= addressee). (mixed reading)
(ii) 'Santee thought that I (=speaker) saw you (=addressee).

The picture changes when we consider the 2nd person pro. Unlike with 1st person *pro*, there is no mixed reading available in case of 2nd person *pro* used together with an overt 1st person pronoun as shown in (27).

(27) *Santeeaa sochlai ki pro hamraa dekhleN*
Santee.FM though.3NHS COMP pro.2 me.DAT saw.2NHS
'Santee thought that you (=addressee) saw me (=speaker, not = Santee).'

In summary, we established the following generalizations in this subsection.

(28) a. Magahi 1st person (pronoun and *pro*) can shift to the matrix subject regardless of whether it is a source/author of the reported event or not.

   b. Dyadic verbs allow only indexical shift of the 1st person pronoun. In the presence of

a 2nd person pronoun or Add-Agr, the shifting of a 1st person pronoun is impossible.
However, the shift of the 1st person *pro* is possible, which gives rise to a mixed reading.

c. Triadic verbs allow shift of both 1st and 2nd person (pronouns and pro). The shifted
meaning obeys the Shift Together constraint.

The investigation of these generalizations will show us that there is a significant syntactic component to indexical shift (Shklovsky & Sudo 2014, Messick 2017, 2020).

1.3.3 The Interaction between Honorificity and Indexical Shift

Apart from the above properties, which are specific to the topic of indexical shift studied in isolation, there is another interesting aspect of indexical shift in Magahi. Indexical shift interacts with honorification in both the verbal domain and the pronominal domain. I present some of the interesting properties of their interaction in this subsection.

As we have already noticed, the two phenomena interact in interesting ways in the grammar of Magahi (cf. (22)), a negative interaction between Add-Agr and indexical shift under a dyadic verb). Let us elaborate on a few more properties. Consider (29) in a context where John is talking to a teacher about Santee and Bantee, who are friends. That is, in the given context, the utterance addressee 'teacher' has the HH honorific status and the higher goal argument Bantee has the NH honorific status).

(29) a. *Santeeaa Banteeaa-ke kahkain ki Ram **toraa**-se baat kart-**au***
Santee.FM Bantee.FM-DAT told-HHA COMP Ram you.NH-INT talk do.FUT-NHA
'Santee told Bantee that Ram will talk to you (=Bantee).'   (said to a teacher)

b. *Santeeaa Banteeaa-ke kahkain ki Ram **apne**-se baat kart-**ain***
Santee.FM Bantee.FM-DAT told-HHA COMP Ram you.HH-INT talk do.FUT-HHA
'Santee told Bantee that Ram will talk to you (=teacher).'   (said to a teacher)

Example (29a) is spoken to a teacher, a HH person but the NH form of 2nd person pronoun *toraa* is used, referring to the higher object Bantee. Note that the NH Add-Agr *-au* is acceptable on the embedded verb, reflecting the honorific relation between Santee and Bantee. If the 2nd person pronoun is meant to refer to the teacher, its unshifted meaning, the HH form of 2nd person pronoun *apne* is used and HH Add-Adg *-ain* is acceptable on the lower verb, showing the honorific relation between John and the teacher, as in (29b).

Moreover, there is also a sort of 'shift' of honorification on a 3rd person pronoun. Consider a context in which the speaker and Santee's older brother are friends, and 'him' refers to this older brother.

(30) *Santeeaa   socha hai   ki   ham unkaa bajaar-me dekhli*
Santee.FM think be.PRES that I   him.H market-in saw.1s
'Santee thinks that I (=Santee) saw him in the market.'

(31) *Santeeaa   socha hai   ki   ham okraa   bajaar-me dekhli*
Santee.FM think be.PRES that I   him.NH market-in saw.1s
'Santee thinks that I (=speaker) saw him in the market.'

If the embedded 1st person pronoun refers to Santee, then the form of the 3rd person object pronoun unkaa 'him.H' shows the relationship of Santee to its referent, as in (30). In contrast, if the 1st person pronoun refers to the speaker, then the form of the 3rd person pronoun okraa 'him.NH' shows the relationship of the speaker to its referent, as in (31). Note that the embedded clause in (30-31) still passes tests showing that it is not quoted material.

Summing up, this subsection establishes the following generalizations.

(32)   a.   When Add-Agr is shifted in the embedded clause, the 2nd person pronoun in the embedded clause must be shifted as well.

b.   When there is indexical shift, honorification on 2nd person and 3rd person pronouns must be interpreted relevant to the shifted first person as well.

The investigation of these generalizations along with the generalizations presented in the above subsections will lead us to a unified theory of honorification and indexical shift in which no distinct "monstrous" operators qua C-like heads are needed.

1.3.4   Indexical Shift beyond Standard Complements: Imperatives and Interrogatives

So far, our focus was declaratives. Now, I turn to a different clausal domain of inquiry, namely imperatives and interrogatives. I first discuss imperatives and then turn to interrogatives.

1.3.5   Imperatives

Two common assumptions about imperatives are that they have a second person subject referring to the addressee of the utterance and that they cannot be readily embedded. Both these generalizations have been refined in recent studies. In this subsection, I show how Magahi presents evidence against this simple view of imperatives. My discussion focuses on the expression of honorificity and indexical shift in imperatives.

Magahi imperatives are interesting in that they replicate what we have seen so far for indicative clauses along several dimensions. First, like indicatives, imperatives also encode a three-way honorific relation between the speaker and addressee on both the subject DP (if it is overt) and on the verb, distinguishing nonhonorific (NH), honorific (H), and high honorific (HH), as in (33).

(34)   a.   *(Tu)*   *kal*   *dilli*   *j-o*
            (you.NH) tomorrow Delhi go-IMP.NHS
            'Go to Delhi tomorrow!'   (directed to a NH addressee)

b. *(Tu)*   *kal*   *dilli* *jaa-∅*
   (you.H) tomorrow Delhi go-IMP.HS
   'Go to Delhi tomorrow!'   (directed to an H addressee)

c. *(Apne)* *kal*   *dilli* *jaa-**ii***
   (you.HH) tomorrow Delhi go-IMP.HHS
   'Go to Delhi tomorrow!'   (directed to a HH addressee)

Unlike indicatives though, we see in (33) that the imperative verb shows a different set of morphemes *-o/-∅/-ii*. [9] This confirms that the three-way honorification is a general system in Magahi, not just a property of one particular morphological paradigm.

Second, like indicatives, imperatives can be embedded under semantically appropriate verbs, as shown in (34a). Furthermore, the possibility of extraction from the embedded imperative, as in (34b), shows that the embedded imperative is transparent for grammatical dependencies, unlike a direct quotation.[10]

(35) a. *Baabaa*   *kahalathi ki*   *kal*   *dilli* *j-**o***
     Grandfather said.3HS   COMP tomorrow Delhi go-IMP.NH
     'Grandfather said go to Delhi tomorrow!'

    b. *Banteeaa-ke$_i$,* *baabaa*   *kahlathi* *ki*   *t$_i$ kaul kar-∅*
     Bantee.FM-ACC grandfather.H said.3.NH COMP   call do-IMP.NH
     'Grandfather said to call Bantee!'

We thus have the generalization in (34). This goes against the idea that the imperative clause cannot be embedded due to the illocutionary force that it encodes (Han 1998 a.o) or the idea that

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9. The realization of morphemes is phonologically conditioned. We find two sets of morphemes: when the verb ends with the open back vowel '*a*', the morphemes that it realizes are *-o/-∅/-ii*; and in all other cases, the morphemes are *-∅/-a/-ii*.

10. The sentence has another meaning where the noun phrase Bantee can be the object argument of the higher verb 'say', meaning 'Grandfather told Bantee to call (someone).' However, as shown in the translation, we are not considering that meaning.

the imperative clause cannot be embedded if it encodes the social relation between the speaker and the addressee (Portner et. al. 2019b). The generalization we come to is given in (35):

(36)   Magahi imperatives can be embedded even if they encode the social relation between the speaker and the addressee.

1.3.6   Interrogatives

Wh-expressions inside a finite clause do not scope out of the finite clause in Magahi. A primary strategy to form a long-distance question is the scope marking structure, as shown in (36).

(37)   *Santeeaa   kaa   jaana   hai   ki   ham   kahaaN   jaait   hi?*
       Santee.FM   what   know   be.PRES   COMP   I   where   go.PROG   be.1s
       Literally: 'What does Santee know that where I (=speaker, **not** = Santee) am go?'

       Colloquial English translation: 'Where does Santee think that I am going?'

       Possible answer: 'Santee thinks that I (= speaker) am go to Delhi'.

The higher clause has a scope marker wh-expression *kaa* 'what' in the object position and the lower clause has another wh-expression *kahaaN* 'where'. Example (36) expresses a question whose possible answers require the value for the embedded wh-expression 'where' to be specified.

Indexical shift in such a construction is disallowed, as shown by the translation of (36); the embedded 1st person pronoun can only refer to the utterance speaker. However, there is also a movement strategy e.g., a wh-expression that originates inside the complement clause can move to the higher clause, to yield a direct question interpretation. There is another way to look at this construction, though, as a case of long-distance scrambling rather than a genuine case of wh movement of the English kind (see Dayal 1996:35-37 for such claim in Hindi, see chapter 5 for detailed discussion). Indexical shift is possible in such a structure.[11]

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11. In general, such an example is judged overly complex by speakers, probably it is found pragmatically difficult because of parsing issues. The question mark (?) in (37) indicates this complication.

(38) ?*Kahan_i, Santeeaa-ke laga hai ki ham t_i phiir jaiti hal*
    where   Santee.NH-DAT seem be.PRES SOMP I   again go.1 be.PST
    'Where does Santee think that I (=speaker or =Santee) would go again.?'

More interestingly, Magahi has a declarative variant of scope marking, and this allows indexical shift.

(39) *Santeeaa (ii baat) jaan gelai ki ham dillii jaayem*
    Santee.FM this fact know go.PRF.3 COMP I   Delhi go.FUT.1
    'Santee knew it that I (= Speaker, or Santee) will go to Delhi'

In example (38), the matrix clause has a non-wh expression *ii baat* 'this fact' in the object position, which is associated with the complement clause. The embedded 1st person pronoun can either refer to the utterance speaker or the higher subject, Santee. Moreover, example (39) shows that the shifted reading in such structures is not a direct quotation; the matrix negative particle *na* licenses the NPI in the complement clause, and the embedded 1st person pronoun still shifts to the higher subject.

(40) *Santeeaa-ke ii *(na) laga hai ki ham ekk-o-go parichhaa paas*
    Santee.FM-DAT this NEG seem be.PRES COMP I   one-even-CL exam   pass

    hobai
    be.FUT.1
    'Santee does not think that I (=speaker, or = Santee) will pass any exam.'

As noted earlier, when indexicals shift, honorification also shifts. This is also true here. I will show in chapter 5 that shifted honorification is impossible in the scope marking structure (cf. 36), but it is possible in its declarative variants (cf. 39).

The analysis that will be proposed for Magahi will have implications for Hindi complementation as well, where the topic has been debated for more than three decades. The new dimension

that Magahi brings into the discussion is indexical shift, honorification, and the interaction between the two.

Summing up, in this section, we have explored honorification and indexical shift phenomena from the empirical perspective in three different domains: declaratives, imperatives, and interrogatives and I have laid out several generalizations.

In the next section, I present the outline of the dissertation.

2 Outline of the Dissertation

This dissertation is organized as follows.

Chapter 2 discusses honorification. It shows that Magahi has a rich honorification system along several interrelated dimensions. The investigation leads to the discovery that not only 2nd person pronouns, but 3rd person pronouns also morphologically mark the honorificity of the referent. This goes beyond the better-known *T/V* distinction found on 2nd person pronouns in many European languages (e.g., *tu* vs *vous* in French). Agreement morphology also tracks honorification in the form of subject agreement and a special type of Add-Agr. The chapter proposes a mechanism that generalizes Portner et al.'s (2019) notion of the *status* feature, designed for 2nd person honorificity, to the 3rd person. It is argued that the semantic honorific feature [iHON], which lives on a DP, is intrinsically relational, such that one of its arguments is the DP it attaches to and its second argument is a variable bound by the syntactic representation of the speaker (e.g., SP) found in the periphery of the clause. The realization of the honorific feature on the verb is then a straightforward result of standard agreement mechanism, Agree. Next, the chapter analyzes the three values of the honorificity feature (e.g., NH, H and HH) in a two valued feature system: [±hon] and [±high]. The chapter closes with the discussion of the semantics of honorification. Following Potts and Kawahara (2004), and Portner et al. (2019a), honorification is analyzed

in terms of expressive content, where the expressive meaning is calculated separately from the at-issue propositional meaning.

Chapter 3 discusses Add-Agr. It proposes that the locus of Add-Agr in Magahi is relatively low in the clause. It is argued to follow from the following two claims: (a) speaker and addressee are syntactically represented in the FinP of every finite clause (cf. Rizzi 1997), and (b) the functional head that plays a role in Magahi addressee agreement is the head 'Fin', just above TP. This makes it possible for Add-Agr to appear in all finite clauses in Magahi, whether it is main or embedded. The chapter closes with the discussion of the crosslinguistic implications of the current proposal, which also has consequences for the syntactic representation of the speaker and the addressee. It is claimed that speaker and addressee are represented in both SAP and FinP cross-linguistically and either domain can be used to yield addressee agreement, depending on the language.

Chapter 4 examines indexical shift and its interaction with honorification. By considering indexical shift along with honorification, the chapter claims that there is a significant syntactic component that plays a role in Magahi indexical shift. The current analysis of indexical shift is based on the following claims: (a) every finite clause has the syntactic representation of the speaker (SP) and the addressee (ADD), (b) the embedded SP and ADD can be themselves bound by the higher arguments, (c) the so-called 1st and 2nd person pronouns are "minimal pronouns". They inherit their (person) features by being bound by the local SP and ADD coordinates, (d) the functional head Fin is a variable binder that binds person features. When the higher Fin binds the embedded Fin, the embedded SP and ADD are referentially depend on the higher SP and ADD and represent the utterance speaker and addressee. Any embedded 1st person pronoun thus denotes the utterance speaker and a 2nd person pronoun denotes the utterance addressee, yielding unshifted readings, (e) attitude verbs are also variable binders that bind person features. When the attitude verb binds the embedded Fin, the embedded SP and ADD are referentially dependent on the higher subject and object, respectively. Any embedded 1st person pronoun

thus refers to the higher subject and a 2nd person pronoun refers to the higher object, yielding shifted readings. The mixed reading in the case of *pro* is explained by the assumption that unlike overt pronouns, which inherit their person features from SP and ADD, a *pro* can be born with a person feature that allows it to be directly bound by the verb. The embedded Fin in such a case is left free and can be bound by the higher Fin.

Chapter 5 discusses indexical shift and honorification in imperatives and interrogative clauses. It generalizes the analysis that is proposed for indicatives to imperatives and interrogatives. The take away from the study of Magahi imperatives is that (a) it demonstrates that the (three-way) honorification with the addressee is not just a property of indicative clauses but a fundamental component of Magahi grammar, and (b) it confirms the claim made in chapter 3, that the social/hierarchical relation between the speaker and the addressee can be embedded in a language, if the language encodes them on a syntactic category that is embeddable. The core fact of Magahi interrogatives that scope marking structure does not allow indexical shift and shifted honorification, but its declarative variant does, is argued to follow from the distinct syntactic status of complement clauses in these structures. It is claimed that the complement clause in scope marking structures is syntactically an adjunct generated at TP. It is thus not in the c-command domain of the attitude verb. Consequently, the attitude verb cannot bind the embedded Fin and there is no indexical shift and no shifted (addressee) honorification. On the other hand, the complement clause in the declarative variant of the scope marking structure is a syntactic complement; it is generated in a canonical complement position and later extraposed right to the verb. Thus, the attitude verb c-commands the embedded Fin at some point of the derivation and binds it. Indexical shift and shifted (addressee) honorification are predicated.

Chapter 6 concludes the dissertation with a brief discussion of some areas of inquiry, where the current account of Magahi indexical shift needs to be extended. It also highlights some implications and predictions of the current proposal. For example, it maps out the possible range of

cross-linguistic variation predicted by the approach taken in this dissertation

Chapter 2

Syntax and Semantics of Honorification in Magahi

1 Introduction

This chapter studies the phenomenon of *honorification*, the encoding of "social status" in grammar. Magahi provides a particularly rich picture for the study of honorification as it has a very fine-grained system of distinguishing social status and encoding them in both the nominal and the verbal domain. Although considerable research has been devoted to understanding the nature of honorification in the verbal domain, less attention has been paid to understanding its realization on pronouns. Even studies which investigate honorification in terms of agreement have tended to focus on how the "Agree" mechanism accounts for the realization of honorification on a functional head, rather than on understanding the nature of the semantic honorific feature, namely [iHON], associated with the DP (Niinuma 2003; Boeckk and Niinuma 2004; Boeckx 2006; Kishimoto 2010; Miyagawa 2012, 2017; McFadden 2017). Moreover, the [iHON] feature has been assumed to be an absolute feature of a DP, in the same way as other phi-features (Chomsky 1995, 2000), even though honorification is intrinsically relational, expressing the speaker's social relation to the referent of the corresponding DP (but see Portner et al. 2019a). Taking insights from Sigurðsson (2019) and Portner et al. (2019a), I propose a syntactic mechanism that establishes a formal link between the [iHON] feature on a DP to the speaker of the utterance. I argue for a relational semantics for [iHON] feature that resides on each DP, where one of its arguments is the corresponding DP and its second argument is a variable bound by the abstract syntactic representation of the

speaker (SP) in left periphery of the clause (Baker 2008). The proposal offers a unified account for honorification on all DPs in a sentence and at the same time explains how each DP may show different social relations relative to the speaker, independently of other DPs in the clause. The analysis also differentiates the way honorification is manifested in the (pro)nominal and the verbal domains.

The chapter is organized as follows. Section 2 discusses the syntax of honorification on (pro)nouns. It shows that any DP bears honorification in a clause in Magahi. It is proposed that the [iHON] feature enters the grammar as a feature variable and gets its value after establishing a link between the speaker and the corresponding DP in the syntax. Section 3 discusses the syntax of honorification in the verbal domain. It focuses on subject honorification and addressee honorification. It is proposed that the functional head T and Fin have formal honorific features, namely [uHON], in Magahi, which are valued against the subject DP and the addressee DP and are realized morphologically in the verbal domain as subject agreement and addressee agreement. The section concludes that any Magahi DP in a clause can bear honorification while its realization in the verbal domain is constrained syntactically. Section 4 deals with the semantics of honorification. Magahi honorification is analyzed as expressive content (Potts & Kawahara 2004, Potts 2005, 2007, McCready 2019, Portner et al. 2019a). Adopting Portner et al. (2019a)'s multidimensional semantics, it is argued that the meaning of honorification does not participate in the regular semantic computation i.e. in the dimension of propositional meaning, rather its meaning is computed in a separate politeness dimension. Section 5 concludes the chapter.

2 Honorification on (Pro)nouns

2.1 Empirical Landscape

In many Indo-European languages, 2nd person pronouns show a *T/V* distinction (e.g., 'familiar' vs 'polite' distinction such *tu* vs *vous* in French). As discussed in Portner et al. (2019a), the 2nd

person pronoun form *tu* in Italian is usually used to refer to an addressee who is socially lower than or familiar to the speaker whereas, the 2nd person pronominal form *Lei* is usually used to refer to an addressee who is socially higher than or unfamiliar to the speaker. Magahi also shows a kind of *T/V* distinction in both 2nd and 3rd person pronouns.[1] Three levels of honorificity relations operate in the Magahi society: (i) a person could be socially equal or inferior to the speaker, such as a friend, or a younger brother. We call it the *nonhonorific* (NH) relation, (ii) a person could be socially superior to the speaker, such as father or uncle or grandfather. We call it the *honorific* (H) relation, and (iii) a person could be socially even more superior to the speaker, such as a teacher or priest, or father-in-law etc. We call it the *high honorific* (HH) relation.[2] This three-way honorificity contrast can be easily seen in the verbal domain with 2nd person subjects: in (1a), the agreement marker *-eN* on the verb indicates that the subject is NH to the speaker; in (1b), the agreement suffix *-a* indicates that the subject is H to the speaker; and, in (1c), *-thi(n)* indicates that the subject is HH to the speaker.

(1)   a.   *Tu   ai-l-**eN***
           You.NH come-PRF-2.NHS
           i. 'You came.'

           ii. The subject is NH to the speaker.

      b.   *Tu   ai-l-**a***
           You.H come-PRF-2.HS
           i. 'You came.'

           ii. The subject is H to the speaker.

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1. Hindi shows a kind of *T/V* distinction in 2nd and 3rd person pronouns as well.

2. Veneeta Dayal and Paul Portner (p.c.) raise the possibility that the HH relation is in fact simply a H relation that is separated by Formality. If so, the three levels will be analyzed as follows (assuming "Formal" as a binary feature): (a) NH: [a person is equal or inferior to the speaker], [−formal] (b) H: [a person is superior to the speaker], [−formal], and (c) HH: [a person is superior to the speaker], [+formal]. I set aside this possibility and treat the three-way distinction in terms of honorificity alone.

    c.   *Apne*   *ai-la-**thi(n)***
         You.HH come-PRF-2.HHS

         i. 'You came.'

         ii. The subject is HH to the speaker.

As we can see from (1), the 2nd person pronoun also shows honorification, *tu* vs *apne* contrast in the subject position (cf. (1a)-(1b) vs. (1c)).[3] Consider example (2), where the 2nd person object pronoun shows the same contrast. Example (2a) is spoken to a friend. It has thus NH form of the 2nd person accusative pronoun *toraa* 'you-NH', marking the non-honorific relation between the speaker and addressee. Example (2b), on the other hand, is spoken to a teacher. It has thus HH form of the 2nd person *apne* 'you-HH', marking the high honorific relation between the speaker and addressee. Moreover, *toraa* is also used to refer to a H addressee such as someone's father. Therefore, there is no distinct morphological form for NH and H addressee on 2nd person pronouns.

(2)   a.   *Santee-aa* ***toraa***   *dekhlai*
          Santee-FM you.NH.ACC see.PRF.NHS
          'Santee saw you (=friend).'

      b.   *Santee-aa* ***apne**-ke*   *dekhlai*
          Santee-FM you.HH.ACC see.PRF.NHS
          'Santee saw you (=teacher).'

    Magahi also shows honorification on 3rd person pronouns. Example (3a) has NH form *okraa* 'him-NH' of the 3rd person pronoun, indicating the non-honorific relation between the speaker and the referent of that 3rd person pronoun, while example (3b) has HH form *unkaa* 'him.HH' of the 3rd person, indicating the high-honorific relation between the speaker and the referent of the 3rd person pronoun. Moreover, *unkaa* is also used to refer to a H person such as father.

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3. The same three-way contrast is not seen on the pronoun. The issue is discussed in detail in subsection 2.3

Therefore, we have the same morphological form for H and HH referents on 3rd person pronouns, distinguishing them from NH referents.

(3) a. *Santee-aa* **okraa**   *dekhlai*
         Santee-FM him.NH.ACC see.PRF.NHS
         'Santee saw him (= a friend).'

     b. *Santee-aa* **unkaa**   *dekhlai*
         Santee-FM him.(H)H.ACC see.PRF.NHS
         'Santee saw him (= a teacher/father).'

Moreover, the marker *-aa* used with the subject DP Santee, glossed as a familiarity marker (FM) (Alok 2012), is also an indicator that Santee is in NH relation to the speaker, which can be seen as an NH agreement morpheme on the verb.[4] Thus, all the three DPs in both the sentences show honorification. However, only subject honorification is realized on the verb in the form of agreement because Magahi only allows T to agree with the highest nominative argument. The generalization that emerges is given below:

(4) Honorification generalization

     Any DP in a clause bears honorification in Magahi. Its realization in the verbal domain is constrained syntactically.

Consider example (5), in light of the above generalization, which shows that Magahi allows multiple honorification – at the same time – in a clause, depending on the number of DPs in the sentence. In example (5a), the subject Santee has a NH relation with the speaker, which is also shown on the verb in the form of the agreement morpheme *-ai*. Additionally, the 2nd person

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4. However, I do not argue that the marker *-aa* itself is a realization of the honorific feature on the DP. The particle has other pragmatic functions as well, for example, it can be used to express psychological attitudes such as intimacy, irritation, anger, disrespect, affection etc (Tripathii 1993). I follow Alok (2012) and assume that the particle hosts a separate functional projection in Magahi noun phrases.

pronoun form *toraa* indicates that the addressee is (N)H to the speaker, while, the 3rd person pronoun form unkaa indicates that the referent of the pronoun is (H)H to the speaker. However, the honorific relations of non-subject arguments are not shown on the verb. In (5b), again, the subject Santee has a NH relation with the speaker, which is shown on the verb in the form of the agreement morpheme *-ai.* In addition, the 2nd person pronominal form apne indicates that the addressee is HH to the speaker, while the 3rd person pronominal form okraa indicates that the referent of the pronoun is NH to the speaker. [5]

(5) a. *Santee-aa toraa   unkaa-se   milwatai*
       Santee-FM you.**(N)H**-ACC him.**(H)H**-INST meet.CAUS.GUT.3.NHS
       i. 'Santee will introduce you to him.'

       ii. The subject is NH to the speaker.

       iii. The referent of the second person pronoun is (N)H to the speaker.

       iv. The referent of the third person pronoun is (H)H to the speaker.

    b. *Santee-aa apne-ke   okraa-se   milwatai*
       Santee-FM you.**HH**-ACC him.**NH**-INST meet.CAUS.FUT.3.NHS
       i. 'Santee will introduce you to him.'

       ii. The subject is NH to the speaker.

       iii. The referent of the second person pronoun is HH to the speaker

       iv. The referent of the third person pronoun is NH to the speaker

   In the syntax literature, honorification has been analyzed in terms of agreement. The fundamental idea is that a DP has a semantic honorific feature ([iHON]) which deletes the formal honorific feature ([uHON]) on a probe under checking/matching (Chomsky 1995, 2000, 2001), which is realized morphologically in the verbal domain. Moreover, the [iHON] feature has been

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5. Honorification also applies to quantified noun phrases. The system presented here will also extend to them but to discuss all the details would take us too far afield at this time. See footnote 15 for the issue surrounding it.

assumed to be an absolute property of a DP, in the same way as other phi-features. However, honorification is intrinsically relational in that it expresses the speaker's social relation to the referent of the corresponding noun phrase. In the next subsection, I propose a mechanism that establishes a social relation between the referent of the noun phrase and the speaker of the utterance in the syntax.

2.2 Analysis of (Pro)nominal Honorification

I argue that the honorific feature is not the sole property of the DP itself (i.e., an absolute feature of a DP), rather it is determined in a context based on the speaker's relation with the corresponding DP. I claim that the honorific feature enters grammar as a feature variable (Sigurðsson 2019). This is against the prevailing view of ϕ-features which have been considered as a part of pre-syntactic lexical item (Chomsky 1995, 2000). Sigurðsson (2019) claims that not all ϕ-features have the same grammatical status. He proposes that grammatical gender is a context sensitive grammatical category. Consider English example (6), which shows that the grammatical gender of the cross-sentential pronoun in (6a) and the embedded pronoun in (6b) is decided based on its referent: the pronoun *he* gets masculine gender from the noun phrase 'John' in (6a) and the pronoun *she* gets feminine gender form the noun phrase 'Mary' in (6b).

(6) a.   John$_i$ is nice. He$_i$ is...   Sigurðsson (2019:724)

  b.   Mary$_i$ said that she$_i$ was happy.

Sigurðsson proposes that the gender feature enters grammar as a feature variable e.g., without a fixed value (G$_\alpha$) and gets its value by *scanning* the linguistic or pragmatic context.[6] I follow Sigurðsson and argue that semantic honorific feature [iHON] enters in the derivation as a feature variable. However, we cannot treat [iHON] in the same way as the gender feature because of a

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6. The syntactic relation that is established between the referent and the variable is referred as "control".

fundamental difference between the two. We saw that (G_α) gets its gender feature from its referent. That is, in (6a), the noun phrase $John$ transfers its gender feature to the cross-sentential pronoun *he*, and in (6b), the matrix subject noun phrase transfers its gender feature to the embedded pronoun *she*. The [iHON] feature, on the other hand, is relational. It tracks the social relation between the referent of the corresponding NP and the speaker of the clause. We thus need a mechanism that represents this fact in syntax.

Recently, Portner et al. (2019a), analyzing speech style particles in Korean and *T/V* distinction that is found in 2nd person pronouns in Romance languages, propose a functional projection, the cP (for context phrase), which hosts a syntactic representation of speaker (SP) and addressee (ADD) [7] and the head of which (e.g. c) encodes the social relations between them via the feature STATUS. The status feature has values that relate to the ordering relation ($\geq, <, >, =$) between speaker and addressee which represents their social status (also see Kim-Renaud & Pak 2006). For example, in a context, where the speaker is socially superior to the addressee, the status feature establishes the ordering relation SP > ADD and is morphologically realized on c as an NH addressee marker. In a context, where the addressee is socially superior to the speaker, the status feature establishes the ordering relation SP < ADD and is morphologically realized on c as an H addressee marker and so on.[8] Extending the analysis to the *T/V* distinction of 2nd person pronouns, they adopt Baker's (2008) and Kratzer's (2009) idea that certain pronouns are born as "minimal" and acquire their feature from the operator that binds them (under *operator-variable agreement*). Portner et al. (2019a)'s formalization is given in (7).

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7. They use the term 'Speaker' and 'Interlocutor' to refer to the syntactic representation of speaker and addressee, respectively.

8. In Portner et al.'s system, the feature FORMAL also plays role, which encodes the information whether the situation is formal.

(7)   Operator-variable agreement
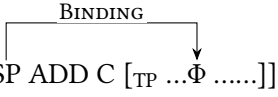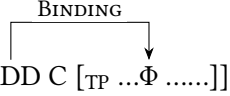
In the binding configuration [XPϕ [F$_i$ [YP ... x$_i$...]]], the variable x agrees in features with the syntactic binder XP. The agreement relation between XP and x is mediated by the functional head F that serves as a λ-abstractor.

According to (7), when a pronoun is syntactically bound by the ADD coordinate, mediated by c as a λ-abstractor, it acquires the 2nd person and status feature from c. If the status feature establishes that the addressee is socially superior to the speaker, then the 2nd person pronouns in the clause must have the H form. If the status feature establishes that the addressee is socially inferior to the speaker, then the 2nd person pronoun must have the NH form.

Portner et al.'s idea is very intuitive, and it gives us a way to encode the relational feature in syntax. However, the idea that the status feature is encoded in c and it is transferred to the 2nd person pronouns because the latter is a variable bound by the former, cannot be easily extended to the 3rd person pronouns and regular 3rd person DPs since these DPs do not need to be variables bound by an operator for their features (Baker 2008). Baker (2008) argues that 1st and 2nd person pronouns are different from 3rd person pronouns. He claims that there are no "native-born" local 1st and 2nd person pronouns, rather they are variables and obtain their person features by being bound by "SP" and "ADD" coordinates (e.g. a covert syntactic representation of speaker and addressee respectively) found in the left periphery of a clause. Baker's principle is given in (8) and its illustration is shown in (9). A pronominal variable that is bound by SP is realized as a 1st person pronoun, as in (9a) and the one that is variable bound by ADD is realized as a 2nd person pronoun, as in (9b). A pronoun that is not bound either by SP or ADD is realized as a 3rd person pronoun, as in (9c).

(8)   a.   A pronoun is 2nd person if and only if it is locally bound by ADD (or by 2nd person)

b.   A pronoun is 1st person if and only if it is locally bound by SP (or by 1st person)

(9) a. [$_{CP}$ SP ADD C [$_{TP}$ ...Φ ......]]   ('Φ' realized as a 1st person pronoun)

BINDING

    b. [$_{CP}$ SP ADD C [$_{TP}$ ...Φ ......]]   ('Φ' realized as a 2nd person pronoun)

    c. [$_{CP}$ SP ADD C [$_{TP}$ ...Φ ......]]   ('Φ' realized as a 3rd person pronoun)

Portner et al.'s analysis is based on Baker's idea. Their system is only different in that they allow the binding via a functional head *c* (Kratzer 2009). A problem with their system is that the head c takes only speaker (SP) and addressee (ADD) as its arguments. Thus, *c* can only acquire 1st and 2nd features from its arguments, and as a result, it can bind only 1st person and 2nd person pronouns. Moreover, 3rd person pronouns do not need to be bound by an operator for their (person) features. Therefore, their system designed for 2nd person honorificity cannot be straightforwardly generalized to 3rd person pronouns.

However, I take insights from Portner et al.'s idea and argue that [iHON] on a DP is similar to status feature in that it looks to establish an honorific relation between the speaker and the referent of the corresponding DP. I argue that [iHON] is intrinsically relational and propose the predicative relational semantics of [iHON], as given in (10), which establishes a social relation between the DP it attaches to and the speaker of the clause. I locate [iHON] above the DP node, as in (11).

(10) $[\![iHON]\!]$ = λx. $[\![S]\!]$ < x,

    where '<' is an unspecified variable over the ordering (hierarchical) relation (<, <<, ≥)

(11)

HonP
├── iHon
└── DP
     ├── D
     └── NP
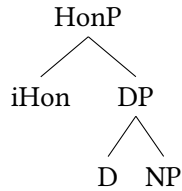
In (10), [iHON] take the DP it attaches to as one of their arguments (via functional application) and their second argument is a variable that is *syntactically* bound by the abstract representation of the speaker in left periphery of a clause. The symbol '<' represents the ordering (hierarchical) relation (<, <<, ≥) between the two arguments (i.e., the speaker of the clause and the referent of the corresponding DP). This ordering relation reflects the social relation that a speaker would have with respect to the referent of the corresponding DP i.e., if the speaker and a DP obtain '≥' ordering relation (e.g. S ≥ DP), the referent of the DP would be non-honorific to the speaker. Thus, HonP would have NH value. If the speaker and a DP obtain '<' ordering relation (e.g. S < DP), the referent of the DP would be honorific to the speaker. Thus, HonP would have a H value. And, if the speaker and a DP obtain '<<' ordering relation (e.g. S << DP), the referent of the DP would be high honorific to the speaker. Thus, HonP would have a HH value.

(12) a. $\llbracket iHON : NH \rrbracket = \lambda x.\ S \geq x$

    b. $\llbracket iHON : H \rrbracket = \lambda x.\ S < x$

    c. $\llbracket iHON : HH \rrbracket = \lambda x.\ S << x$

(13) a. $\llbracket iHON : NH \rrbracket = S \geq DP$

    b. $\llbracket iHON : H \rrbracket = S < DP$

    c. $\llbracket iHON : HH \rrbracket = S << DP$

Now let us see how this works with reference to a concrete example. Example (14b) shows the derivation of (14a). Every DP gets some honorification relation with respect to the speaker, after S is bound by the SP in the left periphery and [iHON] is combined with the DP. The subject DP obtains the value NH and is realized as *-ai* on the verb. The 3rd person pronominal object

obtains the value HH and is realized as *unkaa* 'him.HH'. [9] [10]

Context: The speaker is talking about his friend Santee, and a teacher.

(14) a. *Santee-aa* **unkaa** *dekhl-ai*
          Santee-FM him.HH see.PRF.NHS
          'Santee saw him (= teacher)'

    b.

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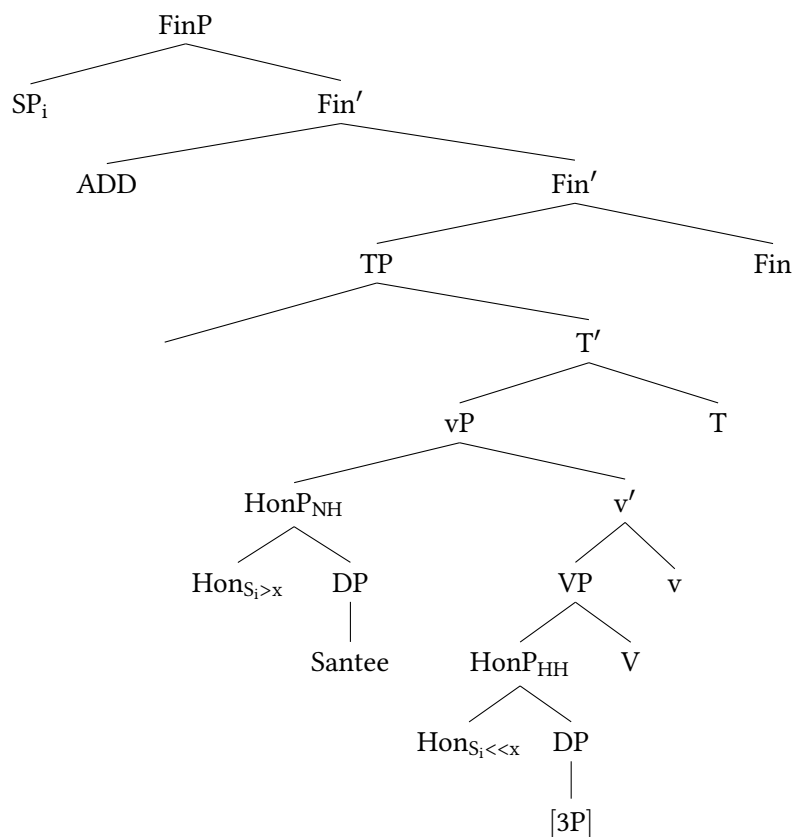
9. That is, in the case of subject, if [iHON] starts with $\lambda x.$ S < x or $\lambda x.$ S < x, the derivation will crash, and in the case of object, if [iHON] starts with $\lambda x.$ S ≥ x or $\lambda x.$ S < x, then the derivation will crash.

10. The standard assumption is that the SP and ADD coordinates are present in Speech Act Phrase (SAP) (after the influential proposal of Speas and Tenny 2003). However, I present the speaker and addressee coordinates in FinP. This will help us to explain the fact that Add-Agr in Magahi is not a root clause phenomenon. A detailed discussion will be provided in the next chapter where I discuss Add-Agr.

In the current analysis, every DP has [iHON] feature, which expresses the social relation of the DP relative to the speaker, independently of other DPs in the clause. Moreover, the [iHON] feature is also found on 1st person pronouns and as predicted the 1st person pronouns always behave like non-honorific in Magahi morphosyntax, because the referent of the 1st person pronoun and the speaker are the same, they necessarily have equal social status.

The current analysis draws on Portner et al. (2019a), but I believe it has an advantage over their analysis. It is hard to see how Portner et al.'s analysis could be extended beyond the speaker and addressee relation to the relation between speaker and any DP. Magahi shows that 2nd person pronouns are not in any way special compared to 3rd person pronouns in showing honorification. Moreover, when there are 2nd and 3rd person pronouns in the same clause, they can show different honorific relations (cf. 5). Portner et al.'s idea that the status feature is fixed on a *c* head faces a challenge in accounting for the fact that each DP can differ in honorification relation in the same clause in Magahi.

Summing up, in this section, I have shown that three-levels of honorific relations operate in Magahi society, which are encoded in the pronominal domain. I proposed that every DP in Magahi has a [iHON] feature that establishes the hierarchical (social) relation between the referent of the noun phrase and the speaker of the utterance. However, as we saw, there isn't a one to one mapping between the honorific feature and its morphological realization (cf. *tu* 'you.(N)H' vs. *apne* 'you.HH' in (1), *toraa* 'you.ACC.(N)H' vs *apne-ke* 'you.ACC.HH' in (2) and *okraa* 'him.NH' vs *unkaa* 'him.(H)H' in (3)). The next section examines the pronominal forms in detail and proposes an analysis within the framework of *Distributed Morphology* (Halle and Marantz 1993, 1994 and others). I argue for (a) two abstract binary-valued honorification features: [±HON] and [±HIGH] in syntax and (b) that sometimes this abstract binary distinction is lost in the surface morphology and yields syncretism.

2.3 Analysis of Pronominal Honorification in Distributed Morphology

In the case of 2nd person singular pronouns, the honorific relation surfaces in only in two forms because it loses the NH and H distinction. This is true across different types of abstract syntactic cases such as *tu* vs *apne* in nominative, *toraa* vs *apne-ke* in accusative and *tor* vs *apne-ke* in genitive/possessive, as illustrated in Table-3.1. Moreover, the oblique case is fused with NH and H forms. I assume that nominative (NOM) is realized as a 'null' morpheme and oblique as *-ke* in Magahi.

	NOM	ACC	POSS
NH	tu	toraa	tor
H	tu	toraa	tor
HH	apne	apne-ke	apne-ke

Table 2.1: 2nd person singular pronouns

In the case of 2nd person plurals, again, honorification morphologically surfaces only in two ways. However, unlike singular forms, there is no fusion of oblique case with NH and H. Thus, we have *tohnii* vs *apne-log* contrasting, as in Table-3.2.

	NOM	ACC	POSS
NH	tohnii	tohnii-ke	tohnii-ke
H	tohnii	tohnii-ke	tohnii-ke
HH	apne-log	apne-log-ke	apne-log-ke

Table 2.2: 2nd person plural pronouns

In the case of 3rd person singular pronouns, the two-way morphological distinction surfaces only in oblique forms: *okraa* 'him.NH' vs *unkaa* 'him.(H)H' in accusative and *okra* 'his.NH' vs *unkar* 'his.(H)H' in possessive. The nominative form has a single form *u*, as in Table-3.3.

	NOM	ACC	POSS
NH	u	okraa	okar
H	u	unkaa	unkar
HH	u	unkaa	unkar

Table 2.3: 3rd person singular pronouns

Last but not the least, the 3rd person plurals show the same form across honorification and case types, as in Table-3.4.

	NOM	ACC	POSS
NH	okhnii	okhnii-ke	okhnii-ke
H	okhnii	okhnii-ke	okhnii-ke
HH	okhnii	okhnii-ke	okhnii-ke

Table 2.4: 3rd person plural pronouns

Following Chomsky (1995, 2000, 2001), I assume a basic architecture of grammar where representation created in (narrow) syntax are sent to PF and LF interfaces for phonological and semantic interpretation, respectively. Following work in Distributed Morphology (DM) (Halle and Marantz 1993, 1994 and others), I further assume that syntactic representations that are created in narrow syntax are abstract in that they have formal features but lack phonological information. Further, these abstract formal features get their morphological form by rules of *vocabulary insertion*. I also assume, as is done in DM, that when abstract features are sent to PF, there are operations that can be applied prior to *vocabulary insertion* rules and can manipulate the output of syntax. Now let us explain the pronominal forms. I assume the following abstract features that play a role in syntax: *speaker*, *addressee*, *hon*, *high*, *plural* and *case*, all of which can have either positive (+) value or negative (−) value, as in (16). But before I propose the analysis, a quick note on the abstract features [±hon] and [±high]. I decompose the honorificity feature into these abstract features. This will explain the syncretism cases that we have noted in the morphological

relation of honorification (e.g., syncretism with 2nd person and 3rd person pronouns). The binary features [±hon] and [±high] correspond in the following way to honorificity: the set [−high, −hon] represents the NH relation, the set [−high, +hon] represents the H relation and [+high, +hon] represents the HH relation, as shown in (15). Moreover, the feature [±high] is defined with respect to the feature [+hon]. That is, if a person is honorific to the speaker, (s)he could be either socially superior to the speaker or socially highly superior. The non-honorific person would not be either socially superior or socially more superior. Thus, the combination [−hon, +high] is undefined since the meanings of those features semantically yields a contradiction.

(15) a. [−high, −hon] = NH

b. [−high, +hon] = H

c. [+high, +hon] = HH

d. [+high, −hon] = undefined

I propose two operations *Impoverishment* and *Fusion* that are applied prior to the insertion of vocabulary items in Magahi and manipulate the output of syntax. The impoverishment refers to an operation in which some abstract feature(s) are deleted in a specific environment while the fusion refers to an operation in which discrete sister terminal nodes are collapsed into a single terminal node, prior to vocabulary insertion. In the case of 2nd person pronouns, impoverishment operation deleted [+hon] feature in the context of positive value for the addressee feature and the negative value for the high feature, as in (17a), and in the case of 3rd person pronouns, it deletes [+high] feature in the environment of negative value for the addressee, speaker and plural features while [+high, +hon] in the context of negative value for the addressee and speaker feature and positive value for the plural feature, as in (18a). The fusion operation, in the case of 2nd person pronouns, fuses case node with the DP when the former has oblique case and the latter has positive addressee feature and negative value for high and plural features, as in (17b). In the case of

3rd person pronouns, the fusion rules fuse oblique case with the feature set [addressee, speaker, plural], when they all have a negative value.

(16) a. Features in the Syntax: [±addressee, ±speaker, ±hon, ±high, ±pl, case]

b. case feature: [±oblique, ±nominal]

(17) DM analysis of 2nd person pronouns

a. Impoverishment rule: +hon → ∅ / [+addressee, −high]

b. Fusion rule: Fuse [+oblique] with [+addressee, −high, −pl]

c. Vocabulary insertion:

i. [+addressee, −high, −pl] ↔ *tu*

ii. [+addressee, −high, +pl] ↔ *tohnii*

iii. [+addressee, +high, −pl] ↔ *apne*

iv. [+addressee, +high, +pl] ↔ *apne-log*

v. [−oblique] ↔ ∅

vi. [+oblique] ↔ *ke*

vii. [+addressee, −high, −pl, +oblique, −nominal] ↔ *toraa*

viii. [+addressee, −high, −pl, +oblique, +nominal] ↔ *tor*

(18) DM analysis of 3rd person pronouns

a. Impoverishment rule:

i. +high → ∅ / [−addressee, −speaker, −pl]

ii. +high, +hon → ∅ / [−addressee, −speaker, +pl]

b. Fusion rule: Fuse [+oblique] with [−addressee, −speaker, −pl]

c. Vocabulary insertion:

    i. [−addressee, −speaker, +pl] ↔ *okhnii*

    ii. [−addressee, −speaker, −hon, −pl, +oblique, −nominal] ↔ *okraa*

    iii. [−addressee, −speaker, −hon, −pl, +oblique, +nominal] ↔ *okar*

    iv. [−addressee, −speaker, +hon, −pl, +oblique, −nominal] ↔ *unkaa*

    v. [−addressee, −speaker, +hon, −pl, +oblique, +nominal] ↔ *unkar*

    vi. [−oblique] ↔ ∅

    vii. [+oblique] ↔ *ke*

    viii. 3rd person elsewhere ↔ *u*

The proposed analysis, using two-value feature systems [±hon] and [±high], explains the fact that NH and H features form a natural class in the case of 2nd person pronouns (e.g., NH and H forms *tu* with a separate HH form *apne*) and H and HH feature form a natural class in the case of 3rd person pronouns (e.g., H and HH forms *unkaa* with a distinct NH form *okraa*).

3 Honorification in the Verbal Domain

In the last section, I investigated honorification that is manifested on pronouns. The goal of this section is to show the kinds of honorification that Magahi displays in the verbal domain and to present the basic architecture so that we can understand the mechanisms behind the realization of honorification on both nouns and verbs. The detail of the morpho-syntax of the verbal honorification will be the topic of the next chapter.

3.1 Empirical Landscape

Magahi finite verbs show agreement with the subject in person but not in number and gender (Verma 1991). Moreover, the person agreement morphemes show variation encoding subject honorificity. This is illustrated in (19)-(21). The verb 'run' in the examples below does not vary for number and gender but changes its form for person and honorificity; *-i(-ai)* for the 1st person

subject, as in (19), *-eN*, *-a* and *-thin* for the 2nd person subject, as in (20), and *-ai* and *-thin* for the 3rd person subject, as in (21).

(19) *Ham dauR-l-**i**-**(ai)***
    I   run-PRF-1-NHS
    'I ran.'   (said to anybody)

(20) a. *Tu   dauR-l-**eN***
        You.NH run-PRF-2NHS
        i. 'You ran.'   (said to a friend)
        ii. The subject is NH to the speaker.

     b. *Tu   dauR-l-**a***
        You.H run-PRF-2HS
        i. 'You ran.'   (said to father)
        ii. The subject is H to the speaker.

     c. *Apne   dauR-la-**thi(n)***
        You.HH run-PRF-2HHS
        i. 'You ran.'   (said to a teacher)
        ii. The subject is HH to the speaker.

(21) a. *U   dauR-l-**ai***
        He.NH run-PRF-NHS
        i. 'He ran.'   (said to anybody)
        ii. The subject is NH to the speaker.

     b. *U   dauR-la-**thi(n)***
        He.H run-PRF-HS
        i. 'He ran.'   (said to father)
        ii. The subject is H to the speaker.

c. *U   dauR-la-**thi(n)***
He.ʜʜ run-ᴘʀꜰ-ʜʜꜱ
i. 'He ran.'   (said to a teacher)

ii. The subject is HH to the speaker.

As we have seen, three-levels of honorificity relations operate in the Magahi society: NH, H and HH. This three-way contrast can be easily seen with 2nd person subjects: the agreement suffix *-eN* , in (20a), indicates that the subject is NH; the morpheme *-a*, in (20b), indicates that the subject is H; and the agreement marker *-thi(n)*, in (20c), indicates that the subject is HH. However, the same three-way morphological contrast is not seen with 3rd person subjects and there is syncretism: *-thi(n)* is used both with the H 3rd person subject and the HH 3rd person subject. The 1st person agreement shows a single form *-i-(ai)*. More about the morphemes and syncretism will be said in the next chapter. For now, it is enough to say that the honorific relation between the speaker and subject is manifested on the verb in the form of agreement (e.g., subject honorification). Unlike Japanese where both subject and object honorification is possible, Magahi only allows subject honorification, as shown in (22), the verb only marks the honorific relation between the speaker and the subject and not between the speaker and the object, although the object itself realizes this (see also examples (2) & (5)).

Context: The speaker is talking about his younger brother, Santee, and a teacher.

(22)   *Santee-aa **unkaa**   dekhl-**ai**/*****thin***
       Santee-ꜰᴍ him.ʜʜ.ᴀᴄᴄ see.ᴘʀꜰ.ɴʜꜱ/*ʜʜᴏ
       'Santee saw him (=teacher).'

However, Magahi finite verbs optionally show honorificity agreement with the person to whom the sentence is addressed, call it *addressee agreement* (Add-Agr). For example, (19) above can be uttered three more ways depending on the social status of the addressee, as in (23). Example (23a)

is uttered to a nonhonorific (NH) addressee. Example (23b) is said to an honorific (H) addressee, and example (23c) is spoken to a high honorific (HH) addressee.

(23) a. *Ham jaait   h-i-au*
          I   go.PROG be-1-NHS.NHA
          (i) 'I am going.'   (said to a friend)
          (ii) The addressee is NH to the speaker.

      b. *Ham jaait   h-i-o*
          I   go.PROG be-1-NHS.HA
          (i) 'I am going.'   (said to father)
          (ii) The addressee is H to the speaker'

      c. *Ham jaait   h-i-ain*
          I   go.PROG be-1-NHS.HHA
          (i) 'I am going.'   (said to father-in-law)
          (ii) The addressee is HH to the speaker.

Example (24) shows that Add-Agr is possible with 3rd person subjects as well; the sentence (24a) is uttered to a NH addressee; (24b) is uttered to a H addressee; and the sentence (24c) is spoken to a HH addressee.

(24) a. *Santeeaa dauR-l-au*
          Santee.FM run.PRF-3-NHS.NHA
          (i) 'Santee ran.'   (said to a friend)
          (ii) The subject is NH to the speaker.
          (iii) The addressee is NH to the speaker.

      b. *Santeeaa dauR-l-o*
          Santee.FM run-PRF-3-NHS.HA
          (i) 'Santee ran.'   (said to father)
          (ii) The subject is NH to the speaker.
          (iii) The addressee is H to the speaker.

c. *Santeeaa   dauR-l-**ain***
   Santee.fm run-prf-3-nhs.hha

   (i) 'Santee ran.'   (said to father-in-law)

   (ii) The subject is NH to the speaker.

   (iii) The addressee is HH to the speaker

Earlier works that discuss the distribution of Add-Agr across clause types and embedded contexts analyzes it as a root clause phenomenon based on the fact that Add-Agr has very restricted distribution in embedded contexts or is entirely ruled out (Oyharçabal 1993; Miyagawa 2012, 2017; McFadden 2017; Portner et al. 2019a). Magahi is notably different, however. Add-Agr is associated with finiteness in Magahi. It is freely available in any sort of finite embedded clauses. The syntactic context where Add-Agr is impossible are non-finite clauses. Thus, Add-Agr cannot be a root phenomenon in Magahi. More about agreement will be said in the next chapter. Here, I briefly present the mechanism for subject honorification and addressee honorification.

3.2   The Proposal

I follow a general idea that agreement is the result of feature-checking/matching between a probe and a goal (Chomsky 1995, 2000, 2001). I propose that the functional head T, with unvalued person feature (uP) and unvalued honorificity feature (uHON), agrees with the subject DP to yield subject honorification and the functional head Fin, with unvalued honorificity feature (uHON), agrees with the ADD-DP, a syntactic representation of addressee in FinP, to yield addressee honorification. The mechanism is illustrated in (25).[11]

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11. The standard assumption is that the locus of addressee honorification is relatively higher in the clause such as Speech Act Phrase or context phrase (Miyagawa 2012, 2017; McFadden 2017, Portner et al. 2019a). However, I propose that the locus is lower in the clause in Magahi: it is FinP. This claim is based on the fact that Add-Agr is available in all finite clauses in Magahi and that addressee honorification and subject honorification combine features for spell out. This will be presented in the next chapter where I discuss Add-Agr in detail.

(25)

ForceP
Force   FinP
        SP   Fin′
            ADD$_{[iHON]}$ Fin′
                        TP   Fin$_{[uHON]}$
                    T′
                vP   T$_{[uP, uHON]}$
            DP$_{[iP,iHON]}$ v′
                        VP   v
                        ......

Subject Agreement

Addressee Agreement
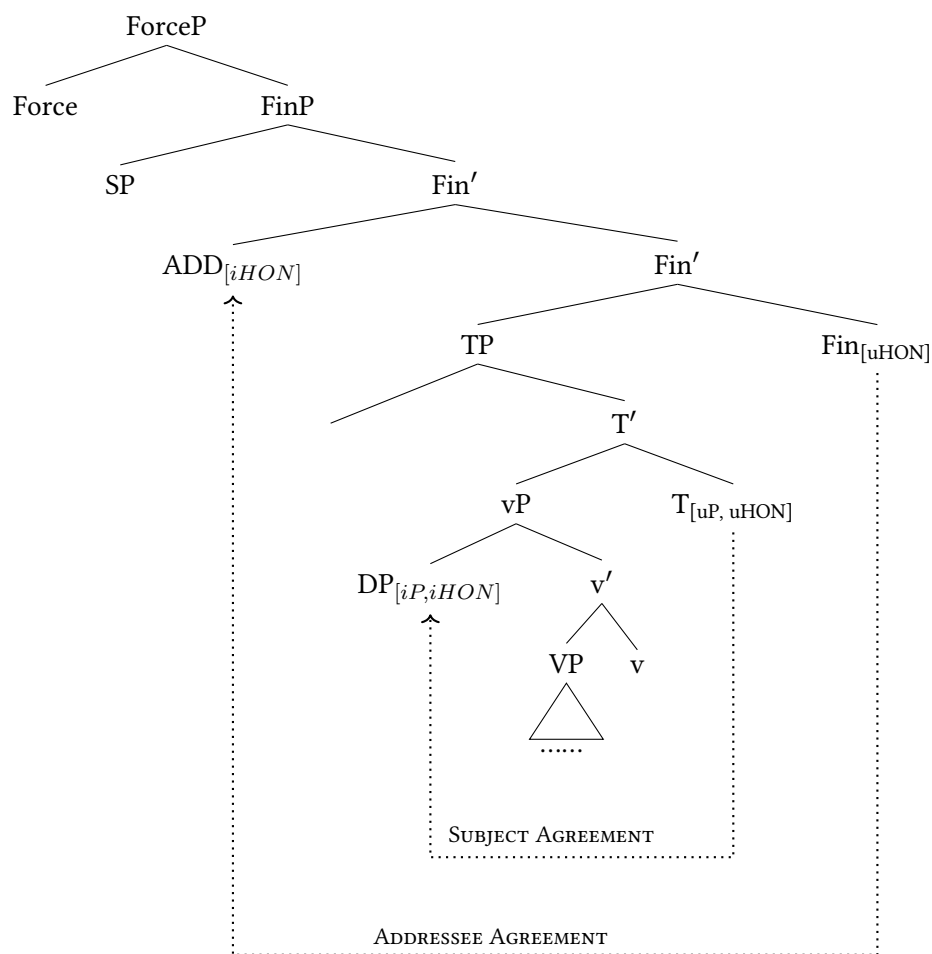
Just for completeness, given the system I have developed, first, the [iHON] feature on a DP obtain its honorific values after finding its both arguments, the speaker and the corresponding DP, then the function head agrees with it. Derivation (26) illustrates this. The subject DP and ADD DP first get their honorific value, say NH. The head Fin then agrees with ADD, yielding NH Add-Agr and the head T agrees with the subject DP, yielding NH subject agreement. The mechanism is illustrated in (26).

(26)

ForceP
- Force
- FinP
  - SP$_i$
  - Fin′
    - HonP$_{NH}$
      - Hon$_{S_i>x}$
      - ADD
    - Fin′
      - TP
        - T′
          - vP
            - HonP$_{NH}$
              - Hon$_{S_i>x}$
              - DP
            - v′
              - VP
              - v
          - T$_{[uP, uHON]}$
      - Fin$_{[uHON]}$

SUBJECT AGREEMENT

ADDRESSEE AGREEMENT
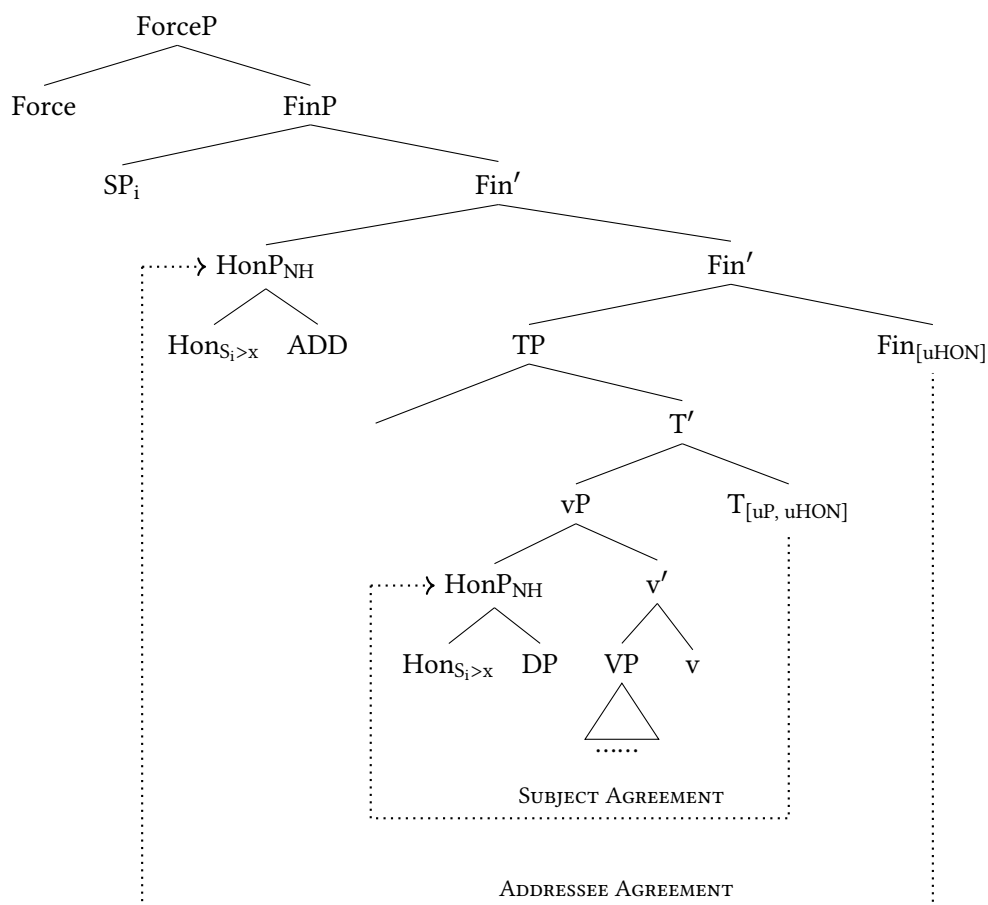
3.3   Interim Summary

I showed that any DP in a clause bears honorification in Magahi. For example, if a clause has both a subject and an object, each DP encodes the social status of its referent relative to the speaker. Most importantly, they encode this relation independent of other DPs in the clause. Further, I showed that the morphological realization of this relation in the verbal domain is syntactically constrained in Magahi. For example, Magahi allows subject honorification but not object honorification on the verb. Moreover, Magahi optionally shows addressee honorification on the verb. Because

agreement is a result of deleting uninterpretable features on a probe (under matching features on goal) prior to spell out, they are not available for interpretation at LF. Thus, honorification is interpreted on DPs and not on the functional head such as T or Fin, even though the agreement morphemes live on these heads. The next section presents a semantic analysis of honorification.

4   The Semantics of Honorification

In this section, I present the semantics of honorification. I first argue that Magahi honorification does not contribute to at-issue meaning. Further, I claim that it is best analyzed in term of expressive meaning as opposed to presuppositional meaning (Potts & Kawahara 2004; Potts 2005, 2007; McCready 2019; Portner et al 2019a). I argue that honorification is computed in the separate dimension, rather than the regular semantic computation i.e. in the dimension of propositional meaning (Potts & Kawahara 2004; Potts 2005, 2007; Murry 2010, 2014; McCready 2019; Portner et al 2019a).

4.1   Honorification as Expressive Content

The idea that honorification is best analyzed in terms of expressive content has been discussed recently in some depth (Potts and Kawahara 2007, Potts 2007, Sells & Kim 2007, Horn 2007, McCready 2010, 2019, Portner et al. 2019a and many others). Potts (2007) provides the following key characteristics for expressive content:

(27)   a.   *Independence*: Expressive items contribute a dimension of meaning that is separate from the propositional content.

    b.   *Nondisplaceability*: Expressive items predicate something of the utterance situation.

    c.   *Perspective dependence*: Expressive items are evaluated from a particular perspective, often from the speaker's perspective.

d. *Descriptive ineffability*: Speakers are never completely satisfied when they paraphrase expressive content using regular descriptive terms.

e. *Immediacy*: Expressive items, like performatives, achieve their intended effect by being uttered.

f. *Repeatability*: Repetition of an expressive item does not bring redundancy, rather it strengthens the emotive content.

Let us apply some of these tests to Magahi honorification. I start with the independence property, which states that expressive content differs from at-issue content. That is, expressive items do not contribute to the propositional meaning of a sentence. There are two aspects of this property: (a) expressives cannot be targeted by denial or questions, and (b) expressives are independent from at-issue operators. Consider the Magahi conversation in (28). Person A makes a statement about Ram, that he laughed. The honorific marker *-thi* on the verb indicates that Ram is honorific (H) to A. B's utterance, a denial utterance, denies the fact that Ram laughed not the fact that Ram is H to A.

(28) A: *Ram hasla-**thi** hal*
    Ram laugh.PRF-3HS be.PST
      i. 'Ram laughed.'
      ii. Ram is H to the speaker.
   B: *ii sahii baat **na** hai*
    This right talk NEG be.PRES
      i. 'This is not true.'
      ii. Ram is H to the speaker.

Correspondingly, in a polar question, as in (29), the question is whether Ram laughed, not whether Ram is H to the speaker.

(29) *Ram hasla-thi kaa?*
    Ram laugh.PRF-3HS PQP
    i. 'Did Ram laugh?'

    ii. 'Ram is H to the speaker.'

Regarding the second aspect of the independence property, consider (30) where the 2nd person NH pronoun *toraa* is used under negation. The non-honorific content of the 2nd pronoun is not interpreted within the scope of negation. Honorification behaves the same way under other semantic operators, such as the epistemic modal (31) and in the antecedent of conditional (32).

(30) *Ham (na) toraa dekhliau hal*
    I   NEG you.NH.ACC saw.1.NHS be.PST
    i. 'I had not seen you.'

    ii. The addressee is NH to the speaker.

(31) *Ram shaayad hasla-thi*
    Ram maybe laugh.PRF-3HS
    i. 'Ram might have laughed'

    ii. Ram is H to the speaker.

(32) *Agar Ram hasta-thi, ta hamraa bataiheN*
    If   Ram laugh.FUT-3H PRT me   tell.2.NHS
    i. 'If Ram laughs, let me know.'

    ii. Ram is H to the speaker.

Now, I discuss *perspective dependence*. The perspective dependence property says that the expressive content is evaluated from a participant's perspective. In the case of honorification it is usually the speaker. Consider examples (33) and (34), in the given contexts.

Context 1: Ram is socially superior to the speaker but socially inferior to the addressee.
The speaker is talking about Ram and says:

(33)   *Ram   hasla-**thi**   hal*
      Ram   laugh.PRF-3HS   be.PST
      i. 'Ram laughed.'
      ii. Ram is H to the speaker.

Context 2: Ram is socially superior to the speaker and the addressee as well. However,
the speaker and Ram have had a fight and the speaker is angry with Ram. The speaker
says:

(34)   *Ram   hasl-**ai**   hal*
      Ram   laugh.PRF-3NHS   be.PST
      i. 'Ram laughed.'
      ii. 'The speaker has NH attitude towards Ram.'

In both contexts, Ram is socially superior to the speaker. In (33), the H honorific marker *-thi* is
used, showing the social relation between the speaker and Ram, not the NH marker, showing the
social relation between the addressee and Ram. Moreover, the use of H marker is what we expect
in the general social setting when the referent of a noun phrase is socially superior to the speaker.
However, in (34), the speaker uses the NH marker *-ai*, despite that Ram is socially superior to her.
The marker also cannot be seen as showing the social relation between the addressee and Ram
because Ram is socially superior to the addressee in this context. Here, the use of NH marker
shows the negative emotion of the speaker towards Ram.[12] These examples show another very
important aspect of honorification. They demonstrate that these honorific markers are not only

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12. It is not necessary that the speaker must use the NH marker in (34) because she has a negative attitude towards
Ram. What is important for our purpose is that the NH marker can be used in context 2 but not in context 1, which is
a normal situation.

used to indicate the social relation between the speaker and the referent of a noun phrase but they can be also used to maintain and create those relations (see below example (40) for more discussion on this issue.). Now, consider context 3, which minimally differs from context 2 in that the addressee has had a fight with Ram but not the speaker. As shown, the speaker uses the H marking *-thi* on the verb, showing his positive attitude towards Ram, not the NH marker *-ai*, showing the addressee's attitude towards Ram.

Context-3: Ram is socially superior to both the speaker and the addressee. However, the addressee and Ram have had a fight, and they are very angry with each other. The speaker says:

(35) *Ram   hasla-**thi**   hal*
      Ram   laugh.PRF-3HS   be.PST
      i. 'Ram laughed.'
      ii. Ram is H to the speaker.

These examples (cf. 33-35) show that honorific content in Magahi is speaker oriented and does not express someone else's perspective such as the addressee or some third person. The above examples show subject honorification. The same is true for Add-Agr, where only the speaker's perspective is expressed towards the addressee.

Although both independence and speaker's perspective are described as canonical properties of expressive by Potts (2007), this characterization has been criticized based on their behavior under attitude predicates. Kratzer (1999) points out that when certain expressives occur under attitudes they can be interpreted relative to the reported context rather than the utterance context. In that case, they are not speaker oriented. For example, in (36), the epithet *that bastard* does not show a speaker's perspective but the perspective of the attitude holder, my father.

(36) My father screamed he would never allow me to marry that bastard Webster.

Amaral, Roberts, and Smith (2007) argue that what is relevant for the interpretation of expressives is the agent's point of view. Generally, the default point of view is that of the speaker of the utterance context but in certain contexts, under attitude predicates, it can be that of the attitude holder. This is true for honorification in Magahi as well. In chapter 4 of this dissertation, where we discuss indexical shift phenomenon, we will see in detail that in shifted environments, honorification shows the attitude holder perspective. Here, I present one crucial example with Add-Agr. Under triadic verbs such as 'tell', two possibilities arise for the embedded Add-Agr: Add-Agr can express the honorific status of the utterance addressee, but it is also possible for Add-Agr to express the honorific status of the higher goal argument. Consider example (37). It is spoken to a teacher by his student (John) about Santee and Bantee who are friends among themselves. In (37a), both the higher verb and the embedded verb bear HH addressee marking, referring to the honorific status of the teacher (i.e., the utterance addressee). However, the embedded verb in (37b) expresses the honorific status of Bantee, the goal argument of the higher verb (see McFadden 2017: ex (19) for a similar example in Tamil).

(37) a. *Santeeaa Banteeaa-ke kahl-ain ki Ram Sita-ke dekhl-**ain** hal*
          Santee.FM Bantee.FM-DAT told-3-HHA COMP Ram Sita-ACC saw-3-HHA be.PST
          'Santee told Bantee that Ram had seen Sita.'

      b. *Santeeaa Banteeaa-ke kahl-ain ki Ram Sita-ke dekhl-**au** hal*
          Santee.FM Bantee-FM-DAT told-3-HHA COMP Ram Sita-ACC saw-3-NHA be.PST
          'Santee told the teacher that Ram had seen Sita.'

An important aspect of the above discussion is that honorification is never relativized to an entity other than the agent, more precisely not any agent but either the speaker or the attitude holder, unlike at-issue content, which certainly can be.

The third property I consider is *non-displaceability*. According to Potts, the non-displaceability property states that the effect of an expressive item holds at the speech time i.e., the utterance

context. Consider example (38), based on McCready (2019), where the conversational partici-
pants have an NH relation (because they are peers). However, if the situation described in the
conditional antecedent were true, they would have an H relation, so using the H marker in the
consequent would be appropriate. However, the NH marker is still used, as in (38a).

Context 5: A company function where employees are forbidden to drink leftover bever-
ages, which are stored for subsequent functions. Two employees have been instructed
to clean up; both want to open a bottle of champagne.

(38) a. *Agar tu   raasTpatii raht-eN   hal ta tu ii pii saka haleN*
          If   you president remain.FUT-2NHS be.PST PRT you this drink can be.PRF-2NHS
          i. 'If you were president, you would drink this.'
          ii. The addressee is NH to the speaker.

      b. #*Agar tu   raasTpatii raht-a   hal ta tu ii pii saka haleN*
          If   you president remain.FUT-2HS be.PST PRT you this drink can be.PRF-2NHS
          i. 'If you were president, you would drink this.'
          ii. The addressee is H to the speaker.

Example (38) indicates that the meaning of honorification may not be presuppositional, because
presupposition behaves differently in such cases. Consider (39a), a conditional construction,
where the presupposition appears in a conditional consequent and its content is entailed by the
antecedent of the conditional, the presuppositional content does not project, as opposed to simple
conditional construction, as in (39b) (see Chierchia and McConnell-Ginet 2000 for discussion).

(39) a. If Alicia has a daughter, then Alicia's daughter is probably a doctor.
          → Alicia has a daughter.

      b. If Alicia has a helicopter parent, then Alicia's daughter is probably a doctor.
          ↛ Alicia has a daughter.   McCready (2019: 23)

As indicated in the Magahi example (38b), use of H marker makes the sentence infelicitous in the given context. In contexts where it is acceptable, it introduces a sarcastic effect.

This brings us to the second argument, the performative use of honorification, that has been used in the literature to argue that honorification is best viewed in term of expressive content rather than presuppositional content. Portner et al. (2019a) examining Korean speech style particles, which encode speaker and addressee relations in honorificity and formality, show that these speech style particles are not only used to reflect the social relations between the speaker and addressee, they are also used to negotiate, maintain, and create those relations. They argue that if we analyze these speech style particles as presuppositional, we fail to capture their performative uses at the conceptual level. They argue for the view that honorification is best analyzed in terms of expressive content rather than presuppositional content. Let us ponder on Magahi honorification in this respect. Consider (40), based on Portner et al. (2019a), a conversation between grandfather and his grandson, Santee. In the conversation, grandfather uses NH marking in his first utterance when he asks Santee about his exam. This reflects their social relation in normal circumstances. However, in his second utterance, grandfather uses H marking when he heard that Santee got good marks in his exam. By making this shift, grandfather gives the grandson a compliment.

(40) Grandfather:*Santeeaa, parichhaa kaisan gel-au?*
            Santee.FM, exam   how   went-NHA
            'Santee, how did exam go?'

      Santee: *Achhaa gel-o.   100 me 100 nambar mill-o*
              good   went-HA 100 in   100 number got-HA
              'It went well. I got 100 out of 100.'

      Grandfather: *Waah! tu   to   kammal kar   del-a*
                   Wow   you PRT amazing done gave-HA
                   'Wow! You did great'

This is a performative use of honorification because Grandfather's use of H marking with his grandson temporarily changes the social relation between them.

Now consider another situation where there are two people, A and B: They are of the same age and they work at the same level in the same office. They have seen each other a couple of times but have not spoken before. When they talk for the first time, as shown in (41), they maintain an H relationship rather than NH even though they are socially equal in all respects. The use of H marking among individuals with the same social status shows that they are unfamiliar (e.g., not intimate) with each other.

Context 6: A and B are two people with the same age, working on the same post in the same office. They have seen each other a couple of times. However, they have not talked to each other before. Today, they met in the cafeteria and started chatting:

(41)   A: *Namaste,   kaa   haal-chaal   ha-o?*
        Hello   what   well-being   be.PRES-HA
        'Hello, how are you?'

    B: *Namaste,   sab   theek   ha-o.   Tor   haal-chaal   kaisan   ha-o?*
        Hello   all   well   be.PRES-HA   your   well-being   how   be.PRES-HA
        'Hello, I am well. How are you?'

However, later they could switch to NH to show intimacy. Example (42) shows a conversation between the same two persons at the same place, but a few days later.

(42)   A: *Ka,   kaisan   chalit   h-au   sab*
        What,   how   walking   be.NHA   all
        'How is everything going?'

    B: *Sab   theek   h-au,   bhaai.   Apan   kah-∅*
        all   well   be.NHA   brother   self   tell-IMP.NH
        'Everything is fine. What about you?'

Finally, I would like to discuss another example to show that Magahi honorification is used to negotiate social relations in a given situation. Consider a situation where A and B are professors in the same department. They are also neighbors. They are very close, and they maintain an NH relation. However, in a departmental setting, they would maintain a H relation. In (43), A is chairing a session and invites B, using H marking, to give his talk.

Context 7: A invites B for his talk.

(43)   A: *Aglaa waktaa   B ha-thi*
            Next   speaker   B be.PRES.3HS
        'The next speaker is B'

Summing up, I analyze Magahi honorification as expressive content. As shown, Magahi honorification also has a performative semantics, which is used to negotiate, maintain, and create social relations.

4.2   Semantic Composition and Context

In this section I provide two possible implementations of the idea that honorificity in Magahi is expressive. While both are compatible with the ideas contained in this dissertation, the first has been worked out in more detail than the second.

4.2.1   Potts and Kawahara (2004) and Portner, Pak and Zanuttini (2019a)

Based on Potts's (2004) theory of expressives, Potts and Kawahara (2004) propose a multidimensional semantic framework for honorification. In this framework, propositional meanings and honorific meanings are computed in a separate dimension and become available for interpretation at the sentence level. Thus, the denotation of a sentence is an order pair of propositional meaning and the honorific meaning. I will first give a sketch of this approach and then show

how Magahi honorification can be computed within this model. I will then adopt Portner et al.'s dynamic framework to show how honorific meaning interacts with context. They encode honorification within the *context set*, one of the components of the context, in the same way as other ordinary factual information and not merely as distinct discourse component. Moreover, in their framework, honorific markers also contribute to the *participant structure*, another component of the context (see below), where honorific relations among participants are encoded as simple ordering relations rather than expressive indices.

I begin with Potts and Kawahara's (2004) theory. Potts and Kawahara propose, in addition to the two basic types e and t, another type ε for expressive items, as in (44b). In addition, along with the regular functional type, whose input and output both are basic types, as in (44c), they also propose a special functional expressive type, as in (44d), whose input is a regular basic type but whose output is an expressive type. There is no other type in the system.

(44) a. e and t are regular types.

  b. ε is an expressive type

  c. If σ and τ are regular types, then $\langle \sigma, \tau \rangle$ is a regular type.

  d. If σ is a regular type, then, $\langle \sigma, \varepsilon \rangle$ is an expressive type.

  e. Nothing else is a type.

As per (44), expressives can be the output of any type with a regular basic type as its input (e.g., a simple functional type $\langle e, \varepsilon \rangle$ or a complex functional type $\langle \langle e, t \rangle, \varepsilon \rangle$). However, we cannot have a (complex) functional type where an expressive is the input (e.g., $\langle \varepsilon, e \rangle$ or $\langle \langle e, \varepsilon \rangle, t \rangle$). The impossibility for an expressive to be an input for semantic composition captures the fact that expressive content is independent of the propositional content. To compute expressives, Potts and Kawahara reformulate the regular semantic compositional rules to a new compositional rule, given in (45).

(45)

$$\alpha : \sigma$$
$$, $$
$$\beta(\alpha) : \varepsilon$$

B: $\langle \sigma, \varepsilon \rangle$	A: σ
β	α
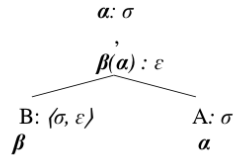
The compositional rule (45) shows how a regular and an expressive expression combine. Here, α and β are denotations of a regular item A and an expressive item B respectively. The regular item A has a regular argument type σ and the expressive B has a functional expressive type $\langle \sigma, \varepsilon \rangle$. When the compositional rule applies (i.e., β takes α as an argument) two things happen: the compositional rule passes α on to the root node without doing anything to it, and the function β applies to α and returns an expressive meaning $\beta (\alpha)$. Given (45), the expressive meaning cannot participate further in the semantic derivation. Only α is available in the next step of the derivation. However, the expressive is available for the interpretation when the entire derivation is interpreted by the *interpretational rule* in (46).

(46)   The interpretation of a parse tree Γ is the tuple $\langle A, B \rangle$ where

(i) A is the semantic value of Γ's root node; and

(ii) B is the set consisting of all and only the interpretations of type ε expressions in Γ.

Let us see how this system works in a concrete case. Consider (47). Example (47b) illustrates the final syntactic derivation of (47a). The feature [iHON] on the subject gets valued as NH and is realized in the verbal domain via 'Agree'. The [iHON] feature on the 3rd person object pronoun gets the value NH. It is thus realized as *okraa*. (47c) represents the core semantic derivation.

Context: The speaker is talking about his younger brother Santee, and a friend.

(47) a. *Santee-aa okraa   dekhl-ai*
   Santee-FM him.NH.ACC see.PRF.3-NHS
   'Santee saw him (=friend).'

b. Syntactic Derivation:
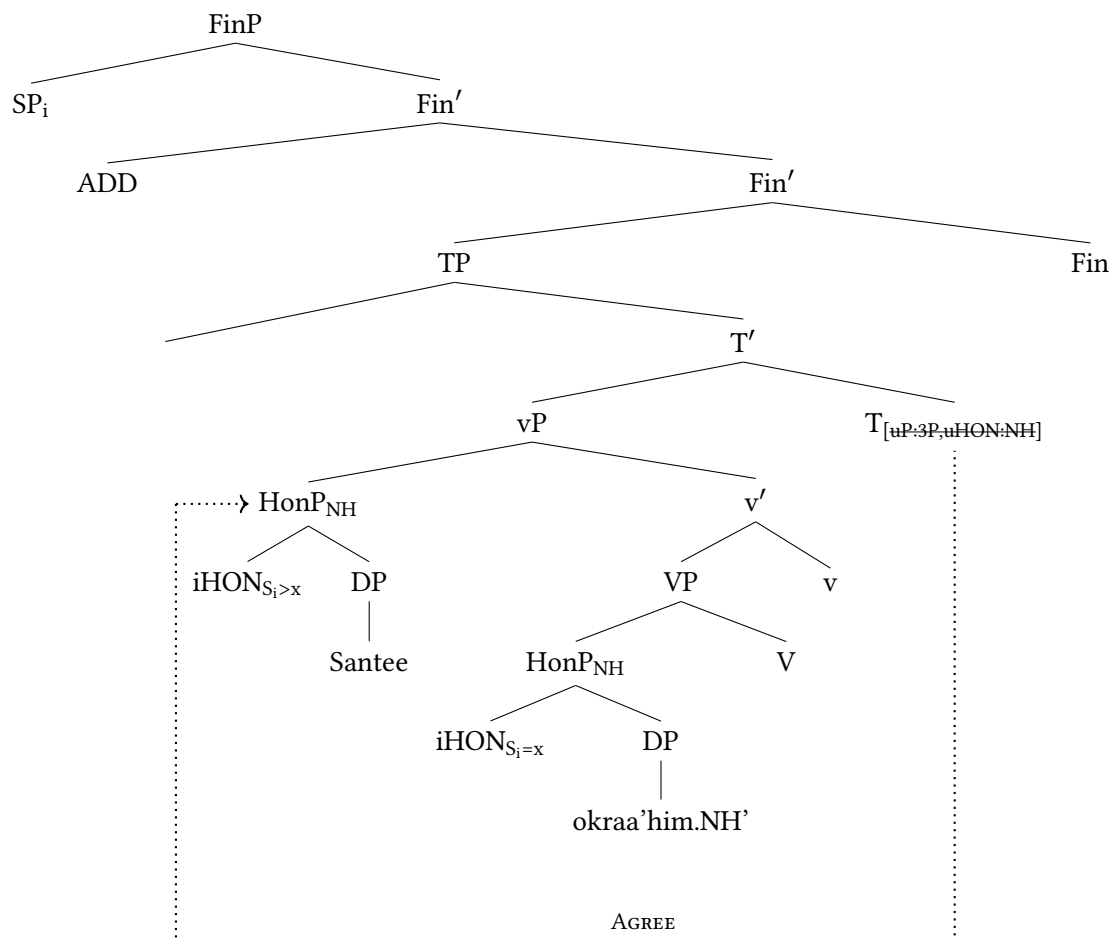
c. Semantic Derivation

Interpretation: $\langle \mathbf{saw}(\mathbf{santee}, \mathbf{him}), S > \mathbf{santee}, S = \mathbf{him} \rangle$ (by rule (46))

saw(santee, him): t

santee: e

S >santee: ε

λx.S >x : (e, ε)   *santee: e*

λx.saw(x, him) : (e, t)

him: e

S=him: ε

λx.S=x :(e, ε)   *him: e*

λy.λx.saw(x,y):(e, (e, t))
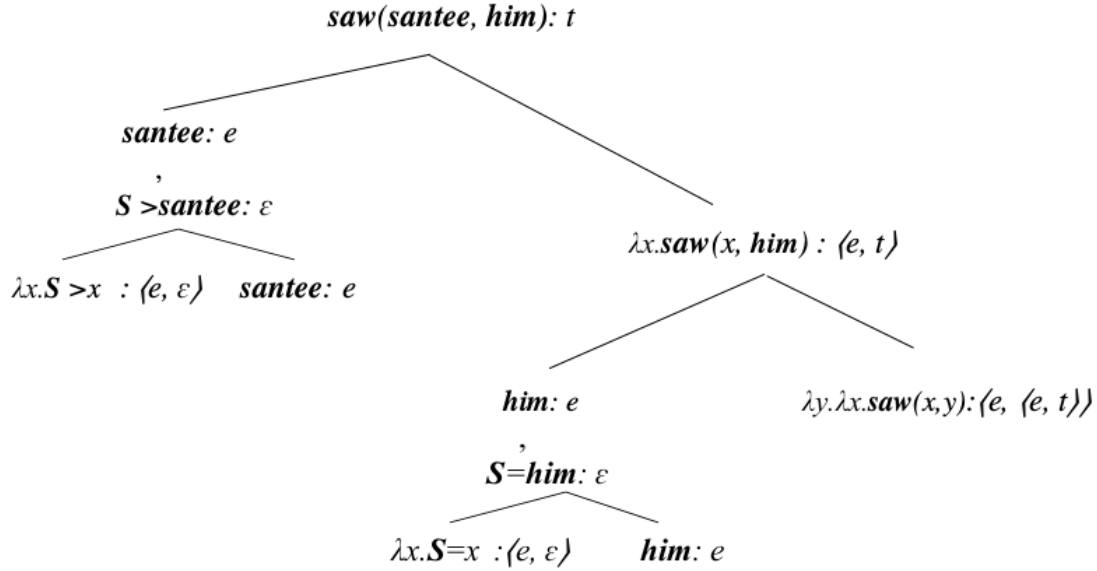
Consider (48). Example (48b) illustrates the final syntactic derivation. Here, the feature [iHON] on the subject gets valued as NH and realized in the verbal domain. The [iHON] feature on the 3rd person pronominal object gets the value HH. It is thus realized as *unkaa*. Below example (48c) represents the core semantic derivation of (48a).[13]

Context: Deepak talking about his teacher and a younger brother Santee

(48)   a.   *Santee-aa   unkaa   dekhl-ai*
          Santee-FM   him.HH.ACC   see.PRF-3-NHS
          'Santee saw him (=teacher)'

---

13. Readers should note that the trees of semantic derivation are not identical with the trees of syntactic derivation. To make them identical, semantic derivations in needs to be more elaborated. I leave this for future work.

b. Syntactic Derivation
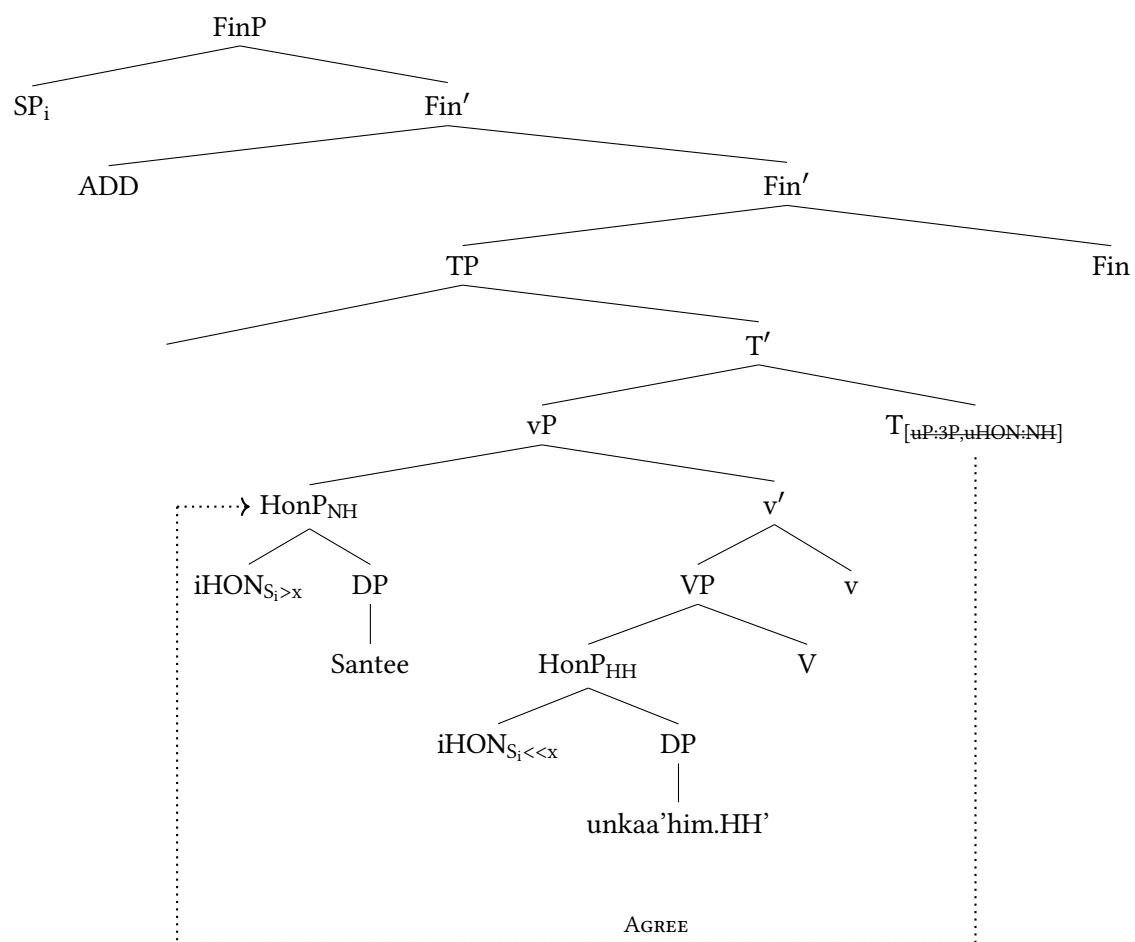
c. Semantic Derivation

Interpretation: $\langle \mathbf{saw}(\mathbf{santee}, \mathbf{him}), \mathbf{S} > \mathbf{santee}, \mathbf{S} << \mathbf{him} \rangle$ (by rule (46))
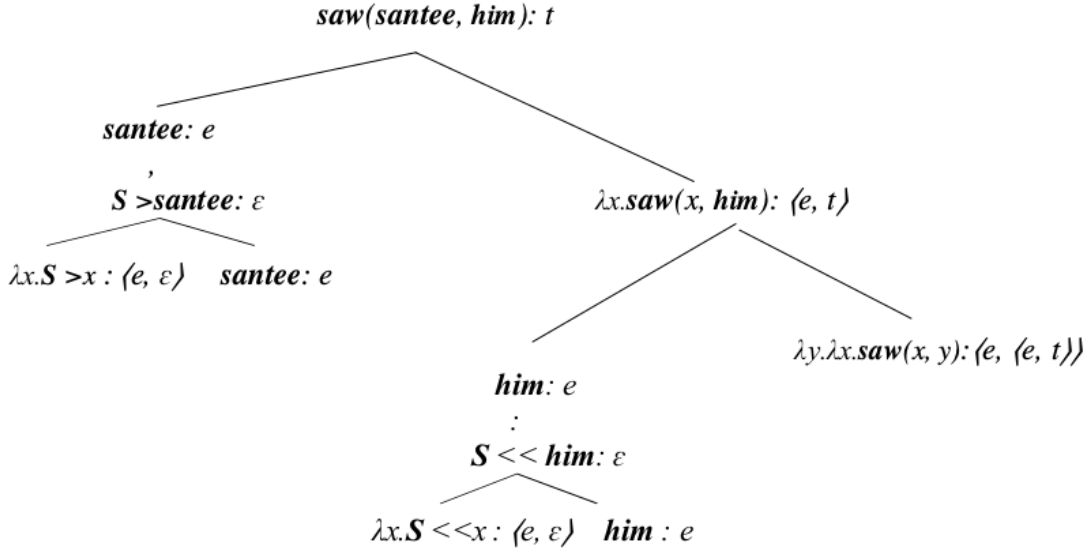
Now that we have added the type (ε), compositional rule (cf. 45), and interpretational rule (cf. 46) in our computational system, which allows us to compute and interpret honorification, we need to determine what the ε-type expressions mean and how they interact with context. Potts and Kawahara (2004) and Potts (2005, 2007) have also developed a dynamic framework for honorifics. However, I do not adopt their system further for the following reason. Their system treats honorifics as a discourse component i.e., a tuple of context like other tuples such as speaker, location, time and world. However, as rightly pointed by Portner et al. (2019a), honorifics are factual matters. They are based on ordinary concrete facts and social facts, such as the speaker being older than the addressee or the speaker being socially superior to the addressee. At the same time honorifics are also performative in nature. I thus adopt Portner et al.'s (2019a) framework to explain honorification at the context level, where it is a part of the context set as well as a part of

the participant structure.

Based on recent work of Ninan (2010) and Stalnaker (2014), Portner et al. assume that the content of declarative root sentences is best modeled as *multiply centered* propositions $\langle x, y, t, w \rangle$, as in (49), where the individual coordinate 'x' represents the speaker and the coordinate 'y' represents the addressee. Thus, the truth of a declarative sentence is relativized to the world, time, and individual parameters.

(49)   The content of a declarative sentence S is a set of tuples $\langle x, y, t, w \rangle$

Following Stalnaker (1978, 1978, 2014), Portner et al. assume that *context c* is a pair of *participant sequence P* and *context set sc*, as in (50), where the context set is a set of multiply centered propositions and the participant sequence lists the participants in a way that aligns the speaker and addressee of the given utterance with the speaker and addressee individual coordinates in the tuples of the context set.

(50)   The context c is a pair $\langle P, cs \rangle$, where:

    a.   the participant sequence P is an *n*-tuple of individuals ($n \geq 1$)

    b. cs is the context set, a set of tuples $\langle x, y, t, w \rangle$.

Asserting a proposition reduces the context set, by removing all the multiply centered propositions $\langle x, y, t, w \rangle$ at which the assertion is false. This is done by intersecting the content of the assertion with the context set.

(51)   For any utterance u of a declarative sentence S, $c + u =$

    i. $\langle Pc, cs' \rangle$, where $cs' = cs_c \cap [\![S]\!]$, if the speaker of $u = P_1$

    ii. $\langle Pc, cs' \rangle$, where $cs' = cs_c \cap \text{switch}([\![S]\!])$, if the speaker of $u = P_2$

The function switch, in (51ii), when applied to a proposition p, reverses the individual coordinates x and y in every tuple of p. For example, when (52) is successfully uttered by the first member of

the participant sequence, it removes all the tuples $\langle x, y, t, w \rangle$ from the context set in which x does not love y in w at t. On the other hand, when (52) is successfully uttered by the second member of the participant sequence, it removes all the tuples $\langle x, y, t, w \rangle$ form the context set in which y does not love x in w at t.

(52) $[\![$ I love you $]\!]$ =

   a. $\{\langle x, y, t, w \rangle$: x loves y in w at $t\}$, if the speaker is P_1

   b. $\{\langle x, y, t, w \rangle$: y loves x in w at $t\}$, if the speaker is P_2

The system so far handles regular semantic expressions but not honorification. Analyzing the Korean speech style particles, which encode the social relation between the speaker and addressee. Portner et al. follow Potts and Kawahara (2004) and Potts (2007) in analyzing honorification as expressive content (also see McCready 2014, 2019). However, unlike them, Portner et al. represent honorification within the context set in the same way as ordinary factual information.[14] They also encode honorification in the *participant structure* (see below), as a separate ordering component of the discourse so that it can affect the social/hierarchy relation among participants, capturing performative dimension of honorification meaning. They elaborate the participant sequence into participant structure, where the *participant structure* consists of a set of participants (J), a set of social rankings (O), and a function (h) that assigns each participant in J a social rank from O. This is illustrated in (53).

(53) The context c is a pair $\langle P, cs \rangle$, where:

   a. the participant structure P is a triple $\langle J, O, h \rangle$, where

      (i) J is an n-tuple of individuals $(n{\geq}1)$, the participants,

      (ii) O is an ordered set $\langle N, \rangle$ with n members,

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14. For Potts and Kawahara, honorific (hon) is a member of the context tuple with speaker, location, time, and word coordinates i.e., a context is a 5-tuple $\langle speaker, location, time, world, hon \rangle$.

(iii) h is a function from J to subsets of N;

b. cs is the context set, a set of tuples $\langle x, y, t, w \rangle$.

Portner et al.'s discussion focuses on describing the honorific relation between speaker and addressee only. However, we have seen in Magahi that the speaker can bear an honorific relation with the referent of any DP in the clause. Therefore, I modify the theory and expand the participant structure to reflect the situation in Magahi.[15] Although there could be any number of members in J, I work with three for convenience. I assume that the first member M_1 is the speaker, the second member M_2 is the addressee, and the third member M_3 is a third person in the context, who the speaker and addressee can talk about. This is illustrated in (54).

(54) (54) J : $\langle M_1, M_2, M_3, ... \rangle$,

where M_1 is the speaker, M_2 is the addressee and M_3 is a third person in the conversation

Regarding the ranking in O, unlike Portner et al., I assume fixed ranks in O: R_1, R_2, and R_3, relative to the speaker, ordered by $<$, as in (55).

(55) $O : \langle R_1 < R_2 < R_3 \rangle$

In representation (56), intuitively, R_1 represents equal or lower social status than the speaker, R_2 represents higher social status than the speaker, and R_3 represents even higher social status than the speaker.

Moreover, every participant will have a given ranking in the context. For the simplicity we can represent the ranking for the speaker, M_1, as in (55'a), the ranking for the addressee, M_2, as in (55'b), and the ranking for a third member in the conversation as in (55'c)

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15. I use the term 'participant structure' here but there is a crucial difference between the way the participant structure is defined in the Portner et al.'s system and my system. For me, the participant structure includes speaker and addressee as well as any third individual who has been referred to in the conversation.

(55)' a. $O_{M_1} = \langle R_1{}^{M_1} < R_2{}^{M_1} < R_3{}^{M_1} \rangle$

　　b. $O_{M_2} = \langle R_1{}^{M_2} < R_2{}^{M_2} < R_3{}^{M_2} \rangle$

　　c. $O_{M_3} = \langle R_1{}^{M_3} < R_2{}^{M_3} < R_3{}^{M_3} \rangle$

For clarification, if I, Deepak, talking to my grandfather about a priest, we have the following ranking: Deepak = $R_1{}^{M_1}$, Grandfather = $R_2{}^{M_2}$, priest = $R_3{}^{M_3}$. In the same conversation, if grandfather becomes the speaker and talks to me about the priest, we have the following raking: Deepak = Deepak = $R_1{}^{M_2}$, Grandfather = $R_1{}^{M_1}$, priest = $R_3{}^{M_3}$.

The function h, as I define it, is a function from J to ordered set of O. That is, h assigns a rank (from O) to members in J. In a context in which M_1 has R_1 and M_2 has R_2, M_2 is socially superior to M_1. Following Portner et al., I represent this context with $h(M_1) = R_1{}^{M_1}$ and $h(M_2) = R_2{}^{M_2}$.

In this system, the feature [iHON] establishes the honorific relation between the speaker and the referents of DPs in the clause, I thus treat the semantic value of [iHON] as a function of type h i.e., a function from J to ordered set of O. The representations in (56) illustrates the honorific relation between the speaker (S) and addressee (A), taking speaker as a starting point

(56)　a.　$[\![iHON : S \geq A]\!] = h : h(M_1) = R_1{}^{M_1} \text{ and } h(M_2) = R_1{}^{M_2}$

　　　b.　$[\![iHON : S < A]\!] = h : h(M_1) = R_1{}^{M_1} \text{ and } h(M_2) = R_2{}^{M_2}$

　　　c.　$[\![iHON : S \ll A]\!] = h : h(M_1) = R_1{}^{M_1} \text{ and } h(M_2) = R_3{}^{M_2}$

For clarification, (56a) establishes the NH relation between the speaker (M_1) and the addressee (M_2); (56a) denotes that the addressee has equal or lower social status than the speaker. In both cases, Add-Agr is realized as an NH addressee marker *-au* on the verb and a 2nd person pronoun is realized as an NH form *tu* in nominative, *toraa* in oblique etc. The representation (56b) denotes that the addressee is socially superior to the speaker. In this case, Add-Agr is realized as a H addressee marker *-o* and a 2nd person pronoun is realized as a H form, however, it is morphologically the same as NH form such as *tu* in nominative, *toraa* in oblique etc. The representation (56c)

denotes that the addressee is very superior than the speaker. In this case, Add-Agr is realized as a HH addressee marker *-ain* and a 2nd person pronoun is realized as a HH form *apne* 'you.HH'.

Replacing M_2 with M_3 in (56) gives us the honorific relation between the speaker and a third person individual, as in (57).

(57)   a. $[\![iHON : S \geq DP]\!] = h : h(M_1) = R_1{}^{M_1}$ and $h(M_3) = R_1{}^{M_3}$

     b. $[\![iHON : S < DP]\!] = h : h(M_1) = R_1{}^{M_1}$ and $h(M_3) = R_2{}^{M_3}$

     c. $[\![iHON : S << DP]\!] = h : h(M_1) = R_1{}^{M_1}$ and $h(M_3) = R_3{}^{M_3}$

Following the multidimensional semantics of Rooth (1992) and Potts (2005), Portner et al. assume that the final denotation of a declarative sentence is its propositional meaning p and the denotation of its honorific meaning. They represent it as an ordered pair $\langle \pi, p \rangle$, where π stands for the honorific meaning and p stands for the propositional meaning. This is like Potts and Kawahara's interpretational rule (46). Following Portner et al., I rewrite (46) as in (58).

(58)   The interpretation of a declarative sentence ϕ is the tuple $\langle \pi, p \rangle$, where

     (i) p is the propositional (semantic value) meaning of ϕ and

     (ii) π is the set consisting of all and only the interpretations of the type ε expressions in ϕ.

Now we can define the update for an assertion/declarative ϕ in a context c as in (59), where $[\![\phi]\!]^{\pi}$ represents the denotation of all the honorific relations of ϕ and $[\![\phi]\!]^{p}$ represents the propositional meaning of ϕ.

(59)   For utterance u of a declarative sentence ϕ, $c + u =$

     i. if the speaker of $u = P_1$: $\langle\langle J_c, O_c{}^{M_1}, h_{c'} \rangle, cs' \rangle$, where

       $h_{c'} = $ a minimal change to h_c consistent with $[\![\phi]\!]^{\pi}$,

       $cs' = cs_c \cap [\![\phi]\!]^{p}$

     ii. if the speaker of $u = P_2$: $\langle\langle J_c, O_c{}^{M_2}, h_{c'} \rangle, cs' \rangle$, where

$h_{c'}$ = switch(a minimal change to h_c consistent with $[\![\phi]\!]^\pi$),

$cs' = cs_c \cap [\![\phi]\!]^p$

Encoding the honorific relation (iHON) in the participant structure explains the performative nature of honorification. Consider the conversation between the grandfather and his grandson in (40). Grandfather had used NH marking in his first utterance. However, in his second utterance, grandfather uses H marking to give the grandson a compliment. Let us see, with the help of pictorial diagrams, how the participant structure is updated during the conversation. In Figure 2.1, each circle represents the participant structure at one stage in the conversation, the light gray ellipse inside the circle represents the three social ranking available in O, M_1 and M_2 here represents two participants (M_1=grandfather, M_2 = grandson), and the arrow is used to show the hierarchical ranking in O associated with the two participants at the particular stage in the conversation. The diagram 1 represents the initial stage of the conversation. At this stage, no hierarchical relation between the grandfather and the grandson is established. Then the grandfather M_1 uses the NH marker -*au* $[\![S \geq A]\!]$, creating a context where he is understood to be socially superior to the grandson, as represented in diagram 2. This reflects their social relation in the normal circumstances; the relation one can expect between a grandfather and grandson in the society. Then, the grandson becomes the speaker, and in his reply, the grandson uses the H marker -*o* $[\![S < A]\!]$, maintaining the same hierarchy between them, as shown in diagram 3, M_2 (the grandson) assigns M_1 (the grandfather) a higher social rank relative to himself. Lastly, grandfather speaks again and uses H marking -*o* $[\![S < A]\!]$, modifying his relationship with the grandson, as shown in diagram 4, M_2 is assigned a higher rank than M_1. This honorificity shift brings a compliment to the grandson in that particular context.

Finally, to capture the factual side associated with honorification, we need to ensure that the abstract relation indicated in the participant structure aligns correctly with the hierarchical
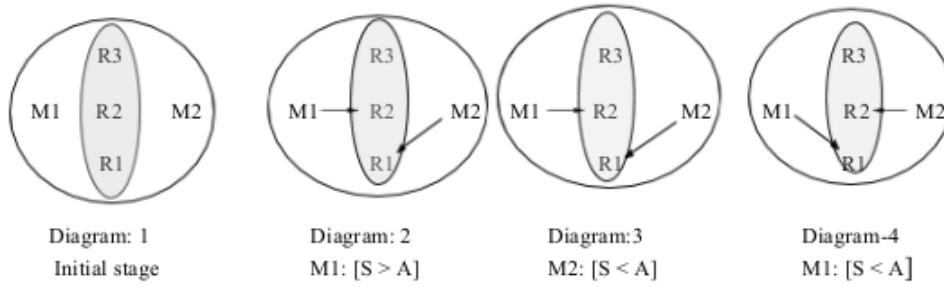
Figure 2.1: Updating the participant structure

relation between the speaker and addressee of the conversation. For example, take the above conversation between the grandfather and the grandson. The abstract social relation between them is that the grandfather has higher social rank than the grandson. Thus, in the unmarked conversation, the participant structure would not have an ordering relation where the grandson gets a higher rank than the grandfather. Portner et al. make this sure with an "alignment principle", as in (60), which I adopt here.

(60)   Alignment between participant structure and context set

For every context c such that cs_c entails that there is a unique most salient social relation H involving the participants in the conversation, the ordering assigned to the participants in the participant structure in c is compatible with H.

When the use of an honorific marker matches the established social relation, there is no change in the context set. The marker thus simply indicates the abstract social relation between the participants. For example, the use of $[\![S > A]\!]$ by the grandfather to his grandson or the use of $[\![S < A]\!]$ by the grandson to the grandfather. However, in certain cases, the use of a honorific marker changes the context set. We have seen above at least two cases of this: in example (34), the speaker uses NH marker for a socially higher person (Ram) to express her negative attitude.

In example (40), the grandfather in his second utterance uses H marker for his grandson (Santee) to give him a compliment. I refer interested readers to Porter et al. (2019) to see details of the discussion on this issue. [16]

4.2.2 Murray's (2014) Context Update: Temporally Anchored Expressives

There is an alternative account of honorification that Veneeta Dayal (p.c.) has suggested to me that I mention in this subsection. Following Murray (2014), I give an initial sense of how a sentence with not-at-issue meaning is processed in the context and can be thought of as a part of the common ground (the theory is built on Asher (2000), Horn (2002), Faller (2002), Gunlogson (2002), Jayez & Rossari (2004), Portner (2004), Potts (2005), Farkas & Bruce (2010), Murray (2010), among others, see the reference cited in Murray (2014)).

Murray (2014) argues that a sentence has at least three meanings, which are different from

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[16]. I do not discuss the behavior of quantifiers and honorification in this dissertation. I mentioned in footnote-4 that honorification also applies to quantified noun phrases. This is shown as in (i); the quantified noun phrase 'every teacher' triggers HH agreement on the verb, showing that it is a HH DP.

(i) *Sab MasTar-saaheb okraa   pasand kara hathi*
    All teacher-HH   him.NH like   do   be.PRES.HHS
    'Every teacher likes him.'

The system presented here can be easily extended to them. Like other DPs, quantified DPs also have the [iHON] features, which establishes the honorific relation between the speaker and a set of people on which the quantifier quantifies over (in this case each of the member of the set is HH to the speaker). However, there is an interesting issue with compositionality when we consider honorification associated with a pronominal variable which is bound by the higher quantifier. As shown in (ii), the embedded 3rd person pronoun is bound by the higher quantified noun phrase 'every teacher'. The bound embedded pronoun is also HH, which is shown by the HH agreement morpheme *-thi* on the embedded verb. As shown, the NH marking *-ai* is unacceptable.

(ii) *Sab MasTar-saahebi-ke viswaas hai   ki ui   klaas taaim par pahuch jaithi/*ai.*
     All teacher-HH-DAT   believe be.PRES that he.HH class time on reach   go.HHS/*NHS
     'Every teacheri believes that hei will reach to the class on time.'

It is not clear how this (honorification) binding can go through, if honorification as expressive does not participate in the regular computation (see Potts and Kawahara (2004) for the claim that sentences like (ii) in unacceptable in Japanese).

implicature or presuppositional meanings that a sentence might have: at-issue meaning, non-at-issue meaning, if there is any, and illocutionary force (e.g., declaratives, interrogatives, imperatives). Murray refers to these meanings as semantic contributions of a sentence to the context, which update the context in different ways: the at-issue proposition of a sentence introduces a discourse referent, the not-at-issue meaning is directly added to the common ground (CG; a set of propositions that conversational participants take for granted for the conversation), and the illocutionary force of a sentence imposes a structural update on the context, such as declaratives propose to add a proposition to the CG, (polar) interrogatives impose a partition on the context, and imperatives impose a preference relation on the context.

This approach captures a crucial difference between the status of at-issue and not-at-issue meanings of a sentence and their function in a context. The at-issue meaning is directly challengeable or can be denied, but the not-at-issue meaning is not (it is indirectly challengeable though, e.g., hey, wait a minute test, see Shanon 1976). This is because the at-issue meaning is a proposal to be added to the CG. It can be thus challenged or denied. The non-at-issue meaning, on the other hand, is directly added to the CG (like Stalnaker's (1978) idea of the pragmatic secondary effect of assertion through which certain new information is added to the CG automatically, for example, who is speaking, what language she is using etc.). It thus cannot be challenged or denied. Also, the not-at-issue meaning remains in the CG even if the at-issue proposition is denied. I have analyzed honorification as expressive meaning i.e., a not-at-issue meaning, which is also different from presupposition. This meaning is thus directly added to the CG. Let us see this with a concrete Magahi example.

(61) *Santeeaa   ail-ai*
      Santee.FM come.PRF-NHS
      (i) Santee came.
      (ii) Santee is NH (to the speaker).

Example (61) makes all three semantic contributions to the context. It has a propositional at-issue meaning 'Santee came'. This meaning updates the context by introducing a discourse referent. Sentence (61) also has a not-at-issue meaning, that Santee is NH with respect to the speaker. This meaning updates the context by directly adding to the CG. Next, the declarative force of the sentence establishes an illocutionary relation and makes a structuring update to the context. Figure 2.2 below exemplifies all three updates contributed by (61).

Let us assume that the initial CG includes some information. This is represented by the context set (CS; familiar from Stalnaker's (1978, 2014) work, intersection of a set of propositions) p_0, a grey shaded circle, in the first diagram. In the second diagram, a discourse referent is introduced in the form of the at-issue proposition q (e.g., Santee came). At this stage, this information is not added to the CG, but it represents the at-issue proposition as a main point of the sentence and sets it as the topic under discussion (Roberts 1996, Simons et al. 2010). The CG, therefore, is still p_0. In the third diagram, not-at-issue meaning, Santee is NH, is directly added to the CG and imposes a restriction on the at-issue meaning and reduces the CS to p_1. That is, CS now includes only worlds where Santee is NH. Moreover, there are still worlds where the at-issue proposition q is true and worlds where q is false. The not-at-issue meaning does not include any discourse referent. This information is represented by a dashed line. The fourth diagram represents the illocutionary relation in the context, contributed by the declarative mood of the sentence. This is a proposal to add a proposition q to the CG (Groenendijk & Roelofsen 2009, Farkas & Bruce 2010, Murray 2010) modeled in this theory as a type of context structuring update. This is labeled as $\leq_q$ to indicate that q-worlds are the proposed worlds to update to. This q-world is shown darker than the rest. If the proposal is rejected, it blocks the structuring update and leaves the input CG unchanged. When the proposal is accepted, the CS is reduced only to q-worlds with the restriction of not-at-issue meaning. This new CS is labeled as p_2, a shaded area, in diagram 5. This CS encodes the meaning that Santee came, and Santee is NH, which becomes a discourse referent for the further reduced CS.
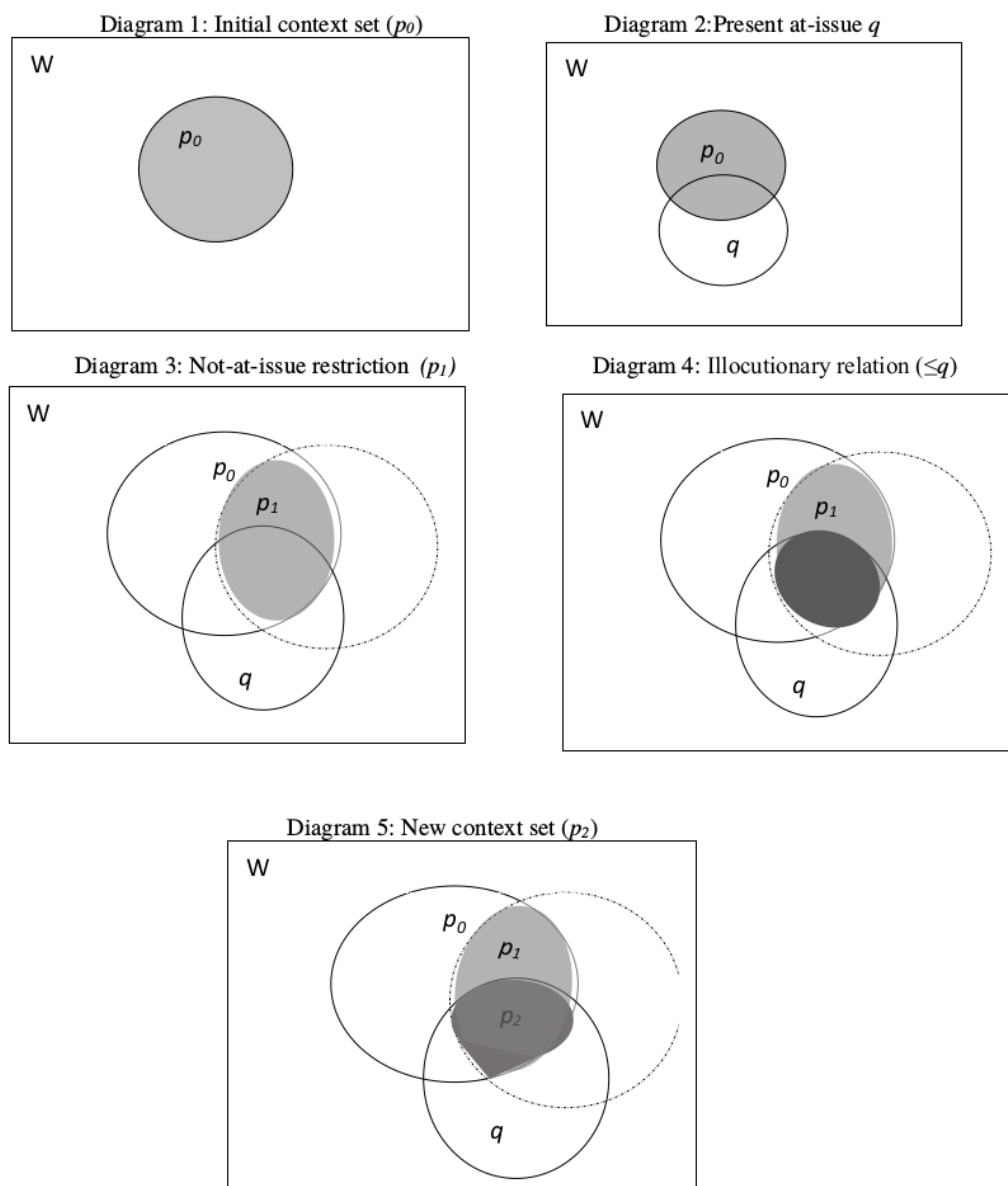
Figure 2.2: context update for (61), a sentence with honorification (not-at-issue) meaning.

Regarding the performative aspect of honorification, I argue that a not-at-issue meaning that is introduced by honorificity (e.g., p_1 in Figure 2.2) expresses the status that the speaker accords to the referent of the DP at the time of the utterance. In most cases this reflects a fixed relation in the context as in example (61) and many other examples above, but the grammar itself does not require the relation to hold at any time other than the time of utterance. And this is what allows speakers to manipulate honorificity relations that we saw in the above examples (40)-(43).

This approach clearly requires closer attention to how temporal specification in matrix and embedded clauses work and how that interacts with temporal indexicals. I leave this to the future, noting that nothing in what I say in the rest of this dissertation hinges crucially on the choice between the implementation suggested in this section and the one in 4.2.1.

4.3 Embeddability

I would like to close this section by pointing out that Portner et al. claim that the Korean speech style particles cannot be embedded because they carry non-propositional performative meaning. However, the idea that non-propositional performative meanings cannot be embedded is not cross-linguistically stable. Addressee honorification in Magahi is also performative, but it can be easily embedded, as will be shown in the next chapter where Add-Agr is discussed in detail. Other languages that have been argued to have addressee honorification widely in embedded clauses are Galician and Southern Basque (Haddican 2018, 2020) and Tamil (McFadden 2017). These languages thus suggest that performative meaning should not be a reason for (un)embeddability of addressee honorification. These languages also suggest that the functional head involved in addressee honorification is lower in the clause, unlike Korean, where it is the highest head. I thus suggest that it is syntax that is responsible for (un)embeddability of addressee honorification. If a language shows addressee honorification on a syntactic category that can be embedded, then addressee honorification can be embedded in that language. For example, many Indo-European

languages show honorification on 2nd person pronouns, Magahi also shows honorification on 3rd person pronouns, and in all these languages honorification can be embedded via these pronouns. Moreover, languages where addressee honorification is shown on a functional category also support the claim. In Korean, addressee honorification is encoded in the *c* head of cP which is the highest head in the clause spine. Addressee honorification cannot be embedded in Korean because cP cannot be embedded. On the other hand, in languages such as Magahi, Galician, Tamil, the head responsible for addressee honorification is lower, just above T, such as Fin or Agr, which are easily embeddable and so embedded addressee honorification is attested. I will return to the embeddability issue in the next chapter.

5   Conclusion

This chapter argued that the semantic honorific feature, [iHON], is not an intrinsic feature of a DP like other phi-features but a feature variable, which establishes an honorific relation between a (referent of) DP and the speaker of the clause, before participating in agreement. I proposed that the feature is available on every DP and its realization in the verbal domain depends on syntactic constraints. Further, the chapter developed a semantics of honorification in terms of an expressive treatment of Magahi honorification. It is argued that the meaning of honorification does not participate in the regular semantic computation but rather is computed in a separate politeness dimension.

The analyses of honorification developed in this chapter will help us explain the interaction of pronominal honorification and addressee honorification with indexical shifting, which will be the primary topic of chapter 4. As we will see, when embedded person indexicals shift under an attitude verb, honorification on (both on 2nd and 3rd person) pronouns in the embedded context also must shift. Before we do this, however, we need to complete the analysis of addressee honorification, which is the topic of chapter 3.

Chapter 3

The Morphosyntax of Magahi Addressee Agreement

1 Introduction

In the last chapter, I discussed strategies that Magahi uses to mark honorification. It was shown that every DP in a clause bears honorification. I argued for a semantic honorific feature [iHON] which enters grammar as a feature variable and establishes an honorific relation between the referent of the corresponding DP and the speaker of the utterance. The syntactic representation of the speaker co-ordinate (e.g., SP), in the left periphery of a clause, was shown to play an important role. It was also briefly shown that honorification is manifested on the Magahi finite verb in the form of subject agreement and addressee agreement (Add-Agr). In this chapter, I provide a detail study of Add-Agr and argue for the syntactic representation of addressee in every finite clause. The empirical generalizations of this chapter are summarized in (1)-(2).

(1) Addressee agreement is possible in all finite clauses in Magahi whether it is a main clause or an embedded clause.

(2) Addressee agreement and subject agreement (e.g., the apparent cases of subject honorification) are fused as a single agreement morpheme.

The chapter first presents evidence for the generalizations in (1)-(2) and then derives the generalizations from the principle in (3).

(3) a. Speaker and addressee are syntactically represented in FinP of every finite clause.

b. The functional head that plays a role in Magahi addressee agreement is the head 'Fin'

The chapter further discusses predictions of the analysis in Magahi. In the current analysis, addressee agreement is achieved without appeal to a speech act phrase (SAP). Therefore, the chapter discusses the implications of the analysis with respect to the syntactic representation of SAP and the speaker and addressee co-ordinates from a crosslinguistic perspective. It argues for (4).

(4) a. Speaker and addressee are represented in both SAP and FinP cross-linguistically and either domain can be used to yield addressee agreement, depending on the language.

b. Crosslinguistic differences that are seen in the distribution of addressee agreement are a result of what category acts as a probe in a language.

2   Subject Agreement in Magahi

Before we investigate addressee agreement (henceforth Add-Agr), I begin with subject agreement because there is significant interaction between subject agreement and Add-Agr in Magahi.

2.1   Empirical Landscape

Magahi finite verbs show agreement with the subject in person but not in number and gender (as also noted in Verma 1991). Moreover, the person agreement morphemes show variation in the encoding of subject honorificity (e.g. social status relative to the speaker, see below). This is illustrated in (5)-(7). The verb 'run' in the examples below does not vary number and gender but changes its form for person and honorificity; *-i(-ai)* for the 1st person subject, as in (5), *-eN, -a* and *-thin* for the 2nd person subject, as in (6), and *−ai* and *-thin* for the 3rd person subject, as in (7).

(5) *Ham/hamanii dauR-l-**i/iai***
     Im/f/We.m/f   run-prf-1-nhs
     'I/We ran.'

(6) a. *Tu/tohanii*   *dauR-l-**eN***
          You.sg.m/f.nh/You.pl.m/f.nh run-prf-2.nhs
          i. 'You ran.'

          ii. The subject is NH to the speaker.

     b. *Tu/tohanii*   *dauR-l-**a***
          You.sg.m/f.h/You.pl.m/f.h run-prf-2.hs
          i. 'You ran'

          ii. The subject is H to the speaker.

     c. *Apne/apne-sab*   *dauR-la-**thi(n)***
          You.sg.m/f.hh/You.m/f-all run-prf-2.hhs
          i. 'You ran'

          ii. The subject is HH to the speaker.

(7) a. *U/okhanii*   *dauR-l-**ai***
          (S)he.nh/They.m/f.nh run-prf-nhs
          i. '(S)he/They ran.'

          ii. The subject is NH to the speaker.

     b. *U/okhanii*   *dauR-la-**thi(n)***
          (S)he.h/They.m.f.h run-prf-hs
          i. '(S)he /They ran.'

          ii. The subject is H to the speaker.

     c. *U/okhanii*   *dauR-la-**thi(n)***
          (S)he.hh/They.m.f.hh run-prf-hhs
          i. '(S)he /They ran.'

          ii. The subject is HH to the speaker.

We see the contrast in honorificity in 2nd and 3rd person subjects but not in 1st person subject because the speaker does not have a variable honorific relation with herself in the way that she can have with a 2nd and 3rd person. Thus, 1st subject honorificity has only a single value, non-honorific. The three-way contrast between *non-honorific* (NH), *honorific* (H), and *high honorific* (HH) is seen in the verbal domain with 2nd person subjects. In example (6a), the agreement marker *-eN* indicates that the subject is NH with respect to the speaker. In (6b), the agreement marker *-a* indicates that the subject is H with respect to the speaker. And, in (6c), the agreement marker *-thi(n)* indicates that the subject is HH with respect to the speaker. However, the same three-way contrast is not seen in the verbal domain with 3rd person subjects. I claim that there is syncretism: *-thi(n)* is used both with the H 3rd person subject and the HH 3rd person subject. The 1st person agreement shows a single form *-i-ai* where *-ai* seems to be optional in the sense that it can be dropped in fast speech. Moreover, the marker *-ai* appears with both 1st person subject and 3rd person NH subject (cf. (5) and (7a)). Also, note that there is a separate 1st person marker *-i-*, but there is no such dedicated 3rd person marker. I assume that the realization of 3rd person agreement in the Magahi agreement paradigm is "null". That is, the morpheme *-ai* and *-thin* which appears with the 3rd person subject in (7) does not encode any person feature but only the honorificity feature: *-ai* an NH marker and *-thin* a (H)H marker. Therefore, the presence of NH marker *-ai* with 1st person subjects is expected since a speaker would have equal social relation to herself.

Summing up, we saw that Magahi finite verbs encode person and honorificity features of the subject. In the case of 1st and 3rd person, they are bi-morphemic while in the case of 2nd person, they are portmanteau morphemes.[1] The morphemes are tabularized in Table-3.1.[2]

---

1. The distribution of the morpheme *-thi(n)*, which appears with the 3rd person H and HH subjects and also with the 2nd person HH subjects, as I argue below, is conditioned by the elsewhere principle (Halle and Marantz 1993, 1994) that operates in Magahi grammar.

2. I use a three-way feature system, NH, H and HH to represent the three levels of honorificity. However, I will use binary feature [±HON] and [±HIGH] to analyze the Magahi agreement morphemes once we get to the full set of

Subject	NH	H	HH
1st Person	-i-(a)i	–	–
2nd Person	-eN	-a	-thi(n)
3rd Person	$\varnothing$-ai	$\varnothing$-thi(n)	$\varnothing$-thi(n)

Table 3.1: Subject agreement: Person and honorificity morphemes

2.2 Analysis of Subject Honorification

Following Chomsky (1995 et seq.), I assume that the person and honorific agreement morphemes are a morphological indicator of the formal uninterpretable person feature [uP] and uninterpretable honorific feature [uHON] which must be deleted prior to spell out for the derivation to converge. I postulate that both features are on T head. Subject agreement takes place when T probes and agrees with the subject DP and deletes its [uP] and [uHON] features against the interpretable person [iP] and honorific feature [iHON] [3] of the subject DP. This is illustrated in (8).

---

morphemes.

3. Here, I simply represent the semantic honorific feature on the subject DP as [iHON] but see chapter 2, section 2, where I argue that it enters in the derivation as a feature variable. The [iHON] feature first obtains its honorific value with respect to the speaker and the corresponding DP and then participates in "Agree".

(8)

```
                          ForceP
                         /      \
                    Force        FinP
                                /    \
                              SP      Fin′
                                     /    \
                                  ADD      Fin′
                                          /    \
                                        TP      Fin
                                       /  \
                                          T′
                                         /  \
                                       vP    T[uP, uHON]
                                      /  \          ⋮
                           DP[iP, iHON]   v′         ⋮
                               ⌃        /  \         ⋮
                               ⋮      VP    v        ⋮
                               ⋮     /  \            ⋮
                               ⋮   DP    V           ⋮
                               ⋮                     ⋮
                               ⋮......AGREE..........⋮
```
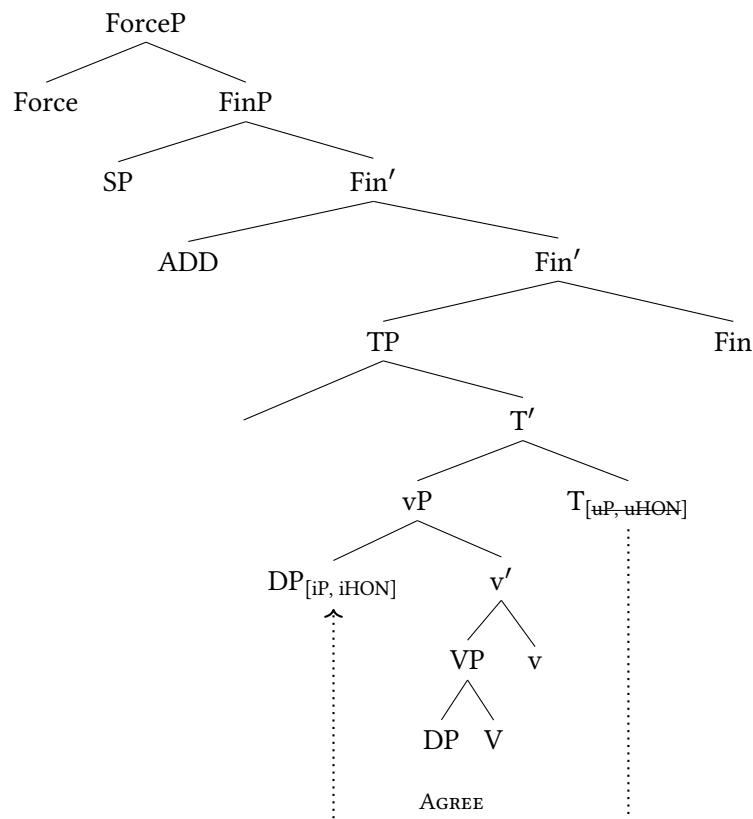
Honorific agreement has been widely discussed in the Japanese and Korean literature and there is a debate whether it is syntactic or merely pragmatic in nature (Harda 1976, Niinuma 2003, Boeckk & Niinuma 2004, Bobaljik and Yatsushiro 2006, Boeckx 2006, Sell & Kim 2007, Kishimoto 2010, Miyagawa 2012, 2017, Pok 2015, Portner et al 2019a, see especially Boeckk & Niinuma 2004, Bobaljik & Yatsushiro 2006; Boeckx 2006). The Magahi data clearly shows that it is syntactic. The first piece of evidence for this comes from the fact that a single agreement morpheme encodes both person and honorificity in the case of 2nd person subject depending on the honorificity of the subject, showing contrasts between *-eN* vs *-a* vs *-thin*, (cf. (6)). The second piece of evidence for the syntactic status of subject honorification comes from its interaction with case features. Like most of the Indo-Aryan languages, the highest nominative argument triggers agreement on

the verb in Magahi as well. As shown in (9a), the highest argument is nominative, T cannot escape it and agree with the next argument. However, in experiencer constructions, where the higher argument is overtly case marked, T must skip it and agree with the next available nominative argument. As illustrated in (9b), T agrees with the nominative argument in both person and *honorificity*, escaping the closest c-commanding dative argument (a potential goal, but inactive for agreement purpose since it bears a lexical case).[4]

(9) a. *Santeeaa   baabaa-ke   dekh-l-ai/*thi(n)*
         Santee.FM   grandfather.H-ACC   see-PRF-3-NHS/HO
         (i) 'Santee saw grandfather.'

         (ii) The subject is NH to the speaker.

     b. *Santeeaa-ke   baabaa   pasand ha-thi(n)/*ai*
         Santee.FM-DAT   grandfather.H   like   be.PRES-3-HO/NHS
         (i) 'Santee likes grandfather.'

         (ii) The object is H to the speaker.

To sum up, I analyzed Magahi subject agreement in this section. I showed that Magahi finite verbs manifest only person agreement among the traditional ϕ-features. However, the honorificity of the subject must be expressed in the verbal domain. I presented some evidence to show that subject honorification is a syntactic phenomenon in Magahi. I adopted the "Agree" mechanism and proposed that there is an uninterpretable honorific feature and a person feature on T that are checked by the interpretable honorific and person features of the subject DP.

---

4. I use *O* (stands for object) in glossing, which implies that the dative marked argument is a subject of the clause. But this is just for presentational purposes. I am aware that the notion of subject in Indo-Aryan languages in experiencer constructions is debatable (see Bhatt 2009). However, I do not engage with this issue in this thesis.

3   Addressee Agreement

3.1   Basic Data

Magahi finite verbs can express honorificity of the one to whom the sentence is addressed (Add-Agr). While addressee marking can be dropped, there is a preference for using it. The use of Add-Agr indicates that the addressee is involved in the conversation or is asked for solidarity/complicity (see Haddican for similar claim in Galician). Consider (10) which shows that a proposition such as 'I am going' can be expressed in four different ways in Magahi. Example (10a) is an instance of subject agreement. Examples (10b)-(10d), on the other hand, show agreement with the addressee as well. Example (10b) is uttered to a nonhonorific (NH) addressee, a friend. Example (10c) is addressed to an honorific (H) addressee, grandfather, and example (10d) is spoken to a high honorific (HH) addressee, a teacher.

(10)   a.   *Ham jaait   h-i-(-ai)*
           I   go.PROG be-1-NHS
           'I am going.'   (said to anybody)

       b.   *Ham jaait   h-i-au*
           I   go.PROG be-1-NHS.NHA
           (i) 'I am going.'   (said to a friend)
           (ii) The addressee is NH to the speaker.

       c.   *Ham jaait   h-i-o*
           I.M/F go.PROG be-1-NHS.HA
           (i) 'I am going.'   (said to father)
           (ii) The addressee is H to the speaker'

       d.   *Ham jaait   h-i-ain*
           I   go.PROG be-1-NHS.HHA
           (i) 'I am going.'   (said to father-in-law)
           (ii) The addressee is HH to the speaker.

Add-Agr can also co-occur with 3rd person subjects, as illustrated in (11). Example (11a) is an instance of simple subject agreement. Examples (11b)-(11d), again, show agreement with the addressee, in addition to the subject: the sentence (11b) is uttered to a NH addressee. Example (11c) is addressed to an H addressee, and the sentence (11d) is spoken to a HH.

(11)   a.   *Santeeaa   dauR-l-**ai***
             Santee-FM run-PRF-3-NHS
             (i) 'Santee ran.'   (said to anybody)
             (ii) The subject is NH to the speaker.

       b.   *Santeeaa   dauR-l-**au***
             Santee.FM run.PRF-3-NHS.NHA
             (i) 'Santee ran.'   (said to a friend)
             (ii) The subject is NH to the speaker.
             (iii) The addressee is NH to the speaker.

       c.   *Santeeaa   dauR-l-**o***
             Santee.FM run-PRF-3-NHS.HA
             (i) 'Santee ran.'   (said to father)
             (ii) The subject is NH to the speaker.
             (iii) The addressee is H to the speaker.

       d.   *Santeeaa   dauR-l-**ain***
             Santee.FM run-PRF-3-NHS.HHA
             (i) 'Santee ran.'   (said to father-in-law)
             (ii) The subject is NH to the speaker.
             (iii) The addressee is HH to the speaker

Note that in the above examples that the NH marker *-ai*, which appears with the 1st person subject and the 3rd person NH subject (cf. (10a) and (11a)), disappears when there is Add-Agr. As illustrated in (12), *-ai* is impossible with Add-Agr.

(12) a. *Ham dauR-l-i-(*ai)-au/o/ain*
          I   run-PRF-1-NHS-NHA/HA/HHA
          'I ran.'

      b. *Santeeaa   dauR-l-(*ai)-au/o/ain*
          Santee.FM run-PRF-3-NHS-NHA/HA/HHA
          'Santee ran.'

I claim that this is because the subject and addressee honorificity are fused in Magahi. That is, *-au*, *-o*, and *-ain* are portmanteau morphemes that encode both the honorificity of the subject and the honorificity of the addressee: *-au* shows that both the subject and addressee of an utterance are NH to the speaker. The suffix *-o* tells us that the subject is NH and the addressee is H to the speaker. The suffix *-ain* indicates that the subject of the clause is NH and the addressee is HH to the speaker.

More evidence for the fusion of subject honorificity and addressee agreement emerges when we consider different honorificity combinations of subject and addressee. Compare (13) with (11b). In both examples, the sentence is said to a NH addressee. However, in (11b), the subject is NH and, in (13), the subject is H. Unlike (11b), which has the suffix *-au*, in (13), the verb carries a distinct suffix *-thu(n)*. The suffix *-thu(n)* thus indicates that the subject of the clause is H and the addressee is NH.

(13) *Baabaa   dauR-la-**thu(n)***
      grandfather.H run-PRF-3-HS.NHA
      (i) 'Grandfather ran.'   (said to a friend)
      (ii) The subject is H to the speaker.
      (iii) The addressee is NH to the speaker.

Next, consider (14) and compare it to the above example (11d). In both cases, the addressee of the sentence is HH. However, they differ in the honorificity of the subject: in (11d), the subject is

NH while in (14), the subject is HH. Unlike example (11d), where the verb carries the morpheme *-ain*, in (14), the verb carries the morpheme *-thi(n)*.

(14) *MaasTar-saaheb dauR-la-**thi(n)***
      teacher.HH   run-PRF-3-HHS.HHA
      (i) 'The teacher ran.'   (said to father-in-law)
      (ii) The subject is HH to the speaker.
      (iii) The addressee is HH to the speaker.

   Other combinations of subject and addressee honorification show syncretism. But the above examples convincingly establish that the honorificity feature of the subject and the addressee are composed together in Magahi. Moving to the other possible combinations, when both subject and addressee are honorific, as in (15), there is no separate agreement morpheme, it is simply *-thu(n)*.

(15) *Baabaa   dauR-la-thu(n)*
      grandfather.H run-PRF-3-HS.HA
      (i) 'Grandfather ran.'   (said to father)
      (ii) The subject is H to the speaker.
      (iii) The addressee is H to the speaker.

Moreover, *-thu(n)* also appears when the subject is HH and the addressee is NH, as in (16), and when the subject is HH and the addressee is H, as in (17).

(16) *MaasTar-saaheb dauR-la-thu(n)*
      teacher.HH   run-PRF-3-HHS.NHA
      (i) 'The teacher ran.'   (said to a friend)
      (ii) The subject is HH to the speaker.
      (iii) The addressee is NH to the speaker.

(17) *MaasTar-saaheb dauR-la-thu(n)*
      teacher.ʜʜ   run-ᴘʀꜰ-3-ʜʜꜱ.ʜᴀ

(i) 'The teacher ran.'   (said to a father)

(ii) The subject is HH to the speaker.

(iii) The addressee is H to the speaker.

When the subject is H or HH and the addressee is HH, the morpheme *-thi(n)* appears, as in (18).

(18) a. *Baabaa   dauR-la-thi(n)*
          grandfather.ʜ run-ᴘʀꜰ-3-ʜꜱ.ʜʜᴀ

      (i) 'Grandfather ran.'   (said to a teacher)

      (ii) The subject is H to the speaker.

      (iii) The addressee is HH to the speaker.

      b. *MaasTar-saaheb dauR-la-thi(n)*
          teacher.HH   run-ᴘʀꜰ-3-ʜʜꜱ.ʜʜᴀ

      (i) 'The teacher ran.'   (said to father-in-law)

      (ii) The subject is HH to the speaker.

      (iii) The addressee is HH to the speaker.

The data shows that there is no one to one correlation between their feature combinations and the morphemic realizations. Table-3.2 represents the morphemes of the subject and addressee honorificity.

Subject	Addressee		
	NH	H	HH
NH	*-au*	*-o*	*-ain*
	(cf. 10b & 11b)	(cf. 10c & 11c)	(cf. 10d & 11d)
H	*-thu(n)*	*-thu(n)*	*-thi(n)*
	(cf. 13)	(cf. 15)	(cf. 19a)
HH	*-thu(n)*	*-thu(n)*	*-thi(n)*
	(cf. 16)	(cf. 18)	(cf. 19b)

Table 3.2: Honorificity agreement with the subject and addressee

Let us now consider 2nd person agreement, where the addressee becomes an argument. Unlike 1st and 3rd person subjects, Add-Agr is banned in 2nd person subjects, as in (19).

(19) a. *Tu   dauR-l-eN-(*au).*
          You.NH run-PRF-2NHS-*NHA
          'You (= a friend) ran.'

   b. *Tu   dauR-l-a-(*o).*
          You.H run-PRF-2HS-*HA
          'You (= grandfather) ran.'

   c. *Apne   dauR-l-thi(n)-(*ain).*
          You.HH run-PRF-2HHS-*HHA
          'You (= a teacher) ran.'

However, not all 2nd person arguments rule out Add-Agr; only those that trigger regular agreement do. For example, Magahi does not allow object agreement. Unlike 2nd person subject, Add-Agr can cooccur with the 2nd person object, as in (20).

(20)   a.   *Santeeaa   toraa   dekh-l-au.*
           Santee.FM   you.NH.ACC   see-PRF-3-NHS.NHA
           'Santee saw you (= a friend)

       b.   *Santeeaa   toraa   dekh-l-o.*
           Santee.FM   you.H.ACC   see-PRF-3-NHS.HA
           'Santee saw you (= to father)

       c.   *Santeeaa   apne-ke   dekh-l-ain.*
           Santee.FM   you.HH-ACC   see-PRF-3-NHS.HHA
           'Santee saw you (= a teacher)

This is not a language specific property of Magahi. McFadden (2017) notices that Tamil like Magahi allows subject agreement but not object agreement. Add-Agr is ruled out with 2nd person subjects, but not with 2nd person objects. He reaches the following conclusion.

(21)   Double expression of agreement with the addressee – both argument agreement and addressee agreement – is ruled out (McFadden 2017: 15).

The intuition behind (21) is that it is bad for the verb to agree twice with the same thing (i.e. a 2nd person argument = addressee, cf. Baker 2008). The generalization (21), basically, rules out Add-Agr in a clause whenever an addressee (2nd person) becomes an argument in the clause and triggers regular agreement. For example, Tamil and Magahi have only subject agreement. Only the 2nd person subject bans Add-Agr. Basque, on the other hand, allows both subject agreement and object agreement. Add-Agr is blocked with both the 2nd person subject and the 2nd person object (Oyharçabal 1993). [5]

---

5. Magahi and Tamil both have experiencer constructions, where the dative argument is considered as a subject and

Alok and Baker (2018) capture the blocking of Add-Agr with 2nd person agreeing argument by means of Kinyalolo's generalization:

(22) In a word (phonologically defined), AGR on one head is silent if and only if its features are predictable from AGR on another head." (Alok and Baker 2018, based on Kinyalolo (1991)).

Following Baker's (2008) proposal of no "native-born" local 1st and 2nd person pronouns, Alok and Baker (2018) propose that the 2nd person pronoun is a variable which inherits its (person) features precisely by being bound by the covert ADD DP. By virtue of being in a relationship of variable binding, the 2nd person pronoun and the ADD are syntactically the 'same'. Thus, addressee agreement triggered by ADD (see below) and agreement triggered by the 2nd person argument are essentially the 'same' and therefore the former is predictable from the latter (see Alok and Baker 2018 for details).

The evidence that the ADD that undergoes Add-Agr and a 2nd person pronoun in the clause are syntactically the same also comes from the fact that honorific features on the 2nd person pronoun and of Add-Agr on the verb must be the same. The reason is simple: ADD is involved in both. The 2nd person pronoun acquires its features precisely by being bound by ADD and the verb gets Add-Agr precisely by being agreeing with ADD. Therefore, the features on the 2nd person pronoun and the Add-Agr features on the inflected verbal form must be the same. Consider example (23).

(23) a. *Apne-ke   kauphii chah-ain/*au?*
          You.HH-DAT coffee   want-HHA/*NHA
          'Do you want coffee?'   (asked to a teacher)

---

the nominative argument, as an object which triggers the agreement on the verb. Add-Agr is also ruled out in such experiencer constructions when the object is second person, supporting the generalization in (21).

b. *Toraa   kauphii chah-au/*ain?*
    You.NH-DAT coffee   want-NHA/*HHA
    'Do you want coffee?'   (asked to a friend)

Example (23) shows that when a sentence is spoken to a teacher, a highly honored person, as in (23a), the high honorific form of the 2nd person *apne* is used. Note that the high-honorific Add-Agr *-ain* is acceptable on the verb, but not the non-honorific *-au*. If a sentence is spoken is to a friend, a non-honorific person, as in (23b), the nonhonorific form of the 2nd person toraa is used. Note that the non-honorific Add-Agr *-au* is acceptable on the verb, not the high-honorific *-ain*. Also, see the above example (20).

Summing up, in addition to subject agreement, Magahi finite verbs also show Add-Agr, marking honorificity of the addressee. Add-Agr and subject honorificity are fused and pronounced as a single agreement morpheme in the language.

Before we give a formal account of Magahi Add-Agr, let us look at its distribution first.

3.2   Addressee Agreement in Every Finite Clause

3.2.1   Magahi Addressee Agreement in Main Clauses

Add-Agr appears across a wide range of clause types in Magahi. For example, unlike Basque, where it is only seen on matrix declaratives, in Magahi, it is also seen on matrix questions, both constituent questions (24a), and polar questions (24b).

(24) a. *Ke   dauR-l-au?*
          Who run-PRF-3-NHS.NHA
          'Who ran?'   (asked to a friend)

b. *Santeeaa   dauR-l-au   (kaa)?*
   Santee.NH run-PRF-3-NHS.NHA PQP
   'Did Santee run?'   (asked to a friend)

Add-Agr is also possible in exclamatives, as in (25).

(25) *Ketnaa baRhiyaa din   ha-l-au.*
      how   much   good day
      'What a beautiful day it was!'   (said to a friend)

Add-Agr is also found in imperatives. However, not in type where the subject is 2nd person. [6] It is found on those imperatives where the subject is not in 2nd person, as in (26).

(26) *Koii   na   pahilaa laaine me baiTh-au*
      somebody NEG first   line   in sit-3-NHS.NHA
      'Nobody sit in the first row!'   (ordered to a friend)

3.2.2   Magahi Addressee Agreement in Embedded Clauses

Moving on to embedded contexts, Add-Agr is freely available in any sort of finite embedded clause. It is available in the complement of a speech predicate as in (27), a thought predicate as in (28), a predicate of knowledge as in (29), a perceptual predicate as in (30), and a non-bridge verb as in (31).

(27) Speech predicate

      *Santeeaa kahl-au   ki   Banteeaa bhag gel-**au**.*
      Santee.FM said-3-NHS.NHA COMP Bantee.FM escape went-3-NHS.NHA
      'Santee said that Bantee ran way.'   (said to a friend)

---

6. This is not surprising but consistent with the generalization presented in (17), according to which Add-Agr is ruled out by the 2nd person agreeing subject.

(28)   Thought predicate

    *Santeeaa sochl-au   ki   Banteeaa   bhag   ge-l-**au**.*
    Santee.FM thought-FM COMP Bantee.FM escape went-3-NHS.NHA
    'Santee thought that Bantee ran away.'   (said to a friend)

(29)   Predicate of knowledge

    *Santeeaa jaanl-au   ki   Banteeaa   bhag   ge-l-**au**.*
    Santee.FM knew-3-NHS.NHA COMP Bantee.FM escape went-3-NHS.NHA
    'Santee knew that Bantee ran away.'   (said to a friend)

(30)   Perceptual predicate

    *Santeeaa sunlai-au   ki   Banteeaa   bhag   gel-**au**.*
    Santee.FM heard-3-NHS.NHA COMP Bantee.FM escape went-3-NHS.NHA
    'Santee heard that Bantee ran away.'   (said to a friend)

(31)   Non-bridge verb

    *Santeeaa chilal-au   ki   Banteeaa   bhag   gel-**au**.*
    Santee.FM shouted-3-NHS.NHA COMP Bantee.FM escape went-3-NHS.NHA
    'Santee shouted that Bantee ran away.'   (said to a friend)

Moving away from complement clauses, Add-Agr is also available in all kinds of adjunct clauses as in (32), relative clauses as in (33), and in noun complement clauses as in (34).

(32)   Adjunct clause

    a. *Santeeaa ail-au   jab   Banteeaa   chal   ge-l-au.*
       Santee.FM came-3-NHS.NHA when Bantee.FM walk went-3-NHS.NHA
       'Santee came when Bantee left.'   (said to a friend)

    b. *Santeeaa ghare rukl-au   taaki   Banteaa   bimaar na paR-au.*
       Santee.FM home stayed-3-NHS.NHA so-that Bantee.FM sick   not fallen-3-NHS.NHA
       'Santee stayed home so that Bantee would not get sick.'   (said to a friend)

(33) Relative clause

   a. *Laikwaa [je   uhaaN khaRaa h-**au**]   hamar bhaai   h-au*
       Boy.FM   REL.PRO there   stand be-3-NHS.NHA my   brother be-3-NHS.NHA
       'The boy who is standing there is my brother.'   (said to a friend)

   b. *Laikwaa [je   roj   kalaas aawa ha-l-**au**]   u   bimaar ho gel-au*
       Boy.FM   REL daily class   come be-PRF-3-NHS.NHA DEM sick   be went-3-NHS.NHA
       'The boy who used to come to the class everyday has fallen sick.'   (said to a friend)

(34) Noun complement clause

   *Aphawaah [ki   Santeeaa   inaam jitl-**au**]   sahii ha-l-au*
   rumor   COMP Santee.FM prize won-3-NHS.NHA true be-PRF-3-NHS.NHA
   'The rumor that Santee won the prize was true.'   (said to a friend)

3.2.3   Addressee Agreement is Impossible in Non-Finite Contexts

The one syntactic context where Add-Agr is impossible in Magahi is non-finite clauses. Example (35) indicates that neither the embedded infinitival verb *jaayel* 'to go' in (35a) nor the gerundival verb *dhekhe* 'seeing' in (35b) can be inflected for Add-Agr.

(35) a. *Santeeaa   jaayel/*jaayel-au chah-l-i-au.*
           Santee.FM go.INF   wanted-3-NHS.NHA
           'Santee wants to go.'   (said to a friend)

   b. *Ham okaraa   dhekhe-se/*dekhe-au-se bachl-i-au.*
       I   him.DAT seeing-INST   avoided-1-3-NHS.NHA
       'I avoided seeing him.'   (said to a friend)

Example (36) shows that neither the DP *i laikwaa* 'this boy' or the sentential negation particle can be inflected for Add-Agr in Magahi. This contrasts with Tamil where Add-Agr can be found on non-verbal items, as in (37), from McFadden (2017).

(36) a. *I   laikawaa-*au/*o/*ain*
          this boy-NHA/HA/HHA
          'this boy' (e.g. as answer to 'who's next?')

      b. *na-*au/*o/*ain*
          no-NHA/HA/HHA
          'No' (as answer to polar question)

(37) a. *Indæ payyan-ŋgæ*
          this   boy-A
          'this boy' (e.g. as answer to Who's next?)

      b. *illæ-ŋgæ*
          no-A
          'No' (as answer to polar question)

Summing up, Magahi is notably different from other addressee marking languages such as Basque (Oyharçabal 1993), Japanese (Miyagawa 2012, 2017), and Korean (Portner et al. 2019a) in that it shows a strong link between finiteness and Add-Agr.[7] The next subsection proposes an analysis to explain how finiteness licenses Add-Agr.

3.3 The Proposal

I treat Magahi addressee marking as a form of agreement, on a par with subject agreement. Following Miyagawa (2012, 2017) and others, who analyze addressee marking as agreement, I assume that there is a covert but syntactically expressed representation of the person to whom a sentence is addressed and a functional head F in the clause agrees with it. However, I propose that Add-Agr occurs in the FinP domain (in Rizzi's (1997) cartographic structure) in Magahi. In this, I follow

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7. Such wider distribution has also been recently noticed in Galician and some southern Basque varieties by Haddican (2020).

Bhadra (2018) who, in her analysis of evidentials in Bangla, proposes that there is covert syntactic representation of 'speaker' ('SP' here) and 'addressee' ('ADD' here) coordinates in every finite clause. Further, I postulate that the functional head that agrees with the ADD DP is also lower in the clause in Magahi. It is Fin, the head of FinP, a little bit above T and below the complementizer Force. Add-Agr takes place when Fin, which may have unvalued honorificity feature [uHON], agrees with ADD DP in its specifier. As already discussed, Magahi also has subject agreement which is the result of T with unvalued person feature [uP] and unvalued honorificity feature [uHON] agreeing with the subject DP. The mechanism of both subject agreement and Add-Agr is illustrated in (38).

Add-Agr is achieved without the crucial environment of speech act phrase (SAP, Speas and Tenny 2003) in Magahi. [89] This contrasts with previous proposals where addressee is one of the coordinates exclusively of a higher projection such as an SAP or a context phrase (cP, Portner's et al 2019a). [10]

---

8. In Magahi, like Hindi and some other Indo-Aryan languages, a complementizer appears to the left of the clause while other clausal heads are to the right. Thus, in the structure above, I assume, mixed headedness where Force is head initial but other heads are head final.

9. There could be speech act phrase (SAP), Topic and Focus phrase in the left periphery which are not mentioned explicitly in the structure for simplicity. See section 4 for a discussion of SAP.

10. I will be using SAP as a cover term for this high category.

(38)

ForceP
├── Force
└── FinP
    ├── SP
    └── Fin′
        ├── ADD$_{[iHON]}$
        └── Fin′
            ├── TP
            │   └── T′
            │   ├── vP
            │   │   ├── DP$_{[iP,iHON]}$
            │   │   └── v′
            │   │   ├── VP
            │   │   └── v
            │   └── T$_{[uP, uHON]}$
            └── Fin$_{[uHON]}$

SUBJECT AGREEMENT

ADDRESSEE AGREEMENT
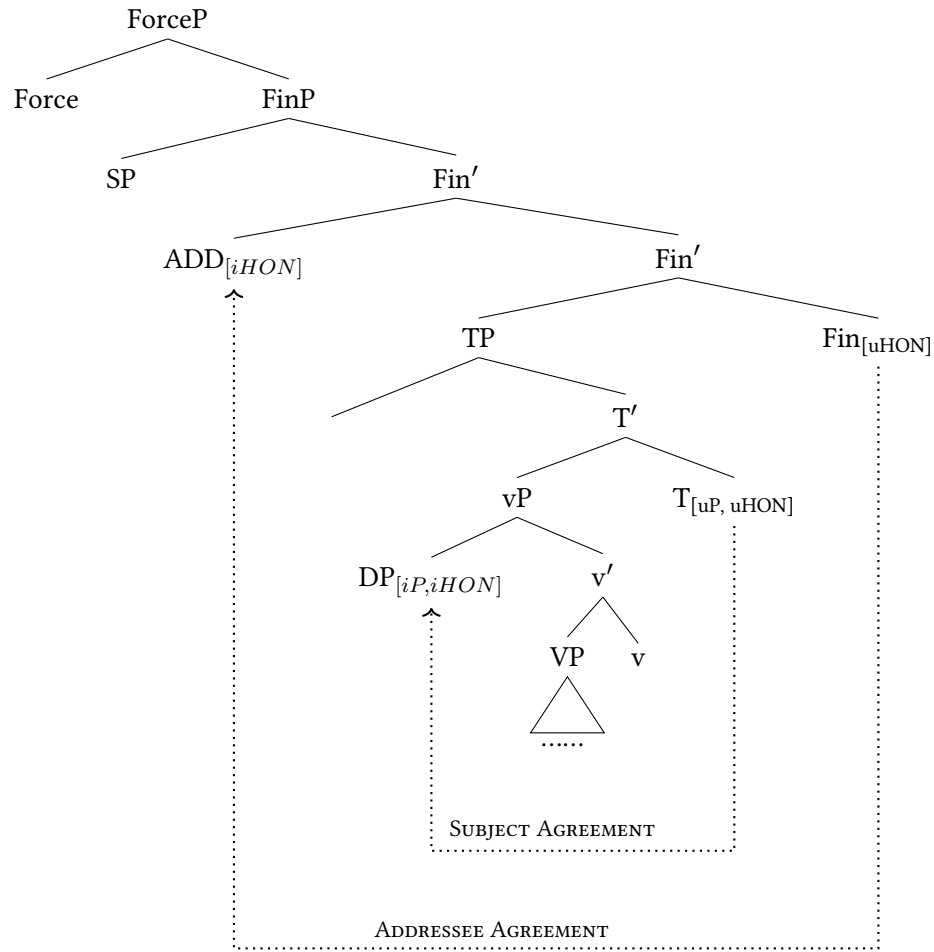
Now, let us see, briefly, how the agreement morphemes are realized in the given structure (38). A detailed analysis within the *Distributed Morphology* framework is presented in subsection 3.4. In (38), T host features related to subject agreement and Fin hosts features related to Add-Agr. I propose the following rules which are responsible for the phonological realization of these features.

(39) a. T → [P, HON]

b. Fission : T → T$_{[P]}$ + T$_{[HON]}$ / _ [-addressee]

c. Fusion : T$_{[HON]}$ with Fin$_{[HON]}$

The rule (39a) realizes the person (P) and honorificity (HON) feature on T. The fission rule (39b) splits off the honorificity feature from T when the person feature on T has a negative value for the addressee feature . These two rules explain the fact that person and honorificity features of the subject are compositional in 2nd persons (e.g., *-eN, -a, -thi(n)* and decompositional in 1st and 3rd persons (e.g., *i-ai* and $\varnothing$*-ai/thi(n)*). The fusion rule (39c), on the other hand, triggers the fusion of honorificity features of T and Fin. Given that Add-Agr is optional, it is applied only when the honorificity feature is present on Fin. That is, in the presence of Add-Agr, the subject honorificity feature and Add-Agr are fused. This is clearly seen in 1st and 3rd person subjects. Given (21), Add-Agr is ruled out in 2nd person subjects. Thus, the rule (39c) does not apply in case of 2nd person subjects. Moreover, the two rules are ordered such that the fission rule (39b) applies prior to the fusion rule (39c).

Some remarks before we close this section. The first remark is on the feature checking mechanism that I have adopted. I allow Fin head to probe upward. In the recent literature, there is an interesting debate on the directionality of Agree. Three kinds of views have been proposed; one can be called upward valuation, where the probe always c-commands the Goal (Chomsky 1995, 2000, 2001, et seq), the second can be called downward valuation, where the goal always c-commands the probe (Zeijlstra 2012, Wurmbrand 2012, 2014); the third can be called variable valuation, where the goal can c-command or be c-commanded by the probe (Baker 2008, Fernández & Albizu 2000, Rezac 2003, Béjar & Rezac 2009). I adopt Béjar and Rezac's (2009) view under which a probe looks in its c-command domain (e.g. downward) first and if it does not find any suitable goal, it probes upward. Moreover, I also assume that the upward probing is limited to the maximal projection under m-command. The idea here is that T probes downward in its c-command domain and checks its feature against the subject and makes the subject inactive in the derivation. When Fin looks downward in its c-command domain, it does not find a suitable

goal due to *defective intervention effect* (Chomsky 2000, 2001); the inactive subject DP intervenes between Fin and another goal in its c-command domain. Fin then looks upward and checks its feature against the ADD DP.

The second remark is on the optionality of Add-Agr in contrast to subject agreement which is obligatory. I follow the idea that agreement is keyed to EPP feature (Alexiadou and Anagnostopoulou 1998; Baker 2003, Biberauer and Richards 2008 a.o). Furthermore, T is unique in that it is associated with obligatory EPP feature universally, probably because of Extended Projection Principle (Chomsky 1982 et seq.), while other heads can be assigned the EPP feature optionally. The head T thus has obligatory EPP feature in Magahi. So, Magahi has obligatory subject agreement. The head, Fin, on the other hand, is assigned EPP feature optionally. So, Magahi has optional Add-Agr (see Alexiadou and Anagnostopoulou (1998) for different ways to satisfy the EPP feature of a head and see Baker (2003) for the analysis of optional object agreement in Kinande). The optional EPP feature has been argued to have some extra interpretations. This is true for Add-Agr in Magahi if we compare it with subject agreement. I addition to mark the honorific relation between the speaker and the addressee, Add-Agr also marks solidarity with the addressee. Subject agreement, on the other hand, only marks the honorific relation between the speaker and the subject of the clause.

3.4   Analysis of Agreement Morphemes in Distributed Morphology

Let us remind ourselves about the agreement morphemes first. We saw that Magahi finite verbs encode person and honorificity features of the subject. In case of 1st and 3rd person, they are bi-morphemic while in the case of 2nd person, they are fused. This is shown in Table-3.3.

Subject	NH	H	HH
1st Person	-i-(a)i	–	–
2nd Person	-eN	-a	-thi(n)
3rd Person	∅-ai	∅-thi(n)	∅-thi(n)

Table 3.3: Person and honorificity agreement with subjects

Further, we saw that Magahi finite verbs may display agreement with the honorificity of the addressee as well. Most interestingly, subject honorificity interacts with addressee honorificity and they combine morphosyntactic features for spell out. Table-3.4 presents the honorificity agreement morphemes in the language.

Subject	Addressee			No addressee
	NH	H	HH	
NH	-au	-o	-ain	-ai
H	-thu(n)	-thu(n)	-thi(n)	-thi(n)
HH	-thu(n)	-thu(n)	-thi(n)	-thi(n)

Table 3.4: Honorificity agreement morphemes in Magahi

To account for the observed Magahi pattern in the distributive morphology (DM) framework (Halle and Marantz 1993, 1994; Embick and Noyer 2001; and others), I assume the following abstract features that play a role in syntax: speaker feature, addressee feature, hon feature, high

feature, all of which can have either positive (+) value or negative (-) value, as in (40). The different combinations of speaker feature and addressee feature gives 1st, 2nd, and 3rd persons, as illustrated in (41), and the different combination of hon feature and high feature gives us NH, H, and HH features, as exemplified in (42).

(40)   Features in the Syntax: [P(ERSON), HON(ORIFICITY)]

    a.   [P] = [±addressee, ±speaker]

    b.   [HON] = [±hon, ±high]

(41)   a.   [+speaker, −addressee] = 1st person

    b.   [−speaker, +addressee] = 2nd person

    c.   [−speaker, −addressee] = 3rd person

(42)   a.   [−high, −hon] = NH

    b.   [−high, +hon] = H

    c.   [+high, +hon] = HH

    d.   [+high, −hon] = undefined

Now let us try to understand the agreement morphemes. I assume that the abstract features associated with subject agreement (e.g., person and honorificity) are on T and the features associated with Add-Agr (e.g., honorificity) are on Fin. This is schematized in (43a) and (43b). The *fission* rule in (44) splits-off the [HON] feature from [P], when [P] has other than [+addressee] feature. In other words, [HON] feature is split-off from 1st person and 3rd person but it does not appear as a split-off morpheme with a 2nd person (see rule (39b), which says the same thing but is represented differently). The *fusion* rule in (45) triggers the fusion of honorificity feature that is split-off from the person feature on T with the honorificity feature associated with Fin. Needless

to say, the fusion rule is applied after the fission rule. I assume that the fusion is a result of when THON and FinHON undergo m-merger.

(43) Assumption: subject agreement features are on T and Add-Agr features are on Fin, as illustrated in (a) and (b).

<div style="text-align:center">

a.   T   b.   Fin

[P, HON]   [HON]

</div>

(44) Fission

$$T \rightarrow T_{[P]} + T_{[HON]}$$

[HON], unless the [HON] is part of [+addressee]

(45) Fusion: $T_{[HON]}$ with $Fin_{[HON]}$

(46) present the *vocabulary insertion* (VI) rules. Rules (46a)-(46d) represent the subject agreement morphemes: in (46a) and (46b), all the abstract features get the phonological exponents at T while, in (46c) and (46d), honorificity feature is split-off from the person feature. They thus get the phonological exponents separately. The vocabulary rules (46e)-(46h) are the result of the fusion of honorific feature of the subject and addressee (I represent the feature set as an ordered pair where the first feature set of the pair represents the feature associated with the subject while the second set of the pair represents the feature associated with the addressee). The morpheme *-thi(n)* is treated as an elsewhere case.

(46) VI rules for Magahi agreement:

    a. T[+addressee, −speaker, −hon, −high] ↔ *eN*

    b. T [+addressee, −speaker, +hon, −high] ↔ *a*

    c. T[+speaker, −addressee] + [−hon, −high] ↔ *i-ai*   (split-off [HON] by (44))

    d. T[−speaker, −addressee] + [−hon, −high] ↔ ∅-*ai*   (split-off [HON] by (44))

    e. [{−hon}, {−hon}] ↔ *-au*   (fusion of Fin[HON] with Fin[HON], by (45))

    f. [{−hon}, {+hon, −high}] ↔ *-o*   (fusion of Fin[HON] with Fin[HON], by (45)

    g. [{−hon}, {+high}] ↔ *-ain*   (fusion of Fin[HON] with Fin[HON], by (45))

       [{+hon}, {−high}] ↔ *-thu(n)*   (fusion of Fin[HON] with Fin[HON], by (45))

    h. elsewhere ↔ *thi(n)*

Taking a closer look at Table-3 and Table-4, we can identify the following two cases of syncretism. First, the honorificity combination of the subject and addressee are syncretic in the combination of H/HH subject and NH/H addressee. In all these four combinations, there is a single morpheme *-thu(n)*. Second, the honorificity combination of the subject and addressee are syncretic in the combination of H/HH subject with HH addressee which is further syncretized with the H/HH subject and 2nd person HH subject. In all these five cases, there is a single morpheme *-thi(n)*.

3.5 Some Predictions

The current system ties Add-Agr with subject agreement and finiteness and proposes that the locus of Add-Agr is lower in the clause. This predicts the following for Magahi:

- There should not be any significant interaction between complementizer-like heads and Add-Agr since Add-Agr occurs lower in the clause. I show in section 3.5.1 that this prediction is also borne out.

- Add-Agr should be closely related to subject agreement since the honorificity feature on T and Fin are realized together.

I will examine the distribution of Magahi subject agreement and Add-Agr in section 3.5.2 and shows that this is correct as well.

3.5.1 No Interaction between Addressee Agreement and C-like Elements

Magahi differs significantly from the existing analysis of standard Basque, where interaction between complementizer and Add-Agr has been noted (Oyharçabal 1993). In Basque, Add-Agr is found only in matrix declarative sentences, not in matrix questions or embedded clauses. Oyharçabal (1993) and Miyagawa (2012, 2017) argue that this is because Add-Agr crucially involves the complementizer head C, and the lexically filled C and C with the +WH feature cannot host the relevant addressee feature. As we can see from the Magahi examples (cf. (27)-(34)), Add-Agr is possible with various complementizer-like elements in Magahi. It is possible in the presence of higher C-like elements e.g., the complementizer *ki* (cf. (27)-(31)), a wh-adverbial *jab* 'when' (cf. 32a), a purpose clause marker *taaki* (cf. 32b), and a relative operator *je*, (cf. 33). In addition, consider example (47), which is an example of Add-Agr in an embedded polar question. There are two overt C-like elements here: the complementizer *ki* and the polar question particle *kaa*. As we see, Add-Agr is entirely possible in the presence of these elements.

(47) *Ram puchh-l-ai   **ki**   Santee-aa ja-t-**au**   **kaa**?*
      Ram ask-PRF-3-NHS COMP Santee-NH go-FUT.3-NHS.NHA PQP
      'Ram asked if Santee would go.'

3.5.2 Closeness of Addressee Agreement and Subject Agreement

Another claim that the proposed mechanism makes is that Add-Agr should have a similar distribution to subject agreement in Magahi. This is in fact true. In constructions where both the

participle and auxiliary are present, agreement sometimes shows up on the auxiliary and some-
times on the participle. However, regardless of this variation, whichever element bears the subject
agreement also bears Add-Agr. For example, in the case of imperfective aspect such as habitual
or progressive, both kinds of agreement are on the auxiliary and cannot appear on the verb. [11]

(48) a. *Ham kitaab paRh-a-(*-i-au) h-i-au.*
          I   book   read-HAB   be.PRES-1-NHS.NHA
          'I read a book.'   (said to a friend)

      b. *Ham kitaab paRh-it-(*-i-au) h-i-au.*
          I   book   read-PROG   be.PRES-1-NHS.NHA
          'I am reading a book.'   (said to a friend)

Inperfective, the agreement can appear either on the participle or on the auxiliary, as in (49). I
show here with present perfective.

(49) a. *Ham uhaaN ge-l-i-au   he.*
          I   there   go-PRF-1-NHS.NHA be.PRES
          'I have gone there.'   (said to a friend)

      b. *Ham uhaaN ge-l   h-i-au.*
          I   there   go-PRF be-PRF-1-NHS.NHA
          'I have gone there already.'   (said to a friend)

Example (50) shows that the agreement cannot appear on both participle and auxiliary simulta-
neously.

(50) **Ham ge-l-i-au   h-i-au.*
       I   go-PRF-1-NHS.NHA be-1-NHS.NHA

---

11. The possibility of split agreement with subject agreement on the verb and Add-Agr on the auxiliary or vice versa
is impossible as well.

Both examples (a) and (b) in (49) are similar in that they are in perfective aspect. However, they have different interpretations. Example (49b) has a stative flavor, meaning 'I have gone there' in the sense that 'I have had experience of being there'. Moreover, as Verma (2003:512) also noted, when the agreement appears on the auxiliary in transitive clauses, we see another change; the perfective participle has form *-le*, as in (51), as opposed to *−(a)l* in (49).

(51) *Ham ii   chiij khaile h-i-au.*
     I   this thing eat-PRF be-1-NHA
     'I have eaten this thing'   (said to a friend)
     Int: I have had experience of eating this thing.

Interestingly, the neighboring language Hindi uses an extra (light) verb in the verbal sequence to express the same meaning, as in (52) and (53).

(52) a. *MaiN wahaaN ga-yaa   huN*
        I   there   go-PRF.M.SG be.1.SG
        'I have gone there.'

     b. *MaiN wahaaN gayaa   **huaa**   huN*
        I   there   go-PRF.M happen-PRF.M be.1.SG
        'I have gone there.'
        Int: 'I have had experience of being there'

(53) a. *MaiN-ne ye   chiij khaaii   hai.*
        I-ERG   this thing eat-PRF.F be.3
        'I have eaten this'

     b. *MaiN-ne ye   chiij khaaii **huii**   hai.*
        I-ERG   this thing eat-PRF.F happen-PRF.F be.3
        'I have eaten this'
        Int: 'I have had experience of eating this thing.'

The literature makes a distinction between *strong phase* vs. *weak phase* (Chomsky 2000, 2001). It has been argued that a vP phase with imperfective aspect has different characteristics from a vP phase with perfective aspect. Hardwood (2013) claims that progressive aspect creates a phase domain though not perfective aspect (see also Butler 2004; Henry & Cottell 2007 for the claim that aspectual projections may constitute separate clause internal phases, and see Bobaljik & Wurmbrand 2005; Bošković 2005, Den Dikken 2007; Gallego & Uriagereka 2007; Gallego 2010; Despic 2011; Takahashi 2010, 2011; Wurmbrand 2012 for the claim that phases are sensitive to the syntactic environment). Recent literature on split ergative also makes a distinction between imperfective and perfective aspect (Baker 2015, Coon and Preminger 2017), arguing that imperfective aspect divides the clause into two domains for the purpose of case assignment while perfective aspect does not make a such division. I follow this line of research. I assume that imperfective aspect creates a strong phase. However, I argue that not all perfective aspects create weak phases. I propose that in (49a), the vP phase is a weak phase but in (49b), where perfective aspect has a stative flavor, vP is a strong phase. Further, I assume that the agreement morpheme in Magahi is PF sensitive and propose the following phase-based PF filter rule that applies after vocabulary insertion and affects the pronunciation of agreement morphemes. [12] Examples (55)-(57) exemplify the structural representation.

(54) PF filter for Magahi agreement:

Pronounce agreement on T head iff the vP phase is a strong phrase, otherwise, on the aspect head.

a. [Agreement$_T$] / _____ strong vP phase

b. [Agreement$_{Asp}$] / _____ weak vP phase

_____

12. That is, as proposed before, probes are always T and Fin. The rule in (54) only affects where the agreement morpheme is pronounced.

(55)   Structure for (48): Imperfective aspect, a strong phase: Agreement on T head
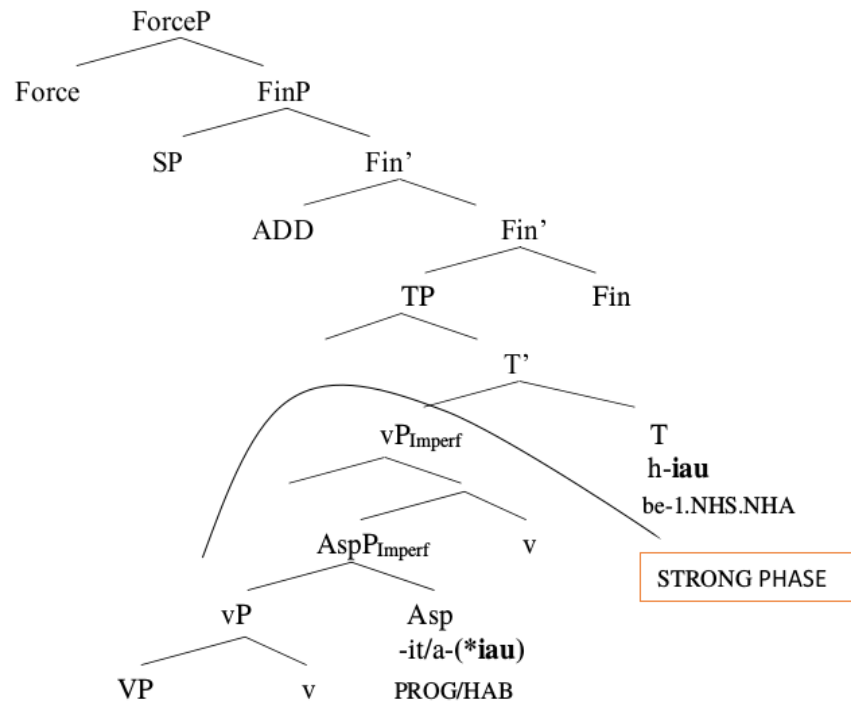
(56) Structure for (49b): Perfective aspect but a strong phase: Agreement on T head

As we saw, Add-Agr is found in all sorts of embedded finite clauses in Magahi. If Add-Agr only uses SAP, this would require that we need to posit SAP in every finite embedded clause in Magahi. Positing SAP in every embedded clause, just for the sake of Add-Agr, would however eliminate many differences which we wish to maintain between a root clause and an embedded clause. I thus follow the idea that SAP cannot be embedded unless the embedding environment is a quotation. In the next subsection, I present Dayal's (2020) work on (interrogative) complementation as supporting evidence for the claim for the unembeddability of SAPs (see also Zu 2018 for the claim that SAP cannot be embedded).

4.1 Un-embeddability of SAPs: Evidence from Complementation

An interesting study is done in Dayal (2019) who investigates (embedded) left periphery from the perspective of question formation. She argues that questions are formed at three different points at the left periphery: at the level of speech act phrase, at the level of force phrase, and at the level of complementizer phrase. An example of the first type is rising declarative questions in English, as in (58), which are formed by rising intonation with declarative syntax.

(58)   It is raining ↑   Rising declarative question

An example of the second type is the general strategy of question formation in English; matrix questions, which are formed with wh-fronting and Subject-Aux inversion with a particular intonation (called as QUES intonation) in English. Such questions can be sometimes embedded.

(59)   a.   Who will Sue see?   Matrix question, root phenomenon

      b.   Will Mary leave?

An example of the third type is embedded questions with subordinate syntax. These have +WH complementizer and wh-fronting but no Subject-Aux inversions or QUES intonation.

(60) a. John knows who Sue will see

  b. John knows whether /if Mary will leave.

Interestingly, some rogative predicates, those that obligatory select +wh complements, such as *depends on* and investigate take only embedded questions with subordinate syntax as a complement, as in (61). Some rogative predicates such as *the question is*, *ask*, and *wonder* can take embedded questions or matrix questions, as in (62).

(61) a. Whether Mary will leave/Who will leave depends on Sue.

  b. *[Will Mary leave ↑]/*[Will who leave↑] depends on Sue.

(62) a. The question is whether Mary will leave/who Mary will see.

  b. The question is, [will Mary leave?]/ [who will Mary see?]

However, rising declarative questions can never be a complement, not even to rogative predicates which can take questions with matrix syntax, as in (63). [13]

(63) a. *The question is, [it's raining ↑]   (Gunlogson 2003)

  b. She burst out, "it's raining ↑"

Dayal claims that SAPs never embed (contra Krifka 2015 a.o.). They can only ever be embedded as quotation. Dayal (2016, 2019) also gives independent evidence in support of her stand from the domain of adverbial particles. Consider example (64). In (64a), the use of adverbial quickly/quick indicates that the speaker of the clause wants the addressee to tell her name quickly. However, in the embedded context in (64b), quickly can only be interpreted as modifying the matrix verb, unlike (64a), and quick is ungrammatical.

---

13. A similar observation is made for wh-in-situ questions in Languages like French and English by Bobaljik and Wurmbrand (2014).

(64)   a.   Quickly/Quick, what's your name?   = give me the answer quickly.

      b.   Mary is asking [#quickly/*quick what's your name]

The reason for this root-embedded asymmetry is that these adverbs are speech act level particles and thus cannot be embedded unless it is a quotation as in (65).

(65)   Mary is asking, "quickly/quick what's your name?"

Dayal's claim that questions are formed at three different points at the left periphery: at the level of speech act phrase, at the level of force phrase, and at the level of complementizer phrase is argued to be true not just for English but to hold cross-linguistically. She argues that the same three-way distinction is found in Hindi and Japanese as well (see Dayal 2019 for details).

    I present one fact, related to the above discussion, that will be useful in establishing that Add-Agr in Magahi is not an SAP level phenomenon. Dayal shows that monocausal polar questions in Hindi are formed at the level of force phrase, as English matrix questions. This predicts that Hindi monocausal polar questions cannot be embedded under verbs such as 'depend on' but can be embedded under verbs which takes force phrase as their complement. This prediction is borne out. Monocausal polar questions in Hindi can be embedded under 'the question is', as in (66a) but they cannot be embedded under verbs such as 'depend on', as in (66b). [14]

(66)   a.   *savaal   yeh hai [ki   (kyaa) aapke-paas is   baat   kaa koii sabuut hai ↑]*
         Question this is   SUB PQP   you-near   this matter GEN any proof is
         "The question is, [do you have any proof of this?]

      b.   **[anu (kyaa) jaayegii ↑]   uskii   maaN par   nirbhar kartaa hai*
         Anu   PQP   go.FUT her mother on   depends do   is

---

14. Predicates such as 'depend on' allow embedding of polar questions but they must include an overt alternative (e.g., an overt disjunction with negation). Dayal (2016) and Bhatt and Dayal (2020) called them 'polar alternative question' (see Bhatt and Dayal 2020:9-10 for details).

Magahi is similar in this respect. Monocausal polar questions can be embedded under 'the question is' but cannot be embedded under 'depend on', as in (67), suggesting that *depends on* takes a smaller structure as complement. However, Add-Agr is possible in the complement of 'depend on', as shown in (68).

(67) a. *sawaal   ii   hai [ki   Santeeaa (kaa) jaitai↑]*
      Question this is   COMP Santee.FM PQP   go.FUT.3.NHS
      "The question is, will Santee go?

    b. **[Santeaa (kaa) jaitai↑]*   okar maaya par nirbhar kara hai.
      Santee   PQP go.FUT.3-NHS his mother on depends do   is.NHS

(68) [*Santeaa kekaraa-se milt-**au***]   okar maaya par nirbhar kar h-**au**.
    Santee   whom   meet.FUT.3-NHS.NHA his mother on depends do be-NHS.NHA
    'Who will Santee meet depend on his mother?'

This shows that the locus of Add-Agr is below the force phrase. This is in line with the proposal advanced in this chapter that the locus of Add-Agr is FinP in Magahi. There is, thus, an interesting question to address regarding the syntactic representation of speaker and addressee in both main and embedded clause structures and how they interact with Add-Agr cross-linguistically. I discuss this issue in the next section.

4.2   Cross-linguistic Variation in the Embeddability of Add-Agr

The earlier literature on Add-Agr argues that there is an SAP structure in main clauses which hosts the syntactic representation of speaker and addressee and is a locus of Add-Agr in a language. The current analysis of Magahi Add-Agr, on the other hand, argues that there is a representation of speaker and addressee in FinP domain. A natural question to ask is where the addressee is encoded in the structure. Is it in FinP as argued for Magahi here or is it in SAP as argued by

many others in the addressee marking literature and beyond? Assuming that the addressee can be encoded in one place in one language and in another place in other languages sounds like an unusual sort of parameter given that the addressee has the same semantic function across languages. I thus propose that there are SP and ADD DPs in both SAP and FinP domain in all languages. This is illustrated in (69). Cross-linguistic differences arise, I claim, because Add-Agr can be the result of different probes probing for the ADD DP in different domains.

(69)

```
                            SAP
                 ┌───────────┴───────────┐
               SP                        SA′
                              ┌───────────┴───────────┐
                            saP                        SA
                   ┌─────────┴─────────┐
                 ADD                   sa′
                            ┌───────────┴───────────┐
                         ForceP                      sa
                  ┌─────────┴─────────┐
                                   Force′
                            ┌─────────┴─────────┐
                          FinP                  Force
                   ┌────────┴────────┐
                  SP                 Fin′
                            ┌─────────┴─────────┐
                          ADD                  Fin′
                                      ┌─────────┴─────────┐
                                     TP                  Fin
                                    ╱──╲
                                   ......
```
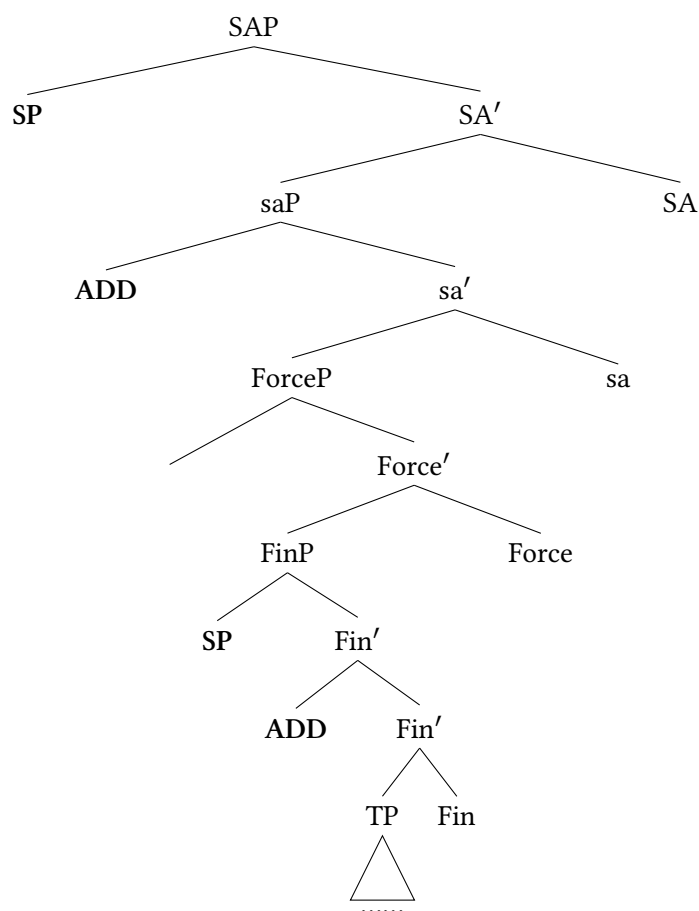
The representation of SP and ADD in SAP and FinP has two different motivations. Unlike the former case where these DP coordinates are present in the left periphery of any utterance by virtue

of that utterance being a speech act of one sort or another, in the latter case, they are related to finiteness. Thus, the lower instances of SP and ADD coordinates in FinP are present only in finite clauses. However, the two would be coindexed in a default configuration. Independent evidence in support for two instances of representation of the speaker and addressee comes from Bhadra (2018), as mentioned earlier. She argues that the distinction between speech act coordinates and finite clause coordinates helps us make crucial distinctions in evidential paradigms. Consider (70) in the scenario in which John is talking to Mary about the party that he attended yesterday for some time. (70a) is a regular assertion while (70b) is an assertation with a reportative evidential. The former case represents the default configuration, the SP-DP and ADD-DP of speech act and FinP have the same referents, SP-DP = John and ADD-DP = Mary, i.e. they are co-indexed, as shown below in the representation (70a). In the case of reportative evidential, they would be contra-indexed, i.e. they cannot be the same. John and Mary would be the SP-DP and ADD-DP of the speech act while the SP-DP of finite clause would be a third party (it cannot be John himself) and the ADD-DP would be John (he heard it directly, or he overheard it). [15]

(70) a. Ram sang at the party yesterday.

$[_{SAP}$ SP$_i$ ADD$_k$ SA $[_{ForceP}$ Force $[_{FinP}$ SP$_i$ ADD$_k$ Fin $[_{TP}$ Ram sang at the party yesterday]

SAP: SP = John, ADD = Mary

FinP: SP = John, ADD = Mary

---

15. This opens up an interesting new area to study, namely the interaction of evidentiality and Add-Agr that would be relevant for understanding the mechanics of both. Do we have a one to one correlation between evidentiality and Add-Agr i.e., when we have an assertion with a reportative evidential must we have Add-Agr with the FinP's ADD-DP or can we have a mismatch between evidentiality and Add-Agr i.e., agreement with the speech act ADD-DP is possible even if the sentence include a reportative evidential? If the former is the case, then the addressee marking with a reportative evidential, as (69b), should reflect the honorific relation between the speaker and addressee of the finite clause while in the latter case we could also have agreement with the SAP's ADD-DP. Unfortunately, in Magahi, we do not have dedicated evidential adverbs or particles such as "reportedly"/"naki" as in English and Bangla. Evidentiality is expressed in a periphrastic way by using a bi-clausal structure where other factors might play role. An in-depth study of this issue is a fascinating project which I must leave to the future.

b. Ram reportedly sang at the party yesterday.

[$_\text{SAP}$ SP$_i$ ADD$_k$ SA [$_\text{ForceP}$ Force [$_\text{FinP}$ SP $_{j,*i/k}$ ADD$_{i,*k}$ Fin [$_\text{TP}$ Ram sang at the party yesterday]

SAP: SP = John, ADD = Mary

FinP: SP = reporter = a third party, ADD = John

Coming back to the structure in (69), we have a root/main clause structure where both SAP and FinP are present. In the embedded contexts, on the other hand, only FinP would be available, assuming that SAP cannot be embedded. This makes an interesting prediction regarding main and embedded clause Add-Agr. First, consider main clauses. If a language involves SAP in Add-Agr, its realization should be the outermost element in the clause, or it should be positioned outside C-like elements, if there are any, in the clause, given the *mirror principle* (Baker 1985). This is what has been argued for Tamil, (71), in McFadden (2017). [16]

(71) *Niiŋæ saap-ṭ-aaččŭ-aa-ŋgæ?*
you.PL eat-ASP-RES-Q-ALLOC
'Have you eaten?' (McFadden 2017)

In Magahi, on the other hand, the addressee marker precedes the polar Q particle (PQP). This is expected if the locus of Add-Agr is lower in the clause, below force phrase, as argued for Magahi in this chapter (see Bhatt and Dayal 2020 for the analysis that PQP is a force level Q particle in Hindi-Urdu).

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16. According to Miyagawa (2012), Japanese addressee marker *-mas-* does not follow Baker's mirror principle. He claims that the Add-agr takes place higher in the clause but is pronounced lower in Japanese. He argues that the addressee feature is born at C and moves to SA head to agree with the HEARER (the syntactic representation of addressee) to yields Add-Agr. However, it is pronounced at T for a phonological reason (see Miyagawa for detailed argument). Recently, Akitaka (2019) shows that the marker appears even below T, namely NegP. He proposes a distributive morphology account in which Add-Agr takes place in the high left periphery region, but the marker is inserted below in the structure via Sprouting.

(72) *Santeaaa khaa le-l-**au**   kaa?*
    Santee.ꜰᴍ eat take-ᴘʀꜰ-3-ɴʜs.ɴʜᴀ ᴘǫᴘ
    'Did Santee eat?'

Moreover, if the language allows embedding of Add-Agr, Add-Agr would happen in the absence of SAP. This predicts that addressee marking must show up close to T and below C. Interestingly, Tamil does allow the embedding of Add-Agr and the marker appears below C. Compare the Tamil example (73) and (74) to the above Tamil example (72). In (72), the matrix clause, the addressee marker *ŋgæ* appears above the polar question particle *aa* while, in the embedded context in (73) and (74), it appears below the complementizer *nnǔ*.

(73) *Maya [avæ pooʈʈi-le   dʒejkkæ-poo-r-aaɭ-**ŋgæ**-nnǔ]   so-nn-aa.*
    Maya she contest-ʟᴏᴄ win-go-ᴘʀᴇs-3sꜰ-ᴀʟʟᴏᴄ-ᴄᴏᴍᴘ say-ᴘsᴛ-3sꜰ
    'Maya said that she would win the contest.'   (speaker being polite)

(74) *Maya_i [taan_{i,*j} pooʈʈi-le   dʒejkkæ-poo-r-een-ŋgæ-nnǔ]   so-nn-aa.*
    Maya ᴀɴᴀᴘʜ contest-ʟᴏᴄ win-go-ᴘʀᴇs-ɪs-ᴀʟʟᴏᴄ-ᴄᴏᴍᴘ say-ᴘsᴛ-3sꜰ
    'Mayai said that shei would win the contest.'   (Maya being polite to her addressee)

The description of Tamil in McFadden (2017) shows an even more revealing pattern, supporting the structure in (69). McFadden notices that in main clauses, addressee marking can appear either before or after the Q-particle. Compare (75) to the above example (71). Both examples are crucially a minimal pair (Tamil is pro-drop language so in (75), the subject is simply pro-dropped). They differ only with respect to the ordering of the addressee marking and the question particle: in (71) the addressee marking is above the question particle while in (75) the addressee marking is below the question particle.

(75) *saap-ʈ-aaččǔ-   ŋgæ-aa?*
    eat-ᴀsᴘ-ʀᴇs-ᴀʟʟᴏᴄ-ǫ
    'Have you eaten?

Moreover, the addressee marker can simultaneously appear at both places, as in (76).

(76) *niiŋæ saap-ʈ-aaččŭ-ŋgæ-aa-ŋgæ?*
      you.PL eat-ASP-RES-ALLOC-Q-ALLOC
      'Have you eaten?'   (McFadden 2017)

The doubling of addressee marking in the left periphery of Tamil clauses suggests that an individual language can use both higher and lower domain to manifest Add-Agr, as in (77). [17]

(77)

```
                            SAP
                   ┌─────────┴──────────┐
                  SP                    SA′
                              ┌──────────┴────────────┐
                            saP                      SA[uHON]
                   ┌─────────┴─────────┐              │
               ADD[iHON]              sa′            -ŋgæ
                  ⌃          ┌─────────┴──────┐
                           ForceP             sa
                    ┌────────┴────────┐
                                    Force′
                            ┌─────────┴──────┐
                          FinP             Force
                    ┌───────┴────────┐
                   SP               Fin′
                            ┌────────┴───────┐
                        ADD[iHON]           Fin′
                           ⌃         ┌───────┴──────┐
                                    TP          Fin[uHON]
                                    △               │
                                  ·······          -ŋgæ
                                  AGREE
                              AGREE
```

_____
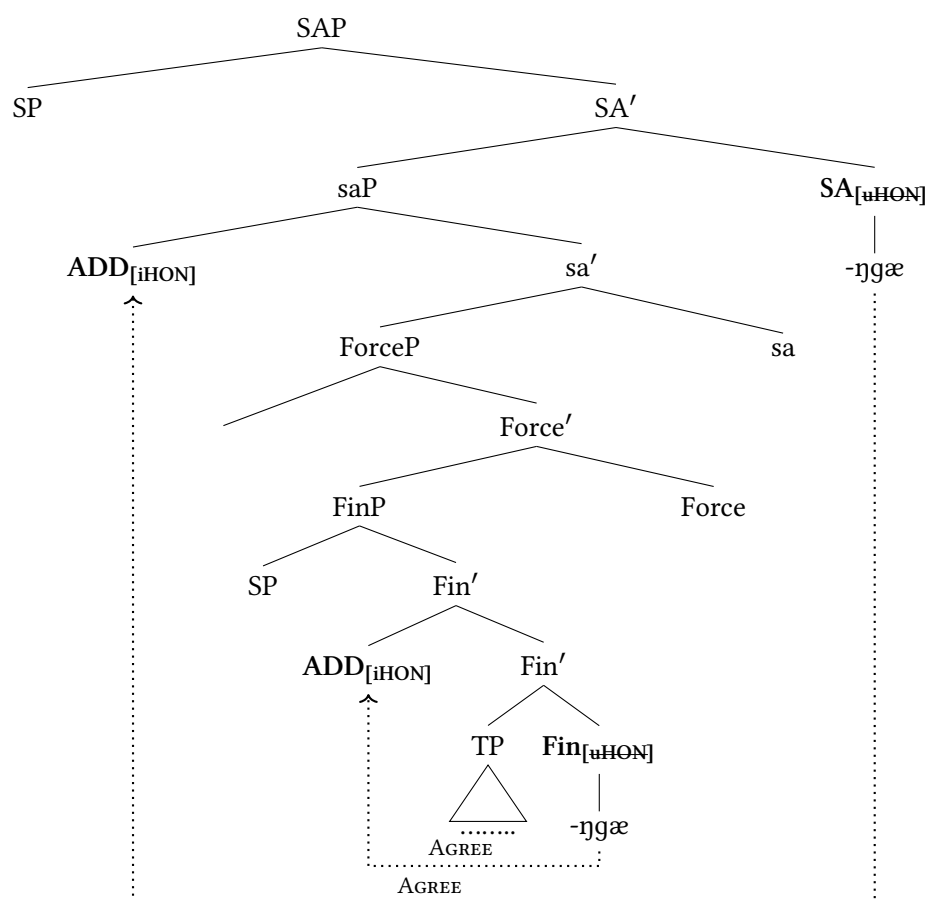
17. However, in Tamil, Add-Agr is not as widely found in complement clauses as it is found in Magahi. Tamil only allows Add-Agr on the complement clause of attitude predicates. I assume that Fin can only bear the relevant features under attitude predicates in Tamil.

Another revealing pattern that supports the claim that the locus of Add-Agr may be different in different languages is the contrast that we have seen in Tamil and Magahi in the distribution of Add-Agr. As we have noted, in Tamil, Add-Agr is found in fragment or elliptical utterances, while this is impossible in Magahi (cf. 36 and 37), repeated here as in (78) and (79).

(78) a. *Indæ payyan-ŋgæ*
        this   boy-HA
        'this boy' (e.g. as answer to Who's next?)

      b. *Illæ-ŋgæ*
        no-HA
        'No' (as answer to polar question)   (Tamil, McFadden 2017:12)

(79) a. *I   laikawaa-*au/*o/*ain*
        this boy-NHA/HA/HHA
        'this boy' (e.g. as answer to 'who's next?')

      b. *Na-*au/*o/*ain*
        no-NHA/HA/HHA
        'No' (as answer to polar question)

Merchant (2004) argues that fragment utterances have a full syntactic structure with some unpronounced part (the idea traces back to Morgan's (1973) seminal work, see also Hankamer 1979; Stanley 2000; Merchant 2001, 2013, Weir 2014). Merchant proposes that fragment answers, being a new information, are fronted to the clausal left periphery focus position followed by rest of the sentence being elided (e.g., not pronounced). A similar kind of analysis for yes/no responses is put forth in the literature, where a yes/no particle is argued to occupy the specifier of some higher position in the left periphery, with TP being elided (Holmberg 2013, 2016, the idea goes back to Laka 1990, also see Halliday & Hasan 1976; Holmberg 2001, 2013; Kramer & Rawlins 2011). These analyses predict that a language where the locus of Add-Agr is higher up in the clause structure,

above focusP (for example in SAP), can survive ellipsis, while a language where the locus of Add-Agr is relatively low in the clause structure, below FocusP (for example in FinP), Add-Agr cannot survive ellipsis. This is illustrated in (80).

(80)   Syntactic structure of fragment answers (strikethrough material between <> represents the elided material)

[$_{\text{SAP}}$ [$_{\text{ForceP}}$ this boy$_i$ < [$_{\text{FinP}}$ [$_{\text{TP}}$ t$_i$ ~~is next T~~] ~~Fin~~] >] Force] SA] (structure for 78a/79a)

Add-Agr is found in fragment answers and other types of elided structures in Tamil because SAP participates in Add-Agr, and this survives ellipsis. Moreover, the marker (e.g.,*ŋgæ*) seems to be a clitic. Thus, after surviving deletion, it can be pronounced on a word that it does not form a constituent with, as we see in (78a). In Magahi, on the other hand, the only locus of Add-Agr is FinP, which does not survive ellipsis. Magahi thus does not allow Add-Agr in fragment answers and such other elided structures.[18]

    Moving on, recall that Add-Agr is limited to root clauses in Japanese (Miyagawa 2012, 2017) and Korean (Portner et al 2019a). I propose that the agreeing probe is the SA head in these languages. Add-Agr is the result of SA probing and agreeing with the ADD-DP in the SAP domain. This is schematized in (81).[19] Since SAP is only found in root clauses, Add-Agr cannot be found in embedded context in these languages.

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18. I thank Troy Messick for suggesting me to bring this topic in the discussion.

19. This is different from Miyagawa (2012, 2017) who suggested that the features are born on C and moves to SA head.

(81)

```
                        SAP
                   /          \
                 SP            SA′
                           /        \
                         saP         SA[uHON]
                      /       \
               ADD[iHON]      sa′
                  ⌃        /      \
                  ┆    ForceP      sa
                  ┆    /     \
                  ┆         Force′
                  ┆        /      \
                  ┆     FinP      Force
                  ┆    /    \
                  ┆  SP     Fin′
                  ┆        /    \
                  ┆      ADD    Fin′
                  ┆            /    \
                  ┆          TP     Fin
                  ┆          /\
                  ┆         /__\
                  ┆       ........
                  ┆        AGREE
```
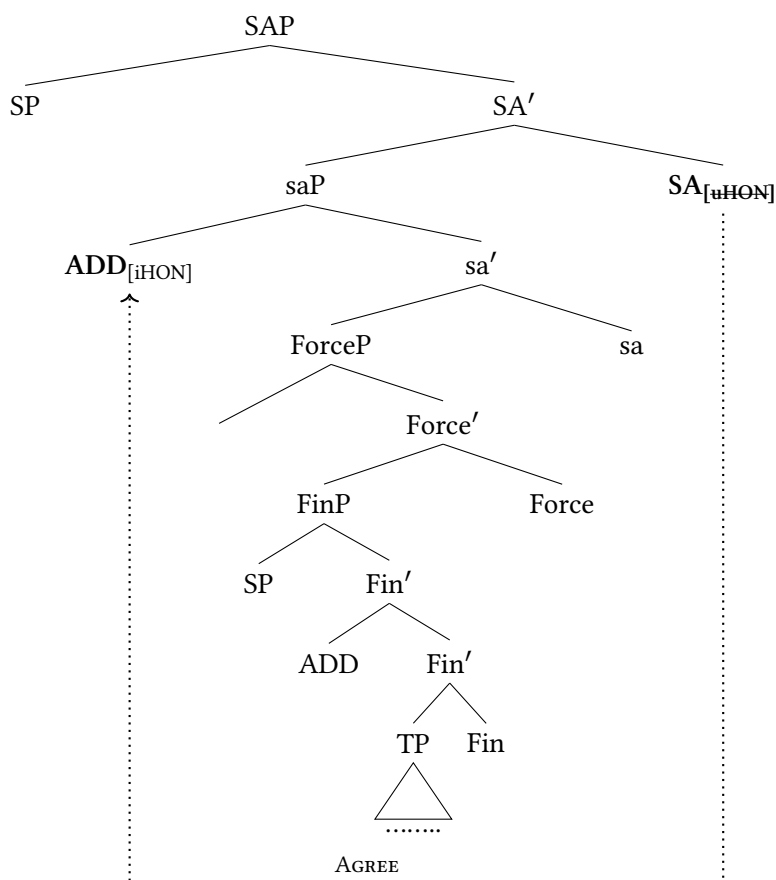
Let us consider Basque now. As we know from Oyharçabal (1993), Basque allows Add- Agr only in matrix declarative clauses. I follow Miyagawa (2012, 2017) in taking the agreeing probe to be empty Force (*C* in his terms) in Basque. In other words, Force is a probe in Basque if it does not bear any other feature such as [+wh] and is not occupied by a lexical item such as a complementizer which is invariant i.e. has no unvalued phi-features.[20] Thus, Force - which is

---

20. This assumes that Force can only bear one set of features at a time in Basque. Miyagawa gives one piece of evidence in support of this assumption. He mentions that Japanese allows C-recursion, but Basque does not. In Japanese, for example, a complementizer and a question particle can cooccur: *to-ka* 'C-Q'. This is impossible in Basque (see Miyagawa's 2013, footnote 10). This supports the idea that Force can bear multiple features in Japanese, but only one set of features at a time in Basque.

lexically filled by a complementizer or a wh-element or by its trace - does not bear any other feature and is unable to participate in Add-Agr. Consequently, there is no Add-Agr in questions. There is also no Add-Agr in embedded contexts in Basque because embedded Force is always lexical in Basque. The Basque Add-Agr mechanism is schematized in (82). Add-Agr is the result of the head 'force' agreeing with the ADD-DP in FinP domain.[21]

(82)

```
                        SAP
              ┌──────────┴──────────┐
             SP                     SA′
                          ┌──────────┴──────────┐
                         saP                     SA
                    ┌─────┴─────┐
                   ADD          sa′
                           ┌─────┴─────┐
                        ForceP          sa
                    ┌─────┴─────┐
                            Force′
                       ┌──────┴──────┐
                     FinP          Force[uHON]
                  ┌────┴────┐          ┆
                 SP        Fin′         ┆
                      ┌─────┴─────┐     ┆
                  ADD[iHON]      Fin′   ┆
                      ∧     ┌─────┴───┐ ┆
                      ┆    TP        Fin┆
                      ┆                 ┆
                      ┆.....AGREE.......┆
```

To summarize, the system presented here is flexible regarding what category could be a probe. It appears that this degree of variation is necessary to account for the differences that we see in Add-Agr within and across languages. The theoretical implication of the current study is that addressee is present in finite clauses in all languages; both where Add-Agr is widely distributed like Magahi, and where Add-Agr is more restricted like Basque, Japanese, and Tamil and even in languages where there is no Add-Agr at all such as English. The crosslinguistic differences come from which languages allow or do not allow a certain category to probe.

5   Conclusion

In this chapter, I looked at Add-Agr. I showed that Magahi finite verbs can manifest honorificity feature of the addressee in addition to the person and honorificity feature of the subject. Magahi thus stands with a fascinating group of languages where verbs show agreement with the addressee. Magahi addressee agreement is unique in two respects. First, addressee agreement is associated with finiteness; it is available in all finite clauses, main and embedded. Second, addressee agreement and subject honorificity are spelled out as a single agreement morpheme. I proposed that the locus of Add-Agr in Magahi is relatively low in the clause structure, FinP in Rizzi's (1997) cartographic structure. The proposal diverges from the previous analyses where the locus of addressee agreement is the highest projection of a clause, SAP or cP, found primarily in a root clause. This study has advanced our understanding of the grammatical representation of the addressee and the nature of the functional head that is involved in this phenomenon. An important theoretical implication of the current analysis is that the addressee is present in every finite clause. Cross-linguistic differences are due to the category of the probe in any given language.

Chapter 4

Indexical Shift in Magahi and its Interaction with Honorification

1   Introduction

This chapter investigates the indexical shift phenomenon (Schlenker 1999; 2003; Stechow 2003; Anand and Nevins 2004; Anand 2006; Sudo 2012; Shklovsky and Sudo 2014; Messick 2017; Sundaresan 2018; Deal 2017, 2019). Indexical shift has not generally been seen in terms of syntactic principles used for agreement phenomena. By considering indexical shift along with honorification, I show that there is a significant syntactic component to it (Shklovsky & Sudo 2014, Messick 2017, 2020). The evidence for the claim comes from the following:

(1)   There is morphosyntactic interaction between indexical shift and honorification. The details of honorification show that: (i) there are null DPs, SP and ADD, in the periphery of finite clauses that denote the speaker and addressee (cf. chapter 2 & 3), (ii) these DPs bind 1st and 2nd person pronouns in their local domain (cf. chapter 2 & 3), and (iii) these DPs can be themselves bound by the arguments of a superordinate verb (this chapter).

I will argue that taking all the three properties together gives us an account of indexical shift where no distinct "monstrous" operators qua C-like heads are needed. We will see that: (i) the distribution of indexical shift is closely related to the distribution of Add-Agr across various clause types and configurations, and (ii) in the presence of indexical shift, Add-Agr and pronominal honorification must also shift, as the theory proposed here predicts.

(2) The syntactic notion of 'subject' and 'object' is relevant in shifting of 1st person and 2nd person pronouns in Magahi; when a 1st person pronoun shifts, it refers to the higher subject and when the 2nd person pronoun shifts, it refers to the higher object, regardless of their thematic role.

The chapter is structured as follows: Section 2 examines Add-Agr in embedded contexts. The section shows that under triadic verbs like 'tell' Add-Agr in the complement clause can be shifted. Section 3 deals with interaction between honorification and indexical shift. Tests are used to demonstrate that the shifted reading is an instance of true indexical shift rather than a direct quotation. An analysis is presented in section 4, based on the claims given in (3) and (4).

The chapter is structured as follows: Section 2 examines Add-Agr in embedded contexts. The section shows that under triadic verbs like 'tell' Add-Agr in the complement clause can be shifted. Section 3 deals with interaction between honorification and indexical shift. Tests are used to demonstrate that the shifted reading is an instance of true indexical shift rather than a direct quotation. An analysis is presented in section 4, based on the claims given in (3) and (4).

(3) The so-called 1st and 2nd person pronouns are "minimal pronouns". They inherit their person features by being bound by the local SP and ADD coordinates (Baker 2008).

(4) a. Source for the Unshifted Reading
        The functional head Fin is a variable binder that binds person features. When the higher Fin binds the embedded Fin, the embedded SP and ADD are referentially depend on the higher SP and ADD and represent the utterance speaker and addressee. Any embedded 1st person pronoun thus denotes the utterance speaker and a 2nd person pronoun denotes the utterance addressee (cf. 3), yielding unshifted readings.

b.   Source for the Shifted Reading

Attitude verbs are variable binders that bind person features. When the attitude verb binds the embedded Fin, the embedded SP and ADD are referentially depend on the higher subject and object, respectively. Any embedded 1st person pronoun thus refers to the higher subject and a 2nd person pronoun refers to the higher object (cf. 3), yielding shifted readings.

Section 5 presents evidence in favor of the claim that embedded SP and ADD always need to be bound and evidence in favor of the claim that the syntax of higher clause plays a role in indexical shift. Section 6 discusses two of the most prominent alternatives, considering to what extent they can or cannot account for the Magahi facts. Section 7 concludes the chapter.

2   Honorification in Embedded Contexts

In the last chapter, I discussed Add-Agr, where we saw that a crucial property of Magahi Add-Agr is that it is freely available in any sort of finite embedded clauses. All the examples we have seen so far (cf. Chapter 3), Add-Agr encodes the honorific status of the addressee of the whole sentence (e.g., utterance addressee). Some representative examples are given in (5). Example (5) is uttered to a friend. Thus, we have NH addressee marker *-au* on the higher verb 'thought' as well as on the embedded verb 'went' in (5a) and on the higher verb 'knew' as well as on the embedded verb 'went' in (5b). [1]

(5)   a.   *Santeeaa   sochl-**au**   ki   Banteeaa   bhag   ge-l-**au***
           Santee.FM thought-3-NHS.NHA COMP Bantee.FM escape went-3-NHS.NHA
           'Santee thought that Bantee ran away.'   (said to a friend)

---

1. As we have seen in the previous chapter, Add-Agr and subject honorification are fused as a single agreement morpheme in Magahi. However, in the glosses in this chapter, I have indicated only the honorific status of the addressee, for presentational simplicity. Thus, the morpheme *-au* is glossed NHA, rather than NHS.NHA

b. *Santeeaa jaanl gel-**au** ki Banteeaa bhag ge-l-**au***
   Santee.FM know went-3-NHS.NHA COMP Bantee.FM escape went-3-NHS.NHA
   'Santee knew that Bantee ran away.'   (said to a friend)

With verbs which are subcategorized for just one individual, namely "dyadic verbs", this is the only possibility. But a verb which takes a goal argument as well, namely "triadic verbs", such as 'tell', another possibility arises: Add-Agr can express the honorific status of the utterance addressee, but it is also possible for Add-Agr to express the honorific status of the higher goal argument. I will refer to the former as unshifted Add-Agr and the latter as shifted Add-Agr. Consider (6), which is spoken to a teacher by his student (John) about Santee and Bantee who are friends among themselves.

(6) a. *Santeeaa Banteeaa-ke kahl-ain ki Ram Sita-se baat kart-**ain***
       Santee.FM Bantee.FM-DAT told-HHA COMP Ram Sita-INT talk do.FUT-NHA
       'Santee told Bantee that Ram will talk to Sita.'   (said to a teacher)

    b. *Santeeaa Banteeaa-ke kahl-ain ki Ram Sita-se baat kart-**au***
       Santee.FM Bantee.FM-DAT told-HHA COMP Ram Sita-INT talk do.FUT-NHA
       'Santee told Bantee that Ram will talk to Sita.'   (said to a teacher)

In (6a), both the higher verb and the embedded verb bear HH addressee marking, referring to the honorific status of the utterance addressee (the teacher). However, the embedded verb in (6b) expresses the honorific status of Bantee, the goal argument of the higher verb (see McFadden 2017: ex (19) for a similar example in Tamil).

Example (7) shows the same effect. Here the sentence is uttered to a friend but a HH marker is used on the embedded verb 'saw', referring to the honorific status of the higher goal argument, the teacher.

(7) *Santeeaa maasTar-saaheb-ke kah-**au** ki Ram Sita-ke dekhl-**ain***
Santee.fm teacher-hh-dat told-nha comp Ram Sita-acc saw-hha
'Santee told the teacher that Ram saw Sita.'   (said to a peer)

Let us see how we get the two observed possibilities under a triadic verb 'tell'. In the previous chapter, we learnt that there are syntactic representations of speaker (SP) and addressee (ADD) in every finite clause. If we say that the SP and ADD in embedded FinP represents the utterance speaker and addressee respectively, we can explain the unshifted Add-Agr in (6a) straightforwardly: the embedded Fin agrees with the embedded ADD, and because the embedded ADD represents the utterance addressee, Add-Agr reflects the honorific status of the utterance addressee. However, shifted Add-Agr in examples (6b) and (7) then seems to show a kind of upward long-distance agreement between the embedded Fin and the higher goal argument, and this violates the locality conditions on Agree according to most, if not all, theories. A far more natural explanation would be to say that in these cases as well, the embedded Fin agrees with the embedded ADD, but the embedded ADD is bound/controlled [2] by the higher goal argument. However, the binding between the higher goal argument and the embedded ADD would not be enough because we know that the honorific status of a DP in the clause is decided with respect to SP (or speaker in non-technical terms) of the clause (cf. chapter 2): the higher goal argument 'Bantee' is NH in (6b) and 'teacher' is HH in (7) with respect to Santee. Thus, we must say that the embedded SP and ADD DPs are bound by the higher subject and object in shifted cases. To make this simultaneous binding between the higher arguments and the embedded SP and ADD, I invoke the binding between the two heads: the attitude verb and the embedded Fin, as in (8).

(8) Source for Shifted Add-Agr:

When the embedded SP and ADD are bound by the higher subject and object, they referentially depend on them. The binding relation is mediated by the attitude verb and the

---

2. In Alok and Baker (2018), we use "control". I will be using "binding" in the current work.

embedded Fin where the attitude verb serves as a λ-abstractor. When the embedded Fin agrees with ADD, it yields the shifted Add-Agr.

The shifted reading of (6) is schematized in (9). As shown, when the verb 'tell' binds the embedded Fin, the embedded SP and ADD refer to the higher subject and the object i.e. Santee and Bantee. As per the system developed in chapter 2 (e.g., the honorific feature on a DP is decided by the closed SP coordinate), the embedded ADD gets the honorific feature with respect to Santee. That is, the honorific feature is not directly inherited from the higher object argument but is fixed by the closed SP. Thus, the NH marker *-au* on the embedded verb. For now, I leave the detail and exact nature of the binding mechanism at this level of specificity, but it will be refined in upcoming sections.

(9) *Mechanism for shifted Add-Agr* (representation for (6b))
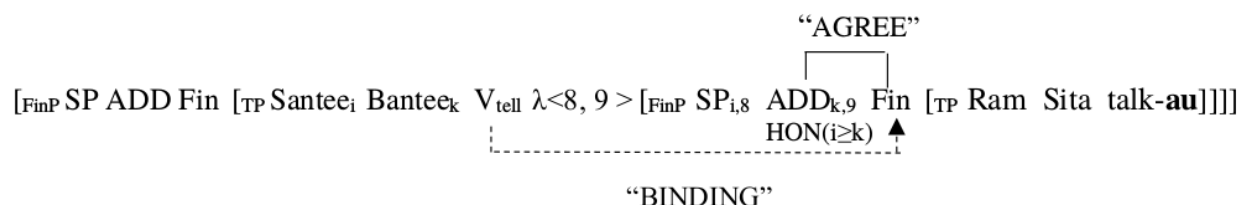
<center>"AGREE"</center>

$$[_{\text{FinP}} \text{SP ADD Fin } [_{\text{TP}} \text{Santee}_i \text{ Bantee}_k \text{ V}_{\text{tell}} \text{ } \lambda{<}8, 9 {>} [_{\text{FinP}} \text{SP}_{i,8} \text{ ADD}_{k,9} \text{ Fin } [_{\text{TP}} \text{Ram Sita talk-\textbf{au}}]]]]$$

<center>HON(i$\geq$k)</center>

<center>"BINDING"</center>

Higher FinP: 'SP' = John, 'ADD' = teacher

      Honorific relation: HH, realized as *-ain* on the higher verb

Embedded FinP, after binding by the attitude predicate 'tell'

      'SP' = Santee, 'ADD' = Bantee,

      Honorific relation: NH, realized as *-au* on the embedded verb

Then for the unshifted reading (cf. (6a)), I rule out the possibility that the embedded SP and ADD represents the utterance speaker and addressee by default and claim that when the higher Fin

binds the embedded Fin, the embedded SP represents the utterance speaker and the embedded ADD represents the utterance addressee, as in (10). Add-Agr reflects the honorific status of the utterance addressee in this case. The unshifted reading of (6) is schematized in (11).

(10)   *Source for Unshifted Add-Agr*:

When the embedded SP and ADD are bound by the higher SP and ADD, they represent the utterance speaker and addressee. The binding relation is mediated by the higher Fin and the embedded Fin, where the higher Fin serves as a λ-abstractor. When embedded Fin agrees with ADD, it yields the unshifted Add-Agr.

(11)   *Mechanism for unshifted Add-Agr* (representation for (6a))
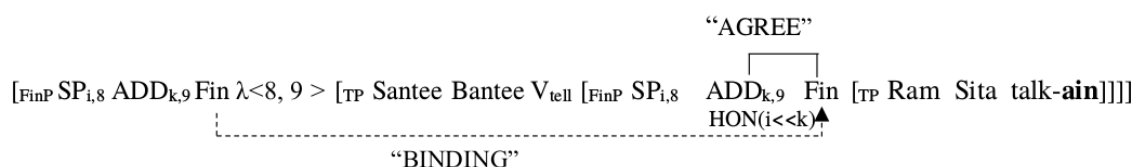
"AGREE"

$[_{\text{FinP}} \text{SP}_{i,8} \text{ ADD}_{k,9} \text{Fin } \lambda \text{<8, 9 > } [_{\text{TP}} \text{Santee Bantee V}_{\text{tell}} [_{\text{FinP}} \text{SP}_{i,8} \quad \text{ADD}_{k,9} \text{ Fin } [_{\text{TP}} \text{Ram Sita talk-\textbf{ain}}]]]]$

HON(i<<k)▲

"BINDING"

Higher FinP: SP = John, ADD = teacher

Honorific relation: HH, realized as *-ain* on the higher verb

Embedded FinP, after binding by the higher Fin

SP = John, ADD = teacher

Honorific relation: HH, realized as *-ain* on the embedded verb.

I thus make the following claim in (12) (we will see independent evidence for this in section 5).

(12)   *Obligatory Binding of SP and ADD*

In a root clause, the SP and ADD get their reference from the speaker and addressee of the context. However, the interpretation of embedded SP and ADD depends on what higher elements bind them.

Under dyadic verbs like 'think', the embedded verb only shows the non-shifted Add-Agr (cf.5). This is because 'think' does not have an object argument. When 'think' binds the embedded Fin, the ADD is not structurally anchored, and thus it does not get any reference and honorificity feature. When the embedded Fin agrees with a featureless ADD, there is no Add-Agr. This is illustrated in (13a). Thus, the only possibility for an embedded verb under 'think' is to show the honorific relationship between the higher (e.g., utterance) speaker and addressee, which is accomplished when the higher Fin binds the embedded Fin, as in (13b).

(13)   a.   *No Shifted Add-Agr under 'think'*

"AGREE" **??**

[$_{FinP}$ SP ADD Fin [$_{TP}$ Santee$_8$ V$_{think}$ λ<8> [$_{FinP}$ SP$_8$ ADD Fin [$_{TP}$ Bantee ran away]]]]
HON(?)
"BINDING"

b.   *Unshifted Add-Agr under 'think'*

"AGREE"

[$_{FinP}$ SP$_i$ ADD$_k$ Fin λ<8, 9> [$_{TP}$ Santee V$_{think}$ [$_{FinP}$ SP$_{i,8}$ ADD$_{k,9}$ Fin [$_{TP}$ Bantee ran away-**au**]]]]
HON(i$\geq$k)
"BINDING"
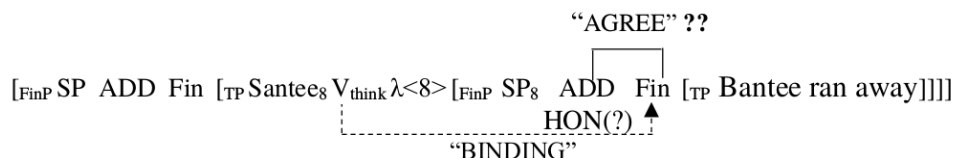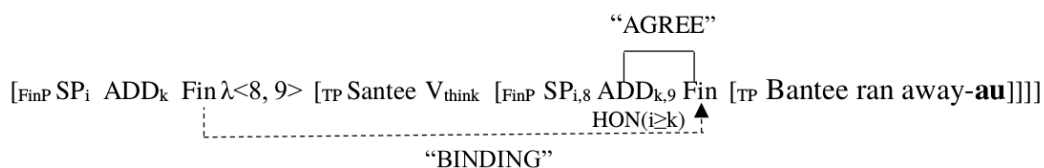
Keeping this basic mechanism in mind, let us move to the study of indexical shift in Magahi.

3 Indexical Shift and (Addressee) Honorification

3.1 Basics of Magahi Indexical Shift

The system I have developed so far in this dissertation possesses the following properties. First, there is a covert syntactic representation of speaker (e.g., SP) and addressee (e.g., ADD) DPs at the periphery of any finite clause. Second, the ADD DP binds 2nd person pronouns in its local domain. This mechanism can be easily generalized to the binding between SP and 1st person pronouns (Baker 2008). Third, the embedded SP and ADD can be bound by the higher arguments. Now, if we put all these three ingredients together, we essentially predict the existence of indexical shift of 1st and 2nd person pronouns in Magahi. This is because when the higher arguments binds the embedded SP and ADD and the SP and ADD bind the 1st and 2nd person pronouns in its domain, by the transitivity of binding, the 1st person pronoun must be referentially dependent on the higher subject argument and the 2nd person pronoun must be referentially dependent on the higher goal argument. The structure is illustrated in (14).

(14) *Indexical shift*

BINDING

$[_{\text{FinP}}$ SP ADD $[_{\text{TP}}$ Santee$_8$$^{\text{3rd}}$ Bantee$_9$$^{\text{3rd}}$ told$^{<*3rd,*3rd>}$ $[_{\text{FinP}}$ SP$_8$ ADD$_9$ Fin $[_{\text{TP}}$ I$_8$ you$_9$ saw]]]]
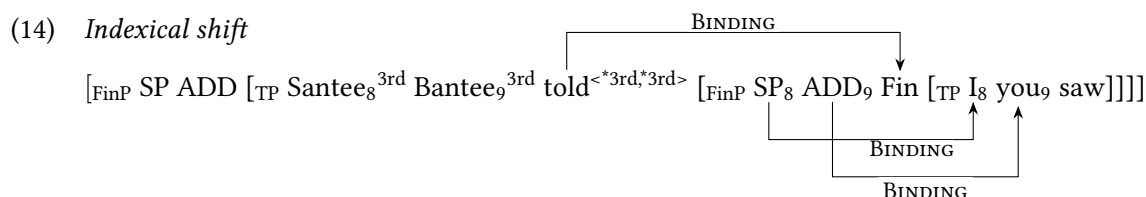
BINDING

BINDING

Higher FinP:

‘SP’ = John, ‘ADD’ = teacher

Embedded FinP, after binding by ‘tell’:

‘SP’ and 1st person pronoun= Santee,

‘ADD’ and 2nd person pronoun = Bantee

The unshifted reading is the result of the embedded SP and ADD being bound by the higher SP and ADD, as illustrated in (15).

(15)   *Unshifted Reading*
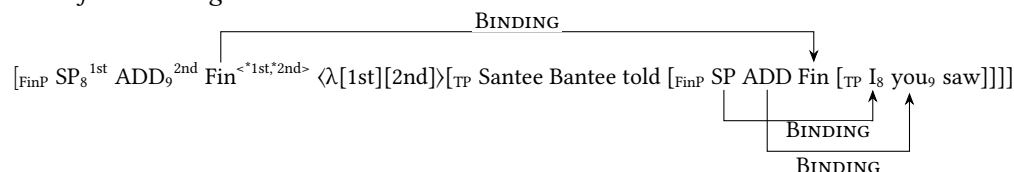
$[_{\text{FinP}}$ SP$_8{}^{\text{1st}}$ ADD$_9{}^{\text{2nd}}$ Fin$^{<*\text{1st},*\text{2nd}>}$ $\langle\lambda[\text{1st}][\text{2nd}]\rangle[_{\text{TP}}$ Santee Bantee told $[_{\text{FinP}}$ SP ADD Fin $[_{\text{TP}}$ I$_8$ you$_9$ saw]]]]

(BINDING relations as indicated in diagram)

Higher FinP:

   'SP' = John, 'ADD' = teacher

Embedded FinP, after binding by the higher Fin:

   'SP' and 1st person pronoun = John,

   'ADD' and 2nd person pronoun = teacher

Thus, we obtain shifted and unshifted readings of indexicals by just adding Baker's (2008) operator-variable principle to our above proposal for shifted and unshifted Add-Agr. The refined version is given in (16).

(16)   a.   *Source for the Shifted Reading (Add-Agr and Indexical shift)*

        When the embedded SP and ADD are bound by the higher subject and object, they referentially depend on them, and the 1st and 2nd person pronouns in the clause as well, by being bound by the embedded SP and ADD coordinates. The binding relation is mediated by the attitude verb and the embedded Fin where the attitude verb serves as a λ-abstractor.

        b.   *Source for the Unshifted Reading (Add-Agr and Indexical shift)*

        When the embedded SP and ADD are bound by the higher SP and ADD, they referentially depend on them and represent the higher speaker and addressee. The 1st and 2nd person pronouns in the clause thus denote the utterance speaker and addressee, by being bound by the embedded SP and ADD coordinates. The binding relation is mediated

by the higher Fin and the embedded Fin, where the higher Fin serves as a λ-abstractor.

The system makes an interesting prediction regarding the interaction between Add-Agr and indexical shift of a 2nd person pronoun. If there is a 2nd person pronoun and Add-Agr in the embedded clause and Add-Agr shifts, the 2nd person pronoun *necessarily shifts*, because the same ADD is involved in both Add-Agr and in providing features to a 2nd person pronoun. Consider (17), in a context where John is talking to a teacher about Santee and Bantee, who are friends (in the given context, the utterance addressee 'teacher' has the HH honorific status and the higher goal argument Bantee, has the NH honorific status).

(17) a. *Santeeaa Banteeaa-ke kahkain ki   Ram **toraa**-se   baat kart-**au***
           Santee   Bantee-DAT told-HHA COMP Ram you.NH-INT talk do.FUT-NHA
           'Santee told Bantee that Ram will talk to you (=Bantee).'   (said to a teacher)

      b. *Santeeaa Banteeaa-ke kahkain ki   Ram **apne**-se   baat kart-**ain***
           Santee   Bantee-DAT told-HHA COMP Ram you.HH-INT talk do.FUT-HHA
           'Santee told Bantee that Ram will talk to you (=teacher).'   (said to a teacher)

Example (17a) is spoken to a teacher, a HH person but the NH form of 2nd person pronoun *toraa* is used, referring to the higher object Bantee. Note that the NH Add-Agr *-au* is acceptable on the embedded verb, showing the honorific relation between Santee and Bantee. If the 2nd person pronoun is meant to refer to the teacher, its unshifted meaning, the HH form of the 2nd person pronoun *apne* is used and HH Add-Adg *-ain* is acceptable, showing the honorific relation between John and the teacher, as in (17b).

In the rest of the chapter, I will first examine the interaction of Magahi indexical shift and (addressee) honorification in greater detail. I will then sharpen up the analysis that I have presented above. [3]

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3. A note on complementation: as readers would have noticed, DP complements and non-finite complements appear on the left of the verb, as per SOV word order (cf. chapter 2 and chapter 3). However, finite complement clauses appear

3.2 The Relationship between Indexical shift and Add-Agr

Indexical shift interacts with Add-Agr in very revealing ways in Magahi. We have already seen some evidence of a close relationship between embedded Add-Agr and indexical shift, but more can be learnt from a closer look at the data. As we saw, with a triadic verb like 'tell', it is possible to have Add-Agr on the embedded verb that reflects the honorific status of the utterance addressee, but it is also possible for Add-Agr to be shifted to reflect the honorific status of the higher goal argument (cf. 17). If the Add-Agr is not shifted, then a 2nd person pronoun inside the embedded clause cannot be shifted either, as in (18).

(18) ***Santeeaa Banteeaa-ke kahkain ki Ram **toraa**-se baat kart-**ain***
       Santee   Bantee-DAT told-HHA COMP Ram you.NH-INT talk do.FUT-HHA
       'Santee told Bantee that Ram will talk to you (=Bantee).'   (said to a teacher)

The 2nd person pronoun in (18) cannot refer to Bantee given that Add-Agr on the embedded verb is HH, reflecting the honorific status of the utterance addressee and matching the addressee marking on the higher verb.

Consider, now, embedded 1st and 2nd person pronouns and Add-Agr under dyadic verbs such as 'think', as in (19).

(19) a. *Santeeaa sochl-ai   ki   ham tej h-i*
          Santee.FM thought-3NHS COMP I   smart be-1s
          'Santee thought that I (=speaker, = Santee) am smart.

      b. *Santeeaa sochl-ai   ki   ham tej h-i-**au***
          Santee.FM thought-3NHS COMP I   smart be-1s-NHA
          'Santee thought that I (=speaker, **not** = Santee) am smart.   (spoken to a friend)

---

on the right of the verb. This is a standard way of establishing complementation in Magahi. However, there are other ways as well. The issue of complementation is not a settled matter and I will take it up in chapter 5 but nothing I say before then will be affected by any modification to the structure I might propose there.

Magahi adds an interesting new empirical dimension here. We see a kind of negative inter-action between indexical shift and Add-Agr: indexical shift of the 1st person pronoun is allowed when the embedded verb bears subject agreement, as in (19a) but the shift of 1st person pronoun becomes impossible in the presence of Add-Agr in the embedded clause, as in (19b). Example (20) shows the same under another dyadic verb 'believe'.

(20)   a.   *Santeeaa-ke   viswaas halai   ki   ham dillii pahuch jaayem*
            Santee.FM-DAT believe be.PST.3NHS COMP I   Delhi reach   go.FUT.1s
            'Santee believed that I (=speaker, = Santee) will reach Delhi.'

       b.   *Santeeaa-ke   viswaas halai   ki   ham dillii pahuch jab-o*
            Santee.FM-DAT believe be.PST.3NHS COMP I   Delhi reach   go.FUT.NHA
            'Santee believed that I (=speaker, **not** = Santee) will reach Delhi. (spoken to grandfather)

Now in this context where addressee marking is disallowed with shifted 1st person pronoun, a 2nd person pronoun is disallowed as well. As shown in (21), the 2nd person pronoun *toraa* 'you' is impossible, whatever its interpretation, as long as the 1st person pronoun is shifted to 'Santee'.

(21)   a.   #*Santeeaa   socha h-ai   ki   ham toraa   dekhli*
            Santee.FM think be-PRF-3NHS COMP I   you.ACC see-PRF-1s
            Not: 'Santee thinks that I (=Santee) saw you (any meaning).'

            Only OK as: 'Santee thinks that I (=speaker) saw you (=addressee).'

       b.   #*Santeeaa-ke   viswaas h-ai   ki   ham toraa-se   milli*
            Santee.FM.DAT believe be.PRES-3NHS COMP I   you.ACC-WITH met.1s
            Not: 'Santee believes that I (=Santee) met you (any meaning).'

            Only OK as: 'Santee believes that I (=speaker) met you (=addressee).'

Another interaction between indexical shift and Add-Agr is seen in nonfinite complements. In the previous chapter, we saw that Add-Agr is impossible in nonfinite clauses such as infinitival and gerundival complements in Magahi. The relevant examples are represented in (22).

(22) a. *Santeeaa   jaayel/*jaayel-au chah-l-i-au*
          Santee.FM go.INF   wanted-3-NHA
          'Santee wants to go.'   (said to a friend)

      b. *Ham okaraa   dhekhe-se/*dekhe-au-se bachliau*
          I   him.DAT seeing-INST   avoided-3-NHA
          'I avoided seeing him.'   (said to a friend)

I argued that SP and ADD coordinates are sensitive to finiteness. Thus, unlike finite clauses, non-finite clauses lack SP and ADD coordinates. If we combine this idea with the proposal in this chapter that SP and ADD are the essential vehicles of shifted (Add-Agr) indexicals, we derive the prediction that indexical shift should be impossible in nonfinite complements. This is, in fact, true. As shown in (23), the embedded 1st person pronoun only refers to the utterance speaker in (23a), not to the higher subject, Santee. Similarly, the embedded 2nd person pronoun only refers to the utterance addressee in (23b); not to the higher object, Bantee.

(23) a. *Santeeaa Banteeaa-ke [hamraa-se mil-e   laa] kahlai*
          Santee   Bantee-ACC me-INST   meet-INF for say.3NHS
          'Santee told Bantee to meet me (= speaker, **not** = Santee).'

      b. *Santeeaa Banteeaa-ke [toraa   bheje   laa ego   chiThii likh-e]   kahkai*
          Santee   Bantee-DAT you.ACC send.INF for one-CL latter write-INF told.3NHS
          'Santee told Bantee to write a letter to send to you (= addressee, not = Bantee).'

In summary, we see three different kinds of interaction between indexical shift and Add-Agr in Magahi. First, under triadic verbs like 'tell', indexicals shift happens if and only if Add-Agr shift. Second, under dyadic verbs like 'think', neither 2nd person pronoun nor Add-Agr shifts. Third, in non-finite complement clauses, where Add-Agr is ruled out, indexical shift is also ruled out. These three are different patterns but all show that the kind of syntactic structure that allows shifted Add-Agr also allows indexical shift and the kind that does not allow shifted

Add-Agr does not allow indexical shift either. This makes sense if, as I claimed above, the SP and ADD that participate in (addressee) honorification also participate in indexical shift. There is also independent evidence in support of the idea that pronominal binding is involved in shift of 1st and 2nd person pronouns and that the SP and ADD coordinates play an important role. I discuss this in the next subsection.

3.3 Indexical Shift, Honorification, and 3rd Person Pronouns

The evidence that pronominal binding is involved via SP and ADD coordinates in the shifting of 1st and 2nd person pronouns comes from the interpretation of 3rd person pronouns in the presence of shifted indexicals or Add-Agr. Consider example (24).

(24) a. *Banteeaa Santeeaa-ke kahlai ki u toraa dekhlai*
Bantee.FM Santee.FM-DAT told.3NHS COMP he you-ACC saw.3NHS
(i) 'Bantee told Santee that he (=Bantee) saw you (=addressee, not = Santee)'

(ii) 'Bantee told Santee that he (=a person in the discourse) saw you (=Santee)'

b. *Banteeaa Santeeaa-ke kahlai ki ham okaraa dekhli*
Bantee.FM Santee.FM-DAT told.3NHS COMP I him.ACC saw.3NHS
(i) Bantee told Santee that I (=Bantee) saw him (=a person in the discourse).'
(ii) Bantee told Santee that I (=speaker) saw him (= Santee).[4]

In (24a), when the 3rd person pronoun *u* 'he' refers to the subject, Bantee, the 2nd person pronoun cannot be interpreted relative to the object, Santee; it must refer to the utterance addressee, as in (24ai). When the 2nd person pronoun refers to Santee, the 3rd person pronoun cannot refer to Bantee, it must refer to a third person in the discourse, as in (24aii). A similar pattern is seen in (24b). When the embedded 1st person pronoun refers to Bantee, the 3rd person pronoun cannot refer to Santee, it must refer to a third person in the discourse, as in (24bi) and when the 3rd

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4. *Him* can also refer to Bantee.

person pronoun refers to Santee, the 1st person pronoun cannot refer to Bantee, it must refer to the utterance speaker, as in (24bii).

Now, let us consider another example (25), in a context where John speaks to his grandfather about Santee and Bantee who are friends.

(25) *Banteeaa Santeeaa-ke kahl-o ki Ram toraa/hamraa/okraa dekhl-au*
      Bantee.FM Santee.FM-DAT told-HS COMP Ram you-ACC/me/him.NH saw-3NHA
      Bantee told Santee that Ram saw you (=Santee)/me (= Bantee)/ him (not = Santee/Bantee)

Here the Add-Agr *-au* 'NHA' on the embedded verb 'saw' is shifted, showing the non-honorific relationship of Bantee to Santee (not the honorific relationship of John to his grandfather). When a 2nd person pronoun is used, it refers to Santee, the higher object and when a 1st person pronoun is used, it refers to Bantee, the subject. The 3rd person pronoun neither refers to Bantee nor to Santee. It must refer to some other person in the context.

This restriction is expected if SP and ADD are involved in indexical shifting. The reason is roughly as follows: if the 1st and/or 2nd person pronouns shift in the embedded clause, it means SP and ADD both are bound by the higher arguments, as claimed above. In this binding environment, if a 3rd person pronoun is bound by the higher argument, it must also be bound via the SP and ADD. However, if a pronoun is bound by SP or ADD, it will be determined to be 1st or 2nd person pronoun, not a 3rd person pronoun.

A question that naturally arises in discussions of shift phenomenon is whether the relevant structures are simply quotations (e.g. above examples can be understood as containing a direct quotation, reporting Santee's original utterance). In the next subsection, I present diagnostics to show that unlike direct quotations indexical shift can happen in true complements.

3.4 True Indexical Shift not a Direct Quotation

There is by now a fairly standard battery of tests to distinguish true indexical shift from direct quotation (see Schlenker 1999, 2003, Anand 2006, Sudo 2012 and others). But before I apply them, I want to draw attention to a Magahi specific property that suggests that the shifted reading may not be a direct quotation. We saw above in examples (19b) and (20b) that the 1st person pronoun can only refer to the utterance speaker under dyadic verbs such as 'think' and 'believe' if there is Add-Agr on the embedded verb. Example (26) shows the same contrast under another dyadic verb *jaannaa* 'know'.

(26) a. *Santeeaa   jaana gel-o   ki   hamraa dillii jaayelaa he*
          Santee-FM know went-HA COMP me-DAT Delhi go.INF   be.3
          'Santee knew that I (= speaker, or Santee) have to go Delhi'   (said to grandfather)

      b. *Santeeaa   jaana gel-o   ki   hamraa dillii jaayelaa ha-**o***
          Santee-FM know went-HA COMP me-DAT Delhi go.INF   be.HA
          'Santee knew that I (= speaker, **not** Santee) have to go Delhi'   said to grandfather)

This restriction on the shifted reading in the presence of Add-Agr would be unclear if there were no indexical shift in Magahi, because the embedded clause such as *hamraa dilli jaayela ho* 'I have to go to Delhi-HA' in (26b) by itself certainly can be a quotation. In the indexical shifting literature, a standard test that is used to show that indexical shift is not an instance of a quotation is long-distance wh-questions, e.g., the presence of wh-expression inside the embedded complement clause that scopes over the entire sentence. Magahi shows complications with this test because, like a closely related language Hindi, it is a wh-in-situ language, where wh-expressions inside a finite complement clause cannot scope out of the finite clause. The primary strategy for long-distancing questioning is to use the scope marking structure (Dayal 1991, 1994, 1996, 2000, also see Lahiri 2000, Mahajan 2000), and this seems to interfere with indexical shift.

(27) *Santeeaa kaa soch hai   ki   ham kahaaN jaibai?*
Santee   what think be.PRES.3NHS COMP I   where go.FUT.3NHS
Where does Santee think I (=speaker, not Santee) will go?

Possible answer: 'Santee thinks that I (= speaker) will go to Delhi'.

Example (27) illustrates a typical scope marking structure in Magahi. The higher clause has a scope marker wh-expression *kaa* 'what' and the lower clause has another wh-expression *kahan* 'where'. (27) expresses a question whose possible answers require the value for the embedded wh-expression 'where'. As shown, the 1st person pronoun can only refer to the speaker.

There is also a movement strategy, e.g., a wh-expression that originates inside the complement clause and moves to the higher clause, but this strategy is also hard to apply. In general, it is not readily accepted by speakers, possibly because of parsing issues.[5] In the examples below, this complication is indicated with a single question mark (?). I mostly use adjunct question here.

(28)   a. ?*Kab, Ram soc-l-ai   ki   ham t marbai?*
            when Ram think-PRF-3NHS COMP I   die.FUT.1S
            'When does Ram think that I (=speaker or =Ram) will die?' (time of dying questioned).

       b. ?*Kab, Santeeaa Ram-ke kahlai   ki   tu   t mar-b-a?*
            when Santee.FM Ram-DAT tell.PRF.3NHS COMP you.H   die-FUT-2HS
            When did Santee tell Ram that you (=addressee or =Ram) will die? (time of dying Q)

(29) ?*Kahan, Santeeaa-ke   laga hai   ki   ham t phiir jaiti hal*
     where Santee.NH-DAT seem be.PRES COMP I   again go.1 be.PST
     'Where does Santee think that I (=speaker or =Santee) would go again.?'

---

5. In Hindi, it is argued that such movements are a case of long-distance scrambling, not an extraction to form questions, as in English (see Dayal 1996:35-37 for Hindi). It is true for Magahi as well. A full-scale study of the varieties of question formation in Magahi and how they may interact with indexical shift will be undertaken in the future but see chapter 5 for some discussion on scope marking.

Another standard test is long-distance licensing of negative polarity items (NPIs). In Magahi, the weak NPIs such as *koii-o* (someone-even) 'anyone' need a negative particle to be licensed. Example (30) shows that the embedded *koii-o* can be licensed by the higher negative particle. Moreover, (30) still has an interpretation where the embedded 1st person may refer to the higher subject.

(30) a. *Santeeaa *(na) kahalai ki ham koii-o-ke dekhali*
Santee.FM NEG said.3NHS COMP I somebody-even-ACC saw.1s
'Santee did not say that I (= Santee, or = speaker) saw anyone.'

    b. *Santeeaa-ke *(na) viswaas hai ki ham koii-o-ke dekhli*
Santee.FM-DAT NEG believe be.PRES.3NHS COMP I somebody-even-ACC saw.1s
'Santee did not believe that I (= Santee, or = speaker) saw anyone.'

Example (31) shows a long-distance licensing of another weak NPI *ekk-o* 'one-even'.

(31) *Santeeaa-ke *(na) laga hai ki hamraa ekk-o aadmii milat*
Santee.FM NEG seem be.PRES.3.NHS COMP I one-even man meet.FUT.3
'It does not seem to Santee that I (= Santee, or = speaker) will find anybody.'
'Santee does not think that I (= Santee, or = speaker) will find anybody.'

Another test that has been used in the literature is based on the idea that quotations must faithfully report the exact words that the reported speaker has used (Sudo 2012). However, non-verbatim reports are possible with finite complement clauses with shifted indexicals in Magahi. Consider example (32), based on Sudo (2012).

Context: One day Santee and Bantee took a test (in a different section). After the test, I met Santee. He said, "only I passed the test" (*khaalii ham parichhaapaas holi*). A while later, I met Bantee and he said the exact thing. Now I report this to grandfather (Suppose, Santee, Bantee and the speaker are brothers):

(32) *Santeeaa aau Banteeaa (hamraa) kahko   ki   khaalii **hamnii** parichhaapaas holi*
    Santee and Bantee I-DAT   told.3.HA COMP only   we   exam   pass
    'Santee and Bantee told (me) that only we (= Santee and Bantee) passed the exam.'

Example (32) is felicitous in the given context. The 1st person plural pronoun *hamnii* has the shifted reading where it refers to Santee and Bantee, however, neither Santee nor Bantee said that they both passed the exam.

I thus conclude that the phenomenon we are dealing with is an instance of true indexical shifting. The next subsection examines some other properties of Magahi indexical shift.

3.5   Some other Properties of Magahi Indexical Shift

3.5.1   Indexical Shift under Dyadic Verbs

Examples (33)-(37) show that the shift of 1st person pronouns is possible under verbs of *speech*, as in (33),[6] under verbs of *thought* and *belief*, as in (34), under verbs of *knowledge*, as in (35), under verbs of *emotion*, as in (36), and under the *perception* verb hear,[7] as in (37).

(33) a. *Santeeaa kahkai   ki   ham dilli jaibai*
      Santee.FM said.3NHS COMP I   Delhi go.FUT.1s
      'Santee said that I (= Santee, or = speaker) will go to Delhi

    b. *Santeeaa   maan gelai   ki   ham dilli na   jaait   hi*
      Santee.FM admit went.3NHS COMP I   Delhi NEG go.PROG be.1s
      'Santee admitted that I (= Santee, or = speaker) am not going to Delhi.

---

6. The verb root *kah* is ambiguous. It can be used as dyadic verb 'say', as in (33a) or as a triadic verb 'tell', as many of the above examples.

7. Not all perception verbs allow indexical shift in Magahi though. The verb 'hear' allows indexical shift of both 1st and 2nd person (with some strange behavior, see below) but not the verb 'see'.

(34) a. *Santeeaa sochlai ki ham tej hi*
Santee.FM thought.NHS COMP I smart be.1S
'Santee thought that I (= Santee, or = speaker) am smart.'

b. *Santeeaa-ke biswaas halai ki ham tej hi*
Santee-DAT believe be.PST.3NHS COMP I smart be.1S
'Santee believed that I (= Santee, or = speaker) was smart.'

(35) a. *Santeeaa aaj jaanlai ki ham dilli jaait hi*
Santee.FM today knew.3NHS COMP I Delhi go.PROG be.1s
'Santee knew today that I (= Santee, or = speaker) am going to Delhi.'

b. *Santeeaa samajh gelai ki ham ab dilli na jabai*
Santee.FM understand went.3NHS COMP I now Delhi NEG go.FUT.1s
'Santee understood that I (= Santee, or = speaker) will not go to Delhi now.'

(36) a. *Santeeaa khus hai ki ham parichhaa paas ho geli*
Santee.FM happy be.PRES COMP I exam pass become went.1s
'Santee is happy that I (=speaker, or = santee) passed the exam.'

b. *Santeeaa dukhii hai ki hamraa-se koii na batiaait he*
Santee.FM sad be.PRES COMP me-INST somebody NEG talking be.3
'Santee is sad that nobody is talking to me (=speaker, or = Santee).'

(37) *Santeeaa sunlai ki ham parichhaa paas ho geli*
Santee.FM heard COMP I exam pass become went.1s
'Santee heard that I (=speaker, or = Santee) passed the exam.'

All these verbs are "dyadic verbs" (except 'hear'). This class of verbs does not allow indexical shift of 2nd person pronouns. Moreover, the presence of 2nd person pronouns or Add-Agr also blocks the shifting of 1st person pronouns. We saw these properties under the verb 'think' and 'believe' above. Example (38) show the same for another dyadic verbs like 'understand'.

(38) a. *Santeeaa samajh   gelai   ki   tu   parichhaa paas ho   jaimeN*
    Santee.FM understand went.3NHS COMP you exam   pass happen went.FUT.2NH
    'Santee understood that you (= addressee, not = Santee) will pass the exam.'

    b. *Santeeaa samajh   gel-o   ki   ham parichhaa pass ho   jaib-o*
    Santee.FM understand went.HA COMP I   exam   pass happen went.FUT.HA
    'Santee understood that I (= speaker, not= Santee) will pass the exam.' (said to grand-

    father).

    c. *Santeeaa samajh   gelai   ki   ham toraa-se baat na karbai*
    Santee.FM understand went.3NHS COMP I   you-INST talk NEG do.FUT.1s
    'Santee understood that I (=speaker, not Santee) will not talk to you (=addressee, not

    Santee).

To sum up, 1st person pronouns but not 2nd person pronouns may shift in the complement of
dyadic verbs in Magahi. Moreover, the shift of 1st person pronouns is impossible in the presence
of 2nd person pronouns or Add-Agr.

3.5.2 Indexical Shift under Triadic Verbs

Unlike dyadic verbs, triadic verbs do allow indexical shifting of 2nd person. Above, we saw ex-
amples with 'tell'. Example (39) shows the same with 'ask' and 'be assured/convince'.

(39) a. *Santeeaa Banteeaa-se puchhit halai   ki   tu   dilli kahinaa jait   heN*
    Santee   Bantee-DAT asking be.PST.3NHS COMP you Delhi when   going be.2NHS
    'Santee asked Bantee that when you (= Bantee, or addressee) are going to Delhi?

    b. *Santeeaa Banteeaa-ke bharosa delai   ki   tu   parichhaa paas ho*
    Santee   Bantee-DAT trust   gave.NHS COMP you exam   pass become

      jaimeN
      go.FUT.2NHS
    'Santee assured Bantee that you (=Bantee, or addressee) will pass the exam.'

The above examples show that indexical shift is optional in Magahi, as it is in like Amharic and Zazaki: the 1st person and 2nd person pronouns can also refer to the utterance speaker and addressee, as in English. Additionally, Magahi generally shows what is known in the literature as a *Shift Together* constraint (but see section 3.5.3). Consider example (40).

(40) *Santeeaa Banteeaa-ke   kahkai   ki   ham toraa   dekhli hal*
Santee.FM Bantee.FM.DAT told.3NHS COMP I   you.ACC saw.1s be.PST
(i) 'Santee told Bantee that I (=speaker) had seen you (addressee).'

(ii) 'Santee told Bantee that he (= Santee) had seen him (= Bantee).

(iii) *'Santee told Bantee that he (=Santee) had seen you (= addressee).

(iv) *'Santee told Bantee that I (=speaker) had seen him (= Bantee).

As (40) shows, either both pronouns in the complement clause shift (40ii) or neither pronouns shift (40i). Therefore, a reading where 1st person pronoun refers to the higher subject and the 2nd person pronoun refers to the utterance addressee, as in (40iii) or where the 1st person pronoun refers to the utterance speaker and the 2nd person pronoun refers to the higher object, as in (40iv) is impossible.

We noted above that there is a positive interaction between indexical shift and (addressee) honorification in the case of triadic verbs. Now, let us consider more complex situation with different levels of honorificity in utterance context and reported context. Suppose that there are three professors, Mark, Veneeta and Ken and they have NH relation in informal situation. One day, Veneeta is talking to Ken about Mark and a student Deepak. Veneeta says:

(41) *Deepak Mark-ke   kahl-au   ki   ham **apne**   laa repharens hojli-**ain***
Deepak Mark-DAT tell.PRF.3.NHA COMP I   you.HH for reference found.1-HHA
Deepak told Mark that I (= Deepak, **not** =Veneeta) found references for you (= Mark, **not** = Ken).

As shown in (41), when pronouns shift, the 2nd person pronoun and the addressee marking show the honorific relation between Deepak and Mark. Thus, the HH 2nd person pronoun *apne* and the HH addressee marking *-ain* are acceptable. Here, the NH 2nd person pronoun toraa and the NH addressee marking *-au* would be unacceptable.

Now suppose that the student Deepak talks to Professor Ken about Veneeta. Deepak says:

(42) *Veneeta-maim   Mark-ke   kahl-thin ki   ham **toraa** laa repharens hojli-**au***
      Veneeta-ma'dam Mark-DAT told.HHA COMP I   you.NH for reference found.1-NHA
      'Veneeta told Mark that I (=Veneeta, not =Deepak) found references for you (=Mark, not Ken).'

Again, as can be seen, in the case of shifted reading, the honorific relation between the matrix subject and object is realized. Thus, this time the NH 2nd person pronoun *toraa* and the NH addressee marking *-au* are manifested. Here, the HH 2nd person pronoun *apne* and the HH addressee marking *-ain* would be unacceptable. This example crucially show that the honorific feature on the ADD coordinate and on the 2nd person pronoun are not copied from the higher goal argument but it is decided by the closed SP coordinate.

Summing up, both 1st and 2nd person pronouns may shift under triadic verbs in Magahi but indexical shift and Add-Agr go together, when Add-Agr shifts, 1st and 2nd person pronouns must shift.

3.6 Section Summary

Magahi indexical shift shows the following properties:

- Dyadic verbs allow shift of 1st person pronouns but not 2nd person pronouns. In the presence of a 2nd person pronoun, the shifting of 1st person pronoun is impossible.

- Triadic verbs allow shift of both 1st and 2nd person pronouns.

- In the shifted reading, the 1st person pronoun refers to the higher subject and the 2nd person pronoun refers to the higher object.

- There is interaction between indexical shift and Add-Agr agreement under triadic verbs: if Add-Agr in the embedded clause shift the indexical pronouns must also shift.

- There is a negative interaction between indexical shift and Add-Agr under dyadic verbs such that indexical shift of 1st person pronoun is impossible in the presence of Add-Agr on the embedded verb.

- When there is indexical shift in an embedded clause, honorification does not shift only on a 2nd person pronoun but also on a 3rd person pronoun.

- Magahi obeys the Shift Together constraint. [8]

4   Analysis of Magahi Indexical Shift

In the section, I present the analysis and provide with the detail explanation of noted characteristic of Magahi indexical shift.

4.1   Fin and Attitude Verbs as Binders

In section 2, I proposed that the interpretation of embedded SP and ADD coordinates depends on what higher category binds them. When they are bound by the higher SP and ADD, they refer to the utterance speaker and addressee and when they are bound by the higher subject and object, they refer to whoever the higher subject and the object refer. I invoked the idea of binding via heads, attitude verbs and Fin. The idea that a head may play a role in binding is not new and has

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8. A mixed reading is available in a very specific construction in Magahi when a 1st person *pro* cooccurs with a 2nd person pronoun in the complement of a dyadic verb. The discussion on little *pro* (1st and 2nd person) will be taken up later in chapter 6.

been used by many authors in different ways for different purposes. I will discuss three previous works that pertain directly to issues of concern here.

Kratzer (2009) argues that some elements such as possessive pronouns, reflexives, relative pronouns etc. are born with a "defective" feature set (i.e., minimal pronouns) and acquire their missing features from a local verbal functional head that functions as a λ-abstractor (also see Borer 1989, Adger and Ramchand 2005 a.o). The idea is that the verbal head acquires features from its arguments and transfers them to the variable it binds.

Portner et al (2019a) argue that there is a functional head c that hosts a syntactic representation of (speaker and) addressee (Interlocutor-addressee in their terms) in its specifier and inherits a 2nd person feature from it. Following Baker (2008) and Kratzer (2009), Portner et al. argue that when Interlocutor-addressee binds a pronoun, mediated by c as a λ-abstractor, it acquires its feature from c and is realized as a 2nd person pronoun. Essentially, Portner et al. implemented Baker's (2008) idea of binding from operator in term of binding by a function head (Kratzer 2009).

The study on which my analysis of indexical shift is most closely modeled is von Stechow (2003). von Stechow uses attitude verbs as variable binders to explain the shifted reading of embedded 1st person indexicals in Amharic. He also talks about 'tense' and 'mood' but my focus here will be on person indexicals. He makes the following claims: [9]

(43)   a.   Person is the feature of the verb that is checked by features of the corresponding arguments of the verb (the former is called 'checkee', represented with * (see (44) and (45)), and the latter is called 'checker').

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9. In von Stechow's system, the subject-verb agreement morpheme on the verb is realization of the checkee features of the verb (feature checking is done when checkee and checker features are adjacent. He assumes that checkee features are projected during derivations). Thus, these features are morphological as well as syntactical and encode binding properties in his system. However, I have adopted the standard agreement mechanism 'agree' (Chomsky 2000, 2001) in the previous chapter. Thus, for me, the morphological features (e.g., uninterpretable features) responsible for subject-verb agreement is on T, and the checkee features on the attitude verb are purely syntactic and encode binding properties.

b.   Attitude verbs are variable binders that bind and delete (at LF) person features of the variable under agreement.

Consider the English example (44). In (44a), the embedded 1st person pronoun 'I' refers to the higher 1st person subject because they bear the same person feature; the 1st person checkee feature binds and deletes the person feature of the embedded 1st person pronoun. Therefore, the latter is interpreted relative to the former. The mechanism of feature checking, binding and deletion is illustrated in (44b): the 1st person feature of the subject argument checks the person feature of the attitude verb 'thought'. The verb then binds the embedded 1st person pronoun and deletes its features at LF. As a result, the pronoun is interpreted as a variable, referring to the higher subject.

(44)   a.   I thought I was a hero.

b.   LF: I^{1st} thought^{*1st} < λx^{1st}..> .....x^{1st} was a hero.

Now, consider what happens when the argument of an attitude verb is a 3rd person, as in (45a). Here, the binding relation cannot be established (due to lack of feature agreement). Therefore, the embedded 1st person pronoun is free and refers to the utterance speaker, and not to the higher subject, John

(45)   a.   John thought I was a hero.

b.   LF John^{3rd} thought^{*3rd} < λx^{3rd}..> ..... y was a hero.

However, unlike English, an indexical shift language like Amharic the attitude verb can bind and delete the feature of 1st person variable, regardless of what their person checkee is. von Stechow proposes the following (1st) person parameter:

(46)   *The 1st person parameter* [von Stechow (2003, ex: 48)]

Amharic verbal quantifiers delete (LF) the feature 1st of the person variable they bind, regardless of what their person checkee is.

Thus, given (46), in Amharic, a 3rd person checkee feature of an attitude verb could bind and delete the feature of the embedded 1st person pronoun. Consider (47).

(47)   Amharic: John says I (= speaker or = John) am a hero.

a.   LF for shifted reading: John^{3rd} says^{*3rd} λx^{1st} [$x^{\cancel{1st}}$ am a hero]

b.   LF for unshifted reading: John^{3rd} says^{*3rd} λx^{1st} [y^8 am a hero]

The mechanism of feature checking, binding and deletion is illustrated in (47a): the 3rd person feature of the subject argument checks the person feature of the verb 'say'. The verb then binds and deletes the features of the embedded 1st person pronoun. As a result, the pronoun is interpreted as a variable, referring to the higher subject, John. The unshifted reading is obtained when the variable carrying the 1st person feature is not bound by the verb, as in (47b).

A common mechanism that is included in all the three studies is that the head gets some features from its arguments and either it transfers those features to the variable it binds, as in Kratzer and Portner et al., or it deletes the features of the variable at LF, as in von Stechow. Nevertheless, the result is the same, the variable bound by the head referentially depends on the argument of the head.

Taking insight from the above line of research and parallel to von Stechow's claim for the attitude verb, I claim the following regarding the functional head Fin.

(48) a. Person is the feature of the Fin head that are checked by the features of the correspon-
dent arguments (SP and ADD) of Fin. [10]

b. The function head Fin is a variable binder that binds and deletes person feature of the
variable under agreement.

We are now in position to refine our claims for shifted and unshifted readings given in (16)
and reproduced here in (49).

(49) a. *Source for the Shifted Reading (Add-Agr and Indexical shift)*
When the embedded SP and ADD are bound by the higher subject and object, they
referentially depend on them, and the 1st and 2nd person pronouns in the clause as
well, (by being bound by the embedded SP and ADD coordinates). The binding relation
is mediated by the attitude verb and the embedded Fin where the attitude verb serves
as a λ-abstractor.

b. *Source for the Unshifted Reading (Add-Agr and Indexical shift)*
When the embedded SP and ADD are bound by the higher SP and ADD, they referen-
tially depend on them and represent the utterance speaker and addressee. The 1st and
2nd person pronouns in the clause thus denote the utterance speaker and addressee as
well (by being bound by the embedded SP and ADD coordinates). The binding relation
is mediated by the higher Fin and the embedded Fin, where the higher Fin serves as a
λ-abstractor.

(50) Claims related to the attitude verb, parsing (49a)

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10. See Sigurðsson (2004) for the claim that Fin is a locus of logophoric centre and speaker (in his terms logophoric
agent) and addressee (in his term logophoric patient) are arguments of the logophoric centre and syntactically encoded
in the left periphery of a clause (also see Bianchi 2003).

a. Person is the feature of the verb (called 'checkee', represented with *) that are checked by the features of the corresponding arguments of the verb.

b. Attitude verbs are variable binders (e.g., λ-abstractors) that bind and delete features under agreement. The subject checkee feature introduces the λ-abstractor with 1st person feature, namely λ[1st], and the object feature introduces the λ-abstractor with 2nd person feature, namely λ[2nd]. These λ-abstractors come in an ordered pair, as illustrated below with 'tell'.

[$_{FinP}$ ......[$_{FinP}$ Mary^{3rd} John^{3rd} tell$^{<*3rd,*3rd>}$ $\langle\lambda$[1st], [2nd]$\rangle$[$_{CP}$.....]]]

c. When the attitude verb binds the embedded Fin, λ[1st] binds the SP coordinate and λ[2nd] binds the ADD coordinate of the embedded Fin. Consequently, the SP refers to the higher subject argument and the ADD refers to the higher object argument. Thus, any embedded 1st person pronoun in the clause refers to the higher subject and a 2nd person pronoun refers to the higher object, yielding shifted readings.

(51) Claims related to the functional head Fin: parsing (49b)

a. Person is the feature of the Fin head (namely 'checkee') that are checked by the person feature of the correspondent arguments i.e., SP and ADD.

b. The function head Fin is a variable binder that binds and deletes features under agreement. The checkee feature of SP introduces the λ-abstractor with the 1st person feature, namely λ[1st], and the checkee feature of ADD introduces the λ-abstractor with 2nd person feature, namely λ[2nd]. These λ-abstractors also come in an ordered pair, as illustrated below.

[$_{FinP}$ SP^{1st} ADD^{2nd} Fin$^{<*1st,*2nd>}$ $\langle\lambda$[1st], [2nd]$\rangle$ [$_{TP}$ ....]]

c. When the higher Fin binds the embedded Fin, λ[1st] binds the embedded SP and λ[2nd] binds the embedded ADD of the embedded Fin. Consequently, the SP refers to the

utterance speaker and the ADD refers to the utterance addressee. Thus, any embedded 1st person pronoun in the clause refers to the utterance speaker and a 2nd person pronoun refers to the utterance addressee, yielding unshifted readings.

Four more assumptions are needed as follows:

(52)   Binding Together: If one of the members of the pair of λ-abstractors ($\langle\lambda[1\text{st}], [2\text{nd}]\rangle$) binds a variable, then the second member of the pair must bind a variable. This is a kind of Binding Together constraint.

(53)   Binding relation is established in syntax, before "spell out" (see Heim 2008; Kratzer 1998, 2009; Fox & Nissenbaum 1999). However, there is feature deletion at LF under agreement (von Stechow 2003).

We have seen that Magahi is different from English. I propose that the difference can be explained on the basis of parametric difference, as I proposed in (54), based on von Stechow's (2003) person parameter.

(54)   **The (1st and 2nd) person parameter**:
        When an attitude verb binds the embedded Fin, the person features of attitude verbs can bind and delete the 1st and 2nd person feature of the embedded SP and ADD, regardless of what their person checkee is.

I have followed Baker's idea that 1st and 2nd person pronouns are variables that inherit their person features from the SP and ADD coordinates. Therefore, I adopt variable semantics for the minimal pronouns, as in (55).

(55) $[\![\, \varnothing \,]\!]^{c,w,g} = g(i)$

I also adopt the variable semantics for SP and ADD where they carry indices with person features (Sudo 2012). Thus, unlike indexicals, they are sensitive to the assignment function rather than the context parameter. Their denotation is formalized in (56), where the index associated with the SP coordinate has a 1st person feature while the index associated with the ADD coordinate has a 2nd person feature.

(56)   a. $[\![SP_{i[1]}]\!]^{w,g} = g(i_1)$

         b. $[\![ADD_{i[2]}]\!]^{w,g} = g(i_2)$

Further, in line of Schlenker (2003), Stokke (2020), and Sudo (2012), I assume that the assignment function is subject to the following *admissibility condition* that is applied to an utterance.

(57)   *Admissibility Condition for Assignment Functions*

       An utterance of a sentence is felicitously evaluated with respect to context c, possible world w and assignment function g, only if g satisfies the following two conditions: for all $i \in N$,

       a. $g(i_1)$ = speaker in c

       b. $g(i_2)$ = addressee in c   (Sudo: 2012:162)

Thus, the free SP and ADD in higher clauses denote utterance speaker and addressee respectively.

In the next subsection, I explain the shifted and unshifted readings of person indexicals and its interaction with (addressee) honorification under different kinds of attitude verbs.

4.2   Deriving the Shifted and Unshifted Reading under Triadic Verbs

As we have seen, triadic verbs allow shift of both 1st person and 2nd person pronouns. Moreover, when both 1st and 2nd person pronouns are present in the embedded clause, they obey Shift-Together. The relevant example is repeated in (58).

(58) *Santeeaa Banteeaa-ke kahkai ki ham toraa dekhli hal*
     Santee.FM Bantee.FM.DAT told.3NHS COMP I you.ACC saw.1S be.PST

    (i) 'Santee told Bantee that I (=speaker) had seen you (addressee).'

    (ii) 'Santee told Bantee that he (= Santee) had seen him (= Bantee).

    (iii) *'Santee told Bantee that he (=Santee) had seen you (= addressee).

    (iv) *'Santee told Bantee that I (=speaker) had seen him (= Bantee).

Derivation in (59) illustrates the relevant representation for deriving the unshifted reading (58i). Given (51), Fin has person features which are checked by the SP and ADD coordinates. These checkee features then introduce the λ-abstractors with the 1st person and 2nd person features, $\lambda[1st]$ and $\lambda[[2nd]$, as in (59a). Derivation (59b) is LF representation of unshifted reading of (58). When the higher Fin binds the embedded Fin, the embedded SP and ADD are bound by the higher SP and ADD and their features are deleted at LF. As a result, they referentially depend on the higher SP and ADD, which are interpreted relative to the utterance speaker and addressee. The embedded 1st and 2nd person pronouns, which are bound by the embedded SP and ADD are also interpreted relative to the utterance speaker and the addressee. [11]

(59) a. $[_{FinP}$ SP^{1st} ADD^{2nd} Fin$^{<*1st,*2nd>}$ $\langle\lambda[1st][2nd]\rangle[_{TP}$ Santee Bantee told $[_{FinP}$ SP^{1st} ADD^{2nd} Fin$^{<*1st,*2nd>}$ $[_{TP}$ I you saw]]]]
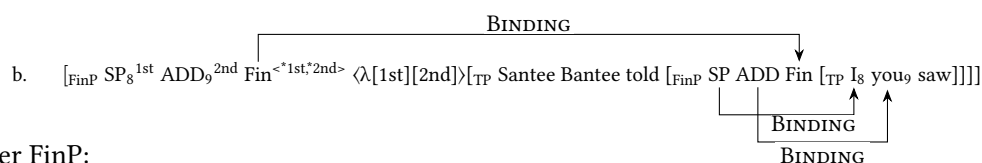
                                  BINDING

   b. $[_{FinP}$ SP$_8^{1st}$ ADD$_9^{2nd}$ Fin$^{<*1st,*2nd>}$ $\langle\lambda[1st][2nd]\rangle[_{TP}$ Santee Bantee told $[_{FinP}$ SP ADD Fin $[_{TP}$ I$_8$ you$_9$ saw]]]]

                                           BINDING

                                         BINDING

Higher FinP:

      'SP' = Utterance Speaker, 'ADD' = Utterance Addressee

Embedded clause, after the embedded Fin is bound by the higher Fin:

      'SP' and 1st person pronoun = Utterance Speaker

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11. Given (53), SP and ADD are interpreted as bound variables at LF. However, for simplicity, I represent them as SP and ADD. Also, I have used 'I' and 'you' to represent the 1st and 2nd person pronouns but they are also interpreted as variables, given the assumption that they are born without any feature and obtain their features by SP and ADD (Baker 2008).

'ADD' and 2nd person pronoun = Utterance Addressee

The shifted reading of (58) is derived as in (60). Derivation (60a) represents the pre-binding stage. The verb 'tell' has person features which are checked by the subject and the object arguments. The checkee features thus introduces the λ-abstractors with 1st person and 2nd person features, $\lambda[1\text{st}]$ and $\lambda[[2\text{nd}]$. When 'tell' binds the embedded Fin, the $\lambda[1\text{st}]$ binds the embedded SP and $\lambda[2\text{nd}]$ binds the embedded ADD. Consequently, the embedded SP refers to the higher subject and the ADD refers to the higher object. Moreover, the embedded 1st and 2nd person pronouns that are bound by the embedded SP and ADD are also interpreted relative to the higher subject and the object, as illustrated in (60b).

(60) a.   .... [$_{TP}$ Santee^{3rd} Bantee^{3rd} told$^{<*3rd,*3rd>}$ [$_{FinP}$ SP^{1st} ADD^{2nd} Fin$^{<*1st,*2nd>}$ [$_{TP}$ I you saw]]]
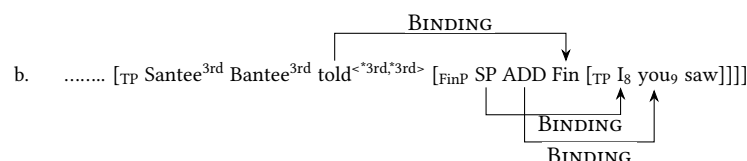
<center>BINDING</center>

  b.   .... [$_{TP}$ Santee^{3rd} Bantee^{3rd} told$^{<*3rd,*3rd>}$ [$_{FinP}$ SP ADD Fin [$_{TP}$ I$_8$ you$_9$ saw]]]]

<center>BINDING</center>
<center>BINDING</center>

Higher FinP

   'SP' = Utterance Speaker, 'ADD' = Utterance Addressee

Embedded clause, after the embedded Fin is bound by 'tell':

   'SP' and 1st person pronoun = Santee,

   'ADD' and 2nd person pronoun = Bantee

Let us now turn to the interaction between indexical shift and honorification. Let us first remind ourselves of the empirical facts. The first kind of interaction we saw is that when indexical pronouns shift, Add-Agr in the complement clause must also shift. Recall our situation, from subsection 3.5.2, where two professors Veneeta and Ken are talking about Mark and a student Deepak and Veneeta says:

(61) *Deepak Mark-ke kahl-au   ki   ham **apne**   laa repharens hojli-**ain***
Deepak Mark-DAT tell.PRF.3.NHA COMP I   you.HH for reference found.1-HHA
Deepak told Mark that I (= Deepak, not =Veneeta) found references for you (= Mark, not =

Ken).

In example (61), the 1st and 2nd person pronouns shift to the higher arguments Deepak and Mark
respectively. As shown, the 2nd person pronoun and the addressee marking show the honorific
relation of Deepak and Mark. Thus, the HH 2nd person pronoun *apne* and the HH addressee
marking *-ain* are acceptable. Here, the NH 2nd person pronoun *toraa* and the NH addressee
marking *-au* would be unacceptable (but possible with the unshifted reading).

In chapter 2, discussing honorification in Magahi, I proposed that every DP in Magahi has an
honorific node that hosts a semantic honorific feature [iHON], which gets its value with respect
to the speaker (SP) of the clause. According to the analysis developed in this chapter, indexical
shift occurs when the attitude verb binds the embedded Fin. In such a binding environment, the
embedded SP refers to the higher subject, rather than the utterance speaker. The [iHON] on noun
phrases is decided with respect to the higher subject rather than the utterance speaker. Thus, in
(61), the embedded SP refers to the higher subject, Deepak. The [iHON] on ADD and the 2nd
person pronoun are decided with respect to Deepak. Therefore, the 2nd person pronoun and
address marking is realized as HH. (62) schematizes the mechanism behind (61).

(62)

Higher FinP:

'SP' = Veneeta , 'ADD' = Ken, Honorific relation: NH

Embedded clause, after the embedded Fin is bound by 'tell':

'SP' and 1st person pronoun = Deepak,

'ADD' and 2nd person pronoun = Mark

Honorific relation: HH, realized on the embedded verb as *-ain*

Not only on a 2nd person pronoun, but the honorification on a 3rd person pronoun also shifts in the complement clause. A relevant example is given in (63).

Context: Deepak is talking to his peer Atul about Santee and Bantee who talked about one of Deepak's and Atul's friends. Assume that Santee and Bantee are Deepak's younger brothers (In this context, Deepak's friend is H to Santee).

(63) a. *Santeeaa Banteeaa-ke kahlai   ki   ham **unkaa**-se milli-au*
          Santee.FM Bantee-DAT told-NHS COMP I   him.H-INST meet.1S-NHA
          'Santee told Bantee that I (=Santee, not = Deepak) met him. (*okraa)

      b. *Santeeaa Banteeaa-ke kahlai   ki   ham **okraa**-se milli-au*
          Santee.FM Bantee-DAT told-NHS COMP I   him.NH-INST meet.1S-NHA
          'Santee told Bantee that I (=Deepak, not = Santee) met him. (*unkaa)

As (63a) shows, when the 1st person pronoun shifts to Santee, the honorific form *unkaa* is used, which expresses the honorific relationship between Santee and Deepak's friend. (63b) shows that when the 1st person pronoun does not shift and it refers to Deepak, the NH form of 3rd person pronoun *okraa* is used, which expresses the NH relationship between Deepak and his friend. Representation (64) schematizes the mechanism behind (63a). When the verb 'tell' binds the embedded Fin, the embedded SP refers to the higher subject and ADD refers to the higher object. The [iHON] feature on ADD and on the 3rd person pronoun is decided with respect to Santee

rather than the utterance speaker. Thus the 3rd person pronoun is H, *unkaa* and the addressee marking is NH *-au*.

(64)
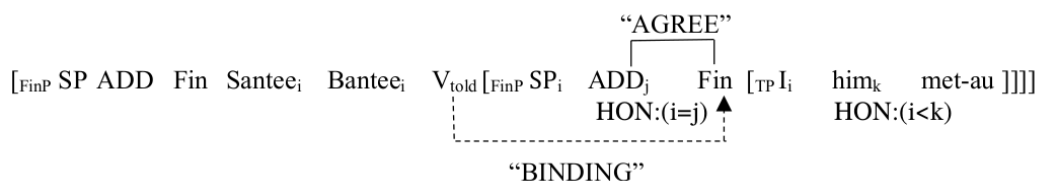
"AGREE"

[$_{FinP}$ SP ADD Fin Santee$_i$ Bantee$_i$ V$_{told}$ [$_{FinP}$ SP$_i$ ADD$_j$ Fin [$_{TP}$ I$_i$ him$_k$ met-au]]]]
$\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad$ HON:(i=j) $\quad\quad\quad\quad$ HON:(i<k)

"BINDING"

Higher FinP: 'SP' = Deepak , 'ADD' = Atul, Honorific relation: NH

Embedded clause, after the embedded Fin is bound by 'tell':

 'SP' and 1st person pronoun = Santee, 'ADD' = Bantee

 Honorific relation between Santee and Bantee: NH, realized as *-au*

 Honorific relation between Santee and Deepak's friend: H, 3rd person pronoun = *-unkaa*

Representation (65) illustrates the mechanism behind (63b). When the higher Fin binds the embedded Fin, the embedded SP refers to the utterance speaker Deepak and ADD refers to the utterance addressee Atul. The [iHON] on the 3rd person pronoun is decided with respect to Deepak. Thus, both the 3rd person pronoun and the addressee marking is NH. The former is realized as *okraa* and the latter is realized as *-au.*

(65)
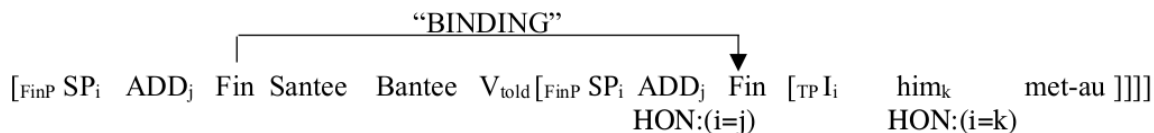
$$[_{\text{FinP}}\ \text{SP}_i\quad \text{ADD}_j\quad \text{Fin}\quad \text{Santee}\quad \text{Bantee}\quad V_{\text{told}}\,[_{\text{FinP}}\ \text{SP}_i\quad \text{ADD}_j\quad \underset{\text{HON:(i=j)}}{\text{Fin}}\ [_{\text{TP}}\,I_i\quad \underset{\text{HON:(i=k)}}{\text{him}_k}\quad \text{met-au]]]]}$$

with "BINDING" arc connecting the higher Fin to the embedded Fin.

Higher FinP:

'SP' = Deepak , 'ADD' = Atul, Honorific relation: NH

Embedded clause, after the embedded Fin is bound by the higher 'Fin':

SP and 1st person pronoun = Deepak, ADD = Atul

Honorific relation between Deepak and Atul: NH, realized on the embedded verb as *-au*

Honorific relation between Deepak and his friend: NH, the 3rd person pronoun = *-okraa*

4.3   Deriving the Shifted and Unshifted Reading under Dyadic Verbs

As we saw, dyadic verbs such as 'think' allow the shifting of 1st person pronouns, as in (66a). However, the presence of 2nd person pronoun or Add-Agr in the complement clause blocks the shifting of the 1st person pronoun, as in (66b).

(66)   a.   *Santeeaa   sochkai   ki   ham tej   hi*
             Santee.FM thought.NHS COMP I   smart be.1S
             'Santee thought that I (=speaker, or = Santee) am smart.'

       b.   *Santeeaa   sochkai   ki   ham toraa   dekhli-(au)*
             Santee.FM thought.NHS COMP I   you.ACC   saw.1S-NHA
             'Santee thought that I (=speaker, not = Santee) saw you.'   (said to a friend)

Let us see how we derive this fact in the current system. 'Think' has a person feature which is checked by the subject argument. Since 'think' does not have an object argument, it has only a subject checkee feature. 'Think' thus only introduces a λ-abstractor with a 1st person feature, λ[1st]. When 'think' binds the embedded Fin, its subject feature binds the embedded SP, which then refers to the higher subject, Santee. Consequently, the 1st person in the embedded clause refers to the higher subject, producing the shifted reading, as in (67). However, in this binding environment, there is no higher argument for the embedded ADD to anchor to. Therefore, the embedded ADD turns out to be a syntactic object with no referent and no honorificity features. As a result, there is no Add-Agr and no indexical shift. I assume here that when the attitude verb binds the embedded Fin, all the features associated with the embedded Fin are deleted at LF. Thus, the ADD coordinate is also deleted along with the SP.
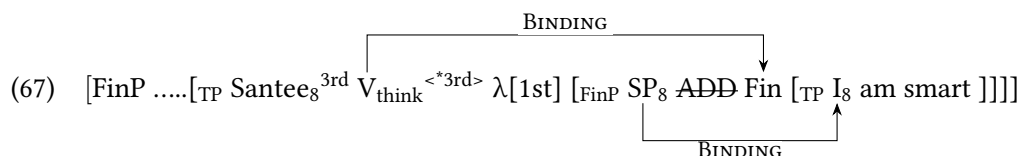
$$\overset{\text{BINDING}}{\overline{\qquad\qquad\qquad\qquad}}$$

(67)   [FinP .....[TP Santee$_8$$^{\text{3rd}}$ V$_{\text{think}}$$^{<*\text{3rd}>}$ λ[1st] [FinP SP$_8$ ~~ADD~~ Fin [TP I$_8$ am smart]]]]

$$\underset{\text{BINDING}}{\underline{\qquad\qquad}}$$

Higher FinP:

    'SP' = Utterance Speaker, 'ADD' = Utterance Addressee

Embedded clause, after the embedded Fin is bound by 'think':

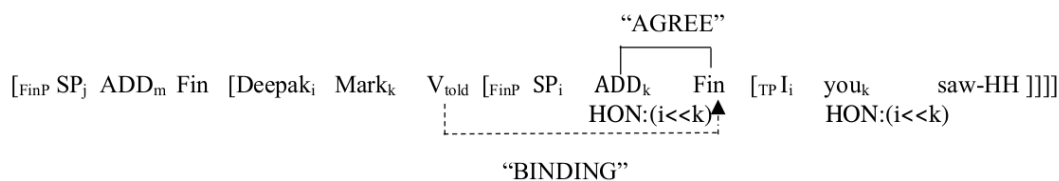   'SP' and 1st person pronoun = Santee, 'ADD' and 2nd person pronoun = **No referent**

The higher Fin also cannot bind the ADD since the embedded Fin is already bound by the attitude verb. Thus, the embedded clause cannot have a 2nd person pronoun. This is also the reason that these clauses cannot have Add-Agr in the shifted interpretation.

The only possibility for the 2nd person pronoun and Add-Agr to have a referent is from the utterance context, which is achieved when the higher Fin binds the embedded Fin, as in (68), a representation for (66b). In this case, the 1st person pronoun refers to the utterance speaker and

Add-Agr reflects the honorific status of the utterance addressee.

(68) $[_{FinP}$ SP$_8$^{1st} ADD$_9$^{2nd} Fin$^{<*1st,*2nd>}$ $\langle\lambda[1st]$ $[2nd]\rangle$ $[_{TP}...V_{think}<*3rd>$ $[_{FinP}$ SP$_8$ ADD$_9$ Fin$^{<*1st,*2nd>}$ $[_{TP}$ I$_8$ you$_9$ saw]]]]

BINDING

BINDING

BINDING
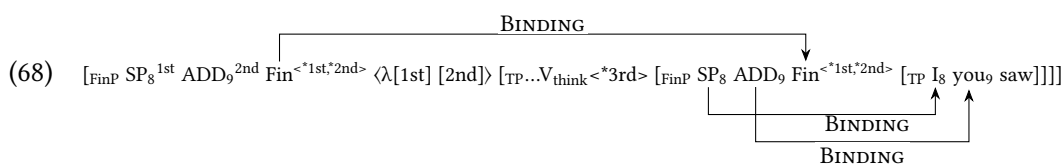
Higher FinP:

'SP' = Utterance Speaker, 'ADD' = Utterance Addressee

Embedded FinP (bound by 'think'):

'SP' and 1st person pronoun = Utterance Speaker

'ADD' and 2nd person pronoun = Utterance Addressee

4.4   Shifted Indexicals and *de se/de te* Interpretation

The shifted readings of 1st and 2nd person pronouns have been argued to give rise to de se interpretations (Schlenker 1999, 2003; von Stechow 2003; Anand 2006; Deal 2017, 2019, Messick 2017, 2020). The shifted 1st person pronoun is obligatory read de se in Magahi. A de se reading is one where the attitude holder is consciously aware that the expressed attitude is about himself/herself. Consider scenario 1 and scenario 2, from Deal (2017).

Scenario 1: A lady gets very sick and then recovers. Her recovery is so miraculous that they mention it on TV. They show the lady in a very ill condition; she looks awful. She sees this TV report later and she does not even recognize herself, she was so sickly at that time.

(69) #*Aurtiyaa   socha hai   ki   ham bimmar hali*
     Women.FM think be.3NHS COMP I   sick   be.PST.1P
     'The woman thinks that I (=woman) was sick.'

Scenario 2: The lady thinks, "I was sick."

(69') ok*Aurtiyaa   socha hai   ki   ham bimmar hali*
     Women.ꜰᴍ think be.3ɴʜs ᴄᴏᴍᴘ I   sick   be.ᴘsᴛ.1ᴘ
     'The woman thinks that I (=woman) was sick.'

In scenario 1, the lady is not aware that she has an attitude about herself, a non *de se* context. The sentence with shifted 1st person pronoun cannot be used to describe the scenario, as the infelicity of (69) shows. However, it can be used to describe scenario 2, where the lady identifies as a counterpart of herself, a *de se* context.

Like the shifted 1st person pronoun, the shifted 2nd person pronoun can be used to describe a scenario where addressee needs to be interpreted *de se*, the shifty second person refer to an individual that the attitude holder identifies as a counterpart of his addressee, as the acceptability of example (70) in scenario 3, from Anand (2006), show.

Scenario 3: Hesen says to his patient Ali, "You are sick today."

(70) *Hesen Ali-ke kahlai   ki   tu   bimmar heN*
    Hesen Ali-ᴛᴏ told.3ɴʜᴀ ᴄᴏᴍᴘ you sick   be-2ɴʜs
    'Hesen said to Ali that you (=Ali) was sick.'

However, the 2nd person pronoun need not be *de te* in Magahi. Unlike 1st person, it is felicitous in non-de se contexts as well, as shown in scenario 4 and in scenario 5.

Scenario 4: Hesen is examining two twins, Ali and Ali-baba at the same time, though in different rooms. He walks into Ali's room to talk to him about his results, and starts explaining the results, but then thinks that he's actually in the wrong room, talking to Ali-baba. He apologizes, and just before leaving tells Ali, "Well, I shouldn't have told you all that, but, in summary, Ali is sick." (from Anand 2006).

(71) *Hesen Ali-ke kahlai   ki   tu   bimmar heN*
      Hesen Ali-ᴛᴏ told.3ɴʜꜱ ᴄᴏᴍᴘ you sick   be-2ɴʜꜱ
      'Hesen said to Ali that you (= Ali) was sick.'

Scenario 5: Muhemmet is hosting a party. He hears that a certain waiter named John is being a nuisance. Muhemmet tells the nearest waiter, "John should go home." Unbeknownst to him, he's talking to John.

(72) *Muhemmet John-ke   kahlai   ki   toraa   ghare jaaye-ke   chaahau*
      Muhemmet John-ᴅᴀᴛ told.3ɴʜꜱ ᴄᴏᴍᴘ you-ᴅᴀᴛ home go-ɪɴꜰ-ᴀᴄᴄ should
      'Muhemmet told John that you (= John) should go home.'

Majority of indexical shift languages impose the requirement of *de se/de te* interpretation for their shifted 1st and 2nd person indexicals, such as Amharic (Anand, 2006), Japanese (Sudo 2012), Korean (Park, 2016), Mishar Tatar (Podobryaev, 2014), Nez Perce (Deal, 2014), Turkish (Şener & Şener 2011), Zazaki (Anand 2006). However, Magahi is not the only language which does not put such a requirement on shifted 2nd person pronouns. In Uyghur, the shifted 1st person is always *de se*. However, the shifted 2nd person need not be *de te* (Sudo 2012). [12] Deal (2019) suggests that the indexicals that must read *de se* cross-linguistically fall onto an implicational hierarchical scale give in (6). If an indexical on the scale read *de se*, then all indexicals to its left will also read *de se*.

(73)   Implicational hierarchy of de se requirements (Deal 2019)

       1st > 2nd > Loc

Thus, the fact that the Magahi 2nd person is free from *de se* requirement is not accidental and in line with the implicational hierarchy. To explain the optional *de te* meaning associated with the

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12. Such variation is also found in the logophoric literature. It has been argued that logophoric pronouns must read de se (Heim 2002; von Stechow 2003; Schlenker 2003). However, recently, Pearson (2015) claims that the logophoric pronoun yè in Ewe is not always read *de se.*

shifted 2nd person pronouns in Uyghur, Sudo (2012) argues that they are not true indexicals, but disguised definite descriptions (see Sudo 2012 for the detailed discussion). I believe the Magahi facts would be amenable to similar considerations as has been proposed for Uyghur, but I leave this task for the future.

4.5 Partial Binding: Plural Pronouns Bound by Higher Singular Arguments

Tajudeen Mamadou (p.c.) raises the issue of plural embedded pronouns, which I do not discuss in this dissertation. However, I believe that the current analysis can be extended to plural pronouns as well, incorporating Heim (2008)'s theory that allows minimal pronouns to bear multiple indices. Such set indices simultaneously can be bound by different binders (see also Higginbotham 1983; Sportiche 1985; Rullmann 2003; Büring 2005; Kratzer 2009). Following are the spell-out rules that determine the form of a pronoun.

(74)   Spell-out rules (from Heim 2008)

   A pronoun with a set index I is

   a.   a first-person pronoun, if some $i \in I$ is first person;

   b.   a second-person pronoun, if no $i \in I$ is first person and some $i \in I$ is second person;

   c.   a third-person pronoun, otherwise.

Consider a Magahi sentence, which is ambiguous between shifted and unshifted readings.

(75)   *Santeeaa   kahlai   ki   hamnii   Ram-ke   dekhli*
       Santee.fm   said   comp   we   Ram-acc saw.1
       (i) Shifted reading: 'Santee said that we (including Santee) saw Ram.'

       (ii) Unshifted reading: 'Santee said that we (including speaker) saw Ram.'

The example shows that the embedded 1st person plural pronoun *hamnii* 'we' does not necessarily refer to a plural attitude holder. Here it refers to a plurality that includes the attitude holder,

Santee, in its shifted reading or the speaker, in its unshifted reading.

Under the multiple indices view, the minimal plural pronoun bears a non-singleton set index, two indices here. One of the indices is bound by the SP coordinate and the other index is free. Then according to the above spell-out rule (74a), the entire pronoun becomes a 1st person pronoun, because it inherits 1st person feature from SP, and it is interpreted as plural since it has a non-singleton set index (see Heim 2008 for details). When the attitude verb binds the embedded Fin, we get the shifted reading, (75i), which is schematized in (76a). When the matrix Fin binds the embedded Fin, we get the unshifted reading, (75ii), which is schematized in (76b).

(76) a. *Shifted Reading*

BINDING

$[_{\text{FinP}}$ SP ADD Fin $[_{\text{TP}}$ Santee$_8$ V$_{\text{said}}$ λ<8> $[_{\text{FinP}}$ SP$_8$ ADD Fin $[_{\text{TP}}$ $\varnothing_{<8,\,9>}$ Ram Saw]]]]

BINDING

b. *Unshifted Reading*

BINDING

$[_{\text{FinP}}$ SP$_8$ ADD$_7$ Fin λ<8,7> $[_{\text{TP}}$ Santee$_8$ V$_{\text{said}}$ $[_{\text{FinP}}$ SP$_8$ ADD$_7$ Fin $[_{\text{TP}}$ $\varnothing_{<8,\,9>}$ Ram Saw]]]]
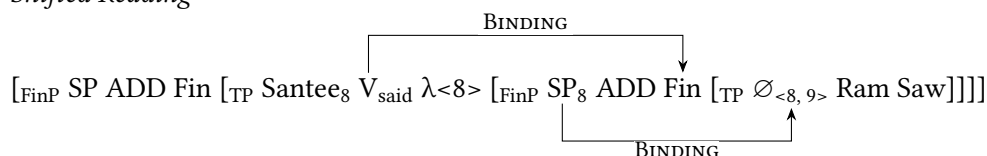
BINDING
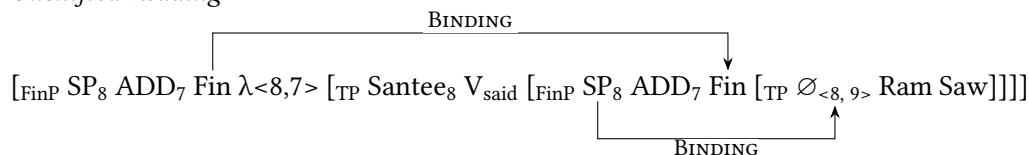
Example (77) illustrates the same thing with the 2nd person pronouns *tohnii* 'you-PL', where the 2nd person plural pronoun refers to the Indian cricket captain and his team.[13]

(77) *Maich refree inDian criket kaiptan-ke kahlai ki pahile tohnii baitigN karwa*
      match referee Indian cricket captain-DAT told COMP first you-PL bating do-FUT
      'The match referee told the India cricket captain that you (=the captain and his team) will
      be batting first.'

Here again the minimal pronoun bears a non-singleton set index, two indices. This time, one of the indices is bound by the ADD coordinate and the other index is free. Then according to the

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13. The context here rules out the unshifted reading.

above spell-out rule (74b), the entire pronoun becomes a 2nd person pronoun, because it inherits 2nd person feature from ADD, and it is interpreted as plural since it has a non-singleton set index. We get the said reading when the attitude verb binds the embedded Fin, as schematized in (78).

(78) Representation for (77))

$$\text{[}_{\text{FinP}} \text{ Fin [}_{\text{TP}} \text{ the referee}_8 \text{ India cricket captain}_9 \text{ V}_{\text{tell}} \text{ } \lambda\text{<8, 9> [}_{\text{FinP}} \text{ SP}_8 \text{ ADD}_9 \text{ Fin [}_{\text{TP}} \varnothing_{<9, 7>} \text{ bat be]]]]}$$

with BINDING arrows connecting Fin to the embedded Fin, and ADD$_9$ to $\varnothing_{<9, 7>}$.
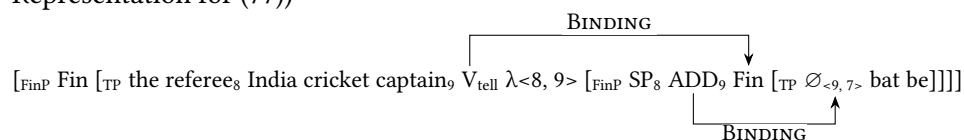
This completes the discussion of some of the core properties of Magahi indexical shift and its interaction with honorificity. We now move to a discussion of some consequences of the proposed analysis.

5 Some Consequences

In this section we explore two particular issues that arise in the context of our account having to do with details of the theory of feature checking of the matrix arguments, and the proposal of obligatory binding of embedded SP and ADD. The former is taken up in section 5.2 and the latter is discussed in section 5.2.

5.1 The role of Higher Clauses and Checkee features in Magahi Indexical Shift

The following was one of the important ingredients of the analysis:

(79) The subject (checkee feature) of a higher clause binds the embedded SP and the object (checkee feature) binds ADD. As a result, a 1st person pronoun in the embedded clause shifts to the higher subject and a 2nd person pronoun shifts to the object.

In this section, I will present evidence in favor of this assumption. Typically, semantic notions such as author or source has been claimed to play an important role in the standard theories of

indexical shift. Here, I will focus on the 1st person pronoun (since 1st person shift can happen with a wider range of verbs) and show that Magahi shows evidence in the favor of grammatical role 'subject' rather than a semantic notion such as author or source in shifting of 1st person pronouns. But before I do that, let me define what I mean by subject in this system. I assume that person features of a verb are checked by the corresponding arguments of the verb. This feature checking can happen as soon as the argument is merged (Chomsky 1995), or it can wait till the vP phase is completed I term of Chomsky (2000, 2001). Following Pylkkänen (2002), I assume a tripartite vP structure, where vP is dominated by voiceP that introduces the subject of the clause. Thus, for us, the lower phase is voiceP. Coming back to the feature checking scenario, in both cases, a DP which is in spec, voiceP would check the subject feature of the verb rather than a DP that is in spec, TP. Thus, for us here, there is no requirement on a DP to be in spec, TP to be a subject. One more assumption, before we proceed. I assume that the voice head comes in different flavors. The agentive voice head introduces the agent subject and the experiencer voice head introduces the experiencer subject. [14]

The first piece of evidence comes from a comparison between the speech verb 'tell' (80) and its lexical semantic inverse 'hear' (81). In both cases, the noun phrase, Santee, is the higher subject. However, in the case of 'tell', Santee is the author/source of the information but, in the case of 'hear', Santee is the receiver of the information. Interestingly, in the shifted reading, the 1st

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14. Bhatt (2007) argues that Hindi does not show any strong evidence for a strong EPP feature in TP. His argument is based on the following three facts: (a) there is no overt expletive in Hindi, (b) unlike English, Hindi has non-nominative subjects and (c) Hindi has exception to Bruzio's generalization. Magahi is the same as in Hindi in this respect. I present here one evidence. Unlike English, case marking on the direct object can be retained in passive in Hindi (1a) and Magahi (1b).

(i) a. *laDko-ko   piTaa   gayaa*
       boys-DOM beat.PRF PASS-PRF.3
       "The boys were beaten up."   HINDI

    b. *laikan-ke   piTal   gelai*
       boys-DOM beat.PRF PASS-PRF.3
       "The boys were beaten up."   MAGAHI

person pronoun in (81) refers to the higher subject Santee, not to Bantee, the author of the reported context.

(80) *Santeeaa Banteeaa-ke kahlai ki ham parichhaa paas ho ge-l-i*
Santee.FM Bantee.FM-DAT told-3NHS COMP I exam pass become go-PST-1S
'Santee told Bantee that I (=Santee, not =Bantee) passed the exam.'

(81) a. *Santeeaa sunlai ki ham parichhaa paas ho ge-l-i*
Santee.FM heard-3s COMP I exam pass become go-PST-1S
'Santee heard that I (=Santee) passed the exam.'

b. *Santeeaa Banteeaa-se sunlai ki ham parichhaa paas ho ge-l-i*
Santee.FM Bantee.FM-FROM heard-3s COMP I exam pass become go-PST-1S
'Santee heard from Bantee that I (=Santee, not =Bantee) passed the exam.'

This is unexpected if only semantic notions like the source or author plays a role in indexical shift of 1st person pronouns.[15]

Next, consider the two English sentences in (82). In both sentences, Santee is the source /author of the information that he will arrive tomorrow. However, in (82a), Santee is the subject of the matrix verb, whereas in (82b) Santee is the possessor of the subject of the matrix verb, a different syntactic object.

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15. However, there is one case when 'I' shifts to the source of 'hear': if the embedded sentence also has a 2nd person pronoun 'you' which is shifted to refer to the hearer (the sentence is only two ways ambiguous, not four ways).

(i) *Santeeaa Banteeaa-se sunlai ki ham toraa dekhli hal*
Santee.FM Bantee.FM-FROM heard-3s COMP I you.ACC saw-1s be-PST
(a) 'Santee heard from Bantee that I (speaker) have seen you (=addressee).'
(b) 'Santee heard from Bantee that I (=Santee) have seen you (Bantee).'
(c) *'Santee heard from Bantee that I (speaker) have seen you (=Bantee).'
(d) *'Santee heard from Bantee that I (=Santee) have seen you (=addressee).'

At this stage, I do not have an answer to this puzzle and leave it for the future.

(82) a. Santee said that she will arrive tomorrow.

b. Santee's letter said that she will arrive tomorrow.

Taking this into consideration, now consider Magahi example (83). We have seen a couple of times that 1st person pronouns can shift to the subject of 'tell'. In contrast, (83) shows that a 1st person pronoun cannot shift to the possessor of the subject of 'tell', even when the possessor is the source/author of the information expressed by the CP complement.[16]

(83) *Santeeaa-ke imel Banteeaa-ke bataa delai   ki   ham parichhaa me paas ho*
Santee-GEN email Bantee-DAT tell gave.3.NH COMP I   exam   in pass be

gel-i
go-1
'The email of Santee told Bantee that I (Speaker, not =Santee) passed the exam.'

Another piece of evidence that grammatical functions play a role in indexical shift in Magahi comes from comparing lexical causatives with syntactic causatives. Consider an English lexical causative with the verb 'convince' with a syntactic causative with a periphrastic construction 'cause to think' as in (84). In semantic terms, the two sentences are similar: Santee roughly causes Bantee to think that X. But the grammatical relations between the two are different: in (84b), the noun phrase Bantee whose thoughts are being molded is a kind of subject (the subject of the small clause/vP built around 'think') whereas it is only the object of 'convince' in (84a).

(84) a. Santee convinced Bantee that he will pass the test tomorrow.

b. Santee made Bantee think that he will pass the test tomorrow.

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16. However, indexical shift is possible if the matrix subject is 'Santee's face' rather than 'Santee's letter', as in (i)

(i) *Santeeaa-ke chehre Banteeaa -ke bataa   delai ki ham parichhaa me paas   ho   gel-i*
Santee-GEN face   Bantee-DAT tell gave.3.NH COMP I exam in   pass become go-1s
'Santee's face told Bantee that I (=Santee) passed the exam.'

Probably, the noun phrase 'Santee's face' is identical to Santee in a way that 'Santee's email' is not.

If the grammatical function subject is important for indexical shift of 1st person pronouns, we expect to find the 1st person to shift to Bantee in (84b), but not in (84a). In contrast, if authors and holders of mental states are all that is crucial in shifting of a 1st person, then it might shift to Bantee in both. Once again, subjecthood turns out to be the critical factor for indexical shift. The Magahi sentence (85) is an example of a lexical causative (a kind of light verb construction, the verb 'trust' plus light verb 'give'), where the attitude holder is always a syntactic object. Here shifted 1st person can refer to the convincer, but not to the convincee.

(85) *Santeeaa Banteeaa-ke bharosa delai ki ham parichhaa paas ho gel-i*
    Santee.FM Bantee.FM-ACC trust give-3s COMP I exam pass become went.1s
    'Santee convinced Bantee that I (=Santee, not = Bantee) passed the exam.'

In contrast, (86) is an example of a syntactic causative (with the verb 'think' plus causative morpheme *-waa*), in which the causee, Bantee is case-marked like an object (as an instance of ECM) but is probably a small-clause subject syntactically. Here the embedded 1st person pronoun can shift to Bantee.[17]

(86) *Santeeaa Banteeaa-ke soch-wa-l-ai ki ham parichhaa paas ho gel-i*
    Santee.FM Bantee-ACC think-CAUS-PST-3s COMP I exam pass become go-1s
    'Santee made Bantee think that I (= Bantee, or = Santee) passed the exam.'

Next, let us compare 'active' and 'passive' versions of the verb 'tell'. So far, we have seen that in the complement of active 'tell', a 1st person pronoun can shift to the subject and a 2nd person pronoun can shift to the dative object. This is also shown in (87). The embedded 1st person pronoun can shift to the subject (Bantee) but not to the dative goal argument/object (Santee). The 2nd person pronoun, on the other hand, can shift to Santee but not to Bantee.

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17. As indicated in the translation, (86) also has the meaning where the 1st person pronoun can refer to the causer, Santee, like in (85). I assume that this is because (86) is structurally ambiguous. It also has a structure similar to the structure of (85), where Santee is the subject.

(87) *Banteeaa Santeeaa-ke   kahlai ki   ham/tu dilli   jai-bai/meN*
     Bantee.ꜰᴍ Santee.ꜰᴍ.ᴅᴀᴛ told.3s ᴄᴏᴍᴘ I/you   Delhi go-ꜰᴜᴛ.1s/2s
     For 'I': 'Bantee told Santee that I (=speaker, or = Bantee) will go to Delhi.'

     For 'you': 'Bantee told Santee that you (=addressee, or = Santee) will go to Delhi.'

Turning to passive 'tell', one common view in the literature is that there is a null DP referring to the agent in Spec vP/VoiceP and the goal argument in a complement of V, followed by the movement of the goal argument rather than the agent to Spec TP. This implies, in the current system, that even in the passive, the theme argument checks the object person feature of 'tell' . Therefore, this predicts that the dative argument must control the shifting of a 2nd person, but not the shifting of a 1st person. The prediction turns out to be true. As can be seen in (88), it is the 2nd person, not the 1st person pronoun that can shift to Santee.

(88) *Santeeaa-ke   kahal gelai ki   ham/tu dilli   jai-bai/meN*
     Santee.ꜰᴍ-ᴅᴀᴛ told   ᴘᴀss ᴄᴏᴍᴘ I/you   Delhi go-ꜰᴜᴛ.1s/2s
     For 'I': 'Santee was told that I (=speaker, not Santee) will go to Delhi.'

     For 'you': 'Santee was told that you (=addressee, or = Santee) will go to Delhi.'

Let us take the discussion one step further and consider different types of dative arguments in comparison with the passive one. Magahi allows varieties of experiencer constructions where the subject is marked as a dative. In our analysis, they are in the spec, voiceP like other subjects. Consider example (89). As shown in (89), these dative arguments can control the shifting of 1st person pronouns but not the shifting of 2nd person pronouns.

(89) a. *Ram-ke   laga hai   ki   ham/tu ab   dilli   na   jaa pa-bai/meN*
         Ram-ᴅᴀᴛ seem be.3s ᴄᴏᴍᴘ I/you   now Delhi ɴᴇɢ go   find-ꜰᴜᴛ.1s/2s
         For 'I': 'It seems to Ram that I (=speaker, or = Ram) will not able to go to Delhi.'

         For 'you': 'It seems to Ram that you (=addressee, not = Ram) will not able to go to Delhi.'

b. *Ram-ke   iaad   ailai   ki   ham/tu kuchh paisaa almaari me lukaili/eN*
Ram-DAT memory came.3s COMP I/you   some   money almirah in hid.1s/2s

hal
be.PST

'I': 'Ram remembered that I (=speaker, or Ram) hid some money in the Almirah.'

'You':'Ram remembered that you (=addressee, not Ram) hid some money in the Almi-

rah.'

Before I move to the next subsection, I want to present two pieces of evidence to show that dative arguments in experiencer constructions should be considered a subject, because they behave as a subject in many respects. The first piece of evidence comes from their ability to control PRO in adjunct clauses. Consider (90), which is a normal agentive construction. As shown, the nominative subject but not the object can control PRO in the adjunct clause.

(90) *Ram$_i$ Mohan-ke$_j$ [PRO$_{i/*j}$ khiRkii   kholke]   khissaa kahkai*
Ram Mohan-DAT   window open.CONJ story   told
'Having opened the window, Ram told Mohan a story.'

With this in mind, consider an experiencer construction with an adjunct/nonfinite clause as in (91). The dative subject (not the nominative object) controls the embedded PRO.

(91) *Ram-ke$_i$ Mohan$_j$ [PRO$_{i/*j}$ khiRkii   kholke/kholaa   par]   yaad aillai*
Ram-DAT Mohan   window open.CONJ/OPN ON memory came
(i) 'After Ram opened the window, Mohan came into Ram's mind.'

(ii) * After Mohan opened the window, Mohan came into Ram's mind.

The second piece of evidence comes from the ability of dative subjects to bind a subject oriented reflexive anaphor '*apne*'. Example (92) shows that, in a normal agentive clause, a nominative subject but not a dative object binds apan 'self' in Magahi.

(92) *Ram$_i$ Mohan-ke$_j$ apan$_{i/*j}$ khissaa kahkai*
Ram Mohan-DAT self   story   told
'Ram$_i$ told his$_i$ story to Mohan.'

However, as example (93) shows a dative subject can bind the subject oriented *apne* in an experiencer construction.

(93) *Ram-ke$_i$ apan$_i$ maaye-baab yaad   ailai*
Ram-DAT self/his mother-father memory came.3
'Ram remembered his (= Ram) parents.'

Sum up, this section showed that a higher argument in a different thematic role such as agent (cf. (80) or (86)) and experiencer (cf. (81) or (89)) can control the shifting of an embedded 1st person pronoun as long as the argument is categorized as a subject. We also saw that a different case marked higher argument such as in nominative (cf. (80), (85), and (87)) or in accusative (cf. 86) or in dative (cf. 89) can also control the shifting of an embedded 1st person pronoun as long as the argument is a subject of the higher clause.

5.2   Obligatory Binding of Embedded SP and ADD

So far we have seen that the embedded SP and ADD coordinates can either refer to the utterance speaker and addressee or the higher subject and object, unlike the higher SP and ADD, where they always refer to the utterance speaker and addressee. I argue that in the former case, the embedded Fin is bound by the higher Fin. Therefore, the embedded SP and ADD referentially depend on the higher SP and ADD. An alternative would be to say that the embedded SP and ADD denote utterance speaker and addressee by virtue of not being bound. In other words, the unbounded embedded SP and ADD intrinsically denote the utterance speaker and addressee. In this section, I investigate three level of embedding with one attitude verb embedding under another and show that Magahi manifests evidence in favor of the binding view.

Consider (94) where the highest verb is 'think', which allows shifting of 1st person pronouns but not 2nd person pronouns. Example (94a) has a shifted reading for the 1st person pronoun in the intermediate clause and no possibility of Add-Agr in most deeply embedded verb 'come'. In contrast, (94b) has an unshifted reading for the 1st person pronoun in the intermediate clause and the possibility of Add-Agr in the most deeply embedded clause; the addressee marking on the deeply embedded verb matches the addressee marking on the higher verb.

(94) a. [*CP*Santeeaa socha h-o   [*CP*ki ham kahli   [*CP*ki Banteeaa aitai/*o]]]
         Santee.FM   think be-HA COMP I   said.1s COMP Bantee.FM come.FUT.3S/*HA
         'Santee thinks that I (=Santee) said that Bantee will come.'   (No Add-Agr).

     b. [*CP*Santeeaa socha h-o   [*CP*ki ham kahli-o   [*CP*ki Banteeaa ait-o]]]
         Santee   think be-HA COMP I   said.1s-HA COMP Bantee.FM come.FUT-HA
         'Santee thinks that I (=speaker) said that Bantee will come.'   (Yes Add-Agr).

Let us try to understand the reason behind the contrast seen in (94). We have convinced ourselves that every finite clause has an ADD DP that can produce Add-Agr in Magahi. Example (94b) also shows this: the lowest verb agrees with the lowest embedded ADD and yields Add-Agr. The question is why is this Add-Agr impossible in (94a)? If there is an ADD in the lowest clause (as is revealed by (94b)) and it can denote the utterance addressee directly, Add-Agr should be possible contrary to fact. However, if the embedded SP and ADD get their reference by virtue of being bound by higher elements, then the impossibility of Add-Agr is expected when the 1st person pronoun has a shifted reading in the intermediate clause, as in (94a): when the highest verb 'think' binds the intermediate Fin to yield the shifted reading of the 1st person pronoun, the ADD coordinate does not get any referent because 'think' does not have an object argument to bind the ADD. Now, when this intermediate Fin binds the lowest Fin, the lowest ADD also does not receive any referent. This then predicts the impossibility of Add-Agr in the lowest clause. We might wonder why higher Fin cannot bind the lowest Fin directly. I speculate that this is

because of a kind of *relativized minimality*, in which a relationship between two elements cannot be established over another element of the same type (cf. Rizzi 1990, Chomsky 1995). Therefore, the only possibility for the highest Fin to bind the lowest Fin is thorough the intermediate Fin and this predict only unshifted reading for the intermediate 1st person pronouns and impossibility of Add-Agr in the lowest clause.

Let us take the discussion one step further comparing the sentences in (95).

(95)   a.   *Santeeaa   sochlai   ki   ham baabaa-se   batiaibai*
             Santee.FM though.3s COMP I   grandfather-INST talk.FUT.3s
             'Santee thought that I (= speaker, or = Santee) will talk to grandfather. '

       b.   *Santeeaa   sochlai   ki   ham baabaa-se   kahbakai ki   ham dilli*
             Santee.FM though.3s COMP I   grandfather-INST tell.FUT.3s COMP I   Delhi

             jab-o.
             go.HS
             'Santee thought that I (= speaker, or = Santee) will tell grandfather that I (= speaker, or = Santee) will go to Delhi. '

       c.   *Santeeaa   sochlai   ki   ham kahli   ki   ham toraa   dekhli hai*
             Santee.FM though.3s COMP I   told.3s COMP I   you.ACC saw.1s be.PRF
             'Santee thought that I (= speaker, not = Santee) told that I (= speaker, not = Santee) saw you (=addressee). '

Example (95a) is ambiguous. The 1st person embedded pronoun can refer to the speaker or the higher subject, Santee. Example (95b) shows a three-level embedding where both embedded clauses have a 1st person pronoun. As shown, the sentence is still ambiguous. The 1st person pronouns can both refer to the speaker or both to Santee; a kind of shift-together effect but across clause boundaries, known as *No Intervening Binder* in the literature (Anand 2006 a.o). Example (95c) also involves a three-level embedding like (95b) but the lowest clause has a 2nd person pronoun in it. Unlike (95b), (95c) is not ambiguous. Here, the 1st person pronouns only refer to

the utterance speaker and the 2nd person pronoun in the lowest clause refers to the utterance addressee. It does not have an interpretation where the 1st person pronoun in the intermediate clause shifts to Santee and the indexicals in the lowest clause refer to the utterance participants, a possibility if the unbounded SP and ADD could intrinsically refer to the utterance participants. The attested interpretation however is predicted if the embedded SP and ADD get their referents after being bound.

To sum up, the current proposal that embedded SP and ADD get their referents after being bound has potentially important theoretical implications for our understanding of unshifted indexicals. A standard view about indexical shift has been that it happens in the presence of "monstrous" operators in a language; if they are absent, indexical shift does not happen. However, the tight interaction between Add-Agr and its relationship to indexical shift points in a different direction: operators are always there, and they are always bound. The optionality in shifting of an indexical comes instead from what intermediately higher elements bind the operators. If the operators are bound by (the argument(s) of) the attitude verb, the result is indexical shift; if the operator is bound by (the argument(s) of) a higher Fin, the result is no indexical shift. In both cases, the operators are present and are engaged in a syntactically significant binding relationship.

The current analysis also has implications for the analysis of embedded indexicals in languages without indexical shift such as English. If every finite clause has SP and ADD coordinates and they obtain their interpretation after being bound, then the difference between an indexical shift language like Magahi and a nonshifting language like English, could not be a whether this structure exists, but whether it allows two possibilities for how SP and ADD are bound (Magahi), or only one (English, by the higher Fin).

6 Alternative Approaches to Magahi Indexical shift and Honorification

The current analysis of Magahi indexical shift is based on von Stechow's (2003) idea of attitude verbs as verbal quantifiers. von Stechow's (2003) theory has been criticized by Anand and Nevins (2004) and Anand (2006). In this section, I briefly discuss two of the most prominent alternatives to von Stechow. The intention is not to discuss these accounts in depth but rather to show how the Magahi facts would fare on these alternative approaches to the phenomenon.

6.1 Indexical Centric Approach

The first influential proposal for Indexical shift is Schlenker (1999, 2003 and subsequent) who claims that attitude verbs are verbal quantifiers. However, unlike von Stechow, Schlenker argues that attitude verbs quantify over contexts cross-linguistically. On this view, indexical shift is due to the lexical property of indexicals. Schlenker argues that indexicals have different morphosyntactic restrictions within and across languages. He proposes that 1st and 2nd person pronouns are variables, which come with contextual variables. In languages where indexicals do not shift, indexicals are lexically pre-specified to be evaluated against the utterance-context only. For example, the 1st person pronoun in English, a non-indexical shift language, has the denotation in (96).

(96) $[\![I]\!]^{c,g} = [\![I_8 \overset{\wedge}{\ } i_k]\!]^{c,g} = g(8)$ iff $g(8) = $ Author(c)

In languages where indexical shift occurs obligatorily, indexicals are lexically specified to be evaluated against the intensional context introduced by the attitude predicate. For example, the 1st person pronoun in Uyghur, an obligatory indexical shift language, has the denotation in (97).

(97) $[\![I]\!]^{c,g} = \left[\!\!\left[\; \hat{I} \quad i_k \;\right]\!\!\right]^{c,g}$ = Author($g(i_k)$), iff there is a unique speaker of $g(i_k)$ and $g(i_k) \neq c$

Finally, in languages where indexical shift occurs optionally, indexicals are lexically under-specified for evaluate on against either the utterance context or the intensional context introduced by the attitude predicate. For example, the 1st person pronoun in Magahi, Amharic and Zazaki, optional indexical shift languages, would have the denotation in (98).

(98) $[\![I]\!]^{c,g} = \left[\!\!\left[\; \hat{I} \quad i_k \;\right]\!\!\right]^{c,g}$ = Author($g(i_k)$), iff there is a unique speaker of $g(i_k)$

Further, Schlenker argues that clauses, both embedded and root, are of type $\langle k, t \rangle$, a function from a context, a tuple consisting of $\langle$Author; Addressee; Time; World; Location $\rangle$ to truth value. He posits an index binder (λik) at the CP level to arrive at the type. The representation (99) illustrates the LF structure of a clause, denoting a function of type $\langle k, t \rangle$.

(99)

$\langle k, t \rangle$

$\lambda 8_k$

Mary

John

Saw 8_k
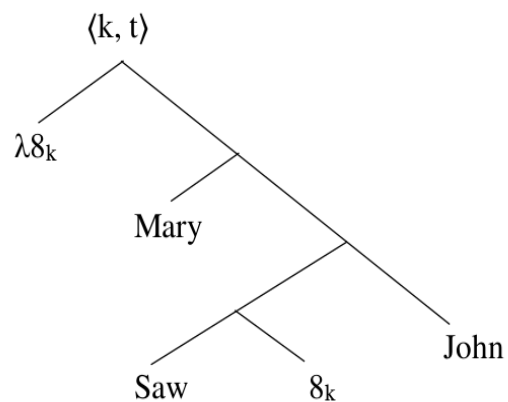
The ambiguous Magahi sentence (100) would have the following two derivations, as shown in (101). The derivation (101a) shows the mechanism of unshifted reading, where the context-variable associated with the 1st person pronoun is bound by the root level binder, while (101b) shows the shifted reading, where the context-variable associated with the 1st person pronoun is bound by the embedded intensional quantifier.

(100) *Santeeaa socha hai ki   ham hiro hi*
       Santee   think be.3 COMP I   hero be.1
       (i) 'Santee thinks that I (=speaker) am a hero.'
       (ii) 'Santee thinks that I (= Santee) am a hero.'

(101) a.
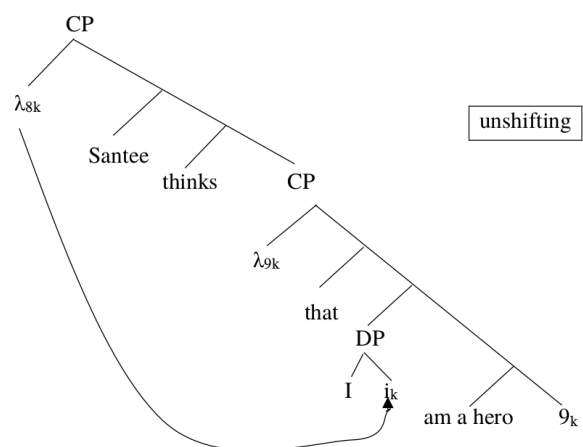
b.
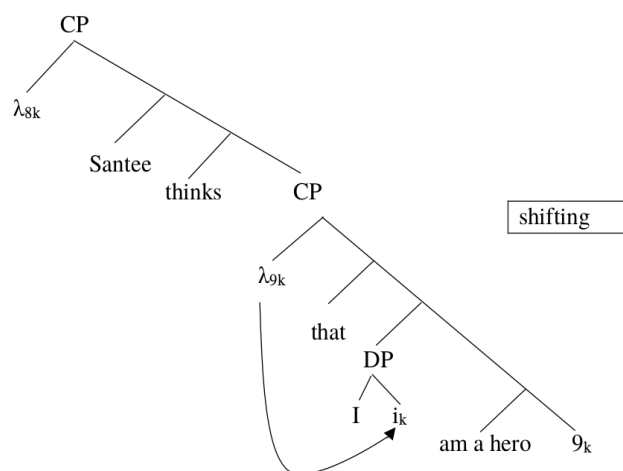
Schlenker's approach, which we can call an *indexical centric* approach, is successful in capturing the core cross-linguistic differences between languages that do (optionally or obligatorily) and do not allow indexical shift but it fails to capture the *Shift Together* phenomenon (Anand and Nevins 2004; Anand 2006; Deal 2017, 2019), a phenomenon which we have also noted in Magahi. Since shifting is an independent property of indexicals, in a sentence containing two pronouns, one pronoun can be bound by the matrix context and the other by the embedded context. Moreover, Magahi shows *Shift Together* effect regarding (addressee) honorification; when indexical shift, (addressee) honorification also shifts or vice versa. This fact also remains unexplained. We have also noted that like Add-Agr, indexical shift is available only in finite clauses (Sudo 2012, Sudo and Shklovsky 2014, Deal 2017, 2019). Since indexical shift is driven by the lexical properties of indexicals it is unclear why finiteness should be a factor. The absence of indexical shift and Add-Agr in non-finite clauses and the observed tight relation between the two phenomena in Magahi must would have to be viewed as accidental.

6.2   The Context Shifting Operator Approach

Anand and Nevins (2004) and Anand (2006) first noted that Shift -Together constraint is a general property of indexical shift languages (see also Deal 2017, 2019). They observe that in optional indexical shift languages, such as Zazaki, a sentence containing two indexicals such as 1st and 2nd person pronouns is only two-way ambiguous rather than four-way ambiguous; either both the 1st and 2nd person pronoun shift together or neither one does, as shown in (102). We have seen the same constraint in Magahi as well.

(102) *vizeri   Rojda Bill-ra va   ke   ez to-ra   miradi'a*
      yesterday Rojda Bill-to said that I   you-to angry.be-PRES

      (i) 'Yesterday Rojda said to Bill, "I am angry at you." '

      (ii) 'Yesterday Rojda said to Bill, "AUTH(c) is angry at ADDR(c)." '

      (iii) '*Yesterday Rojda said to Bill, "AUTH(c) am angry at you." '

      (iv) '*Yesterday Rojda said to Bill, "I am angry at ADDR(C)." ' (Anand and Nevins 2004:23)

Anand and Nevins (2004) and Anand (2006) argue that the Shift Together constraint is unexplained under quantifier binding approaches (Schlenker 1999, 2003; von Stechow 2003) because both theories predict all the four interpretations in (102). They propose an idea of context shifting, assuming the standard Kaplanian semantics for indexicals. For example, they treat the 1st person pronoun as denoting a function that refers to the author of some context, as in (103).

(103) $[\![I]\!]^{c,i}$ = Author (c)

The difference between the shifted and unshifted readings of the 1st person pronoun then is a result of the context against which the author function associated with the 1st person is evaluated. If the author function is evaluated against the utterance context, it refers to the utterance speaker i.e., the unshifted reading. If the author function is evaluated against the intensional context introduced by the attitude predicate, it refers to the speaker/author of the reported context i.e., the shifted reading. Anand and Nevins and Anand argue that the intensional context is introduced by a context shifting operator (OP), a monster that certain attitude verbs subcategorize for.

(104) $[\![\text{OP } \alpha]\!]^{c,i} = [\![\alpha]\!]^{i,i}$, where α = attitude-report

The OP takes the utterance context (c) of its sister and overwrites it with the intentional index parameter (i) associated with the attitude predicate, providing a new context parameter against which indexicals are interpreted. The overwriting of c by i is possible because ontologically they

are equivalent, both are a tuple consisting of ⟨Author, Addressee, Time, World, Location⟩ and have the same semantic types.

On this view, the Zazaki sentence (102) is thus ambiguous between two LF structures: one where the OP is present, as in (105), yielding the shifted reading, and another, as in (106), where the OP is absent, yielding the unshifted reading.

(105)   The shifted reading (102i)

    a.   LF: [yesterday Rojda Bill-to said [that [**OP** [I you-to angry.be]]]]

    b. $[\![a]\!]^{c,i}$ = $[\![$ SAY $]\!]^{c,i}$ ($\lambda \forall i'.[\![$OP [I you-to angry.be]$]\!]^{c,i'}$) ($[\![$Bill$]\!]^{c,i}$) ($[\![$Rojda$]\!]^{c,i}$)

       = 1 iff, $\forall i'$ compatible with what Rojda said to Bill in i [$_{CP}$ AUTHOR(i') ADDRESSEE (i') angry.be]]$^{i',i'}$

       = [Yesterday Rojda said to Bill that [$_{CP}$ I$_{Rojda}$ am angry at you$_{Bill}$]$^{i',i'}$

(106)   The unshifted reading, (102ii)

    a.   LF: [yesterday Rojda Bill-to said [that [I you-to angry.be]]]

    b. $[\![a]\!]^{c,i}$ = $[\![$ SAY $]\!]^{c,i}$ ($\lambda \forall i'.$ [I you-to angry.be]^{c,i}) ($[\![$Bill$]\!]^{c,i'}$) ($[\![$Rojda$]\!]^{c,i}$)

       = 1 iff, $\forall i'$ compatible with what Rojda said to Bill in i [$_{CP}$ AUTHOR(i') ADDRESSEE (i') angry.be]]$^{i',i'}$

       = [Yesterday Rojda said to Bill that [$_{CP}$ I$_{Rojda}$ am angry at you$_{Bill}$]$^{i',i'}$

Under this theory, all indexicals are in principle shiftable. The parametric variation is due to whether the OP is present or absent in a structure. In non-indexical shift languages such as English, there is no OP in the lexicon. In optional indexical shift languages such as Magahi and Amharic the OP is in the lexicon but appears optionally in a structure. In obligatory indexical shift language such as Slave and Uyghur the OP appears obligatorily in a relevant structure.

This approach successfully captures *Shift Together* phenomenon. However, Anand and Nevins's (2004) and Anand's (2006) versions assume that shifting OPs are a part of lexicon and their use in

a structure is a result of verbal subcategorization. Because the use of an OP is a lexical property of a verb, the theory cannot offer a principled explanation of the fact that indexical shift is available in finite clauses but not in non-finite clauses. However, recently Deal (2017, 2019) has proposed that shifty OPs are functional elements, which occupy a relatively high position in functional sequence, which are absent in non-finite clauses.

If we integrate the idea that there are SP (e.g., syntactic representation of the speaker) and ADD (e.g., syntactic representation of the addressee) co-ordinates in the periphery of a finite clause, as in the current proposal, with Deal's theory of indexical shift, we can explain the interaction of indexical shift and honorification in Magahi as well. In this approach, the embedded SP and ADD are not themselves the vehicles of indexical shift, but they fall within the scope of a monstrous operator which is also in the left periphery of the embedded clause, higher than SP and ADD (See Alok and Baker 2018 who discuss this possibility, suggested by Amy Rose Deal (p.c.)), as schematized in (107).

(107)   Santee told Bantee [$_{CP}$ (OP$_{ADDR}$) (OP$_{AUTH}$) [$_{FinP}$ SP ADD [$_{TP}$ I you saw-Add-Agr]]]

As such, SP and ADD can undergo indexical shift, just as 1st person pronouns and 2nd second person pronouns in argument positions can. From this perspective, the fact that 2nd person pronouns shift if and only if Add-Agr shifts and when there is indexical shift honorification also shifts are essentially another instance of *Shift Together*.

Although the context shifting operator approach may be able to explain indexical shift and its interaction with honorification in Magahi, there may still be a reason to prefer the present analysis for Magahi. The first reason is conceptual. For example, the present analysis assumes just one null element (e.g., ADD DP) in the clause periphery to explain Add-Agr and indexical shift of 2nd person pronouns, rather than two (e.g., OP$_{ADDR}$ and ADD). The analysis thus draws a stronger connection between the two phenomena. It rightly predicts that the same clauses that disallow allocutive marking will also disallow indexical shift in Magahi. Another reason to prefer

the current analysis for Magahi is that the language shows that there is a significant syntactic component to indexical shift. Recall that the fact that regardless of whether the matrix subject is an author or a source or a receiver of the attitude report, it can control indexical shifting of the 1st person pronoun (cf. 'tell', example (80) vs 'hear', example (81)) in Magahi. This fact is somewhat mysterious in the context shifting operator view because the OP_{AUTH} can shift a 1st person pronoun under its scope only to the author of the attitude report. That said, the current analysis, however, needs to be tested cross-linguistically, where a wide range of variations has been reported (e.g., see Deal 2017, 2019, Sundaresan 2012, 2018). [18]

7   Conclusion

In this chapter, I studied indexical shift in Magahi, in light of what is known about indexical shift cross-linguistically. Based on its interaction with Add-Agr and pronominal honorification in Magahi, I argued that the null DPs, SP and ADD, that are found in the periphery of a finite clause are "monstrous" operators for indexical shift of 1st and 2nd person pronouns, rather than C-like heads such as OP_{AUTH} and OP_{ADDR} that shifts contexts semantically. The implication of this study is that optionality of indexical shift is not in whether these operators are present or absent in the structure but whether they are bound by the arguments of the superordinate verb or bound by the SP and ADD of the higher clause.

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18. Sundaresan (2018) proposes a hybrid analysis of indexical shift that combines core insights from both the "Indexical centric approach" (Schlenker 1999, 2003) and the "Context shifting operator approach" based on Anand and Nevins (2004), Anand (2006), Sudo (2012), Shklovsky and Sudo (2014). I do not discuss this approach here.

Chapter 5

Beyond Declaratives: Indexicality and Honorificity in Imperatives and Interrogatives

1 Introduction

In this chapter I extend the discussion of indexicality and honorification in Magahi to two structures that differ from the structures considered so far in this dissertation, *imperatives*, and *interrogatives*. Each of these amplify issues that our consideration of declaratives in root and embedded clauses have brought up. Recall from Chapter 1 that Magahi is closely related to Hindi, a language that is much better studied within the modern linguistic frameworks. The discussion of imperatives and interrogatives in this chapter draws to some extent on that connection as well. Section 2 deals with imperatives. It shows that Magahi imperative clauses can be freely embedded in semantically appropriate verbs, and like indicatives, they encode honorificity, and allow indexicals to shift. Not much has been done on Hindi imperatives (see Sharma 2016 for a descriptive survey). But I believe that the discussion on honorification, indexicality, and embeddability of Magahi imperative will have implication for Hindi as well. Section 3 deals with interrogatives. The discussion on interrogatives show that Magahi patterns very closely with Hindi with respect to complementation. The analysis that is proposed thus will have implications for Hindi, where complementation has been debated for more than three decades (Davison 1987; Srivastav/Dayal 1989, 1991, 1994, 1996, 2000; Mahajan 1990, 2000; Fanselow & Mahajan 2000; Lahiri 2002; Manetta 2010 on Hindi). The contribution of Magahi is that it brings indexical shift, honorification, and

the interaction between the two into the debate.

2   Indexicality and Honorification in Magahi Imperatives

Two common assumptions about imperatives cross-linguistically are that they have a 2nd person subject referring to the addressee of the utterance and that they cannot be readily embedded (Katz and Postal 1964; Sadock and Zwicky 1985; Palmer 1986; Rivero and Terzi 1995; Platzack and Rosengren 1997; Han 1998; Portner et al. 2019b and others). This section first presents empirical evidence against these views of imperatives, focusing on the honorification system and indexical shift phenomenon involved in Magahi. Magahi imperatives replicate the facts related to indicative clauses along several dimensions. First, like indicatives, imperatives also show three values of honorification on second person elements. Second, like indicatives, honorification is also manifested on 3rd person pronouns. Third, like indicatives, they can be rather freely embedded under semantically appropriate verbs and allow indexicals to shift, although with some interesting differences. Investigating all these properties in detail, the chapter generalizes the theory of honorification and indexical shift that has been proposed in previous chapters to imperatives.

This section is structured as follows. Subsection 2.1 first introduces canonical imperatives in Magahi. It shows that imperatives encode a similar three-way honorification as indicative clauses. Subsection 2.2. shows that despite encoding the social/hierarchical relation between the speaker and the addressee, imperatives can be freely embedded in Magahi. Several tests are applied to show that the embedding is an instance of a true subordination rather than quotation. The Subsection also examines the distribution and various interpretations of imperatives in detail. It demonstrates that Magahi allows imperatives to embed freely, which goes against the common assumption that imperatives cannot be readily embedded. It also shows that the subject of an embedded imperative may not refer to the addressee but can refer to the higher goal argument of the superordinate verb. Subsection 2.3 proposes a structure for Magahi imperatives. Subsection

2.4 extends the analysis of honorification and indexicality that has been developed in previous chapters to embedded imperatives. Subsection 2.5 presents another kind of imperatives found in Magahi, future imperative. Subsection 2.6 summarizes the section.

2.1 Basics of Magahi Imperatives

Like indicatives, Magahi imperatives also encode a three-way honorific relation between the speaker and the addressee, distinguishing nonhonorific (NH), honorific (H) and high honorific (HH), as shown in (1)-(2). The (a) sentence of each example is directed to a NH addressee, the (b) sentence is directed to an H addressee and the (c) sentence is directed to a HH addressee.

(1) a. *(Tu)   ii   kitaab paRh*
       (you.NH) this book   read.IMP.NH
       'Read this book!'   (said to a friend or a younger brother)

   b. *(Tu)   ii   kitaab paRh-a*
       (you.H) this book   read-IMP.H
       'Read this book!'   (said to father)

   c. *(Apne)   ii   kitaab paRh-ii*
       (you.HH) this book   read-IMP.HH
       'Read this book!'   (said to a teacher)

(2) a. *(Tu)   kal   dilli j-o*
       (you.NH) tomorrow Delhi go-IMP.NH
       'Go to Delhi tomorrow!'   (said to a friend or a younger brother)

   b. *(Tu)   kal   dilli jaa*
       (you.H) tomorrow Delhi go.IMP.H
       'Go to Delhi tomorrow!'   (said to father)

c. *(Apne)*   *kal*   *dilli* *jaa-**ii***
    (you.HH) tomorrow Delhi go-IMP.H
    'Go to Delhi tomorrow!'   (said to a teacher)

Moreover, the realization of agreement morphemes is phonologically conditioned. We find two sets of morphemes in the above examples. When the verb ends with the open back vowel '*a*', the morphemes that it realizes are *-o/-Ø/-ii*, depending on the honorific status of the addressee , as in (2). In all other cases, the morphemes are *-Ø/-a/-ii*, as shown in (1).[1]

Like indicative clauses, honorification is manifested on 3rd person pronouns as well, as in (3).

(3) a. ***Okraa*** *ii*   *kitaab de*
         him.NH this book   give.IMP.NH
         'Give him (=a friend or a younger brother) this book!'   (said to a friend)

     b. ***Unkaa*** *ii*   *kitaab de*
         him.H   this book   give.IMP.NH
         'Give him (=father) this book!'   (said to a friend)

     c. ***Unkaa*** *ii*   *kitaab de*
         him.HH this book   give.IMP.NH
         'Give him (= a teacher) this book!'   (said to a friend)

In (3a), the pronominal form *okraa* indicates that the referent of the pronoun is NH to the speaker while the form *unkaa* and (3c) indicates that the referent of this pronoun is either H, as

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1. The morpheme *-thi(n)* is also possible with HH subjects, as in (i)-(ii). However, I will be only showing the morpheme *-ii* with HH subjects, just for clarity and to make distinction from declaratives.

(i) a. *(Apne)* *ii*   *kitaab paRh-**ii/thi(n)***
         you   this book   read-IMP.HH
         'Read this book!'   (said to a HH addressee)

     b. *(Apne)* *kal*   *dilli* *jaa-**ii/thi(n)***
         you   tomorrow Delhi go-IMP.H
         'Go to Delhi tomorrow!'   (said to a HH addressee)

in (3b) or HH to the speaker, in (3c).

Before we examine the characteristics of Magahi imperatives in more detail, let us first establish the fact that we are dealing with true canonical imperatives. In the next few subsections, I apply some syntactic tests and show that the subject of such a clause is fixed to be 2nd person which is a hallmark property of a canonical imperative.

2.1.1 2nd Person Restriction on Subjects

The above imperative clauses (1) and (2) have a null subject or an overt 2nd person subject. Example (4) and (5) show that the subject of these clauses must be 2nd person.

(4) a. *Tu/*u/*Ham   dilli   jaa/j-**o**
         You.(N)H)/he/I Delhi go.IMP.NH/go-IMP.H
         'You (= a friend or =father) go to Delhi tomorrow!'

     b. *Apne/*u/*Ham dilli jaa-**ii**
         You.HH/he/I   Delhi go-IMP.HH
         'You (= a teacher) go to Delhi tomorrow!'

(5) a. *Sab-koii   kal   dilli   j-**o**/jaa/jaa-**ii**
         all-somebody tomorrow Delhi go-IMP.NH/H/HH
         'Everyone go to Delhi tomorrow!'

     b. *Koii   mat dilli j-**o**/jaa/jaa-**ii**
         Nobody NEG Delhi go-IMP.NH/H/HH
         'Nobody go to Delhi tomorrow!'

Example (4) shows that, unlike 2nd person, 1st and 3rd person pronominal subjects are impossible in imperatives. Example (5), on the other hand, shows that while 3rd person pronouns are excluded in imperatives, quantifier DPs are permitted. However, they are syntactically 2nd person, as they trigger the same agreement as 2nd person imperatives subjects.

2.1.2 Obviation of Pronominal Possessives

Unlike English, most Magahi speakers do not allow a possessive object DP in a clause that refers to the subject of the same clause- rather- a subject oriented reflexive *apan* 'self' is used. This is a well-known fact about binding facts in Hindi (Kachru 1980; Gurtu 1985; Déprez 1989; Mahajan 1990; Mohanan 1990; Srivastav/Dayal 1991; Dayal 1994; Kidwai 2000). A Magahi example is shown in (6), for declarative clauses.

(6) a. *Tu$_i$ apan$_i$/*tor$_i$ maaye-ke   dekhleN*
         You self/your   mother-ACC saw.2NH
         'You saw your mother.'

   b. *Ham$_i$ apan$_i$/*hamar$_i$ maaye-ke   dekhli*
         I   self/my   mother-ACC saw.1
         'I saw my mother.'

   c. *U$_i$ apan$_i$/*okar$_i$ maaye-ke dekhlai*
         He self/   his   mother-ACC
         'He saw his mother.'

Example (7) shows that 1st and 3rd person possessives are permitted in imperatives but not a 2nd person pronominal possessive, showing that the subject of these clauses is 2nd person.

(7) a. *Hamar/okar maaye-se   baat kar*
         my/his   mother-INST talk do.IMP.NH
         'Talk to my/his mother'   (said to a friend)

   b. *apan/*tor maaye-se baat   kar*
         Self/   your   mother-INST talk
         'Talk to your mother'   (said to a friend)

2.1.3 No Addressee Agreement

Discussing addressee agreement (Add-Agr) in chapter 3, we learnt that Add-Agr is possible with the 1st person and 3rd person subjects but it is impossible in the presence of 2nd person agreeing subjects in Magahi, as in (8), also noted in other languages such as Basque (Oyharçabal 1993), Tamil (McFadden 2017), Galician (Haddican 2018), Punjabi (Kaur 2019).

(8) a. *Tu   dauR-l-eN-(*au)*
       You.NH run-PRF-2.NHS-(NHA)
       'You ran.'   (said to a friend)

   b. *Tu   dauR-l-a-(*o)*
      You.H run-PRF-2.HS-(HA)
      'You ran.'   (said to father)

   c. *Apne   dauR-l-thi(n)-(*ain)*
      You.HH run-PRF-2.HHS(HHA)
      'You ran.'   (said to a teacher)

The same pattern is seen in imperatives, as in (9). Add-Agr is disallowed, showing that the subject of such clause is 2nd person, a hallmark property of a canonical imperative.

(9) a. *kal   dilli   j-o-*(au)*
       tomorrow Delhi go-IMP.NHS-*NHA
       'Go to Delhi tomorrow!'   (said to a friend)

   b. *kal   dilli   jaa-*(o)*
      tomorrow Delhi go.IMP.HS-*HA
      'Go to Delhi tomorrow!'   (said to father)

   c. *kal   dilli   jaa-ii-*(ain)*
      tomorrow Delhi go-IMP.HHS-*HHA
      'Go to Delhi tomorrow!'   (said to a teacher)

2.1.4   A dedicated Negative Marker -*mat*

In Hindi, a closely related language, it has been argued that there is a dedicated negative particle mat that is used in imperative clauses to give a negative command, although the regular negative marker can also be used (Bhatia 1995, Jain 1995, Sharma 2001, Montanut 2004, Kumar 2006). Magahi also has the same marker *mat* that is used to negate an imperative. As shown in (10), both the regular negative particle *na* or the negative particle *mat* can be used in imperatives, as in (10a) but only *na* is allowed in declaratives (10b) or in interrogatives (10c).

(10)   a.   *Ii   kitaab mat/na parh/a/ii*
            this book   NEG   read-IMP.NH/H/HH
            'Do not read this book!'

      b.   *Tu   ii   kitaab na/*mat paRhleN*
            You   this book   NEG   read.PRF.2.NH
            'You did not read this book.'

      c.   *Ke   ii   kitaab na/*mat paRhlai?*
            Who   this book   NEG   read.PRF.3.NH
            'Who did not read this book?'

Thus, I conclude that we are dealing with a true imperative with directive force. The next section shows that imperatives can be embedded in Magahi.

2.2   Embedding of Magahi Imperatives

It has been long debated in the literature whether imperatives can be embedded. The earlier and most dominant view was that, unlike declaratives and interrogatives, imperatives cannot be embedded (Katz and Postal 1964, Sadock and Zwicky 1985, Palmer 1986, Rivero and Terzi 1995, Platzack and Rosengren 1997, Han 1998 and others). However, in recent years, some languages have been reported to allow embedding of imperatives: Rögnvaldsson (1998), Platzack (2007)

for Old Germanic; Dvořák (2005), Dvorak and Zimmermann (2006), Rus (2005) for Slovenian; Medeiros (2013) for Ancient Greek; Portner (2004), Portnet et al. (2019), Han (2000), Schwager (2006) for Korean; Saito (2012), Kuno (1988), Maier (2010) for Japanese; Chen-Main (2005) for Mandarin; Schwager 2006, Kaufmann and Poschmann (2013) for Colloquial German; Crnič and Trinh (2009) for English; and Thomas (2012) for Mbyá. We find cross-linguistic variation regarding the embeddability of imperatives. On the one hand, there are languages like Italian that do not allow embedding of imperatives at all and languages like English that allow embedding in a very restricted way, such as under the verb 'say' only. On the other hand, there are languages like Korean that allow imperatives to embed somewhat freely under a semantically appropriate verb. In a recent study, Portner et al. (2019b) claim that the restriction on embedding of imperatives is not due to the unembeddability of (directive) illocutionary force (e.g., Horn 1998) but rather due to the social/hierarchical relation between the speaker and the addressee that they encode.

Magahi presents evidence against this view. We saw above that the imperative encodes the social relation between the speaker and the addressee. Interestingly, imperatives can be embedded in Magahi, as shown in (11).

(11) a. *Baabaa   kahalathi (ki)   ii   kitaab paRh*
          Grandfather said.3H   COMP this   book   read.IMP.NH
          'Grandfather said read this book!'

      b. *Baabaa   kahalathi (ki)   kal   dilli   j-o*
          Grandfather said.3H   COMP tomorrow Delhi go-IMP.NH
          'Grandfather said go to Delhi tomorrow!'

The embedded imperative cannot be a direct quotation because it is grammatically transparent. The first piece of evidence for subordination comes from examples like (12), which shows that the matrix subject and a 3rd person pronoun *his* in the embedded clause can be coreferential.

This would be impossible if the embedded imperative were quotation.[23]

(12) a. *Baabaa_i   kahlathi (ki)   unkar_i mammii-ke kaul kar*
Grandfather told.3H   COMP   his.H   mom-ACC   call   do.IMP.NH
'Grandfather_i said call his_i mom.'

b. *Santeeaa_i kahlai (ki)   okar_i   mammii-ke kaul kar*
Santee.FM told.3H COMP   his.NH mom-ACC   call   do.IMP.NH
'Santee_i said (to me) call his_i mom.'

The same argument applies to (13), which shows that variable binding is possible in embedded imperatives. In (13), a possessive pronoun which is inside the complement of 'say' is bound by a quantifier in a higher clause.

(13) *Sab netaa kahhai   ki   okar paarTii-ke bhoT de*
all   leader told.3.NH COMP his   party-ACC vote give.IMP.NH
'Every leader_i said vote his_i party'

---

2. In the previous chapter, we saw that when a 3rd person pronoun in the complement clause refers to a higher argument, an indexical in the same clause cannot have a shifted reading or a vice-versa (cf. subsection 3.3, chapter 4, the discussion around example (24)). This is true in imperative clauses as well. Consider (i).

(i) *Baabaa   Santeeaa-ke   kahlathi ki   unkar mammii-ke kaul kar*
grandfather Santee.FM-DAT told.3H   COMP his.H   mom-ACC   call do.IMP.NH
(a) "Grandfather told Santee pro (= Santee) call his (not = grandfather, = a third person) mom."
(b) "Grandfather told Santee pro (= addressee) call his (= grandfather or = a third person) mom."

3. So far, I show that *ki* is optional with embedded imperatives. However, there is an interesting issue related to its (morphological) presence and absence. When *ki* is present in the structure, we get a coreferential reading with normal intonation. The picture changes when *ki* is absent. We do not get a coreferential reading with normal intonation, as indicated in (iia), but it is possible with a pause, represented as [..], after the superordinate verb 'say', as shown in (iib).

(i) a. *Baabaa   kahlathi unkar mammii-ke kaul kar*
Grandfather said.3H   his.H   mom-ACC   call do.IMP.NH
'Grandfather said call his (= not grandfather, = a third person) mom.'

b. *Baabaa   kahlathi[...] unkar mammii-ke kaul kar*
Grandfather told.3H   his.H mom-ACC   call do.IMP.NH
"Grandfather said call his (=grandfather, or = a third person) mom."

It seems that (2a) is a case of quotations. I will leave a detailed investigation of the optionality of *ki* for the future and hereafter I use examples with *ki* but see chapter 6 for some discussion.

The third piece of evidence comes from a direct question interpretation available for embedded imperatives. [4]

(14) ?*Kab$_k$ Santeeaa-ke$_i$ baabaa t$_i$ kahlathi ki t$_k$ dillii j-o*
When Santee.FM-DAT grandfather told.3H COMP Delhi go-IMP-NH
'When did grandfather tell Santee to go to Delhi? (time of going question)'

A possible answer: Grandfather told him to go on Monday.

The fourth piece of evidence comes from the possibility of extraction from the embedded imperative, as in (15). [5]

(15) a. *Santeeaa kalai ki Banteeaa-ke kaul kar*
Santee.FM said.3.NH COMP Bantee-ACC call do.IMP.NH
'Santee said to call Bantee.'

b. *Banteeaa-kei, Santeeaa kahlai ki ti kaul kar*
Bantee.FM-ACC Santee.FM said.3.NH COMP call do.IMP.NH
'Santee said to call Bantee.'

c. *ljudge?kekaraai, Santeeaa kahlai ki ti kaul kar*
who-ACC Santee.FM said.3.NH COMP call do.IMP.NH
'Who did Santee say to call?'

Example (16) also shows that the embedded imperative is not a quotation. (16) is spoken by the speaker pointing out a book that is close to her. That is, the demonstrative pronoun *ii* 'this' is evaluated with respect to the utterance context, not with respect to the grandfather's original utterance.

---

4. In (14), the adverbial wh-expression 'when' can also be associated with the matrix verb 'say'. However, that is not the interpretation of interest.

5. In (15b & c), the extracted NP can also be interpreted as the object of matrix verb say. But that is not the meaning of interest.

Context: Speaker points at a book and says:

(16) *Baabaa   kahlathi   hal   ki   ii   kitaab kharid*
Grandfather tell.PRF.3H be.PST COMP this book   buy.IMP.NH
'Grandfather had said buy this book.'

Finally, to use embedded imperatives the original utterance need not be an imperative. Consider (17) and (18). Example (17) is a statement which contains a modal verb. It can be reported with the imperative as in (18).

Context: Grandfather says to Bantee:

(17) *Santeeaa-ke paRhe-ke chaah hai.   Na   to   u   parichha-me phel ho   jaitai*
Santee-DAT study-ACC want be.3.NH. NEG PRT he exam-in   fail happen go.FUT.3
'Santee should study. Otherwise, he would fail the exam.'

Context: Later, Bantee says to Santee:

(18) *Baabaa   kahla-thu ki   **paRh**.   na   ta   phel ho   jaimeN*
Grandfather said-NHA COMP read.IMP.NH NEG PRT fail happen go.FUT.2.NH
'Grandfather said to study. Otherwise, you will fail.'

The above discussion establishes that the embedded imperative is a case of true subordination rather than a quotation.

Now, let us examine the distribution and interpretation of embedded imperatives. So far, we have seen that embedded imperatives can appear under the speech verb 'say' in Magahi. In fact, it can appear under other reporting verbs such as 'order', 'suggest', 'warn' as well, as in (19).

(19) a. *Baabaa   chetailthi   ki   kelaa   mat kh-o*
          grandfather warn.PRF.3H COMP banana NEG eat-IMP.NH
          'Grandfather warned not to eat bananas.'

     b. *Baabaa   salaah   delthi   ki   seb   kh-o*
          grandfather suggestion gave.3H COMP apple eat-IMP.NH
          'Grandfather suggested to eat apples.'

     c. *Baabaa   aagyaa delthi   ki   dilli   j-o*
          grandfather order   gave.3H COMP Delhi go-IMP.NH
          'Grandfather ordered to go to Delhi.'

Embedding is also possible under the verb 'want', as in (20).

(20) *Baabaa   chaaha hathi ki   ii   kitaab mat paRh*
      grandfather want   be.3H COMP this book NEG read.IMP.NH
      'Grandfather want don't read this book.'

Example (21), on the other hand, shows that it is ungrammatical to embed imperatives under verbs of 'knowledge', 'thought', or 'belief'.

(21) a. **Baabaa   jaana/socha hathi ki   dilli   j-o*
           grandfather know/think be.3H COMP Delhi go-IMP.NH

     b. **Baabaa   viswaas kara hathi ki   ii   kitaab paRh*
          Grandfather believe do   be.3H COMP this book   read.IMP.NH

Now, let us examine the interpretation of embedded imperatives. Let us first look at the verb *kahanaa* 'say/tell'. Consider (22), where there is no explicit goal argument in the matrix clause.

Context: Deepak says to Santee

(22) *Baabaa   kahlathi ki   pro kitaab paRh*
      grandfather said.3H   COMP pro book   read.IMP.NH
      'Grandfather said pro (=speaker/Deepak, or =addressee/Santee) read the book.'

      (The shifted reading is preferred)

The sentence has two readings. The null subject of the embedded imperative can refer to the actual speaker, Deepak or the actual addressee, Santee. The former reading is a default reading. That is, if I come to you and say (22), it means, I am reporting to you whatever grandfather had said to me, i.e., it evokes a context something like below. That is, the goal which is explicit in (23) is implicit in (22).

    Situation-1: Grandfather said to Deepak: Read the book.

    Situation-2: Deepak says to the addressee

(23) *Baabaa   hamraa kahlathi ki   pro kitaab paRh*
      grandfather me-DAT said.3H   COMP pro book   read.IMP.NH
      'Grandfather said to me pro (=speaker) read the book.'

    A piece of supporting evidence for the above argument comes from the fact that the said reading is unavailable in a context where grandfather would have talked to some third person, let say Bantee, rather than the speaker, as in (24).

    Situation-1: Grandfather said to Bantee: Deepak should read the book.

    Situation-2: Deepak says to Santee

(24) #*Baabaa   Banteeaa-ke   kahlathi ki   pro kitaab paRh*
      grandfather Bantee.FM-DAT said.3H   COMP pro book   read-IMP.NH
      'Grandfather said Bantee pro (= speaker) read the book.'

Example (22) above also has an unshifted reading in an appropriate context. This reading becomes clearer when the embedded subject becomes overt, as in (25). Example (25) unlike (22) does not have preference for the shifted reading.

(25)   *Baabaa   kahlathi ki   tu   kitaab paRh*
       grandfather said.3H   COMP you book   read.IMP.NH
       'Grandfather said you (=speaker or =addressee) read the book.'

This is also true in the presence of a goal argument in the matrix clause, as in (26).

(26)   *Baabaa   Banteeaa-ke   kahlathi ki   pro/tu kitaab paRh*
       grandfather Bantee.FM-DAT said.3H   COMP (you) book   read.IMP.NH
       'Grandfather said to Bantee pro (= Bantee, or = addressee) read the book.' (The shifted reading is preferred in the case of the null subject).

Now, let us examine other speech verbs such 'order', 'suggestion', and 'warn'. Imperatives seem to have only shifted readings under these verbs, as shown in (27). [6]

(27)   a.   *Baabaa   Santeeaa-ke   chetailthi ki   (tu) dilli mat j-o*
            grandfather Santee.FM-DAT warned.3H   COMP you Delhi NEG go-IMP.NH
            'Grandfather warned Santee pro (=Santee, not =addressee) don't go to Delhi.'

       b.   *Baabaa   Santeeaa-ke   salaah   delthi   ki   (tu) seb   kh-o*
            grandfather Santee.FM-DAT suggestion gave.3H   COMP you apple eat-IMP.NH
            'Grandfather suggested Santee pro (=Santee, not = addressee) to eat apples.'

       c.   *aagyaa   delthi   ki   (tu)   garib-ke madad kar*
            grandfather Santee.FM-DAT order gave.3H COMP   you   poor-DAT
            'Grandfather ordered Santee pro (= Santee, not = addressee) to help poor.'

---

6. Many speakers prefer to use the verb kahanaa 'say/tell' in these cases as well.

As can be seen, in all the sentences in (27), the subject of the imperative clause, whether null or overt, refers to the higher goal argument, Santee. These sentences do not have an interpretation where the imperative subject refers to the utterance addressee.[7] When these sentences lack the higher explicit goal argument, the default interpretation is that the imperative subject refers to the utterance speaker, as shown in (28).

(28) a. *Baabaa   (hamraa) chetailthi   ki   (tu) dilli   mat j-o*
          grandfather me-DAT   warned.3H   COMP you Delhi NEG go-IMP.NH
          'Grandfather warned (me) *pro* (=speaker, not =addressee) don't go to Delhi.'

     b. *Baabaa   (hamraa) salaah   delthi   ki   (tu) seb   kh-o*
          grandfather me-DAT   suggestion gave.3H COMP you apple eat-IMP.NH
          'Grandfather suggested (me) pro (=speaker, not = addressee) to eat apples.'

     c. *Baabaa   (hamraa) aagyaa delthi   ki   (tu) garib-ke   madad kar*
          grandfather me-DAT   order   gave.3H COMP you poor-DAT help   do.IMP.NH
          'Grandfather ordered (me) pro (= Santee, not = addressee) to help poor.'

However, in a context, where the higher goal argument a salient in the discourse, the imperative subject is shifted to the salient higher argument. Consider the following context, where the embedded imperative subject refers to the salient individual Santee.

Context: Deepak and Santee were discussing whether Santee should go to Delhi. Grandfather came and warned Santee that he should not go to Delhi. Bantee who was sitting far could not hear what grandfather said to Santee. So, later, he asked, "what did grandfather said to Santee." Deepak replies:

---

7. There is one situation when the embedded imperative subject can refer to the utterance addressee. However, even in that case, the interpretation is not specific to the addressee but a group that includes the addressee. For example, in (28), when grandfather, speaking to Santee, issues a general warning or suggestion or order. I will not discuss this meaning here.

(29) *Baabaa* *(Santeeaa-ke)* *chetaawit halthi* *ki* *dillii mat j-o*
grandfather Santee.FM-DAT warning be.PRF.3H COMP Delhi NEG go-IMP.NH
'Grandfather was warning Santee pro (=Santee) not go to Delhi.'

Before we proceed further, let me say a bit more about these verbs. The obligatory shifted reading of the embedded imperative subject under these verbs should not be considered as a (lexical) property of these verbs because indexicals inside indicative or subjunctive clauses embedding under these verbs allow the shifted reading. The embedded 2nd person subject in (30) refers to the utterance addressee Santee in a context where his mother says (30) to him, after learning his poor performance in the exam.

(30) *Baabaa* *hamraa chetailthi* *hal* *ki* *tu* *Theek-se na paRhmeN*
Grandfather me-DAT warn-PRF-3H be.PST COMP you properly NEG study.2.NH.
'Grandfather had warned me that you will not study properly.'

The same is true for (31). The embedded 2nd person pronoun refers to Santee in a context where his mother said (31) to him after receiving a suggestion from his grandfather (the 1st person pronoun shifts to the mother in this case as well).

(31) *Baabaa* *salaah* *delthu* *ki* *ham toraa* *dillii bhej diau*
Grandfather suggestion give.NHA COMP I you.ACC Delhi send give.NHA
'Grandfather suggested that I (=speaker/mother) should send you (=addressee/Santee) Delhi.'

I thus conclude that like 'say/tell' these verbs also allow both the shifted reading and the unshifted reading. However, the unshifted reading is ruled out pragmatically in the case of embedded imperatives.

Now, let us discuss embedded imperatives under 'want'. Here, imperatives have only the unshifted reading, as shown in (32). 'Want' is different from the other verb discussed above in that it cannot have an oblique argument when an imperative (or a finite) clause is embedded under it.

(32) *Baabaa   chaaha hathi ki   (tu) ii   kitaab mat paRh*
      grandfather want   be.3.H COMP you this book NEG read.IMP.NH
      "Grandfather want you (=addressee, not =speaker or grandfather) not to read this book."

Before we make a proposal, let us examine *Shift Together* effect that will help in shaping our analysis. Let us first consider example (33), where the matrix goal argument is explicit. We see the *Shift Together* effect. The sentence has two meanings: (a) grandfather told Bantee to give him the book or (b) grandfather told Santee that Bantee should give Deepak the book. No other readings are possible.

Context: Deepak to Bantee

(33) *Baabaa   Santeeaa-ke   kahlathi ki   (tu) hamraa kitaab de*
      grandfather Santee.FM-DAT said.3H COMP you me-DAT book   give.IMP.NH
      i. Grandfather told Santee that you =(Santee) should give me (=grandfather) the book.

      ii. Grandfather told Santee that you (=addressee) should give me (=speaker) the book.

Shift Together is also observed when the goal argument is missing in the higher clause, as in (34). As we expect from the above discussion, in the shifted reading, the imperative subject refers to the utterance speaker (unless the context supplies a different argument).

Context: Deepak to Bantee

(34) *Baabaa   kahlathi ki   (tu) hamraa kitaab de*
      grandfather said.3H COMP you me-DAT book   give.IMP.NH
      i. Grandfather told me that you (=speaker 'Deepak') should give me (=grandfather) the book.

      ii. Grandfather told me that you (= addressee 'Bantee') should give me (=speaker/Deepak) the book.

Shift Together is also seen with other speech verbs such as 'order' and 'warn', as shown in (35) and with 'want', as shown in (36).

(35) a. *Baabaa   Santeeaa-ke   chetailthi   ki   (tu) haamraa-se baat mat kar*
         grandfather Santee.FM-DAT warned.3H COMP you me-INST   talk NEG do.IMP.NH
         "Grandfather warned Santee that you (=Santee) do not talk to me (=grandfather)."

   b. *Baabaa   Santeeaa-ke   aagyaa delthi   ki   (tu) hamraa roj   ego*
         grandfather Santee.FM-DAT order   gave.3H COMP you me-DAT everyday one.CL

      seb   laake   de
      apple bring.CUNJ give.IMP.NH
      "Grandfather ordered Santee that you (= Santee, not = addressee) should bring an apple

      everyday for me (=grandfather, not = speaker). "

(36) *Baabaa   chaha hathi   ki   (tu) hamraa kitaab de*
      grandfather want be.PRES.3H COMP you me-DAT book give.IMP.NH
      Grandfather want that you (= addressee) should give me (=speaker) the book.

In summary, imperatives can be embedded under semantically appropriate verbs in Magahi. We saw three different kinds of patterns with respect to their interpretation. First, under the speech verb 'tell', both shifted and unshifted readings are possible. Second, under the speech verbs that carry directive force like 'order', 'warn', and 'suggestion', only the shifted reading is available. However, examining this property of imperatives in relation to other clauses such as indicatives, I argue that the unshifted reading is ruled out in the case of imperatives, because it is pragmatically odd. Third, under 'want', only unshifted reading is possible. Some other properties which we observed are: the *pro* subject has preference for the shifted reading (a default reading, available out of a context); second, under a triadic verb, in the absence of a goal argument, the imperative subject shifts to the utterance speaker (again a default reading, available out of a context); third, there is a *Shift Together* effect. These properties are tabulated below.

	tell/say	advice/order	want
pro/null subject	✓	✓	✓
overt subject	✓	✓	✓
shifted reading possible	✓	✓	×
only shifted reading	×	✓	NA
only unshifted reading	×	×	✓
shift-together	✓	✓	NA

Table 5.1: Interpretation of Magahi embedded imperatives

2.3 Proposal

I follow Zanuttini's (2008) idea that imperative clauses have a special syntactic head, namely Jussive, that carries semantic 2nd person feature (i2P). This head binds and agrees with the imperative subject and give rise to the well-known 2nd person restriction. I assume that in canonical Magahi imperatives, the Jussive phrase replaces TP (see also Kaur 2019,[8] Jensen 2003). I propose the following syntactic structure for canonical imperatives.[9]

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8. Kaur (2019) also discusses two types of imperatives in a closely related language, Punjabi. Kaur's account of Punjabi imperatives and my account of Magahi imperatives differ on a number of technical details that it would take us too far afield to discuss here. Kaur does not discuss indexical shift in imperatives, one of the major foci of this chapter.

9. Following Kaufmann (2012), I assume that there is *MoodP* in imperative clauses and the null head mood is interpreted as a necessity modal. I also assume that there is *AspP* because the language has imperatives in habitual and progressive aspect as well, although the perfective aspect is taken as an unmarked (Kaufmann 2012). However, we will not be focusing on these categories here.

(37)

```
                              FinP
                    ┌───────────┴───────────┐
                   SP                      Fin′
                              ┌─────────────┴─────────────┐
                             ADD                         Fin′
                                              ┌───────────┴──────────┐
                                          JussiveP                  Fin
                                    ┌─────────┴─────────┐
                                  MoodP          Jussive[i2P, uHON]
                            ┌───────┴───────┐
                           vP           Mood[□]
                     ┌──────┴──────┐
                    Pro           v′
                           ┌───────┴───────┐
                         AspP              v
                    ┌─────┴─────┐
                   VP      Asp[PFV]
```

"Agree and Binding"
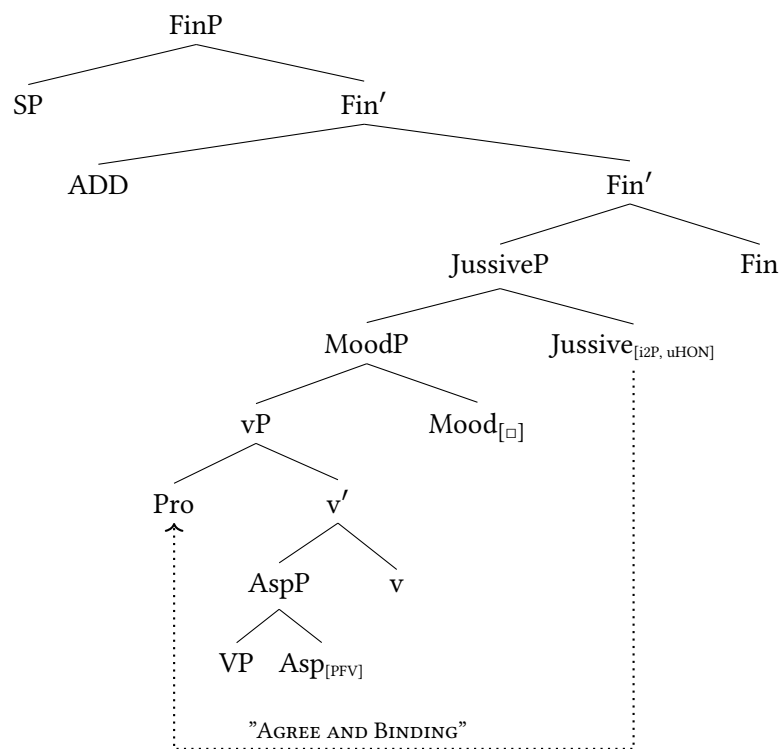
As we saw, Magahi imperatives also encode the honorific/social relation between the speaker and addressee. I thus assume that the head Jussive also carries uninterpretable honorificity feature (uHON), which marks the social relation between the speaker and the addressee. [10] This gives us the canonical imperative verb forms with honorific agreement. The proposed structure minimally differs from the structure of declarative clauses in that, instead of TP, it has JussiveP. Crucially, like declaratives, imperatives also have FinP projection that host a syntactic representation of the speaker (e.g., SP) and the addressee (e.g., ADD).

Regarding the honorification on noun phrases, given the system I have developed in chapter 2, each DP has the [iHON] feature on it, which obtains its honorific values relative to the speaker,

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10. See Kaur (2019) who argues that Jussive may contain other grammatical features such as number and gender (see also Sadock & Zwicky 1985; Jensen 2003).

after bound by the SP in the left periphery. The representation in (38b) illustrates the derivation of (38a). Every DP gets some honorification relation with respect to the speaker, after S is bound by the SP in the left periphery and [iHON] is combined with the DP. The subject DP obtains the value NH and is realized as a null morpheme on the verb, after the head Jussive agrees with it. The 3rd person pronominal object obtains the value H and is realized as *unkaa* 'him.H'.

(38)   a.   *pro   unkaa bhej*
            (you) him.H send.IMP.NH
            'Send him (=father)!'   (said to a friend)

       b.
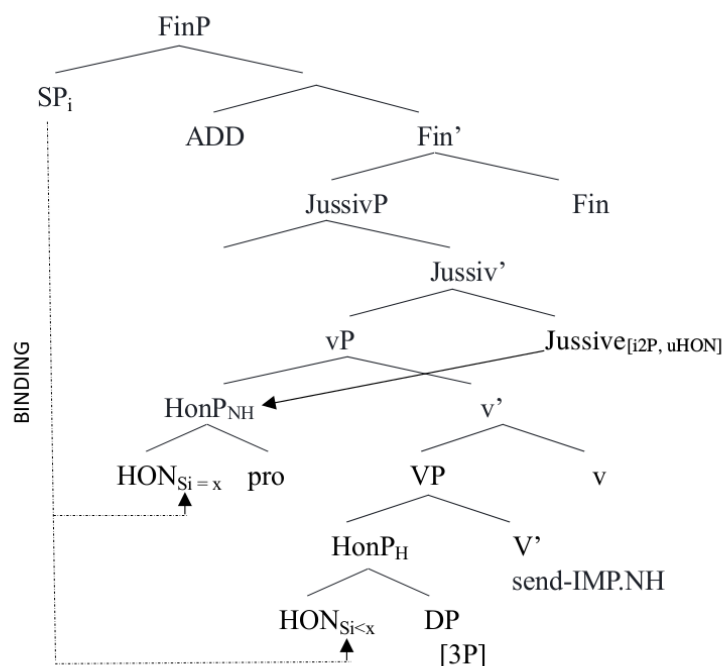
In the next subsection, I turn to the different interpretations of embedded imperatives. I will show that the system that we have been developing in this thesis can be easily generalized to

imperatives as well.

2.4   Analysis of Embedded Imperatives

Here are some key ingredients from the previous chapter that we will use to explain the various interpretation of embedded imperatives (see chapter 4 for detail).

(39)   a.   Attitude verbs are variable binders that bind and delete features under agreement. The subject checkee feature introduces the λ-abstractor with 1st person feature (λ[1st]), and the object feature introduces the λ-abstractor with 2nd person feature (λ[2nd]).

   b.   When the attitude verb binds the embedded Fin, λ[1st] binds the SP coordinate and λ[2nd] binds the ADD coordinate of the embedded Fin. Consequently, the SP refers to the higher subject argument and the ADD refers to the higher object argument. Thus, any embedded 1st person pronoun in the clause refers to the higher subject and a 2nd person pronoun refers to the higher object, yielding shifted readings.

(40)   a.   The function head Fin is a variable binder that binds and deletes features under agreement. The checkee feature of SP introduces the λ-abstractor with the 1st person feature (λ[1st]), and the checkee feature of ADD introduces the $\lambda\lambda$-abstractor with 2nd person feature (λ[2nd]).

   b.   When the higher Fin binds the embedded Fin, λ[1st] binds the embedded SP and λ[2nd] binds the embedded ADD of the embedded Fin. Consequently, the SP refers to the utterance speaker and the ADD refers to the utterance addressee. Thus, any embedded 1st person pronoun in the clause refers to the utterance speaker and a 2nd person pronoun refers to the utterance addressee, yielding unshifted readings.

(41) *Binding Together*:

The λ-abstractors ($\lambda[1st]$ and $\lambda[2nd]$) introduced by Fin and the attitude verb come in an ordered pair such that if one of the members of the pair binds a variable, then the second member of the pair must bind a variable.

(42) *The (1st and 2nd) person parameter*

When an attitude verb binds the embedded Fin, the person features of attitude verbs can bind and delete the1st and 2nd person feature of the embedded SP and ADD, regardless of what their person checkee is.

(43) Unlike overt pronouns that are minimal pronouns and inherits their person features from the operators in the left periphery (e.g., SP and ADD), the *pro* is a "native-born" pronoun with its person feature. This makes it possible for the *pro* to get its reference from being directly bound by (the checkee feature of) the verb/Fin.

2.4.1 Explaining Embedded Imperatives under 'Tell'

As we saw, under 'tell', both the shifted and unshifted reading are possible regardless of whether the subject is overt or null. In the previous chapter, I assume that *pro* can be directly bound by (the checkee features of) the attitude verb, while the binding of overt pronouns is always mediated via SP and ADD coordinates. These different binding possibilities, in combination with Binding Together (cf. 41), give us a mixed reading under dyadic verbs such as 'think' when the embedded complement clause has a 1st person null subject and a 2nd person overt pronominal object but not when the subject is a 2nd person *pro* (cf. subsection 4.4, chapter 4). However, in all other cases, the output of both the mechanisms is the same, as we will also see in the case of imperative clauses here. Consider example (44).

(44) a. *Baabaa   Banteeaa-ke   kahlathi ki   pro/tu kitaab paRh*
grandfather Bantee.FM-DAT said.3H   COMP pro   book   read.IMP.NH
"Grandfather said to Bantee pro (= Bantee, or = addressee) read the book."

b. *Baabaa   Banteeaa-ke   kahlathi ki   (tu) hamraa kitaab d*
grandfather Bantee.FM-DAT said.3H   COMP you me-DAT book   give.IMP.NH
i. Grandfather told Bantee that you (=Bantee) should give me (=grandfather) the book.

ii. Grandfather told Bantee that you (=addressee) should give me (=speaker) the book.

Example (44a) shows that the imperative clause is ambiguous between the shifted and unshifted reading under 'tell'. Moreover, in the presence of more than one indexical, there is a shift together effect, as shown in (44b). Representation (45) illustrates the mechanism behind the shifted reading when the subject is null/*pro*. The person features of 'tell' are checked by its corresponding arguments grandfather and Bantee. The subject checkee feature then introduces the 1st person λ-abstractor (λ[1st]) and the object checkee feature introduces the 2nd person λ-abstractor (λ[2nd]). Given the assumption that *pro* can be bound directly by the attitude verb (cf. 43), the null subject of the imperative clause is bound by the object checkee feature (e.g., λ[2nd]). The 2nd person null subject thus refers to the higher object, Bantee. Further, given Binding Together (cf. 41), when the object checkee feature binds the pro, the subject checkee feature must bind a variable, which forces it to bind the embedded SP (via embedded Fin). If there is any 1st person pronoun in the embedded clause, it must refer to the higher subject, grandfather, as in (44b), given the transitivity of binding; the matrix subject grandfather binds the embedded SP and the embedded SP binds the 1st person pronoun.

(45)

"BINDING"
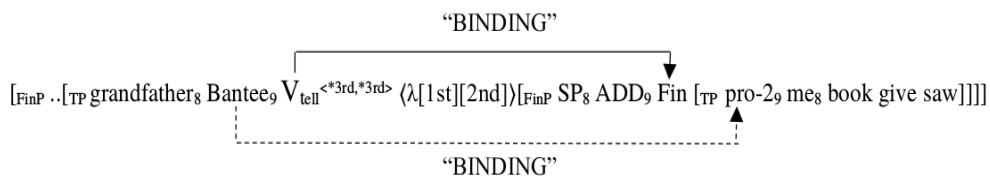
[$_{FinP}$ ..[$_{TP}$ grandfather$_8$ Bantee$_9$ V$_{tell}$$^{<*3rd,*3rd>}$ $\langle\lambda[1st][2nd]\rangle$[$_{FinP}$ SP$_8$ ADD$_9$ Fin [$_{TP}$ pro-2$_9$ me$_8$ book give saw]]]]

"BINDING"

Higher FinP: SP = Utterance Speaker, ADD = Utterance Addressee

Embedded FinP (bound by 'tell'):

   ADD = Bantee

   SP and 1st person pronoun = grandfather

The embedded null subject (bound by the object of 'tell'): Pro-2: Bantee

The representation below in (46) illustrates the mechanism behind the unshifted reading. The embedded 2nd person *pro* subject is first bound by the higher ADD checkee feature (e.g., $\lambda[2nd]$). *Binding Together* then forces the higher Fin to bind the embedded Fin. As a result, the embedded SP and ADD are bound by the higher SP and ADD. The null imperative subject thus refers to the utterance addressee. If there is any 1st person pronoun in the embedded clause, it refers to the utterance speaker.

(46)

$$[_{\text{FinP}}\text{SP}_8\ \text{ADD}_9\ \text{Fin}^{<*1\text{st},*2\text{nd}>}\ \langle\lambda[1\text{st}][2\text{nd}]\rangle\ [_{\text{TP}}\ldots\text{V}_{\text{tell}}\ldots[_{\text{FinP}}\ \text{SP}_8\ \text{ADD}_9\ \text{Fin}\ [_{\text{TP}}\text{pro-}2_9\ \text{me}_8\ \text{book give saw}]]]]$$

with "BINDING" arrows shown above and below the structure.
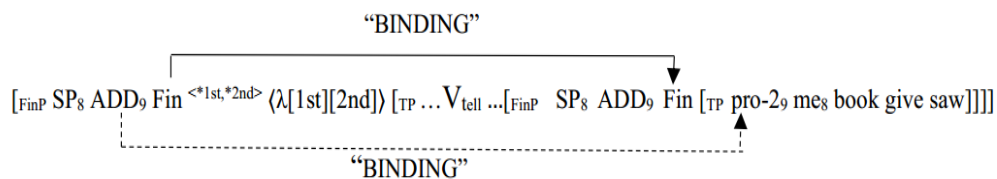
Higher FinP: SP = Utterance Speaker , ADD = Utterance Addressee

Embedded FinP (bound by higher Fin):

> ADD = Utterance addressee

> SP/1st person pronoun = Utterance speaker

The embedded null subject (bound by the ADD of the higher Fin): Pro-2: Utterance addressee

In the case of the overt subject, the mechanism is straightforward. When the verb 'tell' binds the embedded Fin, the embedded SP and ADD refer to the higher subject and the object and so the 1st and 2nd person pronouns. The unshifted reading is derived when the higher Fin binds the embedded Fin.

2.4.2 Explaining Embedded Imperatives under 'want'

As we saw, the embedded imperative has only an unshifted reading under 'want'. Example (36) is repeated here as in (47), for convenience.

(47) *Baabaa   chaaha hathi   ki   (tu) hamraa kitaab de*
grandfather want   be.PRF.3H COMP you me-DAT book   give.IMP.NH
Grandfather want that you (= addressee) should give me (=speaker) the book.

How is this possible? It would be incorrect to say that this verb does not introduce a λ-abstractor, because when a subjunctive/indicative clause with a 1st person pronoun or *pro* is embedded under 'want', it can shift to the higher subject, as shown in (48).

(48) a. *Santeeaa chaaha hai   ki   ham/pro dilli   jaai*
        Santee.FM want   be.PRES.3NH COMP I/pro.1   Delhi go.1s
        "Santee wants that I (= speaker, or = Santee) go to Delhi."

    b. *Santeeaa chaaha hai   ki   sabkoii   hamraa maph kar da*
        Santee.FM want   be.PRES.3NH COMP everyone me-DAT forgive do   give.SUBJ.H
        "Santee wants that everybody forgive me (= speaker, or = Santee)."

Therefore, the fact that imperatives have only unshifted readings under 'want' must have a different explanation. Recall the property of dyadic verbs such as 'think', from the previous chapter; an embedded 1st person pronoun can shift to the higher subject under 'think' but not a 2nd person pronoun. I argued that this is because 'think' does not have an object argument. When 'think' binds the embedded Fin, the 2nd person does not have any antecedent to anchor it. Thus, the 2nd person must refer to the utterance addressee, and this is achieved when the higher Fin binds the embedded Fin. For the same reason, an imperative clause under 'want' also has the unshifted reading only; 'want' does not have an object argument towards that the 2nd person imperative subject shifts to. Therefore, the imperative subject can only get its referent from the utterance context, and this is achieved when the higher Fin binds the embedded Fin, as in (49). A 1st person pronoun in the clause then also refers to the utterance speaker.

(49) a. *Shifted reading with the overt subject*

"BINDING"

$[_{FinP}$ SP$_8$ ADD$_9$ Fin $^{<*1st,*2nd>}$ $\langle\lambda[1st][2nd]\rangle$ $[_{TP}$ ... V$_{want}$...$[_{FinP}$ SP$_8$ ADD$_9$ Fin $[_{TP}$ pro-2$_9$ me$_8$ book give]]]]
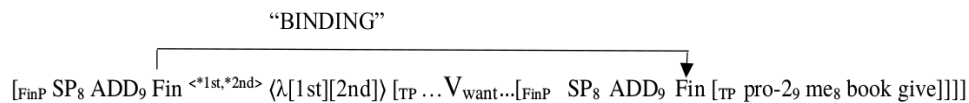
Higher FinP: SP = Utterance speaker, ADD = Utterance addressee

Embedded FinP/clause (bound by the higher Fin):

SP and 1st person pronoun = Utterance speaker

ADD and 2nd person pronoun = Utterance addressee

b. *Shifted reading with the null subject*

"BINDING"

$[_{FinP}$ SP$_8$ ADD$_9$ Fin $^{<*1st,*2nd>}$ $\langle\lambda[1st][2nd]\rangle$ $[_{TP}$ ... V$_{want}$...$[_{FinP}$ SP$_8$ ADD$_9$ Fin $[_{TP}$ pro-2$_9$ me$_8$ book give]]]]

"BINDING"
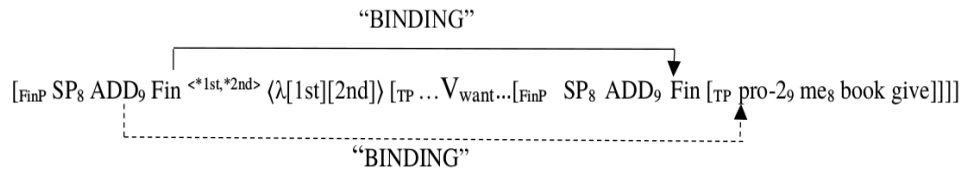
Higher FinP:

SP = Utterance speaker

ADD = Utterance addressee

The embedded null subject (bound by the ADD of higher Fin):

Pro-2: Utterance addressee

Embedded FinP/clause (bound by higher Fin):

ADD = Utterance addressee

SP and 1st person pronoun = Utterance speaker

2.4.3   Explaining the Embedded Imperatives under 'order/warn'

We saw that imperatives under some speech verbs that encode a directive force such as 'order' or 'warn' seems to have only the shifted reading. Moreover, there is a Shift Together in the case of more than one indexicals. The above example (31) is represented here as in (50), for convenience.

(50)   *Baabaa   Santeeaa-ke   chetailthi   ki   (tu) hamraa-se baat mat kar.*
       grandfather Santee.FM-DAT warned.3H COMP you me-INST   talk NEG do.IMP.NH
       "Grandfather warned Santee that you (=Santee) do not talk to me (=grandfather)."

It would be inaccurate to say that these verbs obligatorily introduce λ-abstractors that bind the embedded Fin SP and ADD coordinates, because we have seen that some other clause types such as indicatives and subjunctives may have unshifted reading when they are embedded under these verbs (cf. (30) & (31)). I thus assume that like 'say/tell' these verbs also optionally introduce the λ-abstractors. That is, the unshifted reading is in principal available but is ruled out pragmatically in the case of imperatives. The representation in (51) illustrates the derivation of the shifted reading. The person features of the verb 'warn' are checked by its corresponding arguments grandfather and Santee. These checkee features then introduce the λ-abstractors with the 1st person and 2nd person features, λ[1st] and λ[2nd]. When 'warn' binds the embedded Fin, the embedded SP and ADD are bound by the higher subject and the object and they referentially depend on them. The imperative subject thus is interpreted relative to the higher object and a 1st person pronoun, if any in the clause, is interpreted relative to the higher subject, as we have in (50).

(51)

"BINDING"

$[_{\text{FinP}} .. [_{\text{TP}} \text{Grandfather}_8 \text{ Santee}_9 \text{ V}_{\text{tell}}^{<*3rd,*3rd>} \langle \lambda[1st][2nd] \rangle [_{\text{FinP}} \text{SP}_8 \text{ ADD}_9 \text{ Fin } [_{\text{TP}} \text{pro-}2_9 \text{ me}_8 \text{ not talk do}]]]]$
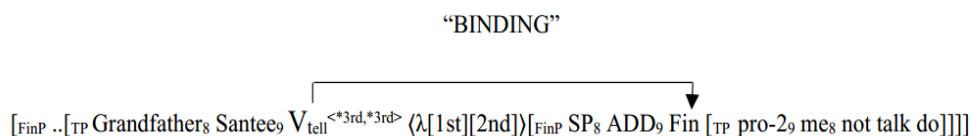
Higher FinP: SP = Utterance Speaker, ADD = Utterance Addressee

Embedded FinP/clause (bound by 'warn'):

   SP and 1st person pronoun = grandfather

   ADD = Santee

Summing up, this subsection explained the interpretation of embedded imperatives under three different types of verbs: plain speech verbs such as 'say/tell', speech verbs with directive force such as 'order', 'warn', 'suggest', and a desire verb like 'want'. The system that has been developed examining standard complementation in previous chapters was shown to generalize to imperatives as well.

The next section, very briefly, presents another type of imperative that is found in Magahi, the future imperative.

2.5 Another type of Imperatives: The Future Imperative

Magahi has another kind of imperatives, which following Verma (1985), I call *future imperatives*.[11] Future imperatives differ from canonical imperatives in two important ways. Unlike canonical

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11. Magahi also has what is called surrogate imperatives which is formed with subjunctive clauses. The subject of such imperatives is not required to be a 2nd person. I will not discuss such imperatives in this dissertation.

imperatives, future imperatives must have the auxiliary *ha* 'to be' (with the regular 2nd person agreement morpheme) and a specific morpheme *-ii* that appears on the verb. On the other hand, future imperatives are like canonical imperatives in several respects. Like canonical imperatives, they also show three values of honorification. Moreover, as canonical imperatives, they can be easily embedded and seem to allow indexicals to shift in the same way. In this section, I will discuss the basic facts related to future imperatives as root clauses and leave a detailed study of their embeddability for the future.

2.5.1 Basic Data

Like canonical imperatives, *future imperatives* also encode a three-way honorific relation between the speaker and addressee, distinguishing NH, H, and HH addressee, as in (52).

(52) a. *(Tu)*   *ii*   *kitaab paRh-ii*   *h-eN*
          you.NH this book   read-MOD be-2NH
          '(you) read this book!' (some time in future)   (said to a friend)

      b. *(Tu)*   *ii*   *kitaab paRh-ii*   *h-a*
          you.H this book   read-MOD be-2H
          '(you) read this book!' (some time in future)   (said to father)

      c. *(Apne)*   *ii*   *kitaab paRh-ii*
          you.HH this book   read-MOD
          '(you) read this book!' (some time in future)   (said to a teacher)

However, the future imperative differs from the canonical imperative in the following ways. First, unlike the canonical imperative, the future imperative must have a suffix -ii on the verb and the auxiliary ha 'to be'. Second, semantically, in the future imperative the action must be carried out at some time in the future. Third, the morpheme which we see in future imperatives are the ordinary 2nd person morphemes from the declarative paradigm, compare (53) with (52).

(53) a. *Tu   ii   kitaab paRha   h-**eN***
          You.NH this book   read.IMPRF be-2.NH
          'You read this book.'   (said to a friend)

      b. *Tu   ii   kitaab paRha   h-**a***
          you.H this book   read.IMPRF be-2H
          'You read this book.'   (said to father)

      c. *Apne   ii   kitaab paRha   ha-**thi(n)***
          you.HH this book   read.IMPRF be-2HH
          'You read this book.'   (said to a teacher)

Like the canonical imperative, the future imperative is also a true imperative. Let us look at some evidence of it. First, like regular imperatives, when future imperatives manifest an overt subject, it must be a 2nd person, as shown in (54), 1st and 3rd person subjects are disallowed.

(54) a. *Tu/*u/*Ham   baiTh-ii h-eN/a*
          You.(N)H/he/I sit-MOD be.2NH/2H
          'sit down!' (some time in future)

      b. *Apne/*u/*Ham baiTh-ii ha-thin*
          You.HH/he/I   sit-MOD be-2HH
          'sit down!' (some time in future)"

Example (55) shows that the future imperative cannot have the 1st person subject agreement, as in (55a) or a 3rd person subject agreement, as in (55b).

(55) a. *Pro ekraa paRh-ii   h-eN-(***i)**
          pro this   read-MOD be.2NH/*1
          'Read this!' (some time in future).'

      b. *Pro ekraa paRha-ii   h-eN-(***ai)**
          pro this   read-MOD be-2NH/*3
          'Read this!' (some time in future)"

Second, like canonical imperatives, future imperatives also disallow Adg-Agr, as in (56), show-ing that the subject of theses clauses is a 2nd person.

(56) *Pro baiTh-ii h-eN/a/thi-(*au/*o/*ain)*
      Pro sit-MOD be-2.NH/H/HH-*NHA/*HA/*HHA
      'sit down!' (some time in future)

Third, like canonical imperatives, 2nd person pronominal possessive tor cannot be used in future imperatives, as in (57), again, showing that the subject of these clauses is a 2nd person.

(57) *Apan/*tor maaye-se baat kar-ii heN/a/thi(n)*
      Self/your mother-INST talk do.MOD be.2NH/H/HH
      'Talk to your mother!' (some time in Future)

The special negative particle *-mat* that appears in canonical imperatives can be used in the future imperative as well, as in (58).

(58) *Pro ekraa mat/na paRh-ii heN/a/thi(n)*
      pro this NEG read.MOD be.2NH
      'Do not read this!' (some time in future)

2.5.2 The Proposal

Like with canonical imperatives, I assume that there is a special head Jussive, with semantic 2nd person feature, in future imperatives as well. However, unlike canonical imperatives, I assume that future imperatives have a TP projection. Further, I assume that the head T undergoes head movement to the Jussive and form a single unit. Thus, unlike canonical imperatives, future imper-atives consist of an auxiliary with a different agreement morpheme. Regarding the morpheme *-ii* that we see on the verb, I argue that it is a realization of the mood head which gives us necessity and future interpretation. Finally, I assume that there is FinP the left periphery which hosts the

syntactic representation of speaker (SP) and addressee (ADD). The structure I assume is shown in (59).

(59)

```
                           FinP
                          /    \
                        SP
                         \
                         ADD
                            \
                          JussiveP              Fin
                         /       \
                      TP          Tᵢ +Jussive[i2P, uHON]
                     /    \
                 MoodP      tᵢ
                /    \
             vP       Mood[□+FUT]
            /  \        -ii
         pro
          ▲   AspP         v
             /    \
          VP       AspP[PFV]
         /△\

              "AGREE and BINDING"
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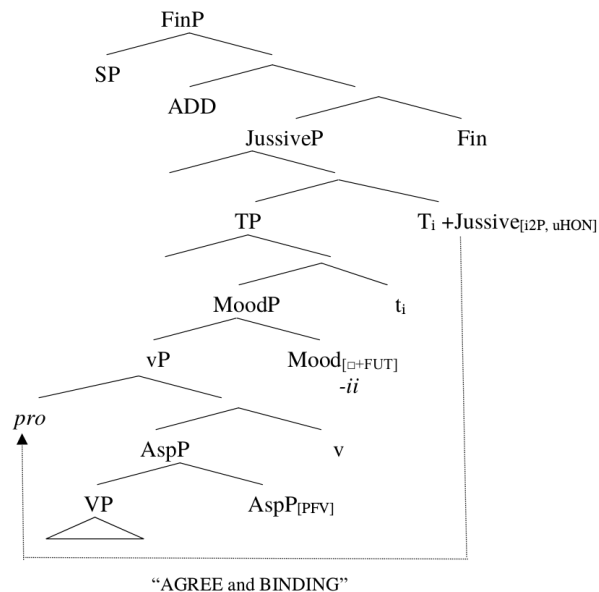
2.5.3   The Future Imperative: Not an Infinitival clause

In a closely related language, Hindi, the future imperative is expressed through an infinitival clause, as shown in (60).

(60)   *(Tum) kal   jaanaa*
       You   tomorrow go.INF
       '(you) go tomorrow'

However, future imperatives in Magahi cannot be an infinitival or gerundive clause. First, future imperatives use the auxiliary *ha* 'to be' which is not used in infinitival clauses. Second, the marker

-ii, which is obligatory used in the future imperative on the verb, cannot be an infinitival or gerundive marker in Magahi. The non-finite verbs are marked by the marker *-el/al* in unmarked form, as in (61) and *-laa* and *-e* in oblique positions/forms (62).

(61)   a.   *U   jaa-**el**/khaa-**el**/paRh-**al**/baiTh-**al**   chaaha   hai*
             He   go-INF/eat-INF/study-INF/sit-INF   want   be.3NH
             'He wants to go/eat/study/sit.'

       b.   *hamraa   okar   jaa-**el**/khaa-**el**/has-**al**   achha   na   laglai*
             I-DAT   his   go-INF/eat-INF/laugh-INF   good   NEG   feel.3NH
             'I did not like his leaving/eating/laughing.

(62)   a.   *Okaraa   ge-**laa**-se   ham   dukhii   hi*
             He-DAT   go-INF-INST   I   sad   be.1
             'I am sad because of his leaving.'

       b.   *Okaraa   khaa-**e**-se   ham   dukhii   hi*
             He-DAT   go-INF-INST   I   sad   be.1
             'I am sad because of his not eating.'

Before I close this section, I would like to comment on the embeddability of the future imperative and its distribution and interpretation and leave detailed investigation for future. Preliminary investigation suggests that the future imperative can be easily embedded and it has a similar distribution to the canonical imperative.Example (63) shows that future imperatives can also be embed under 'tell' (63a), 'warn' (63b), 'suggest' (63c), 'order' (63d), and 'want' (63e).

(63)   a.   *Baabaa   Santeeaa-ke   kahlathi   ki   (tu)   kitaab   paRh-ii   heN*
             Grandfather   Santee.FM-DAT   told.3H   COMP   you   book   go-MOD   be.2NH
             'Grandfather said Santee you (=speaker or =addressee) read the book (in future).'

       b.   *Baabaa   Santeeaa-ke   chetailthi   ki   (tu)   dilli   mat   ja-ii   heN*
             grandfather   Santee.FM-DAT   warned.3H   COMP   you   Delhi   NEG   go-MOD   be.2NH
             'Grandfather warned Santee you (=Santee, not =addressee) don't go to Delhi (in future).'

    c.   *Baabaa   Santeeaa-ke   salaah   delthi   ki   (tu) seb kh-ii   heN*
        grandfather Santee.FM-DAT suggestion gave.3H COMP you apple eat-MOD be.2NH
        'Grandfather suggested Santee you (=Santee, not = addressee) eat apples (in future).'

    d.   *Baabaa   Santeeaa-ke   aagyaa delthi   ki   (tu) garib-ke   madad kar-ii*
        grandfather SanteeFM-DAT order   gave.3H COMP you poor-DAT help   do-MOD

        heN
        be.2NH
        'Grandfather ordered Santee you (= Santee, not = addressee) help poor (in future).'

    e.   *Baabaa   chaaha hathi ki   (tu) ii   kitaab paRh-ii   he*
        Grandfather want   be.3H COMP you this book read-MOD be.2NH
        'Grandfather want you (= addressee) to read this book (in future).'

At this stage, it seems to me that the interpretation of future imperatives replicates canonical imperatives in term of the indexical shift phenomenon, except that the action must be carried out in the future, as the translation given in (63) indicates. As such, we can assume that the same mechanism may be working here as well.

2.6   Summary

This section discussed imperative clauses in Magahi and showed that Magahi imperatives replicate indicative clauses in several respects as far as honorificaiton and indexical shift are concerned. The section demonstrated that the three-way honorification is also found in imperative clauses. It also confirmed the claim made in previous chapters, that the social/hierarchical relation between the speaker and the addressee can be embedded in a language, if the language encodes them on a syntactic category that is embeddable. The section also demonstrated that the subject of imperative clauses is not always a 2nd person, referring to the addressee. If a language allows embedded imperatives along with indexical shift, the subject of embedded imperatives can refer to the higher/matrix subject.

Now I turn to interrogative clauses.

3   Indexicality and Honorification in Magahi Interrogatives

In this section we extend our study of indexical shift by going beyond regular declarative statements with declarative complements and imperatives to structures with interrogative complements. Here we find some interesting differences in the potential for indexical shift based on whether the structure as a whole is interpreted as an assertion or as a question.

A standard test that is used in the literature to differentiate indexical shift from a quotation is a direct question. As shown in the Telugu example (64), there is a wh-element eemi 'what' in the embedded clause which scopes out to the matrix clause and receives matrix question interpretation (Messick 2017, 2020).[12]

(64)   *Raju [ṭanu eemi tinn-aa-nu   ani]   cepp-ææ-Du.*
       Raju [3SG   what eat-PAST-1SG COMP] say-PAST-M.SG
       'What did Raju say he ate?'   (Messick 2020:13)

The possibility of indexicals to shift with direct questions demonstrates that the embedded complement clause is transparent for grammatical dependencies. That is, the clause cannot be a quotation because quotations are opaque for grammatical dependencies.

Unlike English, and like Telugu, Magahi wh-expressions stay in-situ, as shown in (65). Kidwai (2000) claims that wh-expressions move to pre-verbal position in Hindi due to focus features (also see Manetta 2010, Dayal 2017). It may be true in Magahi as well. As mentioned in chapter 1, Magahi and Hindi are mutually intelligible, and their lexicon and syntax overlap to some degree. However, there are also significant differences, most notably in the system of honorificity. When

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12. Indexical shift in Telugu is obtained through 'monstrous agreement'. As shown in (64), the subject of the embedded complement clause is a 3rd-person anaphor *ṭanu* but the predicate shows the 1SG agreement marking, showing that indexical shift has happened.

it comes to complementation, however, they seem to be very similar.

(65) *Santeeaa   kahaaN jaait   hai*
      Santee.FM where   go.PROG be.PRES.3
      'Where is Santee going?'

      Possible answer: 'Santee is going to Delhi.'

Unlike Telugu, wh-expressions inside a Magahi finite complement clause cannot scope out of it. Thus, a scope marking structure is needed to form a direct question (see Davison 1987; Srivastav 1989, 1991; Mahajan 1990, 2000; Dayal 1991, 1994, 1996, 2000; Lahiri 2002; Manetta 2010 on Hindi). The hallmark property of a scope marking structure is that there is a scope marker, the wh-expression *kaa* 'what' in the higher clause. However, the sentence expresses a question whose possible answers require the value for the embedded wh-expression, as shown in (66). The possible answer to (66) requires the value for the embedded wh-expression 'where'.

(66) *Santeeaa   kaa   soch   hai   ki   Ram kahaaN jaitai?*
      Santee.FM what think be.PRES.3NHS COMP Ram where   go.FUT.3NHS
      'Where does Santee think Ram will go?'

      Possible answer: 'Ram will go to Delhi'.

Interestingly, as we noted in chapter 4, this structure does not allow indexical shift. As example (67) shows, the 1st person pronoun can only refer to the speaker.

(67) *Santeeaa   kaa   soch   hai   ki   ham kahaaN jaibai?*
      Santee.FM what think be.PRES.3NHS COMP I   where   go.FUT.3NHS
      'Where does Santee think I (=speaker, not Santee) will go?'

      Possible answer: 'You will go to Delhi'.

The structure becomes even more puzzling when we see that indirect questions (i.e., interrogative complements of non-scope marking constructions) allow indexical shift, as shown in (68).

(68) a. *(Tu chintaa mat kara), Santeeaa jaana hai   ki   hamraa kaise baat*
          You worry   NEG do.IMP, Santee.FM kown be.PRES COMP me.DAT how talk

          karelaa he. ki hamraa kaise baat karelaa he.
          do.INF   be.3
          'You do not worry. Santee knows that how I (=speaker, or Santee) need to talk too.'

      b. *Santeeaa-ke pataa chal gelau   ki   hamraa kahaaN bhejal   jaait   he*
          Santee.FM   know walk went.3.NHA COMP me.DAT where   send.INF go.PROG be.3
          'Santee came to know that Where I (=Speaker, or Santee) am being sent.'

Moreover, as we have seen in chapter 4, indexical shift is also possible when an embedded wh-expression moves to the higher clause (cf. chapter 4, see discussion of examples (28)-(29) to see the complication associated with this strategy).

(69) ?*Kahan, Santeeaa-ke   laga hai   ki   ham t phiir jaiti hal*
     where Santee.FM-DAT seem be.PRES COMP I   again go.1 be.PST
     'Where does Santee think that I (=speaker or =Santee) would go again.?'

To understand the puzzle that scope marking introduces, we need to understand the pattern of complementation in the language. As in the case of scope marking, discussed above, Magahi patterns with Hindi with respect to complementation. Thus, the proposed analysis will have implications for Hindi complementation as well, where the topic has been debated for more than three decades. The new dimension that Magahi brings into the discussion is indexical shift, honorification, and the interaction between the two.

3.1   Complementation Patterns

DP complements and non-finite complements appear on the left of the verb, as shown in (70) (cf. chapter 2, ex (2a)) and (71) (cf. chapter 4, ex (22)), showing that Magahi is an SOV language.

(70) *Santee-aa   [toraa]   dekhlai*
      Santee-FM you.NH.ACC see.PRF.NHS
      'Santee saw you.'

(71) a. *Santeeaa   [jaayel] chahliau*
          Santee.FM go.INF   wanted-3-NHA
          'Santee wants to go.'

      b. *Ham [okaraa] [dhekhe-se] bachliau*
          I   him.DAT seeing-INST avoided-3-NHA
          'I avoided seeing him.'

However, we have seen already in our discussion so far that finite complement clauses (FCCs) appear on the right of the verb. In fact, as (72b) shows the FCCs are unacceptable to the left of the verb.

(72) a. *Ham jaana hi   [ki   Santeeaa   kitaab kharidlai]*
          I   know be-PRES.1 COMP Santee.FM book   bought.3
          'I know that Santee bought a book.'

      b. **Ham [ki   Santeeaa   kitaab kharidlai] jaana hi*
          I   COMP Santee.FM book   bought.3   know be-PRES.1

There is another structure that Magahi uses for complementation, which we have not seen so far; a DP such as a demonstrative pronoun *ii* 'this', which can optionally have a noun such as *baat* 'fact' or *khabar* 'news', can be in the canonical complement position when the FCC appears on the right, as shown in (73).

(73) *Santeeaa [ii   (baat)] jaana hai   [ki   Banteeaa   kitaab kharidlai]*
      Santee.FM this fact   know be-PRES.3 COMP Bantee.FM book   bought.3
      'Santee knows it/this fact that Bantee bought a book.'

Thus, Magahi establishes complementation in three different ways with an FCC. First, there can be nothing overt in the canonical complement position and the FCC appears on the right of the verb, as in (74a). I will call this 'regular complementation'. Second, there can be a scope marker 'what' in the canonical complement position and the FCC appears on the right of the verb, as in (74b). I call this 'scope marking strategy'. Third, there can be a demonstrative or regular DP in the canonical complement position and the FCC appears on the right of the verb, as in (74c). I call this a 'DP associate complementation'.

(74) a. Subj   Verb   FCC   'Regular complementation'

    b. Subj   what   Verb   FCC   'Scope marking strategy'

    c. Subj   this (fact)   Verb   FCC   'DP associate complementation'

These three types are found in Hindi as well, as shown in (75)-(76), and the topic has been extensively discussed in Hindi literature (Davison 1984, 1988; Gurtu 1985; Mahajan 1990; Srivastav/Dayal 1991, 1994, 1996, 2000, 2017; Dwivedi 1994; Manetta 2010, among others). In (75a), the complement is a DP, and in (75b), the complement is a non-finite clause. In both cases, they are left to the verb, examples from Dayal (2017: 1).

(75) a. *Anu-ne   [kalam/kyaa] khariidaa*
       Anu-ERG pen/what   bought
       'Anu bought a pen' / 'What did Anu buy?'

    b. *Anu [gaaRii/kyaa chalaanaa] jaantii hai*
       Anu car/what   drive-INF   know   be-PRES
       'Anu knows (how) to drive a car." / "What does Anu know (how) to drive?'

FCC clauses, on the other hand, appear right to the verb. Example (76a) shows the regular complementation, (76b) is an instance of scope marking structure, and (76c) is an example of DP associate complementation.

(76) a. *MaiN nahii samjhtii   huuN [ki koii-bhii aayaa   hai*
      I   not   believe-PR   that some-PSI come-PRF-P
      'I don't believe anyone has some.'   Dayal (1996:44)

    b. *Siitaa kyaa soctii hai [ki kaun aayegaa]*
       Sita   what thinks that who will   come
       "Who does Sita think will come?"   Dayal (2017:3)

    c. *Anu (yeh) jaantii hai [ki ravi-ne kalam/kyaa khariidaa]*
       Anu this   knows   that Ravi   pen/what bought
       "Anu knows that Ravi bought a pen" / "Anu knows what Ravi bought." Dayal (2017:1)

Most scholars analyzing regular complementation agree that FCCs like DPs and NFCs complements are generated to the left of the verb and extrapose to the right (but see McGregor 1977, Dwivedi 1994 for the claim that FCCs are conjunct clauses. [13] I take this approach to be on the right track. However, there is disagreement regarding the "scope marking structure" and the"DP associate structure". According to one view, the FCC is generated to the right of the verb as an adjunct and coindexed with the preverbal scope marker or associated DP, which is in the canonical object position (Srivastav/Dayal 1989, 1991, 1994, 1996, Mahajan 1990, 2000; Fanselow and Mahajan 2000). The FCC in these constructions is thus syntactically an adjunct. I call this view "FCC as an adjunction".

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13. A serious problem with the conjunct view of FCC in the regular complementation is that the FCC clause seems to be in C-command domain of the first clause, unlike a co-ordination. Compare (76a) to (i) below. Example (76a) shows that the negation particle in the first clause can license a negative polarity item (NPI) in the FCC. This is impossible in the case of coordination, as shown in (ia); the negative particle in the first clause cannot license an NPI in the second conjunct, resulting an ungrammatical sentence. To be a grammatical, both the negative particle and the NPI must be in the second conjunct clause, as shown in (ib).

(i) a. **MaiN-ne bahut logoN-ko   nahii bulaaya   thaa   lekin koii-bhii   aayaa*
      I-ERG   very people-ACC NEG invite-PRF be-PST but   someone-even come-PRF
      Intended: 'I did not invite many people, but nobody came.'

   b. *MaiN-ne bahut logoN-ko   nahii bulaaya   thaa   lekin koii-bhii   nahii aayaa*
      I-ERG   very people-ACC NEG invite-PR be-PST but   someone-even NEG come-PRF

This demonstrates that the FCC is in fact embedded within the first clause. We have seen the same fact in Magahi.

According to the second view, the FCC is generated as a complement of the scope marker or associated DP in the canonical object position and extraposed to the right of the verb and adjoined to IP (Dayal 2000, Lahiri 2002 following Herburger 1994,). I call this view "FCC as a complement of DP". According to the third view, the FCC is generated in the canonical object position and extraposed later. However, in this view, the scope marker *what* and the associated DP are expletives which are generated in the Spec of the higher functional projection, AspP (Manetta 2010). I call this view "FCCs as a complement of the superordinate verb". All three approaches assume the same syntax for the scope marking structure and the DP associate complementation.

In the next section, I examine scope marking and DP associate complementation in Magahi. The proposed analysis will have implications for Hindi complementation as well. I argue that differences that these constructions show can be captured by assuming that underlyingly they have different structures. For the scope marking construction, I argue that FCC is adjoined to a higher position in the clause such as IP. For the DP associate complementation, I argue the FCC is generated on the left of the verb as a complement of the object DP and is later extraposed to the right. Thus, the FCC in this case is in fact subordinated within the first clause similarly to the FCC in regular complementation. The difference between the last two is that in the case of regular complementation the FCC is directly subordinated to the superordinate verb while in the case of DP associate complementation the FCC is a part of the object DP. This has consequences for indexicality and honorificity.

3.2   Indexical Shift beyond Regular Complementation

Example (77) shows that 1st person pronouns do not shift to refer to the higher subject in scope marking structures, referring only to the speaker of the sentence. Example (78) shows that 2nd person pronouns also do not shift to refer to the higher object. In both sentences, the 2nd person only refers to the addressee of the sentence.

(77) a. *Santeeaa kaa socha hai ki ham kekraa-se baat karbai?*
Santee.FM what think be.PRES COMP I who-INST talk do.FUT
'What does Santee think that who I (=speaker, not = Santee) will talk to?'

b. *Santeeaa kaa jaana hai ki ham kahaaN jaibai?*
Santee.FM what know be.PRES COMP I where go.FUT
'What does Santee know that where I (=speaker, not = Santee) will go?'

(78) a. *Santeeaa Ram-se kaa kahlai ki tu kekraa-se baat karmeN*
Santee.FM Ram-INST what told COMP you who-INST talk do.FUT
'What did Santee say to Ram that who you (=addressee, not = Ram) will talk to?'

b. *Santeeaa Ram-se kaa puchhlai ki tu kekraa-se baat karmeN*
Santee.FM Ram-INST what asked COMP you who-INST talk do.FUT
'What did Santee ask Ram that who you (=addressee, not = Ram) will talk to?'

Now, let us consider DP associate complementation. Indexicals seem to have shifted readings in these cases. As shown in (79)-(82), in all these sentences, the 1st person pronoun can shift to refer to the higher subject.

(79) *Ram ii kahit halo ki sab-koii hamraa maaph kar detai*
Ram this say.PROG be.PRF.HA COMP all-someone me-DAT sorry do give.FUT.3
'Ram was saying it that everyone will forgive me (=speaker, or Ram).'

(80) *Santeeaa-ke ii laga hai ki ham parichhaa paas ho jaayem*
Santee.FM-DAT this seem be.PRES COMP I exam pass become go.FUT.1
'Santee thinks that I (=speaker, or = Santee) will pass the exam'

(81) *Santeeaa ii jaan gelai ki ham dillii jaayem*
Santee.FM this know go.PRF.3 COMP I Delhi go.FUT.1
'Santee knew it that I (= Speaker, or Santee) will go to Delhi'

(82) a. *Ram-ke   ii   pataa-chal gelai   ki   ham ab   na   bacham*
          Ram-DAT this know   go-PRF COMP I   now NEG save.FUT.1
          'Ram (came to) knew it that I (=Speaker, or = Ram) will not live anymore.'

      b. *Ram-ke   ii   pataa-chal gelai   ki   hamraa-se ab   koi   na   batiaat*
          Ram-DAT this know   go-PRF.3 COMP me-DAT   now somebody NEG talk-FUT
          'Ram (came to) knew that nobody will talk to me (=Speaker, or = Ram).'

One might say that the above examples are instances of quotations. However, in examples
(83)-(86), long-distance NPI licensing along with indexical shift demonstrates that these clauses
are properly subordinated to the first clause, making it possible for the matrix negative particle
to c-command the NPI and properly license it.

(83) *Ram ii   *(na) kahit halo   ki   ekk-o-go   aadmii hamraa maaph kartai*
      Ram this NEG   saying be.PRF.HA COMP one-even-CL man   me-DAT sorry   do.FUT.3
      'Ram was not saying it that anyone will forgive me (=speaker, or = Ram).'

(84) *Santeeaa-ke   ii   *(na) laga hai   ki   ham ekk-o-go   parichhaa paas*
      Santee.FM-DAT this NEG   seem be.PRES COMP I   one-even-CL exam   pass

          hobai
          be.FFUT.1
      'Santee does not think that I (=speaker, or = Santee) will pass any exam.'

(85) *Santeeaa-ke   ii   *(na) viswaas hai   ki   ham ekk-o-go   parichhaa paas*
      Santee.FM-DAT this NEG   believe be.PPRES COMP I   one-even-CL exam   pass

          hobai
          be.FUT.1
      'Santee does not believe that I (=speaker, or = Santee) will pass any exam.'

(86) *Santeeaa ii   *(na) samjha   hai   ki   ham ekk-o-go   parichhaa paas*
     Santee   this   NEG   understand be.PRES COMP I   one-even-CL exam   pass

     ho   paayem
     become find.FUT
     'Santee does not think that I (=speaker, or = the addressee) will pass any exam.'

Moreover, in (79)-(82), the FCC is a declarative. Example (87) shows that indexical shift is possible in the interrogative FCC as well.
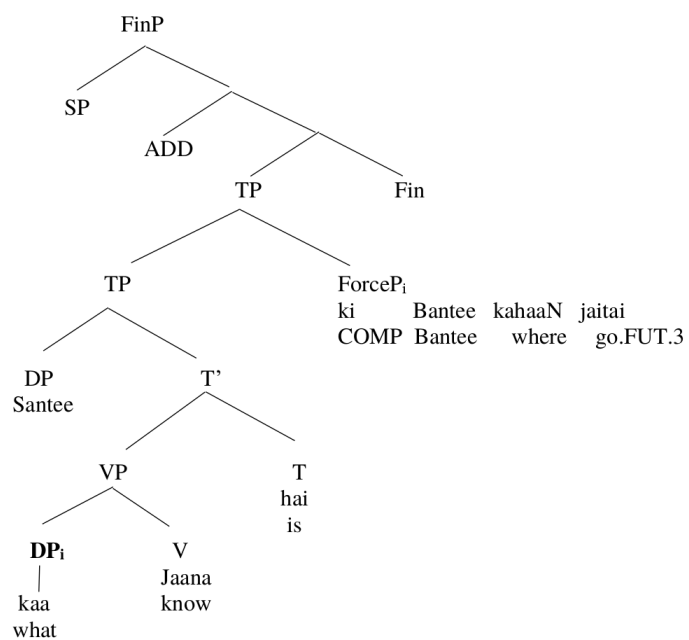
(87) a. *(Tu chintaa mat kara), Santeeaa ii   jaana hai   ki   hamraa kaise baat*
        You worry   NEG do.IMP, Santee.FM this kown be.PRES COMP me.DAT how   talk

        karelaa he
        do.INF be.3
        'You do not worry. Santee knows it that how I (=speaker, or Santee) need to talk too.'

     b. *Santeeaa-ke ii   pataa chal gelai ki   hamraa kahaaN bhejal   jaait   he*
        Santee.FM   this know walk went.3 COMP me.DAT where   send.INF go.PROG be.3
        'Santee came to know it that Where I (=Speaker, or Santee) am being sent.'

Summing up, this section shows that scope marking is different from the other two types of complementation in that it does not allow indexical shift. In the next section, I argue for an analysis that treats FCC in scope marking structures as syntactic adjuncts in line with Dayal (1996). In DP associate complementation, I take FCC to be as a syntactic complement.

3.3   Proposal

I follow Dayal (1996) and argue that in scope marking structures the dependency between the scope marker in the higher clause and the FCC is indirect. The scope marker is generated in a canonical complement position and the FCC is generated as an adjunct to TP and the two are linked by coindexation, as schematized in (88).
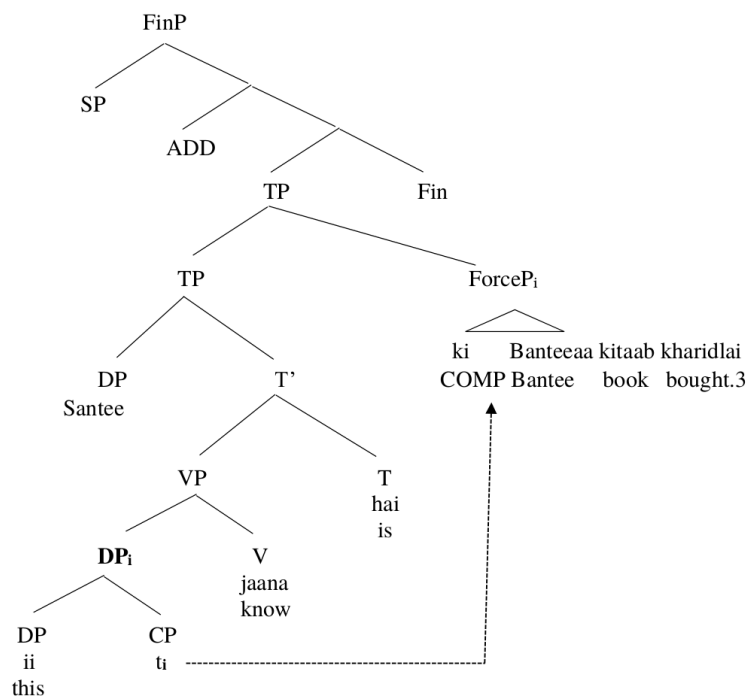
(88)   Scope Marking Structure

```
                        FinP
                       /    \
                  SP        /\
                      ADD  /  \
                          /    \
                        TP      Fin
                       /  \
                     TP    ForcePᵢ
                    /  \   ki      Bantee  kahaaN  jaitai
                  DP    T'  COMP  Bantee    where   go.FUT.3
                Santee  / \
                      VP   T
                     /  \  hai
                  DPᵢ    V  is
                   |   Jaana
                  kaa  know
                  what
```

However, in DP associate complementation, the FCC is generated as a complement of the associated DP which is in the canonical object position. The FCC is extraposed to the right of the verb and adjoined to TP (Lahiri 2002).[14]

---

14. However, Lahiri (2002) has the same analysis for scope marking as well.

(89) DP Associate Complementation

```
                              FinP
                          ／      ＼
                      SP           ＼
                          ＼        ＼
                          ADD        ＼
                             ＼       ＼
                             TP        Fin
                         ／      ＼
                     TP            ForcePᵢ
                  ／      ＼        ／‾‾＼
              DP           T'     ki    Banteeaa kitaab kharidlai
             Santee     ／    ＼  COMP Bantee   book   bought.3
                     VP          T
                  ／    ＼        hai
              DPᵢ        V        is
           ／    ＼    jaana
         DP       CP   know
         ii       tᵢ
        this
```

This difference, I suggest, is due to the basic lexical properties of *kaa* 'what' and *ii* 'this. I argue that the scope marker DP 'what' is an intransitive DP and is not subcategorized for a complement. The associated DP *ii*, on the other hand, in DP associate complementation is a transitive DP that takes the CP as a complement.

A welcome result of the analysis is that it can straightforwardly explain the following contrast between the scope marking and the DP associate complementation. As noted in Manetta (2010), in DP associate complementation, the FCC can optionally stay preverbal, as shown in (90). This is impossible in scope marking structures, as shown in (91).

(90) a. *Santeeaa [ii (baat) [ki   okhanii aaj   aithi]]   jaan gelai*
      Santee.FM this fact   COMP they.H today came.3H know went.3NH
      'Santee knew it that they will come today.'

    b. *Santeeaa-ke   [ii (baat) [ki   okhanii aaj   aithi]]   pataa chal   gelai*
      Santee.FM-DAT this fact   COMP they.H today came.3H know go.PRF went.3NH
      'Santee knew it that they will come today.'

(91) a. **Santeeaa [kaa] [ki   Banteeaa kahan jaitai]   jaana hai?*
      Santee.FM what COMP Bantee.FM where go.FUT.3 know be.PRES
      Int: 'Where does Santee know Bantee will go?'

    b. **kekraa-se baat karbai] socha hai?*
      Santee.FM what COMP   I   where-INST
      Int: 'With who does Santee think I will speak?'

This contrast is seen in Hindi as well, as shown in (92).[15]

(92) a. *Anu [ye (baat) [ki   ve   log   aaj   aayenge]] jaantii thii*
      Anu this fact   COMP they people today come.FUT know be.PST
      'Anu knew it that they will come today.'

    b. **Anu [kyaa] [ki   Ravi-ne kisko   dekhaa] jaantii hai?*
      Anu what   COMP Ravi-ERG who-ACC saw   know be.PST
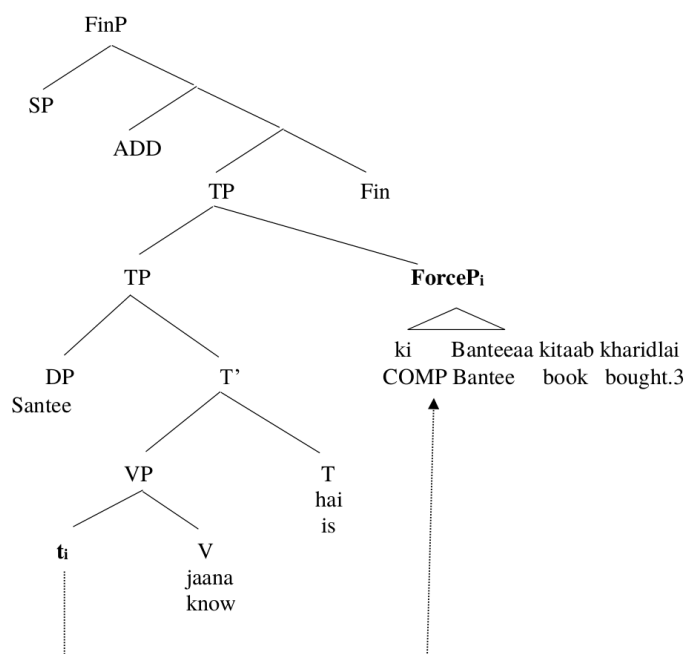   Int: 'Who does Anu know that Ravi saw.'

---

15. A potential issue for the claim of intransitive nature of the scope marker comes from (Dayal 2017) and Veneeta Dayal (p.c.), who pointed out the possibility of co-occurring a noun phrase such as 'news', 'thought' with scope marker in some constructions, as shown in (i) and (ii).

(i) *tumhaaraa kyaa khayal hai ki   kaun ayegaa*
   your   what thought is   that who will
   "What are your thoughts about who will come?"

(ii) *tumheN kyaa khabar milii, ki   ve   kab   aayeeNge?*
   You   what news   found that they when   come-FUT
   'What news did you get about when they will come?'

Just for completeness, in the regular complementation, the FCC is generated as a complement of the verb and extraposed to the right of the verb, as in (93). [16]

(93)   Regular Complementation

```
                        FinP
                       /    \
                   SP        \
                          \
                       ADD    \
                            \
                          TP     Fin
                         /    \
                     TP           ForcePᵢ
                    /   \           /\
                                   ki    Banteeaa kitaab kharidlai
              DP        T'      COMP Bantee   book   bought.3
            Santee     /   \
                   VP        T
                  /   \     hai
                tᵢ     V     is
                     jaana
                     know
```

To sum up, indexical shift is impossible in the scope marking structure because the FCC is not c-commanded by the matrix arguments (the coindexing by itself if not enough to give a re-construction effect), the verb thus cannot bind the embedded Fin. As a result, there is no indexical shift. However, the FCC is in c-command domain of the matrix Fin. The embedded Fin co-ordinates therefore can be bound by the matrix Fin co-ordinates. In regular complementation

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16. At this stage, I do not make any final claim on the reason for extraposition of FCC in Magahi and Hindi. Dayal (1996), based on Stowell's (1981) idea of Case Resistance Principle, argues that the tensed CP is incompatible with case. Thus, it must move from the complement position. This explains the obligatory extraposition of FCC in the regular complementation. However, it is not clear why the FCC is extraposed in DP associate complementation in its unmarked structure. It is possible that prosody may be a reason. I leave this issue for the future.

and DP associate complementation, the FCC is c-commanded by the matrix arguments (extra-position movement can reconstruct) and the verb can bind the embedded Fin. As a result, there is indexical shift. The analysis also offers a solution to a long-standing problem in Hindi literature that the FCC cannot stay preverbal in scope marking structures but possible for it to stay preverbal in DP associate complementation.

3.4 Prediction regarding Honorification

So far, the focus of the discussion was indexical shift. Now, I turn to honorification. The analysis developed in this dissertation predicts an interaction between indexical shift and honorification such that if indexical shift is possible, the shifted honorification should also be possible. If indexical shift is impossible, the shifted honorification should also be impossible. In other words, since the scope marking structure does not allow indexical shift, it should not allow the shifted Add-Agr as well. On the other hand, the DP associate complementation allows indexical shift, it should thus allow the shifted Add-Agr. I will show that this prediction is borne out in Magahi.

Consider a context in which Deepak is talking to his grandfather about Santee and Bantee who have NH relationship.

(94) *Santeeaa*   *Banteeaa-se*   *kaa*   *kahl-o*   *ki*   *hamraa*   *kahaaN*   *jaayelaa*
      Santee.FM   Bantee.textscfm-inst   what   told.HA   COMP   me-DAT   where   go.INF

      ha-o/*au
      be-HA/*NHA
      'What did Santee tell to Bantee where I (=speaker, not = Santee) have to go?'

Example (94) is a scope marking structure. We know that it does not allow indexical shift. (94) shows that neither it allows the shifted Add-Agr. The embedded complement clause can show the honorific relationship between Deepak and his grandfather but not the honorific relationship between Santee and Bantee. Thus, the H addressee marking *-o* is possible but not the NH addressee

marking *-au* in (94).

Now, consider a DP associate complementation in the same context. Here, we see that the shifted Add-Agr is required when indexical is shifted. In (95), the 1st person shifts to the matrix subject, Santee. This indicates that the verb tell has bound the embedded Fin. That means, the embedded SP is bound by the higher subject, Santee and the ADD is bound by the higher object, Bantee. Thus, unlike the higher verb, the embedded verb has the addressee marking *-thu* that encodes the honorific relationship of Santee to Bantee (as an addressee of the clause) and to grandfather (as being subject of the clause).

(95) *Santeeaa Banteeaa-se   (ii) kahl-o   ki   baabaa   hamraa Patna jaaye*
    Santee.FM Bantee.FM-INST this told.NHS.HA COMP grandfather me   Patna go.INF

    laa kahla-thu
    for   told-HS.NHA
    'Santee told Bantee (it) that grandfather asked me (= Santee) to go to Patna.'

Like the 1st person, a 2nd person can also shift, as shown in (96).

(96) *Santeeaa Banteeaa-se   (ii) kahl-o   ki   baabaa   toraa Patna jaayelaa*
    Santee.FM Bantee.FM-INST this told.NHS.HA COMP grandfather you   Patna go.INF

    kahla-thu
    be-HS.HHA
    'Santee told Bantee (it) that grandfather asked you (= Bantee) to go to Patna.'

In (95) and (96), the FCC is a declarative. We have seen above that an interrogative FCC also allows indexical shift. We see the same interaction here as well. Consider (97). In (97a), the 1st shift to refer to Santee. The Add-Agr on the embedded verb also shifts. Thus, the marking *-au*, showing the honorific relationship of Santee to Bantee. In (97b), the 1st person pronoun does not shift and refers to the utterance speaker, Deepak. Thus, both the higher verb and the embedded verb have the addressee marking *-o*, showing the honorific relation between Deepak and his grandfather.

(97) a. *Santeeaa   Banteeaa-se   (ii) puchhl-o   ki   hamraa kekraa-se   mile*
          Santee.ꜰᴍ Bantee.ꜰᴍ-ɪɴsᴛ this asked.ɴʜs.ʜᴀ ᴄᴏᴍᴘ I.ᴅᴀᴛ   whom-ɪɴsᴛ meet.ɪɴꜰ

      laa h-au
      for be-ɴʜs.ɴʜᴀ
      'Santee asked Bantee (it) that whom I (= Santee) have to meet.'

      b. *Santeeaa   Banteeaa-se   (ii) puchhl-o   ki   hamraa kekraa-se   mile*
          Santee.ꜰᴍ Bantee.ꜰᴍ-ɪɴsᴛ this asked.ɴʜs.ʜᴀ ᴄᴏᴍᴘ I.ᴅᴀᴛ   whom-ɪɴsᴛ meet.ɪɴꜰ

      laa h-o
      for be-ɴʜs.ʜʜᴀ
      'Santee asked Bantee (it) that whom I (=speaker) have to meet.

The same can be seen with the 2nd person pronoun. If the 2nd person pronoun shifts, Add-Agr in the complement clause also shifts, as in (98a). If the 2nd person does not shift, then Add-Agr in the complement clause also does not shift, as in (98b).

(98) a. *Santeeaa   Banteeaa-se   (ii) puchhl-o   ki   toraa   kekraa-se   mile*
          Santee.ꜰᴍ Bantee.ꜰᴍ-ɪɴsᴛ this asked.ɴʜs.ʜᴀ ᴄᴏᴍᴘ you.ᴅᴀᴛ whom-ɪɴsᴛ meet.ɪɴꜰ

      laa h-au
      for be-ɴʜs.ɴʜᴀ
      'Santee asked Bantee (it) that whom you (= Bantee) have to meet.'

      b. *Santeeaa   Banteeaa-se   (ii) puchhl-o   ki   toraa   kekraa-se   mile*
          Santee.ꜰᴍ Bantee.ꜰᴍ-ɪɴsᴛ this asked.ɴʜs.ʜᴀ ᴄᴏᴍᴘ you.ᴅᴀᴛ whom-ɪɴsᴛ meet.ɪɴꜰ

      laa h-o
      for be-ɴʜs.ʜᴀ
      'Santee asked Bantee (it) that whom I (=speaker) have to meet.'

3.5   Summary and Further Issues

Summing up, in this section, I investigated two more complementation types: DP associate complementation and the scope marking strategy. The former type is further divided between two sub-cases -depending on whether the FCC is declarative statement or an interrogative complement. Thus, overall, we investigated indexical shift and honorification phenomena in three types of complementation. We found a close connection between indexicality and honorification such that if indexicals shift, then honorification must shift, and if indexicals do not shift, then honorification also must not shift. In regular complementation and DP associate complementation, both indexical shift and shifted Add-Agr are possible, whereas in scope marking, neither is possible. Add-Agr on the embedded verb can only show the honorific relation between the utterance speaker and the addressee. All the facts are summarized in Table-5.2.

Type of Complementation	Indexical Shift	Shifted Add-Agr
Regular Declarative FCC	✓	✓
Regular Interrogative FCC	✓	✓
Scope Marking	×	×
DP Associate Declarative FCC	✓	✓
DP Associate Interrogative FCC	✓	✓

Table 5.2: Indexical shift and Add-Agr in different types of complementation in Magahi

I claimed that these differences are due to the syntactic status of FCCs. I argued that in the

regular complementation and the DP associate complementation, the FCC is syntactically a complement clause; it is generated in a canonical complement position and later extraposed right to the verb. Thus, the FCC is in the C-command domain of the higher verb in some point of the derivation. Since FCC is in a C-command domain of the verb, the verb can bind the embedded Fin. Indexical shift and shifted (addressee) honorification are therefore predicted. On the other hand, in the scope marking structure, the FCC is syntactically an adjunct, which generated higher than the verb, as a TP adjunction. The FCC is thus not in a C-command domain of the verb, the verb cannot bind the embedded Fin. Consequentially, there is no indexical shift nor a shifted (addressee) honorification.

The implications of the current analysis for Hindi is that the scope marking structure and the structure involved in DP associate complementation (called as a variant of scope marking) should also be treated differently. In the former, the FCC should be considered as an adjunct, whereas in the latter, it should be treated as a complement.

A potential issue for the view of the FCC in scope marking being an adjunct is a binding fact noted for in Hindi (and true in Magahi as well). In a scope marking structure, a pronoun in the FCC might be bound by a quantified DP in the first clause (see Dayal 2000; Lahiri 2002) and shown in (99), example from Lahiri (2002:527).

(99) a. *Aadmii$_i$ kyaa soctaa hai, ki us-ko$_i$ kahaaN jaanaa hai*
every man what think be.PRES COMP he-DAT where to
'What does every man think, where does he have to go?'

b. *Har baccaa$_i$ kyaa soctaa hai, ki vo$_i$ jaayegaa yaa nahiiN*
every child what thinks that (s)he go or not
''What does every child think, will (s)he go or not?''

c. *Har laRkaa$_i$ kyaa soctaa hai, ki kOn laRkii use$_i$ pasand kartii hai*
every boy what thinks that which girl him likes
''What does every boy think, which girl likes him?''

Reinhart (1983) has argued that while coreference reading is generally a pragmatic condition, co-reference where bound variable is involved is constrained by strict c-command conditions. If this is also true for Hindi and Magahi, then the claim that the FCC is an adjunct seems to be going in the wrong direction. However, Dwivedi (1996) shows that bound variable anaphora may occur across sentences in Hindi. She compares the following ungrammatical English sentence from Heim (1982:210) to its grammatical Hindi translation.

(100) a. If everyone$_i$ commits a crime, he$_i$ must go to jail.

     b. *Agar har koii$_i$ gunaah karrtaa hai to use$_i$ jel jaanaa paregaa*
        If every any crime do.PF.M is then he-DAT jail go-INF should
        (Dwivedi 1996:208)

Although I, and some of my informants, do not find (100b) so good in its bound variable interpretation but there are other examples that better illustrate this fact for Hindi. The same is also true in Magahi.

(101) *Agar har vidyaarthii$_i$ dar-se iskul aayega to vo$_i$ paRh nahi paayegaa*
      If every student fear-INST school come.FUT then he study NEG find.FUT
      'If every student$_i$ will come to school in fear, he$_i$ will not be able to study'

(102) a. *Agar koii bhii aadmii$_i$ gunnah kartaa hai to vo$_i$ sajaa paayegaa*
        If any also person crime do be.PRES then he punishment find.FUT
        If any person$_i$ commit a crime, he$_i$ will be punished.'

     b. *Agar koii bhii aadmii$_i$ gunnah kartaa hai to use$_i$ sajaa paayegaa*
        If any also person crime do be.PRES then he punishment find.FUT
        If any person$_i$ commit a crime, he$_i$ will be punished.'

(103) a. *Har   sipaahii_i-ke paas baNduk hai.   vo_i goli   chalaa saktaa hai*
      Every soldier-GEN have gun   be.PRES he bullet start   can   be.PRES
      'Every soldier_i has a gun. He_i can fire.'

   b. *Har   sipaahii_i-ke paas baNdukk hai   aur vo_i use_k   aasaanii-se chalaa*
      Every soldier-GEN have gun   be.PRES and he bullet easly-INST start

      saktaa hai
      can   be.PRES
      'Every soldier_i has a gun. He_i can fire it easily.'

I close this section without resolving this problem. We still need to understand the bound variable anaphora in these languages, and I hope to work on it in the future.

4   Conclusion

This chapter investigated imperative and interrogative clauses in Magahi. It demonstrated that indexical shift and the three-way honorification are not just a property of indicative clauses but a core feature of the grammar of Magahi. The discussion will have implication for Hindi. In term of honorificity, Magahi represents a distinct system. However, it seems to me that there are some overlaps between Magahi and Hindi regarding indexicality, but I do not want to make any claim about it without a more careful study than I am in a position to do now.

In the next chapter, I conclude the dissertation by extending the current account of Magahi indexical shift and honorification to some related area of inquiry with highlighting some implications and predictions of the current proposal.

Chapter 6

Conclusion

I conclude my discussion of honorificity and indexicality in Magahi by mentioning three areas of inquiry that the account developed in earlier chapters opens up, and highlighting some implications of the proposals I have forwarded. The issues I touch upon here are 1st and 2nd person covert pronouns, the role of the complementizer, and indexicals other than person pronoun such as locative indexicals and temporal indexicals.

1   The covert 1st Person and 2nd Person Pronouns (*pro*)

It has been noted in the literature that even if a language does not allow an overt pronoun to shift, it may allow its covert counterpart (I use the term *pro*) to do so. For example, Turkish, Mishar Tatar, and Tamil do not allow shift of 1st person pronouns, but they all allow shift of 1st person *pro* (Sener & Sener 2011; Sundaresan 2012, 2018; Podobryaev 2014). Moreover, the shift of *pro* may be optional or obligatory, depending on the language. For example, in Turkish and Mishar Tatar *pro* shifts optionally but in Tamil the shift is obligatory. Magahi, it turns out, allows the 1st person *pro* to shift optionally, as in[1].

---

1. We know that we are dealing with 1st person *pro* in the subject position because the embedded verb triggers 1st person subject-verb agreement. There is no object agreement generally so *pro* in object position could be something else such as null topic or elided DP. I will only include *pro* in subject position in the current discussion.

(1) *Santeeaa kahkai   ki   (pro) amiir h-i*
     Santee.FM said.3NHA COMP pro-1 rich   be-1s
     'Santee said that I (= Santee, or = speaker) is rich.'

However, the shifted reading seems to be the unmarked one. In a context where pragmatic factors are reduced to a minimum. i.e., if a person comes and says to you (1) out of the blue, it will be taken to mean that Santee is rich, not the speaker of the utterance. The unshifted reading emerges in a context where the utterance speaker is salient.

Context: Bantee and Chhotu were wondering whether Santee thinks Bantee is rich. Chhotu suggested to Bantee to ask Santee. Bantee asked Santee, "Do you think I am rich?". Santee replied, "yes, you are rich". Later, Bantee says to Chhotu.

(1') *Santeeaa   kahkai   ki   (pro)   amiir   h-i*

      Santee.FM   said.3NHA   COMP   pro-1   rich   be-1s

      'Santee said that I (=speaker, not = Santee) am rich.'

The shifted reading is available regardless of whether an attitude verb is a dyadic verb, as in (2) or a triadic verb, as in (3).

(2) a. *Santeeaa socha hai   ki   (pro) tej   h-i*
         Santee.FM think be.3.NHS COMP pro.1 intelligent be-1s
         'Santee thinks that I (= Santee, or = speaker) is intelligent.' (preference to Santee)

     b. *Santeeaa-ke   biswaas hai   ki   (pro) dillii jaa-yem*
         Santee.FM-DAT believe be.PRES.3NHS COMP pro.1 Delhi go-FUT.1s
         'Santee believes that I (= Santee, or = speaker) will go to Delhi.' (preference to Santee)

(3) a. *Santeeaa Banteeaa-ke kahlai ki (pro) dillii jaa-yem*
     Santee.FM Bantee.FM-DAT told.3NHA COMP pro.1 Delhi go-FUT-1s
     'Santee told Bantee that I (= Santee, or = speaker) will go to Delhi.' (preference to Santee)

  b. *Santeeaa Banteeaa-se puchhlai ki (pro) dillii jaa-yem?*
     Santee.FM Bantee.FM-DAT asked.3NHA COMP pro.1 Delhi go-FUT.1s
     'Santee asked Bantee whether I (= Santee, or = speaker) will go to Delhi.' (preference to Santee)

The 2nd person *pro* also shifts under triadic verbs, as shown in (4). Again, the shifted reading seems to be the unmarked one.

(4) a. *Santeeaa Banteeaa-ke kahlai ki (pro) parichhaa paas ho geleN*
     Santee.FM Bantee.FM-DAT told.3NHS COMP pro.2 exam pass become went.2NHS
     'Santee told Bantee that you (= Bantee, or = addressee) passed the exam.' (preference to Bantee)

  b. *Santeeaa Banteeaa-se puchhlai ki (pro) dillii jaimeN?*
     Santee.FM Bantee-INST asked.3NHS COMP pro.2 Delhi go.FUT.2NHS
     'Santee asked Bantee if you (= Bantee, or = addressee,) will go to Delhi.' (preference to Bantee)

An interesting pattern emerges under dyadic verbs when the 1st person *pro* co-occurs with a 2nd person object. A mixed reading arises where the 1st person *pro* can refer to the higher subject and the 2nd person refers to the utterance addressee, as shown in (5) and (6).

(5) *Santeeaa sochlai ki (pro) apne-ke dekhl-i*
    Santee.FM thought.3s COMP pro.1 you-ACC saw-1s
    (i) 'Santee thought that I (=Santee) saw you (= addressee).
    (ii) 'Santee thought that I (=speaker) saw you (=addressee).

(6) *Santeeaa-ke   biswaas hai   ki   (pro) apne-ke dekhl-i*
   Santee.FM-DAT believe be.PRES.3NHS COMP pro.1 you-ACC saw-1
   (i) 'Santee believes that I (=Santee) saw you (= addressee).'

   (ii) 'Santee believes that I (= speaker) saw you (=addressee).'

Surprisingly, under a triadic verb, the mixed reading is unavailable i.e., either both 1st person *pro* and 2nd person pronoun shift or neither one does, respecting the Shift Together constraint, as in (7).

(7) *Santeeaa Banteeaa-ke   kahlai   ki   (pro) toraa   dekhli*
   Santee.FM Bantee.FM-DAT told.3NHS COMP pro.1 you.ACC saw-1s
   (i) 'Santee told Bantee that I (=Santee) saw you (= Bantee).' (preferred)

   (ii) 'Santee told Bantee that I (= speaker) saw you (=addressee).'

   (iii) *'Santee told Bantee that I (= Santee) saw you (addressee).'

   (iv) *'Santee told Bantee that I (= speaker) saw you (Bantee).'

Furthermore, unlike 1st person *pro*, there is no Shift-Together violation in case of 2nd person *pro*, neither under triadic verbs nor under dyadic verbs, as shown in (8) (9).

(8) *Santeeaa Banteeaa-ke kahlai   ki   (pro) hamraa dekhleN*
   Santee.FM Bantee-DAT told.3NHS COMP pro.2 me.ACC saw-2NHS
   (i) 'Santee told Bantee that you (= Bantee) saw I (=Santee).' (preferred)

   (ii) 'Santee told Bantee that you (=addressee) saw I (= speaker).'

   (iii) *'Santee told Bantee that you (addressee) saw I (= Santee).'

   (iv) *'Santee told Bantee that you (Bantee) saw I (= speaker).'

(9) a. *Santeeaa sochlai   ki   (pro) hamraa dekhleN*
      Santee.FM though.3NHS COMP pro.2 me.ACC saw.2NHS
      'Santee thought that you (=addrssee) saw me (=speaker, not = Santee).'

b. *Santeeaa-ke   viswaas hai   ki   (pro) hamraa dekhleN*
   Santee.FM.DAT believe   be.PRES.3NHS COMP pro.2 me.ACC saw.2NHS
   'Santee believe that you (= addressee) saw me (=speaker, not = Santee)'.

Summing up, both 1st person and 2nd *pro* shift under an appropriate attitude verb. However, unlike a pronoun, *pro* prefers the shifted reading. The most revealing facts regarding *pro* is that a mixed reading is available in a very specific construction when a 1st person subject *pro* co-occurs with a 2nd person pronoun under dyadic verbs.

1.1   Deriving the Interpretation

I propose that unlike an overt pronoun which is a minimal pronoun and depends on the SP and ADD co-ordinates in the left periphery for its person feature, the *pro* can be a "native-born" pronoun with the person feature. I assume that 1st and 2nd person *pro* are variables carrying indices with person features.

(10)   a. $[\![pro_{i[1]}]\!]^{w,g} = g(i[1]))$

       b. $[\![pro_{i[2]}]\!]^{w,g} = g(i[2]))$
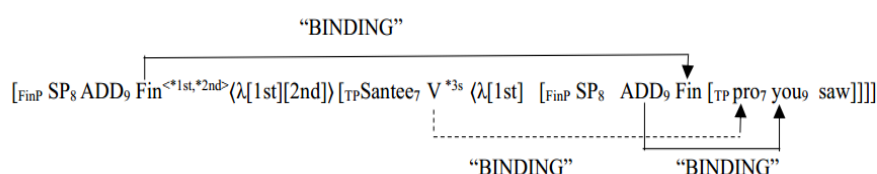
Let us first illustrate how this work with an example that has a mixed reading. Example (6) is repeated here as in (11).

(11)   *Santeeaa-ke   biswaas hai   ki   (pro) apne-ke dekhl-i*
       Santee.FM-DAT believe   be.PRES.3NHS COMP pro.1 you-ACC saw-1
       (i) 'Santee believes that I (=Santee) saw you (= addressee).'
       (ii) 'Santee believes that I (= speaker) saw you (=addressee).'

Since the 1st person *pro* is a variable, it needs to be bound. However, it does not need to be bound by the SP co-ordinate, because it already has person features. I argue that this makes it possible for the 1st person *pro* to get its reference via a different route, by being directly bound

by the attitude verb. As a result, the 1st person *pro* refers to the higher subject, Santee. This possibility leaves the embedded Fin free, so that it can be bound by the matrix Fin, as illustrated in (12). As a result, the embedded SP and ADD represent the utterance speaker and addressee. A 2nd person pronoun refers to the utterance addressee because it must be bound by the embedded ADD co-ordinate (Baker 2008)

(12)

$$[_{\text{FinP}} \text{SP}_8 \text{ADD}_9 \text{Fin}^{<*1st,*2nd>}(\lambda[\text{1st}][\text{2nd}]) \ [_{\text{TP}}\text{Santee}_7 \ V^{*3s} \ (\lambda[\text{1st}] \ [_{\text{FinP}} \text{SP}_8 \ \text{ADD}_9 \text{Fin} \ [_{\text{TP}} pro_7 \text{ you}_9 \text{ saw}]]]]$$

"BINDING" ... "BINDING" "BINDING"

Higher FinP: SP = Utterance Speaker, ADD = Utterance Addressee

Embedded FinP (bound by the higher Fin):
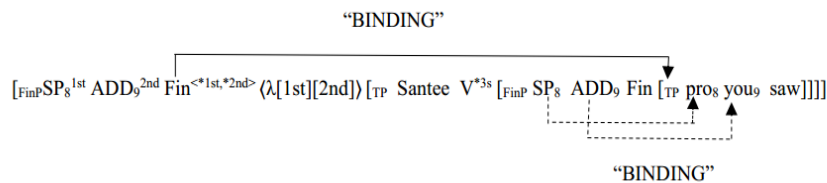
SP = Utterance Speaker, ADD = Utterance Addressee

Embedded 2nd person pronoun = Utterance Addressee (bound by ADD)

Embedded 1st person *pro* = Santee (bound by (the subject checkee feature of) 'think').

Derivation (12) gives us the mixed reading, as in (11i), where the 1st person *pro* refers to the matrix subject and the 2nd person pronoun refers to the utterance addressee.

The unshifted reading of (11) is a result of regular binding, as schematized in (13). The matrix Fin binds the embedded Fin and the embedded SP co-ordinate binds the 1st *pro* and the ADD co-ordinate binds the 2nd person pronoun.

(13)

"BINDING"

$[_{\text{FinP}}\text{SP}_8{}^{1st}\ \text{ADD}_9{}^{2nd}\ \text{Fin}^{<*1st,*2nd>}\ \langle\lambda[1st][2nd]\rangle\ [_{\text{TP}}\ \text{Santee}\ \text{V}^{*3s}\ [_{\text{FinP}}\ \text{SP}_8\ \text{ADD}_9\ \text{Fin}\ [_{\text{TP}}\ pro_8\ you_9\ \text{saw}]]]]$

"BINDING"

Higher FinP: SP = Utterance Speaker, ADD = Utterance Addressee

Embedded clause, after embedded Fin is bound by the higher Fin:

　　SP = Utterance Speaker, ADD = Utterance Addressee

　　1st person *pro*= Utterance Speaker (bound by embedded SP)

　　2nd person pronoun = Utterance Addressee (bound by embedded ADD)

The mechanism in (12) makes two predictions. First, it predicts that if there is a 1st person pronoun instead of a 2nd person in (11), such as 'Santee believes that pro-1st me saw.1S', there should be a mixed reading where the 1st person *pro* refers to the higher subject, Santee and the 1st person pronoun refers to the utterance speaker. Unfortunately, this turns out to be false in Magahi; there is some kind of obviation effect blocking the subject and object pronoun in the same person feature (except third-person). Thus, a sentence such as 'Santee believes that I/*pro*-1st me saw.1S' is an impossible Magahi sentence. However, such mixed readings are attested in Amharic and some other languages (Leslau 1995; Schlenker 2003; see also Anand and Nevins 2004; Anand 2006; Deal 2018).

Another prediction that (12) makes is in term of honorification. Since the embedded Fin is bound by the higher Fin and the embedded SP and ADD refer to the higher speaker and addressee, the embedded clause must reflect honorific relations with respect to the utterance speaker, not the matrix subject. This prediction is borne out. In the relatively simple example (6) and (7), which

is spoken to a teacher, the 2nd person pronoun is HH, reflecting the honorific relation between the utterance speaker and the addressee. If there is ADD-Agr, it would be HH as well. Let us consider another example. Consider the context where two teachers are talking about one of their students, Santee. In this context, the utterance speaker has NH relation with the utterance addressee (e.g., being peers) but the utterance addressee is HH to Santee. The NH 2nd person pronoun *toraa* is used rather than the HH 2nd person pronoun *apne*, as in (14). Add-Agr, if it is manifested, shows the non-honorific relation between the utterance speaker and addressee. Thus, the NH addressee marking *-au*.[2]

(14) *Santeeaa sochlai   ki   (pro) toraa/*apne-ke   dekhli-(au)*
      Santee.FM thought.3s COMP pro.1 you.NH.ACC/HH.ACC saw-1-NHA
      'Santee thought that I (=Santee) saw you (= teacher).

There is also an interaction between indexical shift and honorification with a 3rd person pronoun, which is revealing. Consider a context where two teachers are talking about one of their peers and a student, Santee. In this context, the utterance speaker has NH relation with the peer, but the peer is HH for Santee. Interestingly, unlike the 2nd person, either the NH form of the 3rd person *okraa* 'him.NH' or the HH form *unkaa* 'him.HH' can be used.

(15) *Santeeaa sochlai   ki   (pro) okraa/unkaa   dekhli*
      Santee.FM thought.3s COMP pro.1 him.NH.ACC/HH.ACC saw-1S
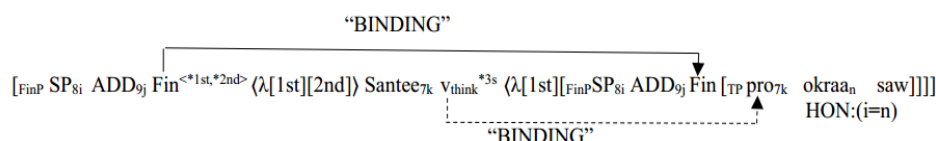   'Santee thought that I (=Santee) saw him.

The use of NH *okraa* 'him.NH' is the result of the following configuration. 'Think' binds the embedded 1st person pro, and the matrix Fin binds the embedded Fin. In this case, the embedded

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2. The mixed reading is achieved more easily in a version with subject agreement than the one with Add-Agr. This is probably because of Add-Agr in these cases encode the honorific relation between the utterance speaker and addressee and that favors the unshifted reading.

SP refers to the utterance speaker. Thus, the 3rd person pronoun, which refers to the teacher's peer, shows the honorific relation between the teacher and his peer, the NH relation.

(16)

"BINDING"

$[_{FinP}$ SP$_{8i}$ ADD$_{9j}$ Fin$^{<*1st,*2nd>}$ $(\lambda[1st][2nd])$ Santee$_{7k}$ v$_{think}{}^{*3s}$ $(\lambda[1st][_{FinP}$SP$_{8i}$ ADD$_{9j}$ Fin $[_{TP}$ pro$_{7k}$ okraa$_n$ saw$]]]]$

HON:(i=n)

"BINDING"

Higher FinP: SP = a teacher, ADD = a teacher

Embedded clause: 1st person *pro* = Santee (bound by the subject checkee feature of 'think')

SP = a teacher, ADD = a teacher (bound by the checkee features of the matrix Fin)

3rd person (teacher's peer) = okraa (honorific relation between the teacher and his peer)

It is also possible to have the 3rd person HH form *unkaa*, showing the honorific relation between Santee and the teacher's peer. I argue that this is possible because the embedded 1st person *pro* is not directly bound by the attitude verb 'think'. Instead, 'think' binds the embedded Fin. In this case, the matrix subject binds the SP coordinate, which binds *pro*. Thus, while *pro* refers to Santee as before, Santee also becomes the speaker of the embedded clause. Since the honorific feature is fixed by the closet SP, the 3rd person pronoun shows the honorific relation between Santee and the peer[3]. This is illustrated in (17).

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3. Recently, I found the following situation which seems to go against the idea that the HON feature of a 1st person pronoun/pro is determined in the same way as other DPs i.e., by the closest SP. Consider the following situation where the student Deepak talks to professor Mark about professor Veneeta, who is HH to Deepak but NH to Mark:

(17)
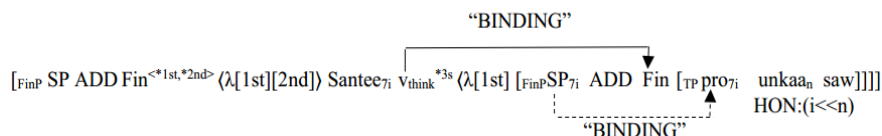
Moving on to triadic verbs, we saw that the mixed reading with the 1st person *pro* and a 2nd person pronoun is unavailable under 'tell' (cf. 7). This shows that the derivation that is possible with 'think' is impossible with 'tell'. The difference between 'think' and 'tell' is that the former has only a subject while the latter has both subject and an indirect object. Thus, 'tell' introduces both the first person lambada abstractor (λ[1st]) and the second person lambda abstractor (λ[2nd]). To account for this property of 'tell', I use a Binding Together constraint (cf. chapter 4, ex: 52), as in (18).

(18) Binding Together λ-abstractors are introduced in a pair (e.g., $\langle\lambda$[1st], [2nd]$\rangle$). If one of the members of the pair binds a variable, then the second member of the pair must bind a variable.
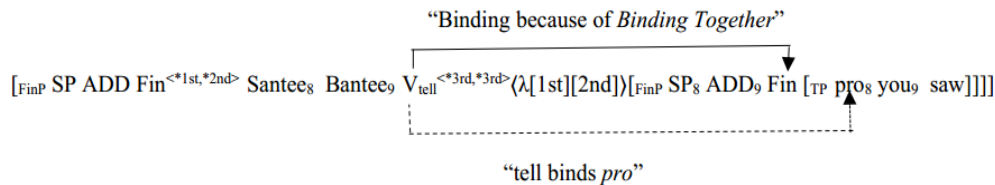
The verb 'tell' introduces both the 1st person λ-abstractor and the 2nd person λ-abstractor $\langle\lambda$[1st],

---

(i) *porphesar Dayal socha hathin   ki   kal   dipaatment me (pro) apne-ke   dekhl-i-(ain)*
   Professor   Dayal think be.3HHS.HHA that yesterday department in   pro   you.HH-ACC see.PRF.1S.HHA
   (a) Professor Dayal thinks that I (=Deepak) saw you (=Mark) in the department yesterday.
   (b) Professor Dayal thinks that I (=Dayal) saw you (=Mark) in the department yesterday.

The mixed reading (b) is a result of when the embedded SP and ADD are bound by the higher ones and the 1st person *pro* is bound by the matrix subject. That means, the embedded SP and ADD refer to Deepak and Prof. Mark respectively and the 1st *pro* subject refers to Prof. Dayal. In this situation, for the embedded SP (Deepak), the embedded ADD (Prof. Mark) and the subject (Prof. Dayal) is HH. However, as shown if the addressee marking is overt in (i), it would be *-ain*, a combination of NHS and HHA and not *-thin*, a combination of HHS.HHA (see chapter 3, subsection 3.1, Table 2). It seems that the HON feature of the embedded 1st person *pro* is not determined by the closest SP (Deepak) in this particular case, but by its referent (Prof. Dayal). Just for completeness, the unshifted reading is preferred though in the case of overt addressee marking. This may be because it encodes the honorific relation between the utterance speaker and addressee and that encodes the unshifted reading.

[2nd]⟩). When the 1st person λ-abstractor binds the 1st person pro, given (18), the 2nd person λ-abstractor needs to bind a variable. To save the derivation, then 'tell' binds the embedded Fin. As a result, the embedded SP and ADD are bound by the higher arguments. This is illustrated in (19).
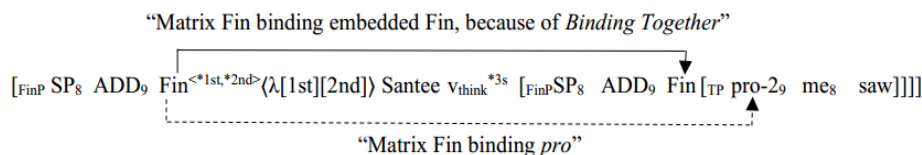
(19)

"Binding because of *Binding Together*"

[FinP SP ADD Fin$^{<*1st,*2nd>}$ Santee$_8$ Bantee$_9$ V$_{tell}$$^{<*3rd,*3rd>}$⟨$\lambda$[1st][2nd]⟩[FinP SP$_8$ ADD$_9$ Fin [TP pro$_8$ you$_9$ saw]]]]

"tell binds *pro*"

The higher Fin then cannot bind the already bound embedded Fin. As a result, the 1st person *pro* and 2nd person pronoun can only refer to the higher subject and object, respectively. Unlike 'think', in case of 'tell', we cannot get a situation where the embedded *pro* is bound by 'tell' and the embedded Fin is bound by the higher Fin because doing so will disobey the principle in (18).
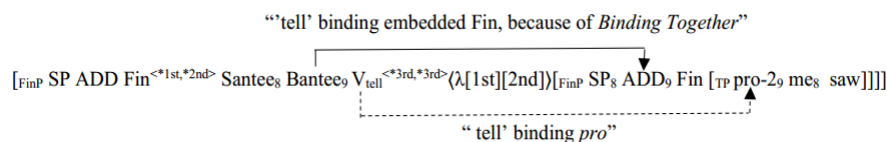
Now, turning to the 2nd person pro, we saw that a 2nd person *pro* does not give rise to a mixed reading (cf. (8) and (9)). This is also predicted because of the Binding Together constraint. Consider a dyadic verb such as 'think'. As we have seen, 'think' cannot introduce a λ-abstractor with a 2nd person feature, [λ2nd], because it does not have an object argument. Therefore, 'think', unlike 1st person pro, cannot bind a 2nd person pro. The 2nd person *pro* then must be bound by the higher ADD via [λ2nd]. Moreover, given Binding Together, the higher [λ1st] needs to bind a variable. This can be only satisfied when the higher Fin binds the embedded Fin, as schematized in (20). As a result, there is always an unshifted reading.
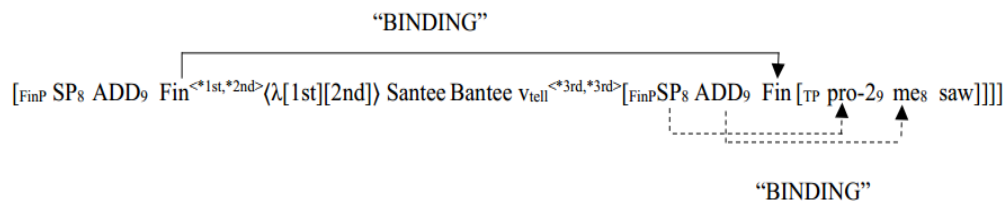
(20)

"Matrix Fin binding embedded Fin, because of *Binding Together*"

[$_{FinP}$ SP$_8$ ADD$_9$ Fin$^{<*1st,*2nd>}$⟨λ[1st][2nd]⟩ Santee v_{think}^{*3s} [$_{FinP}$SP$_8$ ADD$_9$ Fin [$_{TP}$ pro-2$_9$ me$_8$ saw]]]]

"Matrix Fin binding *pro*"

Given Binding Together, under a triadic verb like 'tell', a complement clause with a 2nd person *pro* and a 1st person pronoun behaves the same as a clause with a 1st person *pro* and a 2nd person pronoun. For example, when 'tell' binds the 2nd person *pro* via [λ2nd], the subject feature ([λ1st],) is forced to bind a variable. This is satisfied when 'tell' binds the embedded Fin. The higher Fin then cannot bind the already bound embedded Fin. Thus, the 2nd person *pro* and the 1st person pronoun refer to the higher subject and object, respectively. This is illustrated in (21b), a shifted representation for (21a).

(21) a. *Santeeaa Banteeaa-ke kahlai ki (pro) hamraa dekhleN.*
Santee.FM Bantee.FM-DAT told.3NHS COMP pro.2 me.ACC saw-2NHS

(i) 'Santee told Bantee that you (= Bantee) saw I (=Santee)'

(ii) 'Santee told Bantee that you (=addressee) saw I (= speaker)'

(iii) *'Santee told Bantee that you (addressee) saw I (= Santee).'

(iv) *'Santee told Bantee that you (Bantee) saw I (= speaker).'

b.

"'tell' binding embedded Fin, because of *Binding Together*"

[$_{FinP}$ SP ADD Fin$^{<*1st,*2nd>}$ Santee$_8$ Bantee$_9$ V$_{tell}$$^{<*3rd,*3rd>}$⟨λ[1st][2nd]⟩[$_{FinP}$ SP$_8$ ADD$_9$ Fin [$_{TP}$ pro-2$_9$ me$_8$ saw]]]]

" 'tell' binding *pro*"

The unshifted reading is obtained when the matrix Fin binds the embedded Fin and the embedded SP binds the 1st person pronoun and the ADD binds the 2nd person *pro*. In this case there is no *Binding Together* violation. This is illustrated in (22).

(22)

"BINDING"

$$[_{\text{FinP}} \text{SP}_8 \ \text{ADD}_9 \ \text{Fin}^{<*1\text{st},*2\text{nd}>}(\lambda[1\text{st}][2\text{nd}]) \ \text{Santee Bantee} \ v_{\text{tell}}^{<*3\text{rd},*3\text{rd}>}[_{\text{FinP}}\text{SP}_8 \ \text{ADD}_9 \ \text{Fin} \ [_{\text{TP}} \ \text{pro-2}_9 \ \text{me}_8 \ \text{saw}]]]]$$

"BINDING"

1.2 Some Further Issues with *pro*

I treated 1st and 2nd person pronouns as pure variables, which are derived in syntax by being bound by the syntactic representation of speaker (SP) and addressee (ADD) in left-periphery (Baker 2008; Portner at al. 2019a). Regarding pro, on the other hand, I have assumed that it is lexically specified for person features. I showed that making this distinction between pronouns and *pro* along with *Binding Together* explains the limited violation of *Shift Together* that is found only in a construction when 1st person subject *pro* co-occurs with a 2nd person pronoun.

However, the idea that a pronoun is a pure variable and *pro* has person features inherently goes against what has been generally assumed in the *pro* literature (as pointed out by Paul Portner (p.c.) and Troy Messick p.c.). A general view in the *pro* literature, starting with Huang (1987), is that *pro* is a null element underspecified for features (see also Montalbetti 1984; Cole 1987, Srivatsav/Dayal 1987; Cardinaletti & Starke 1999; Patel-Grosz 2014).

This conclusion is drawn mostly from comparing *pro* with 3rd person pronouns. However, it seems that the idea that *pro* is unspecified for person features is inadequate when we consider

pro beyond 3rd person in root clauses and in perspectival contexts. Consider *pro* in context 1 and context 2 below.

Context 1

Speaker A : *Tu   aam   khaa le-l-eN   kaa?*
            You   mango eat   take-PRF-2NHS PQP
            'Did you eat the mango?''

   Speaker B : *HaaN, (pro) aam   khaa le-l-i*
                  Yes,   pro   mango eat   take.1PRF-1
                  'Yes, I ate the mango.'

Context 2

   Speaker A : *Ham aam   kharid-bau   kaa?*
                  I   mango buy-FUT.1.NHA PQP
                  'Will I buy mangoes?'

   Speaker B : *HaaN, (pro) aam   kharid-hiheN*
                  Yes,   pro   mango boy-FUT.IMP.2NH
                  'Yes, you buy mangoes!'

In both contexts, speaker B uses *pro* in her reply. What is of interest here is that even though *pro* is used in both cases, it triggers different subject-verb agreement: first-person agreement in context 1 and second-person agreement in context 2. Where does the person feature come from if *pro* does not have an intrinsic feature? There are at least two options I can think of. First, one can say that in context 1, *pro* gets the 1st person feature from the SP co-ordinate and in context 2, it gets the 2nd person feature from the ADD co-ordinate. However, this view will treat *pro* elements like pronouns and blur the distinction between the two (see also discussion below). The second option is that there is a null discourse topic that provides interpretation and person features to *pro* (in line of Huang 1984, Cole 1987, Srivatsav/Dayal 1987). On this view, in context 1, the discourse topic would be the speaker (distinct from the syntactic representation of the speaker (SP)); in

context 2, the discourse topic would be the addressee (distinct from the syntactic representation of the addressee (ADD)). On this approach, we can maintain the view that pronouns and *pro* are distinct elements. However, this line of research does not seem correct if we consider embedded contexts, where we can find evidence of indexical shift. Huang (1984) notes that embedded *pro* in subject position can refer to the matrix subject or someone in discourse in Chinese. This is true in Magahi as well, a language that shows subject-verb agreement, as in (23).

(23) | *Santeeaa$_k$* | *socha* | *hai* | *ki* | *(pro$_{k/j}$)* | *kal* | *dilli* | *jaa-yem.* |
|---|---|---|---|---|---|---|---|
| Santee | think | be-3s | COMP | pro-2 | tomorrow | Delhi | go-3.FUT |

'Santee$_k$ thinks that he$_{k/j}$ will go tomorrow.' (Dayal 1987)

What is the source of phi-agreement on the embedded verb in (23) if *pro* does not have features by itself? If *pro* is unspecified for features, one would speculate as follows. Under the interpretation where *pro* refers to the higher subject, the higher subject binds/controls *pro* and provides the 3rd person feature. Under the interpretation where *pro* refers to someone in discourse, the discourse topic binds/controls *pro* and provides the feature. In this case, it is 3rd person. However, this approach does not work when we consider *pro* beyond the 3rd person.[4]

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4. It is worth considering one possible example, which seems, in a first look like an argument in favor of *pro* getting its features from a discourse topic. Consider a question-answer context like the following:

(i) Speaker A: *ke*   *jaait*   *hai?*
        Who   going   be.3NHS
        'Who is going.'

   Speaker B: *ham/*(pro)*   *jaait*   *h-i*
        I/pro-1   going   be-1S
     'I am going.'

   Speaker C: *Tu/*(pro)*   *jaait*   *h-eN*
        You/pro-2   going   be-2NHS
      'you are going'

   Speaker D: *u/*(pro)*   *jaait*   *h-ai*
        He   going   be-3NHS
      'He is going'

In this case *pro* is ruled out, regardless of whether it gets a 1st, 2nd, or 3rd person interpretation. The wh question does not provide a discourse topic and *pro* is ruled out. However, there is an alternative explanation for it which suggests that it may be possible to treat *pro* as fully specified for person features. We know from Rooth (1992) that

Consider a Magahi example of indexical shift, as in (24). What is interesting about it is that *pro* in the embedded subject position can refer to the matrix subject and trigger first-person agreement on the embedded verb rather than 3rd person agreement.

(24) *Santeeaa$_k$ socha hai ki (pro$_{k/j}$) kal dillii jai-bai.*
Santee think be-3s COMP pro-3 tomorrow Delhi go-FUT.1s
'Santee says that I (= Santee, or = speaker) will go Delhi tomorrow.'

This is a common occurence in indexical shift languages. Example (25) and (26) are from Misha Tatar and Turkish, showing *pro* referring to a 3rd person matrix subject and triggering first-person agreement on the embedded verb.

(25) *Alsu [pro kaja kit-te-m diep] at'-t7*
Alsu [pro where go.out-pst-1g COMP] say-PST
'Which place did Alsu say I went?'

'Which place did Alsu say she went?' (Mishar Tatar, Podobryaev 2014)

(26) *Seda [pro sinif-ta kal-di-m] san-iyor*
Seda [pro class-LOC flunk-PAST-1SG] believe-PRES
'Seda believes that I flunked.'

'Seda believes that she flunked.' (Turkish, Şener Şener 2011)

One can say that in examples such as (24)-(26), the embedded SP binds *pro* and gives the person feature and that the embedded SP is bound/controlled by the matrix subject. As a result, *pro* refers to the matrix subject, but carries 1st person feature. However, it is unclear to me how this will explain indexical shift of *pro* and its interaction with honorification that we have seen in Magahi (e.g., cf. (11)-(15))

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answers to wh questions mark focus on the correspondent of the wh. While overt expressions can be focused, we know that this is not possible for covert expressions. Thus, this case also cannot be considered a counterexample to the claim made here.

Alternatively, Magahi *pro* can be analyzed in term of indexiphor (Deal 2018, local logophor in term of Anand 2006). An indexiphor is an element that like a person indexical triggers person agreement but like a logophor it needs to be bound by the logophor OP in a left-periphery (Koopman & Sportiche 1989; Speas 2004, von Stechow 2003). On this view, unlike pronouns which are true indexicals, *pro* elements are ambiguous between indexical and indexiphore. The shifted reading of *pro* is because it is used as indexiphor while the unshifted reading is because it is used as an indexical. This can explain the shifted and unshifted readings that are associated with *pro* elements in Magahi. However, the theory would have to be extended to explain the mixed reading that is only available under dyadic verbs when the embedded 1st person subject *pro* co-occurs with a 2nd person pronoun. I leave this task for the future.

2   The Role of Complementizer in Indexical Shift

In recent literature, there has been a move to shift the locus of indexical shift from the attitude verb to the complementizer. Messick (2017) mentions languages such as Misha Tatar (originally noted in Podobryaev 2014), Amharic (Anand 2006), and Dani (Wechsler2014) as allowing indexical shift only under complementizers that are etymologically related to the verb 'say'. He thus argues that it is the complementizer that introduces the embedded context that makes indexical shift possible rather than the attitude verb. This move is also found in Sundaresan (2018) and Deal (2017, 2019), where the role of an attitude verb has been limited to only introducing the event. So far, in Magahi, we have seen indexical shift of 1st and 2nd person pronouns under a complementizer-like element *ki*. Magahi has at least one other complementizer-like element *taaki*, which introduces purpose clauses and allows indexical shift. Neither complementizer is related to a verb meaning say or is a grammaticalized form of the verb 'say'. However, there is an interesting contrast between *ki* and *taaki* showing the role of a complementizer in indexical shift. Unlike *ki*, under *taaki*, only 1st person pronouns can shift, even in connection with a triadic main verb which has a goal

argument. For example, (27) shows that a 1st person pronoun can optionally shift to refer to the higher subject under *taaki*.

(27) *Banteeaa ghare ruklai   taaki ham bimmar na   ho   jaai.*
Bantee.ꜰᴍ home stayed.3ɴʜᴀ so   that I   sick ɴᴇɢ become
'Bantee stayed home so that I (=speaker, or = Bantee) do not get sick.'

Example (28), on the other hand, shows that indexical shift of a 2nd person pronoun is impossible. Example (29) shows that when *taaki* is replaced by *ki*, indexical shift of the 2nd person pronoun becomes possible (although the meaning of the clause is not purposive anymore).

(28) *Baabaa   Banteeaa-se   batiailthi taaki tu   dukhii na ho.*
Grandfather Bantee.ꜰᴍ-ɪꜱɴᴛ talked.3ʜꜱ so   that you   sad ɴᴇɢ
'Grandfather talked to Bantee so that you (=addressee, not =*Bantee) don't be sad.'

(29) *Baabaa   Banteeaa-se batiailthi ki   tu   dukhii na ho.*
Grandfather Bantee-ɪɴꜱᴛ talked.3ʜꜱ ᴄᴏᴍᴘ you sad   ɴᴇɢ be
'Grandfather talked to Bantee that you (=addressee, or = Bantee) don't be sad.

Moreover, example (30) shows that in the presence of a 2nd person pronoun, indexical shift of a 1st person pronoun in a *taaki* clause becomes impossible as well.

(30) *Baabaa   Bantee-jore   batiailthi taaki ham tor samaachaar jaan saki.*
Grandfather Bantee.ꜰᴍ.with talked   so   that I   your   news know
'Grandfather talked to Bantee so that I (=speaker) knew your (addressee) news.'

 * Grandfather talked to Bantee so that I (=grandfather) knew your (=Bantee) news.

For completeness, in (31) only the shifted reading is available because the unshifting reading is pragmatically ruled out.

(31) a. *Banteeaa lukaa gelai taaki hamraa koii na dekh sake.*
Bantee.FM hide went-3NHS so-that me-DAT somebody NEG see can-3
'Bantee hid so that nobody saw me (=Bantee, speaker).'

b. *Baabaa dawaai khailthi taaki ham jaldi thiik ho jaai.*
Grandfather medicine eat.3HS so that I quick fine become
'Grandfather took the medicine so that I (=grandfather, speaker) get well soon.'

Magahi thus clearly shows the role of the complementizer in indexical shift, even though the complementizers are not related to the verb 'say'.

Before I offer a possible explanation for Magahi, I would like to mention a very interesting study of the role of complementizers in indexical shift in Poshkart Chuvash (Knyazev 2019). Knyazev reports Poshkart Chuvash as a language that allows an optional shifted reading for a 1st person *pro*. Other indexicals such as a 2nd person *pro* and overt 1st and 2nd person pronouns do not allow a shifted reading. Moreover, there are two complementizer like elements in the language which introduce complement clauses: *teze* and *tenine*. Both are grammaticalized forms of the verb *te* 'say'. The first one *teze* is a converb (e.g., a non-finite) form of the verb *te* and a sort of default complementizer in the language, whereas the second one *tenine* is the participial nominalization of the verb *te* and typically occurs as a complementizer with verbs of communicative reception, particularly 'hear' but also possible with some other verbs of verbs of acquisition of knowledge or communication reception like 'know/learn', 'understand', 'read'. What is important for our purposes here is the indexical shift of 1st person *pro* under these two complementizers. Under *teze*, the shifted reading is possible when the superordinate verb is 'say' or think' but not when the verb is 'hear'. For the shifted reading under 'hear', *tenine* must be used. Consider (32). Example (32a) illustrates that the embedded overt 1st person pronominal subject *ep* does not shift to refer to the higher subject, Masha. In (32b), on the other hand, the embedded 1st person subject is null and indexical shift is possible.

Context: Masha said to me, "I will get an A for Luiza's class." I am reporting this to Luiza.

(32) a. *maṣa man-a [ep sern-be pilek il-e-p] te-ze kala-rj-e.
   Masha 1SG-OBJ 1SG.NOM you.PL-INST five get-NPST-1SG say-SIM.CVB say-PST-3SG

   b. maṣa man-a [sern-be pilek il-e-p] te-ze kala-rj-e
   Masha 1SG-OBJ you.PL-INST five get-NPST-1SG say-SIM.CVB say-PST-3SG
   'Mashai told me that shei will get an A ("five") for your (=addressee) class.'

Note also that the complementizer *teze* is used with the superordinate verb of 'saying'. Now, consider (33). Example (33a) illustrates that under the verb 'hear', when the 1st person *pro* shifts, the complementizer *tenine* must be used. *Teze* is ungrammatical in this construction. Example (33b), on the other hand, shows that *teze* is possible (although there is some degradation, shown by ?) under 'hear' when there is no indexical shift. The pattern is summarized in Table 6.1.

(33) a. (sonja,) ep boris-ran [vəl san-ba ëɕl-e-p] te-n-i-ne / *te-ze
   Sonya 1SG.NOM Boris-ABL 3SG.NOM 2SG-INST work-NPST-1SG say-PST.PTC-POSS3-OBJ
   ëlt-rj-em.
   say-SIM.CVB
   '(Sonya,) I heard from Borisi that hei will work with you (=addressee).'

   b. (sonja,) ep maṣa-ran [Boris san-ba ëɕl-e-t] te-n-i-ne / (?)te-ze
   Sonya 1SG.NOM Masha-ABL Boris 2SG-INST work-NPST-3SG say-PST.PTC-POSS3-OBJ
   ëlt-rj-em.
   say-SIM.CVB
   '(Sonya,) I heard from Masha that Boris will work with you (=addressee).'

	Teze	tenine
SAY/THINK+ no indexical shift	OK	*
SAY/THINK+ indexical shift	OK	*
HEAR + no indexical shift	$^?$OK	OK
HEAR + indexical shift	*	OK

Table 6.1: Acceptability of the two SAY-complementizers depending on the verb class

I conclude from this data that Poshkart Chuvash suggests that both the verb and the complementizer play a role in indexical shift. If the complementizer were the sole actor in indexical shift, then there should not be any difference whether the superordinate verb is 'say/think' or 'hear' as long as there is a complementizer that licenses indexical shift, as *teze* can do.

Now, let us come back to Magahi to explain the *ki* vs *taaki* contrast on the way of thinking we are exploring. We get the shifted reading when the attitude verb binds the embedded Fin. And, for this binding, I assumed that the checkee person features of the attitude verb introduces lambda abstraction: the 1st person checkee feature introduces the first person lambda abstractor [λ1st] and the 2nd person checkee feature introduces the second person lambda abstractor [λ2nd]. Thus, dyadic verbs like 'think' have [λ1st] and allow only indexical shift of first person, whereas triadic verbs like 'tell' have both [λ1st, λ2nd] and allow indexical shift of both 1st and 2nd person pronouns. To add the role of the complementizer along with the attitude verb, one way to go is to assume that the attitude verb and the complementizer form a complex head that introduces the lambada abstraction. Under this view, we will have the following possibilities in Magahi. The combination of the complementizer *ki* and a dyadic verb introduces only the 1st person lambada abstractor, as in (34a), the combination of the complementizer *ki* and a triadic verb introduces

both the 1st and the 2nd person lambada abstractors, as in (34b), and the combination of the complementizer *taaki* with a verb always introduces only the 1st person lambada abstractor, as in (34c).

(34) a. V+*ki* : [λ1st], if the verb is like 'think'

b. V+*ki* : [λ1st, λ2nd], if the verb is like 'tell'

c. V+*taaki* : [λ1st], always introduce [λ1st]

The idea I have presented here of course needs to be worked out in detail. Also needed is a closer study of purpose clauses comparing it with complement clauses. For example, comparing *taaki*-clauses with *ki*-clauses, I showed that the former does not allow the 2nd person pronoun to shift while the latter does allow. The relevant contrast is in (35a) vs (35b).

(35) a. *Baabaa   Banteeaa-se   batiailthi taaki tu   dukhii na ho.*
          Grandfather Bantee.FM-INST talked.3HS so   that you   sad   NEG
          'Grandfather talked to Bantee so that you (=addressee, not =Bantee) don't be sad.'

b. *Baabaa   Banteeaa-se batiailthi ki   tu   dukhii na ho.*
          Grandfather Bantee-INST talked.3HS COMP you sad   NEG be
          'Grandfather talked to Bantee that you (=addressee, or = Bantee) don't be sad.

Moreover, as previously mentioned, (35b) loses its purposive meaning. (35b) does not mean that grandfather talked to Bantee so that he does not get sad. Rather its meaning is that grandfather told Bantee that he should not be sad. Thus, in (35a), the *taaki*-clause is an adjunct clause while in (35b), *ki*-clause is a complement clause. However, *ki*-clauses can also be purposive clauses when there is no 2nd person pronoun in them. For an instance, in the above example (27), *ki* can replace *taaki* without losing the purposive meaning, as shown in (36).

(36) *Banteeaa ghare ruklai   ki ham bimmar na   ho   jaai.*
     Bantee.FM home stayed.3NHS so that I   sick NEG become
     'Bantee stayed home so that I (=speaker, or = Bantee) do not get sick.'

I have treated both clauses in a similar way and assumed that both *ki* and *taaki* can be a constituent with the verb. Recently, Mark Baker (p.c.) suggests that the relevant distinction might be the function/position of the clause. The *ki*-clause is merged lower in the structure, as a complement of V. It is thus in a c-command domain of both the subject and the indirect object, which makes it possible for the subject to bind a 1st person pronoun and indirect object to bind a 2nd person pronoun inside the *ki*-clause, giving rise to indexical shift of both 1st person pronoun and 2nd person pronoun. On the other hand, the *taaki*-clauses or *ki*-clauses that are interpreted as purposive clause are adjuncts, they are merged higher in the clause, say adjoined to VoiceP. Because of this position, the subject can bind into the *taaki*-clause, but the indirect object is not high enough to do that. I leave this line of research for future.

3   Other Indexicals

In this dissertation, I exclusively investigated indexical shift of 1st and 2nd person pronouns, but the literature has shown that indexical shift is not limited to personal pronouns but can also happen with locative indexicals like 'here', 'there' and temporal indexicals like 'now', 'today', 'yesterday' (Anand 2006; Deal 2017, 2019; Sundaresan 2018 and others). A preliminary investigation suggests that these indexicals also shift in Magahi. Example (37) shows the shifting of the locative indexical 'here', whereas (38) shows that temporal indexicals such as 'today' can also optionally shift.

Context: Santee is talking to his friend at his village about one of their friends

(37) a. *Ham JNU me geliau hal pichhlaa saal. uhaaN, ham Ram-se milau. U*
     I JNU in went.NHA be.PST last year there I Ram-PST met.NHA He

     kahkit halai ki ham aglaa saal yahan-se nikal jaayem.
     tell.PROG be.PST.3NHS COMP I next year here-INST pass go.FUT.1
     'Last year, I went to JNU. I met Ram there. He was saying that I (=Ram) will pass out next year from here (=JNU).'

  b. *Ham BHU me geliau hal pichhlaa saal. uhaaN ham Ram-se milau. U*
     I BHU in went.NHA be.PST last year there I Ram-INST met.PST He

     kahit halai ki ham pichhle saal-se yahaan paDit hiau.
     tell.PROG be.PST.3NHS COMP I next year-from here read.PROG be.NHA
     'Last year, I went to BHU. I met Ram there. He was saying that I (=Ram) have been studying here (=BHU) for last year.'

(38) *Kal ham Santeeaa-se milli hal. U bollai ki ham aaj Patna*
    yestersay I Santee-with met.1 be-PST he say.PRF-3NHS COMP I today Patna

    jaait hi
    going be-1P
    'I met Santee yesterday. He said that I (=Santee) am going to Patna today (=yesterday).'

The following examples show that the shifted reading of locative and temporal indexicals in the above examples may not be due to it being quotation. In example (39), based on Anand (2006), the complement clause has a shifted locative indexical *ihaiN* 'here' and at the same time a 3rd person pronoun, referring to the higher subject, Atul. This clause cannot be a quotation because Atul cannot make a quotational statement "he was born here" where 'he' means 'Atul'. Rather, he must have said, "I was born here"

Context: Deepak and Santee are in their village Hasanpura and talking about their visit to Delhi last month.

(39) *Jab   hammni dilli me haleN   ta   Atul_i kahkai   hal   ki [u_i ihaiN paidaa*
      when   we   Delhi in be.PST.2 PRT Atul told.3NHS be.PST that he   here   born

      holai   hal].
      happened.3NHS be-PST

      'When we were in Delhi, Atul_i had said that he_i was born here (=Delhi).'

In example (40), the complement clause has a shifted temporal indexical *aaj* 'today' and at the same time a 3rd person pronoun, referring to Santee in the higher clause, demonstrating that the embedded clause cannot be a quotation.

Context: Deepak is reporting to Atul after asking him about his visit to Santee's house yesterday.

(40) *Santeeaa_i kahlak   hal   ki   u_i aaj   Patna jaait   hai.*
      Santee.FM told.3NHS be.PST COMP he today Patna go.PROG be.PRES.3NHS
      'Santee said that he is going to Patna today (=yesterday).'

So far, the examples above show that person indexicals and the locative and temporal indexicals shift together. However, it seems that Shift together can be violated in these cases. Consider example (41) with embedded 1st person noun and a time adverbial *aaj* 'today'. The sentence is three-way ambiguous. Both the 1st person and the time adverbial can be interpreted relative to the utterance event, or both can be interpreted relative to the context of a week ago when the conversation had been taken place. These two readings are expected under Shift Together constraint. But (41) also has an interesting reading where the 1st person can shift to the higher subject, Bantee but the time adverbial remains unshifted, as shown in (41iii). However, the reading where the time adverbial shifts but the 1st person pronoun does not is ruled out, as shown in (41iv).

Context: Deepak is talking to Santee on July 8th, 2020.

(41) *Ek   saptaah pahile, Banteeaa hamraa kahlau   hal   ki   ham aaj   ii   kitaab*
     One week   before Bantee.FM me.DAT told.NHA be.PST COMP I   today this book

    paRhbai.
    read.FUT.1s

(i) 'A week ago, Bantee told me that I (=Deepak) will read a book today (=July 8th).'

(ii) 'A week ago, Bantee told me that I (=Bantee) will read a book today (=July 1st).'

(iii) 'A week ago, Bantee told me that I (=Bantee) will read a book today (=July 8st).'

(iv)*'A week ago, Bantee told me that I (=Deepak) will read a book today (=July 1st).'

A deeper investigation needs to be done to determine all the possible mixed readings with other 'place' and 'time' indexicals before an analysis can be proposed in Magahi. This too I leave for future research.

4   Summary of the dissertation and some implications

This dissertation has focused on two linguistic phenomena: honorification and indexical shift. Although both topics have been previously studied in a number of languages, this dissertation is the first in-depth study of their interaction. Indexical shift has not been generally seen in the light of the syntactic mechanisms involved in honorification. By examining its interaction with honorification, I argued for a significant syntactic component to indexical shift, where the syntactic representation of discourse participants i.e., speaker (SP) and addressee (ADD) (Speas and Tenny 2003), has played a central role in both the phenomena.

One of the contributions of this dissertation is to demonstrate that Add-Agr and indexical shift phenomena are not restricted to root clauses. It strengthens the idea that every finite clause syntactically represents SP and ADD (cf. Bhadra 2017), not just root or root-like clauses (SAPs). It has been shown the role of both SP and ADD coordinates in the grammar of honorification and indexical shift in Magahi. The claim that SP and ADD co-ordinates are lower in the structure and

are found in every finite clause is made on the basis of the empirical fact that Add-Agr can be found in every finite clause, main and embedded, and that honorification on pronouns in a given clause is fixed relative to the SP coordinate of that very clause.

I adopted Portner et al.'s (2019a) idea that there is a relational (status) feature in the grammar that encodes the social relation between the speaker and the addressee. Portner et al. locate the feature on a C-like head in the periphery of a clause, where it takes SP and ADD as its two arguments. However, I make this principle more general. I proposed that there is a semantic honorificity feature [iHON], which is similar to Portner et al.'s (2019a) status feature, on every DP. This feature takes the DP it attaches to as one of its arguments, and its second argument is a variable bound by SP. Thus, each DP expresses its social relation relative to the speaker, independently of other DPs in the clause. Thus, unlike Portner et al., the honorification level is not fixed once and for all at the level of the clause.

The dissertation also proposed an analysis of the three levels of social rank which we find in Magahi–NH, H, and HH–in terms of two two-valued honorification features: ±hon and ±high. ±hon means "X is [not] greater than Y in social status" and ±high means "X is [not] much greater than Y in social status". The evidence for this two-valued feature system comes from morphological syncretism. 2nd person pronouns show that the NH and H features constitute a natural class (*tu* 'you.(N)H'), with a distinct HH form (*apne* 'you.HH'), whereas 3rd person pronouns and subject agreement show that H and HH features are a natural class (*unkaa* 'him-(H)H', *-thin* '(H)HS'), with a distinct NH form (*okraa* 'him-NH', *-ai* 'NHS').

Finally, indexical shift was investigated. It was shown that 1st and 2nd person pronouns can optionally shift in Magahi. It was argued that the shifted reading is obtained when the embedded pronouns are bound by the arguments of the immediately higher predicate, mediated by the attitude verb (von Stechow 2003) via the embedded SP and ADD co-ordinates (Baker 2008). In contrast, the unshifted reading is obtained when the embedded pronouns are bound by matrix SP

and ADD co-ordinates via the embedded SP and ADD. An interesting interaction between indexical shift and honorification was also noted. It was shown that when there is indexical shift, the honorific marking on other elements such as 2nd person pronouns, and 3rd person pronouns also shifts. Moreover, Add-Agr can also shift, and it shifts if and only if indexicals do. I capture this by stating that it is one and the same ADD coordinate that triggers Add-Agr on the verb and binds 2nd person pronouns. It was demonstrated that the closest SP co-ordinate plays an important role in the shifting of honorific marking. Therefore, indexicality and honorification are both sensitive to binding, and interactions between them are predicted.

Before concluding I would like to briefly mention some cross-linguistics implications of the current analysis. The analysis predicts that no language will have Add-Agr in the embedded clause but not in the matrix clause because embedded SP and ADD get their reference from the matrix SP and ADD.

Another prediction that this analysis makes is that if a language allows Add-Agr in embedded contexts and at the same time allows indexicals to shift, then in the indexical shift environment, Add-Agr must show the honorific relation between the higher subject and the object. In addition to Magahi, another language that has been reported to have such an interaction is Tamil (McFadden 2017), as shown in (42). In (42a), there is just Add-Agr and the addressee marker shows the politeness from the utterance speaker to the utterance addressee. Example (42b), on the other hand, has both indexical shift and Add-Agr.[5] In this case, the addressee marker indicates the politeness from the matrix subject Maya to the addressee of the saying event.

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5. Indexical shift in Tamil is manifested by what Sundaresan terms 'monstrous agreement'- the subject of the clausal complement of speech predicates is the anaphor taan which is obligatory coreferent with the 3rd-person subject of the speech predicate. However, the embedded predicate shows 1SG agreement marking, showing that it has acquired 1st person features from being bound by SP (see Messick 2017, 2020 for an analysis focused on the related language Telugu).

(42) a. *Maya [avæ pooṭṭi-le   dʒejkkæ-poo-r-aaɭ-ŋgæ-nnŭ] so-nn-aa.*
          Maya she   contest-LOC win-go-PRES-3SF-AL-COMP   say-PST-3SF
          'Maya said that she would win the contest.' (speaker being polite to her addressee)

      b. *Mayai [taani,*j pooṭṭi-le   dʒejkkæ-poo-r-een-ŋgæ-nnŭ] so-nn-aa.*
          Maya ANAPH contest-LOC win-go-PRES-IS-AL-COMP   say-PST-3SF
          'Mayai said that shei would win the contest.' (Maya being polite to her addressee)

This analysis also predicts that if a language allows Add-Agr in the embedded context but no indexical shift, then the embedded Add-Agr must encode the relationship between the utterance speaker and the addressee. This is found in Galician and some southern Basque varieties (Haddican 2020). In these languages, Add-Agr can be found freely in embedded clauses. However, these languages do not have indexical shift. In (43a), the 2nd person pronoun and the addressee marker refer to the utterance addressee and not to the matrix object, Imanol. Similarly, in (43b), the embedded addressee marker cannot refer to the matrix object. It must refer to the utterance addressee (see Haddican 2020, ex:(53)-(54)).

(43) a. *Jon-ek   Imanol-i   [zu)   etorri-ko zar-Ø-ela]   esa-n*
          Jon-ERG Imanol-DAT 2SG.FROM come-FUT 2SG.FROM-ROOT-C.DECL say-PERF

          d-i-o.
          EXPL-ROOT-3SG.DAT
          'Jon told Imanol you will come'/*Jon told Imanol Imanol will come.'

      b. *Jon-ek   Imanol-i   [etorri-ko d-u-(%k)-ela]   esa-n*
          Jon-ERG Imanol-DAT come-FUT EXPL-ROOT-2SG.FAM.MASC-C.DECL say-PERF

          z-i-o-k.
          EXPL-ROOT-3SG.DAT-2SG.FAM.MASC
          'Jon told Imanol that he will come.' (Cannot mark a familiar relationship between Jon and Imanol.)

The analysis put forth in this dissertation can easily be extended to these languages, assuming

that, unlike Magahi, the person parameter (chapter 4, ex: 65) is inactive. Thus, there is no indexical shift and no shifted Add-Agr. The only possibility for Add-Agr is to encode the relation between the utterance speaker and the addressee.

The current analysis of indexical shift comes closer to syntactic analyses of logophoric pronouns in West African languages in the tradition of Koopman and Sportiche (1989) (see also Baker 1999; Speas 2004; Safir 2005; Adesola 2005; Pearson 2015; Messick 2017; 2020). In this, my analysis contrasts with that of Anand (2006) and Deal (2017, 2018) who argue for a sharp distinction between these two types of *de se* phenomena. Moreover, the current study opens an interesting area to explore the interaction between logophoricity and honorification.

In chapter 3 (cf. section 4.2), I briefly mentioned Bhadra's analysis of evidentiality in Bangla. She argues that the SP and ADD co-ordinates of FinP play an important role in evidentiality. In the case of regular assertions, they are co-indexed with the SP and ADD co-ordinates of speech act phrase (SAP, Speas and Tenny 2003). That is, the utterance speaker and the addressee are also the speaker and the addressee of FinP. But in the case of reportative evidentials, they are contra-indexed such that the ADD co-ordinate of FinP is co-indexed with the SP co-ordinate of SAP and the SP co-ordinate of FinP designates a third party (it cannot be the utterance speaker). This opens an interesting area to study the interaction of evidentiality and Add-Agr, which would be relevant for understanding the mechanics of both. Do we have a one-to-one correlation between evidentiality and Add-Agr, or can we have a mismatch between them? Unfortunately, Magahi does not have dedicated evidential adverbs or particles such as 'reportedly' in English or *naki* in Bangla. Evidentiality is expressed periphrastically by using a bi-clausal structure in which other factors come into play. An in-depth study of this issue in a language where both the phenomena are attested would be extremely interesting, however.

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