Person and Honorification: Features and Interactions in Magahi

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Abstract: The Magahi language is rich in honorification morphology: it has three versions of 'you' (nonhonorific, honorific, and high honorific) and makes honorific distinctions for third person nominals as well as second person nominals. This work uses these empirical riches to develop a formal syntactic theory of honorific marking. It argues that Magahi's honorific distinctions can be decomposed into two binary features, [+/–HON] and [+/–HIGH]. These features are specified on an Hon head that is part of the extended projection of any nominal phrase in Magahi; from there they can be copied onto verbal functional heads by Agree. It goes on to argue that Hon heads in Magahi bear a first person designated index that specifies the individual with respect to which the social standing of the nominal inside HonP is evaluated. This first person index is used to account for the intricate ways in which honorific marking interacts with indexical shift in Magahi.

Keywords: Magahi, honorificity, politeness, person, indexical shift, agreement

1 Introduction

Magahi is an Indo-Aryan language spoken in Northeastern India, closely related to Hindi, but different from it in significant respects. One notable difference is that Magahi is particularly rich in grammaticalized markers of honorification and politeness (Verma 1991). In Western Indo-European (IE) languages, the most salient markers of this type are a two-way distinction in the second person pronouns: *tu* vs. *vous* in French; *thee* vs. *you* in older English, and so on. The study of this distinction, in dialog with the rich system of clause marking in Korean, has engendered productive new investigation of honorification within generative syntax and semantics; see especially Portner, Pak & Zanuttini's (2019) flagship article (PPZ) on this topic. Like the Western languages, Magahi has honorific distinctions in the second person, as in (1).[1]

(1) a. **Tu**   Ram-ke   dekhl-**eN**.   (NH subject)
         you.NH Ram-ACC see:PFV-2.NH.S
         'You (e.g., my friend/younger sibling) saw Ram.'

     b. **Apne**   Ram-ke   dekhla-**thi(n)**.   (HH subject)
         you.HH Ram-ACC see:PFV-2.HH.S
         'You (e.g., a teacher) saw Ram.'

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[1] The Magahi data in this article come from the native speaker judgments of the first author and one additional native speaker. Some examples have been checked with other native speakers as the need arose or the occasion presented itself.

However, Magahi goes beyond the Western IE languages in distinguishing three levels of honorification, not just two: nonhonorific (NH), honorific (H), and high honorific (HH). Magahi is also like the Western IE languages in that these honorific distinctions are visible not only on the pronouns themselves, but also on the finite verb by virtue of the verb agreeing with its subject. So not only does (1b) have the pronoun *apne* in the subject position where (1a) has *tu*, but (1b) has the suffix *-thin* on the verb where (1a) has *-eN*. In the domain of agreement Magahi again goes a step farther than Western IE languages, in that verbs show honorificity marking not only for the subject of the clause but also for the status of the individual who the sentence is addressed to. This *addressee agreement* (also known as allocutivity; see Oyharçabal 1993) has been analyzed in detail by Alok (2020; 2021).

In this article, we add to these previously-studied topics consideration of a third way in which Magahi's system of honorification/politeness goes beyond that of many other languages: Magahi also has honorification marking on third person noun phrases and on verbs that agree with them. For example, using the pronoun *okraa* in (2a) presupposes that the referent of the pronoun is someone who is a peer of or inferior to the speaker, whereas using the pronoun *unkaa* in (2b) presupposes that the person referred to is socially superior to the speaker.

(2) a. Ram **okraa**   dekhl-ai.
         Ram 3SG.NH.ACC see:PFV-3.NH.S
         'Ram saw him (a chum).'

     b. Ram **unkaa**   dekhl-ai.
         Ram 3SG.H/HH.ACC see:PFV-3.NH.S
         'Ram saw him (an elder, teacher).'

This third person honorification has only been mentioned in passing in previous works on Magahi (Verma 1991; Verma 2003; Alok 2020). In this article, we argue that taking this phenomenon into account and comparing it with the honorification associated with second person pronouns is enlightening in several respects, giving a fuller sense of what honorification features are and how they function in morphosyntax.

Our hypothesis in a nutshell is that Magahi has two binary-valued honorification features, with the meanings stated roughly in (3a,b). These binary features combine to give three honorification values as shown in (3c).

(3) a. +HON: x is higher in social rank than I am
         –HON: x is not higher in social rank than I am
     b. +HIGH: x is much higher in social rank than I am
         –HIGH: x is not much higher in social rank than I am
     c. NH= [–HON, –HIGH]
         H= [+HON, –HIGH]
         HH= [+HON, +HIGH]

These features live indigenously on nominals in Magahi—any nominal, although they are most noticeable on second and third person pronouns—and they are semantically interpretable there. However, Agree can also copy them onto functional heads that are realized as verbal affixes, just

as it can copy person, number, and gender features. The features in (3) thus have the status of full-fledged phi-features in Magahi.[2]

The hypothesis in (3) allows us to analyze three kinds of facts, which we discuss in turn. First, in section 2, it provides for an account of patterns of syncretism in pronouns and agreement, such that the full three-way set of distinctions in honorification is reduced in most environments. Sometimes NH and H form a natural class (–HIGH) that excludes HH; other times, H and HH form a natural class (+HON) that excludes NH. Section 3 takes up the fact that these features live on nominals and can be copied onto verbs, in contrast with PPZ's proposal that the status feature is native to a C-like head and is copied onto pronouns in its scope. The crucial difference is that our view allows different DPs in the same clause to have different values for the features in (3). Finally, section 4 investigates the implications of saying that these features come along with an index designated as being first person. This is revealed by the fact that Magahi is a language that allows indexical shift in the clausal complements of attitude verbs (Alok & Baker 2018; Baker & Alok 2019; Alok 2020), similar to what happen in languages like Amharic (Schlenker 1999; 2003; Anand 2006), Zazaki (Anand & Nevins 2004), and Nez Perce (Deal 2020). Second person pronouns undergo indexical shift along with first person pronouns in the usual way. In contrast, the third person features of a pronoun are not interpreted any differently in the complements of attitude verbs, but their honorificity features can receive a shifted interpretation such that they mark the social status of the referent of the nominal they attach to relative to the matrix subject rather than relative to the speaker of the sentence as a whole. When there is more than one pronoun in the embedded clause, we observe intricate patterns as to whether honorificity marking and person marking "shift together" or not. This behavior follows, we claim, from the fact that honorification features bear a first person index, and this index is influenced by indexical shift in the same way that ordinary first person pronouns are. Section 5 briefly concludes.

2 Honorific features and natural classes

Readers will have noticed that, although we claimed that Magahi has a three-valued honorification system, we only showed two-way distinctions in (1) and (2). In fact, one cannot necessarily see the full system in any one set of examples, because it is common for some of the distinctions to be neutralized morphologically. These syncretisms present an opportunity as well as an obstacle, since they give insight into the structure of the feature system by showing which combinations are treated as natural classes. This section both describes the cast of honorific-marked elements in Magahi more fully and considers these patterns of syncretism. We show that NH and H forms are sometimes realized in the same way in Magahi, and H and HH forms are sometimes realized in the same way, but NH and HH are never realized in the same way distinct from H. This supports the system of features in (3).

Consider first the full set of examples with second person pronoun subjects shown in (4); this expands on (1) by providing the plain honorific form in (4b). One does not see a difference in the pronoun subject itself: (4b) has *tu* just as (4a) does. There is a difference in the agreement suffix on the verb, however: (4b) has *-a*, whereas (4a) has *-eN* and (4c) has *-thi(n)*. Agreement

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[2] In contrast, Agree does not copy number or gender features in Magahi, although number features exist in the language and are realized on pronouns. This is an example of different features being active for Agree in different languages.

with second person subjects is thus one place where the full three-way system can be seen directly.

(4)   a.   **Tu**   Ram-ke   dekhl-**eN**.
          you.NH   Ram-ACC   see:PFV-2.NH.S
          'You (my friend/younger sibling) saw Ram.'

       b.   **Tu**   Ram-ke   dekhl-**a**.
          you.H   Ram-ACC   see:PFV-2.H.S
          'You (my elder) saw Ram.'

       c.   **Apne**   Ram-ke   dekhla-**thi(n).**
          you.HH   Ram-ACC   see:PFV-2.HH.S
          'You (my teacher) saw Ram.'

We offer just a few comments on how these three forms made available by the grammar are used, to orient the reader. The NH version in (4a) is generally used when addressing a peer or someone who the speaker is socially superior to: a friend, a younger sibling, a younger cousin, a child, and so on. The plain H version in (4b) is used when addressing someone one step higher than oneself in social rank, such as an older sibling or cousin, a parent, or a grandparent. The HH form in (1c) is typically used when addressing someone more than one step higher than oneself, such as (for an average townsperson) a teacher, a priest, or a ruler. However, this system is relative rather than absolute. For example, the first author uses H forms with his grandfather, but a manual laborer considered to be of low rank in the local social hierarchy could address the same individual using HH forms. Similarly, as a student the first author used HH forms with his professors, but one professor might use NH forms when talking to another professor outside of a formal situation. This system of distinctions is also used dynamically—even performatively, in the sense of PPZ—depending on the situation and the speaker's attitude toward it. For example, a mother proud of her son's scholastic achievements might temporarily use H forms when speaking to him, as a form of praise. Moving in the other direction, students who are fond of their professor and appreciate her support might use NH forms in certain situations to express solidarity with her.[3] These options for using the forms provided by the grammar dynamically are not unlike those known for other languages. However, we do not go into the nuances of all the ways these forms can be used, concentrating on the forms themselves and their relationships with one another.

Since the verbal morphology shows distinctions that are not evident on the subject in (4a,b), one might wonder whether this is really agreement as opposed to some feature value that is originally born on the verbal functional head itself. However, Alok (2021) argues that this verbal morphology has the formal behavior that one expects of agreement. Magahi has dative subject constructions with nominative objects, like those known from Icelandic and other languages. In such constructions, the T head realized on the verb often looks beyond the subject—rendered invisible to Agree by its dative case—and enters into Agree with the next closest DP, the object (if any). Indeed, the current understanding of Agree was developed

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[3] Note that Magahi pronouns and agreement do not express gender. As far as we know, there are no grammatical differences between pronouns referring to males and females in the examples we discuss, although we have not varied this feature systematically in all of them.

precisely to capture this type of pattern (Chomsky 2000). Honorific marking on verbs in Magahi shows this same characteristic pattern, just as person marking does. Suppose the sentences in (5) are spoken by Santee's same-age cousin to their grandfather. (5a) has a normal nominative subject construction, and here agreement on the verb must be 3+NH, showing the relationship of the subject Santee to the speaker, not the relationship of their grandfather to the speaker. In contrast, (5b) has a dative subject; here agreement on the verb must be 2+H, showing the relationship of the object grandfather to the speaker, not that of Santee to the speaker.

(5)   a. **Santee-aa** toraa   dekhl-**ai**/*a.
           Santee-FM   you.H.ACC see:PFV-3.NH.S/*2.H.S
           'Santee saw you.'

       b. Santee-aa-ke   **tu**   pasand   h-**a**/*ai.
           Santee-FM-DAT you.H.NOM like   be:PRS-2.H.S/*3.NH.S
           'Santee likes you.'

Given that the verbal inflections in (4) behave syntactically like agreement, then, we assume that the three-way feature distinction exists on the pronouns in the syntax, although this is partially neutralized on the surface.

   This conclusion implies that there is syncretism in the second person pronouns in Magahi: two items that have different features in the syntax are realized by the same vocabulary item at PF. This in turn suggests that the two pronouns that are realized with the same form have a feature value in common that triggers the insertion of that form. Specifically, the second singular NH pronoun and the second singular H pronoun have a feature in common. That is true according to our proposal in (3): the two pronouns share the feature [–HIGH]. Given this, we can posit simple vocabulary insertion (VI) rules like (6) to get the observed pattern.[4] The paradigm in (4) thus helps to motivate this aspect of the feature system in (3). (See Alok 2021 for a detailed proposal for the VI rules that insert the agreement morphemes in T.)

(6)   D → /tu/   / 2nd, SG, –HIGH
       D → /apne/ / 2nd, SG

   Next we look briefly at addressee agreement in Magahi, simple examples of which are shown in (7). These examples have normal subject agreement with the first person subject, realized as /i/. In addition, (7b-d) have an additional morpheme that expresses something about the person the sentence is addressed to; in particular, they express the social standing of that person relative to the speaker.[5] This is done using the same three-way distinctions that we saw

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[4] Probably feature decomposition for the feature 2nd is called for too—e.g.,+participant, -speaker—but we need not take any particular view about that here.

   As usual, several ways of stating the VI rules are observationally equivalent. For example, one could turn (6) around and say that /apne/ is inserted for [2nd, SG, +HIGH] and /tu/ is inserted for [2nd, SG] elsewhere. Crucially, this version also depends on HH having a feature value that both H and NH lack. Decisions about which VI rules are best probably depend on theoretical choices about whether features are privative or binary-valued, whether rules can refer to unmarked (-) values as well as + values, and the like. We take no stand on these matters here.

[5] Note that addressee agreement cannot be used in examples with second person subject agreement like (4), although addressee agreement can cooccur with second person pronouns used in non-agreed-with positions inside the clause

for subject agreement in (4): (7b) can be addressed to a friend or one's child; (7c) can be addressed to one's older relative; (7d) can be addressed to one's teacher or priest. This addressee agreement is optional in Magahi (although very common), so one can also say (7a) to anyone.

(7)   a. Ham jaa-it   h-i.
            I   go-PROG be:PRS-1.S
            'I am going.'   (said to anyone)

        b. Ham jaa-it   h-i-**au**.
            I   go-PROG be:PRS-1.S-NH.AD
            'I am going.'   (said to a friend)

        c. Ham jaa-it   h-i-**o**.
            I   go-PROG be:PRS-1.S-H.AD
            'I am going.'   (said to an older family member)

        d. Ham jaa-it   h-i-**ain**.
            I   go-PROG be:PRS-1.S-HH.AD
            'I am going.'   (said to a teacher)

For current purposes, the interest of this paradigm is that it reinforces the claim that Magahi fundamentally has a three-valued honorific system. In the tradition of Oyharçabal's (1993) study of allocutive agreement in Basque, Miyagawa's (2012; 2017) studies of Japanese, and McFadden's (2020) study of Tamil, Alok (2020; 2021) analyzes this paradigm in a way that is parallel to the one in (4). He claims that sentences like (7b-d) have a null second person pronoun *Ad* in the periphery of the clause that denotes the person the clause is addressed to, as in Speas & Tenny's (2003) neo-performative hypothesis.[6] A functional head Fin (Rizzi 1997), distinct from and slightly above T, then agrees with this null pronoun, much as T agrees with the subject.[7] We largely put this construction aside here, except in the discussion of how honorificity interacts with indexical shift in section 4.2.

      Consider next the novel focus of this work: third person elements marked for honorificity. A two-way distinction for third person pronouns in the object position was seen in (2), repeated here as (8). In fact, only two forms are attested in this context: *okraa* is used when the referent of the pronoun is equal to or inferior to the speaker, whereas *unkaa* is used when the referent of the pronoun is socially superior to the speaker—both for an older family member and for a teacher or priest.

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such as direct object. Intuitively, addressee agreement is avoided as being redundant on the verb when subject agreement expresses the same features—a phenomenon seen in Basque as well (Oyharçabal 1993). See Alok & Baker (2018) for an analysis.

[6] The fact that this pronoun can be null is unremarkable, given that Magahi is a rich agreement language that allows pro-drop. Thus the subjects of finite clause can be null too, although we generally include them to be perspicuous except where it matters—as it does in section 4.3. On the fact that Ad must be null, see Oyharçabal (1993) for still-relevant discussion.

[7] We propose that the head that agrees with Ad in Magahi is Fin because the exponents of subject agreement and addressee agreement are adjacent to one another, as are the heads T and Fin in Rizzi's system, and because addressee agreement is possible in any finite clause in Magahi, including embedded clauses (see note 22). However, this is not crucial to our analysis.

(8) a. Ram **okraa**   dekhl-ai.
         Ram 3SG.NH.ACC see:PFV-3.NH.S
         'Ram saw him (a friend).'

     b. Ram **unkaa**   dekhl-ai.
         Ram 3SG.H/HH.ACC   see:PFV-3.NH.S
         'Ram saw him (an elder, a teacher).'

Comparing this with the second person pronouns, there is syncretism here too: a three-way underlying semantic distinction results in only two forms at PF. Interestingly, it is a different pattern of syncretism: here it is the H and HH forms that are the same in contrast with the NH form. This suggests that H and HH are also a natural class in Magahi. This motivates the second feature in our proposal in (3): H and HH pronouns share the feature [+HON], whereas the NH form is [–HON]. Then one has the following VI rules for third person singular pronouns in accusative/dative case.[8]

(9)   D → /unkaa/ / 3rd, SG, ACC, +HON
       D → /okraa/ / 3rd, SG, ACC

The last paradigm to consider is when the subject of the clause is third person, either an ordinary DP or a pronoun. Examples are given in (10). In this environment, there is only one form of the pronoun, *u*, regardless of the social status of the referent. However, there are two forms of agreement with the third person subject, and they show the same pattern of syncretism as third person object pronouns do: *-ai* is used with an NH subject, whereas *-thi(n)* is used with an H or HH subject.

(10) a. Ram/**u**   baabaa-ke   dekhl-**ai**.
         Ram/3SG   grandfather-ACC see:PFV-3.NH.S
         'Ram/he saw Grandfather.'   (NH subject)

     b. Baabaa/**u**   Ram-ke   dekhl-**thi(n).**
         grandfather/3SG   Ram-ACC   see:PFV-3.H.S
         'Grandfather/he saw Ram.'   (H subject)

     c. MaasTar-saaheb/**u** Ram-ke   dekhl-**thi(n).**
         teacher-HH/3SG   Ram-ACC   see:PFV-3.HH.S
         'The teacher/he saw Ram.'   (HH subject)

The VI rule for the nominative pronoun is given in (11); it does not refer to honorification features at all. VI rules for the agreement are given in (12); they are formally parallel to the ones in (9), confirming that [+HON] defines a natural class including H and HH but not NH.[9]

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[8] Again alternatives are possible apart from considerations about markedness and the like. For example, one can say that *okraa* is inserted for [–HON] pronouns and *unkaa* is inserted elsewhere.

[9] Since third person agreement shows the same pattern of syncretism as third person nonsubject pronouns, one could posit an impoverishment rule which deletes the [+HIGH] feature in the context of third person across the board in

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(11) D → /u/ / 3ʳᵈ, SG, (NOM)

(12) AGR→ /thi(n)/ / 3ʳᵈ, +HON
      AGR→ /ai/ / 3ʳᵈ

The examples in (10) also confirm that ordinary DPs like *Ram* and *baabaa* 'grandfather' can bear the features [+/–HON] and [+/–HIGH] in Magahi, as pronouns do. We return to this in section 3.

We have now seen enough different patterns that it begins to feel significant that there is one pattern of syncretism that is not found in Magahi. The language never uses the same form for NH and HH and a different form for H, whereas all other imaginable syncretisms are attested. Our proposal in (3) captures this too. NH is [–HON, –HIGH] and HH is [+HON, +HIGH]. They have no honorific feature values in common; hence they do not form a natural class. No VI rule could insert a form for the two of them without inserting it for the H bundle [+HON, –HIGH] as well.[10] Thus, the feature system in (3) is optimal for capturing Magahi's patterns of syncretism, giving all and only what we need.

Whereas there are three types of second person pronoun in Magahi, revealed by a combination of overt pronoun forms and verbal agreement, and at least two types of third person, it is notable that there is only one form of the first person pronoun. 'I' in Magahi is always *ham*, regardless of the social status of the speaker, and the agreement it triggers is always /i/. For example, there are no alternative forms of (7a) for grandfathers or priests to say as opposed to children and students. This follows from the meanings of the Magahi-specific features given in (3)—in particular, the fact that social status is relative and evaluated with respect to the speaker. One can construct a feature bundle like [1ˢᵗ, SG, +HON], but its meaning would be roughly "X refers to the speaker" (1ˢᵗ person) and "X is higher in social rank than the speaker" (+HON). This is contradictory, assuming that "higher in social rank than" is an antireflexive property: one cannot be higher in rank than oneself. The only honorific feature values that are compatible with the 1ˢᵗ person feature, then, are [–HON] and [–HIGH]. Indeed, this gives a more specific result than simply that there is only one first person pronoun in Magahi: it implies that that pronoun is formally NH. This is a good result. For example, first person subject agreement cooccurs with the same allomorphs of addressee agreement as third person NH agreement; whereas third person H and HH agreement conditions different allomorphs of addressee agreement and/or fuses with addressee agreement (see Alok 2020; 2021 for complete paradigms and analysis). The forms are compared in (13).

(13)

	"I am…" (see (7))	"He/she.NH is…"	"He/she.H(H) is…"
NH addressee	h-i-**au**	h-**au**	ha-thun

Magahi. However, this extra machinery gives little additional descriptive or explanatory power in this case, given that essentially the same VI rules are needed anyway.

[10] Under some assumptions, one could jury-rig the unattested pattern, if it is possible to insert one form when D is [+HON, −HIGH] (=H) and another form elsewhere. Unlike the attested VI rules in Magahi, this hypothetical rule refers to two honorific features, not one, and to both plus and minus values. Perhaps this hypothetical rule is ruled out in principle, or perhaps it is just more highly marked, so expected to be rarer than VI rules that pick out true natural classes.

| H addressee | h-i-**o** | h-**o** | ha-thun |
| HH addressee | h-i-**ain** | h-**ain** | ha-thin |

This suggests that the first person pronoun and the third person NH pronoun constitute a natural class (both NH), as predicted by our features for Magahi.[11]

Another combination of features that is ruled out as being semantically incompatible is [–HON, +HIGH]. This combination would say that the referent of the pronoun X is not higher in social rank than I am, and that the referent of X is much higher in social rank than I am—a contradiction. Therefore, only three of the four combinations of the two binary features are semantically coherent. Magahi thus has three kinds of honorific pronouns, not four. This is familiar from the study of other phi-features. For example, a popular approach to person features uses the features +/–participant and +/–speaker (or the equivalent) (Harley & Ritter 2002). Then first person is [+participant, +speaker], second person is [+participant, –speaker], and third person is [participant, –speaker]. There is, however, no fourth person because [–participant, +speaker] is contradictory, given that the speaker in a speech act is by definition a participant in that speech act. Thus our honorific features in (3) do not overgenerate.

In closing this phase of the discussion, we acknowledge that there is nothing surprising about the natural classes that are generated by our features in (3). If one thinks of honorificity not as defined by two binary features but rather as a single linear scale, NH<H<HH, one would get the same natural classes: NH+H vs HH and H+HH vs NH, but not NH+HH vs H. Our formal theory does not go much beyond informal intuition in this case. However, it does capture the patterns of syncretism observed in Magahi well if not uniquely.

3 The location of honorific features in the syntax

Next let us consider more carefully where the features [+/–HON] and [+/–HIGH] are generated in the syntax. In section 2, we assumed that these features are intrinsically present on DPs of various kinds. They can also appear on verbal functional heads like T and Fin, but that is the result of Agree copying values of the features from nearby DPs.

This is not an innocuous assumption. On the contrary, the best-worked out generative theory of politeness/honorificity to date is that of PPZ, and they assume almost the exact opposite. They argue that the status feature lives natively on c, a head high in the complementizer system, which takes abstract representations of the speaker and the addressee as its arguments. The status feature borne by this high functional head can then be copied onto bound pronouns in the domain of c by a version of Kratzer's (2009) operation of Feature Transmission.

PPZ's proposal is plausible precisely because they have in mind honorific marking on second person pronouns. All second person pronouns in the same clause normally must refer to the same entity. This is arguably because they are all variables bound by the same operator with clausal scope, the Ad argument in cP (see also Baker 2008: 121-138). Furthermore, all the

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[11] An anonymous reviewer asks if our account predicts that there will never be honorific first person pronouns in natural languages, mentioning the royal 'we' of English (and Hindi) as a potential counterexample to such a claim. We do not intend any such general claim here; the specific details of the feature system are presumably important. Crosslinguistically, we know that plural marking is often used to show honor to the referent of the pronoun, as in plural *vous* used as an honorific second person singular in French. The royal 'we' is presumably another example of this sort. Magahi does not use plural marking for honorification in this way, building honorification out of different kinds of elements, namely those in (3).

second persons in the scope of c need to have the same honorific marking—not surprisingly, given that they all refer to the same person. For example, one cannot normally refer to one's addressee with both *tu* and *vous* in the same sentence in French. A Magahi example illustrating this is (14).

(14) #Ram **apne**-ke   **tor**   kitaab   lauTal-ai.
        Ram you.HH-DAT you.NH.GEN book   return:PFV-3.NH.S
        ('Ram returned your book to you.')

Therefore saying that honorific features are set once and for all at the sentential level works fine when the discussion is restricted to second person pronouns.

However, this assumption falls apart quickly when one widens the domain to include honorific marking on third person pronouns, as one must for Magahi. The reason is simple: a third person pronoun does not normally refer to the same individual as a second person pronoun in the same clause, nor does one third person pronoun necessarily refer to the same individual as another third person pronoun. Moreover, the different people referred to by the different pronouns in a clause may very well stand in different social relationships to the speaker. One would expect, then, that different pronouns in the clause should have different honorific features in situations like this.

This expectation is borne out in Magahi. For example, (15) can be used to tell the speaker's teacher (an HH relationship) that she gave a book belonging to the speaker's younger brother (an NH relationship) to the speaker's father (an H relationship). There is then no problem with having different pronouns marked with different sets of honorific features in the same sentence in Magahi. This shows that the honorific features of the pronouns cannot all be inherited from the features of a single head in the verbal spine.

(15) **Apne**   **okar**   kitaab **unkaa**   del-thin.
        you.HH   3SG.NH.GEN book 3SG.H.DAT give:PFV-2.HH.S
        'You (my teacher) gave his (my brother's) book to him (my father).'

The obvious way to accommodate this is to say that the relational honorification features sketched in (3) are part of the nominal extended projection. When these features are recorded on verbal functional heads, this is only by virtue of Agree. We implement this in the following way for concreteness, although we do not insist on all the details. We suggest that the honorific features in (3) reside on Hon heads, part of the functional structure of DPs in Magahi. An Hon head takes the ordinary DP as its complement. In addition, we assume that Hon heads are associated with a designated index {1} (mnemonic for first person)—an index also borne by all first person pronouns. This designated index is always bound by an instance of Sp, a special DP in the periphery of many finite CPs, including unembedded root clauses where it denotes the speaker of the sentence; see Speas & Tenny (2003) and Baker (2008), among others. Sp thus binds the Hon heads, which is our way of capturing the fact that in root clauses honorification is calculated relative to the speaker.[12] Given these assumptions, the syntactic structure of *MaasTar-saaheb* 'teacher' in the subject position of (10c) is (16).

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[12] Some of these details foresee the need to have a proposal that fits well with a particular theory of indexical shift; see section 4 for discussion. An alternative could be to say that a null first person pronoun is literally present in Spec

(16)

```
                    HonP_i
                   /     \
          NP/DP_i        Hon_{1}
              |          [+HON, +HIGH]
          teacher
```
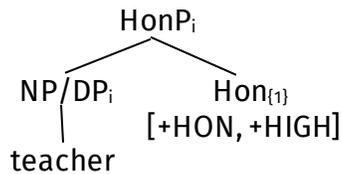
The NP/DP 'teacher' in (16) has a normal semantic value, such as $\iota x[teacher(x)]$. The Hon head then passes on the meaning of its complement and adds to it the presupposition that the referent of its complement is much greater in social standing than the referent associated with the index 1. The semantics of the HH head is thus something like (17a), and the meaning of the whole phrase in (16) is something like (17b), where 1 in a matrix clause is guaranteed to denote the speaker of the sentence (see Alok 2020: 35-39 for more).[13]

(17)   a.   Hon: HH λx: x's social rank is much higher than 1's . x
       b.   HonP: ιx: x's social rank is much higher than 1's . teacher(x)

Along with passing on the meaning of its DP complement, we can assume that HonP as a whole bears the same index as its DP complement. Thus as an extended projection of NP/DP, HonP can count as a legitimate c-commanding antecedent for reflexive anaphors and other bound elements.[14] On this view, one can straightforwardly have different Hon heads with the different DPs in the clause, as desired. For example, (15) can have a representation like (18).

(18) Sp_1 [[Apne Hon:HH{1}]][[okar Hon:NH{1}] kitab] [unkaa Hon:H{1}] del-thin]
           you.HH   3SG.NH.GEN   book   3SG.H   give:PFV-3.HH.S
       'You (my teacher) gave his (my brother) to him (my father).'

The structure in (16) is abstract in some cases, in that the Hon head can be covert. However, this head is arguably sometimes realized overtly. Magahi has particles that attach to nominals and express honorific notions, which we have not mentioned so far. *Saaheb* is one of these: it is arguably an HH Hon head, and a nominal bearing this particle in the subject position normally triggers HH agreement on the verb, as in (19b). Another case in point is *-aa*, which is a familiarity marker that is often affixed to NPs in Magahi. NPs bearing this element normally trigger NH agreement on the verb, as in (19a).[15]

HonP and constitutes a second argument of Hon, along with its NP/DP complement. We thank the editors for helpful discussion of the technical alternatives, especially Paul Portner.

[13] Here we treat the meaning added by Hon as a presupposition, for convenience, but Alok (2020) argues that it is best treated as expressive meaning.

[14] We thank the editors for suggesting this clarification.

[15] It is not impossible for a nominal bearing *saaheb* to trigger NH agreement, or for a nominal bearing *-aa* to trigger H/HH agreement. This can happen in the sort of dynamic/performative cases mentioned above in section 2. An example is (i), sayable by a speaker who thinks the teacher was cruel and unfair to beat them, and temporarily uses NH morphology for the teacher to express this.

(i)   MaasTar-**saaheb** hamra aaj   piTal-**ai**.
         teacher-HH   me.ACC today beat:PFV-3.NH.S

(19) a. Santee-**aa**   Bantee-**aa**-ke   kahl-**ai**   ki ….
          Santee-FM Bantee-FM-DAT tell:PFV-3.NH.S that
          'Santee told Bantee that …'

     b. MaasTar-**saaheb** Ram-ke   dekhl-**thi(n).**
          teacher-HH   Ram-ACC   see:PFV-3.HH.S
          'The teacher saw Ram.'

So the head of HonP is overt in some cases.

In contrast, pronouns do not carry morphologically distinct Hon heads in Magahi. Rather, when the complement of Hon is a pronoun, the Hon head undergoes fusion with heads bearing person and number features to form a single node at PF. This node is then replaced by a single vocabulary item following the VI rules sketched in section 2, in accordance with the tenets of Distributed Morphology.

This completes our account of where honorificity features reside in the syntax.

4 What status is relative to: The interaction of honorific marking and indexical shift

The last issue about honorific marked DPs in Magahi that we discuss is the question of what exactly they are interpreted relative to. As in other languages, honorific morphology in Magahi does not reference absolute or static social rank; rather it is social standing relative to someone else and in the context of a particular situation. The question, then, is who precisely is it relative to? This is the most intricate of the subtopics we investigate, leading into a discussion of indexical shift and some complexities related to that.

4.1 The basic effect: third person pronouns

The clear answer for simple cases is that honorific features are interpreted relative to the speaker, as we have seen so far. We have captured this by writing "than I am" into the informal definitions of our features in (3), and by saying that Hon heads bear a dedicated index bound by Sp in our official implementation in (16) and (17).

However, there are sometimes other possibilities which show that it is not as simple as this. Consider an example with a third person pronoun in an embedded clause, such as (20). Imagine a context in which Deepak is talking about his friend, and Santee is Deepak's younger brother. The pronoun in the embedded clause referring to Deepak's friend can be the NH form *okraa*, reflecting the speaker Deepak's peer relationship to his friend, as in the other examples that we have seen. But it can also be the H form *unkaa* reflecting the matrix subject Santee's relationship to Deepak's friend.

'The teacher beat me today.'

We tentatively suggest that such DPs have two HonP projections, one nested inside the other. The inner Hon head is spelled out as *saaheb*, *aa*, or whatever, whereas the outer one has the features that T picks up. The two Hon heads have contradictory meanings, but that this is not inappropriate for the kind of nonliteral, often ironical meanings that examples like this have.

(20) Santee-aa sochah-ai   ki Ram **okraa/unkaa**   bajaar-me dekhl-ai.
      Santee-FM think-3.NH.S that Ram 3SG.NH.ACC/3SG.H.ACC market-in see:PFV-3.NH.S
      'Santee thinks that Ram saw him in the market.'

This may give the impression that the honorific features on a pronoun can be interpreted pragmatically, with the standard of social status being any salient person in the discourse context.[16]

      That conclusion would be hasty, however. It so happens that Magahi is a language that optionally allows indexical shift in complement clauses (cf. Schlenker 1999; Anand & Nevins 2004; Anand 2006; Deal 2020, among others). For example, the first person pronouns in the complement clauses in (21) can refer to the speaker of the sentence as a whole (which we call Sp*), as in English, but they can also refer to the subject of the matrix clause Santee. This indexical shift is possible both with dyadic cognition verbs like 'think' ((21a)) and with triadic verbs of communication that also (optionally) take a goal argument like 'tell' ((21b)). Unlike Mishar Tatar (Podobryaev 2014), indexical shift in Magahi is optional regardless of whether the first person pronoun is overt or undergoes pro-drop, although the preferred reading varies: the null pronoun prefers the shifted reading unless it is in a context that clearly supports the unshifted meaning, whereas the overt pronoun easily gets either reading in relative isolation. In this section, we concentrate on examples with overt first person pronouns, turning to some differences with null pronouns in section 4.3.

(21) a. Santee-aa soch h-ai   ki (**ham**) tej   h-i.
          Santee-FM think be-3.NH.S that (I)   smart be-1.S
          'Santee thinks that I am smart.' (I=Santee or I =Sp*)

      b. Santee-aa Bantee-aa-ke kahl-ai   ki (**ham**) tej   h-i.
          Santee-FM Bantee-FM-DAT tell:PFV-3.NH.S that (I)   smart be-1.S
          'Santee told Bantee that I am smart.'   (I=Santee or I=Sp*)

Indexical shift in Magahi has been studied in detail in Alok & Baker (2018) and Alok (2020). These works perform the standard tests to show that the "I=Santee" readings in sentences like (21) are not (necessarily) the result of the material following the complementizer *ki* being a direct quotation. This shifted reading is compatible with adjunct *wh*-phrases being extracted from the embedded clause, with negative polarity items in the embedded clause being licensed by negation in the matrix clause, and with the presence of material interpreted *de re* in the embedded clause; see Alok & Baker (2018: 27-29) and Alok (2020: 145-148). Indeed, one of the relevant tests (involving embedded addressee agreement) implies that having a direct quotation

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[16] In contrast, honorific marking in Magahi does not undergo so-called "interrogative flip" in questions, the way that evidentials often do (Murray 2010; Bhadra 2017). Suppose that a student asks a professor whether another professor named Veneeta has finished a paper or not. The students asks this as in (i), where the subject has HH marking showing the relationship of Veneeta to the student, not NH marking showing the relationship of Veneeta to her colleague, the addressee. This is evidence that honorific features are not simply interpreted relative to any salient person in the situation.

(i)   Veneeta-maim pepar likh lel-**thi**   kaa?
       Veneeta-HH   paper write take:PFV-3.HH.S Q
       'Did Veneeta-ma'am finish writing the paper?'

following the complementizer *ki* in Magahi, although not entirely impossible, does not come readily to the mind of a Magahi speaker, but probably requires a special intonational contour and a particular context. Therefore, there seems to be relatively little danger of mistaking a direct quotation for a case of indexical shift in this language (Alok & Baker 2018: 29). Given this result and strict space restrictions, we only apply the quotation tests explicitly to two particularly important examples here (see (24) and (25)).

What is significant about indexical shift for this work is that it interacts with the ambiguity in the interpretation of honorification features in (20) in an interesting way. To see this, consider the sentences in (22), imagined in the same scenario as before: Deepak is talking about his friend, who is older than Deepak's younger brother Santee. Here the embedded subject *ham* 'I' can refer to the matrix subject Santee, or to the Sp* Deepak, as in (21). However, there is not a free choice as to the form of the third person pronoun in this case. If 'I' refers to Deepak, then the pronoun referring to Deepak's friend must be *okraa*, the NH form reflecting Deepak's relationship to his friend. In contrast, if 'I' refers to Santee, then the pronoun referring to Deepak's friend must be *unkaa*, the H form reflecting Santee's relationship to Deepak's friend. This covariance is seen both when the matrix verb is 'think', as in (22a), and when it is 'tell', as in (22b).[17]

(22) a. Santee   socha hai   ki **ham okraa/unkaa**   bajaar-me dekhl-i.
          Santee   think be-3.NH.S that I   3SG.NH.ACC/3SG.H.ACC market-in see:PFV-1.S
          'Santee thinks that I/he saw him in the market.'
          (If I=Santee, him=*unkaa*; if I=Sp*, him=*okraa.)*

      b. Santee-aa Bantee-aa-ke   kahl-ai   ki **ham unkaa-se/okraa-se** mill-i.
          Santee-FM Bantee-FM-DAT tell:PFV-3.NH.S that I   3SG.H-INS/3SG.NH-INS meet:PFV-1.S
          'Santee told Bantee that I/he met with him.'
          (If I=Santee, him=*unkaa-se*; if I=Sp*, him=*okraa-se.)*

(23) gives other examples of this kind, showing the generality of the effect. These are imagined in the context of one professor talking to another professor about Deepak and a third professor. If 'my' in the embedded clause is given a shifted reading where it refers to Deepak, then the subject pronoun referring to the third professor must trigger HH agreement *-thin* on the embedded verb, as in (23a). This HH marking reflects Deepak's relationship to the third professor. In contrast, if 'my' is understood as referring to the professor who utters the sentence, then the pronoun *u* referring to the third professor must trigger NH marking on the embedded verb, as in (23b). This NH marking reflects the relationship of the first professor to the third professor.

(23) a. Deepak   sochk-au   ki u **hamar** baat maan le-**thin**.
          Deepak   think.3.NH.S-NH.AD that 3SG my.GEN word accept take-3.HH.S
          'Deepak thinks that she(HH) will approve my (=Deepak's) proposal.'

      b. Deepak sochk-au   ki   u   **hamar** baat maan let-**ai**.

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[17] In contrast, if (22a) has the third person pronoun *u* referring to Santee, then the direct object must be the NH form *okraa* in the context given. A third person pronoun cannot be used to refer to the controller of Sp when 'I' would be available to refer to this DP (see Alok 2020: 143-144), so Sp must be bound by Sp* in this alternative sentence, so the Hon features on the pronoun are evaluated with respect to Sp*, making *okraa* the correct form.

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Deepak think.3.NH.S-NH.AD that 3SG my.GEN word accept take-3.NH.S
'Deepak thinks that she(NH) will approve my (=Sp*'s) proposal.'

We see, then, that (20) does not reflect pragmatic vagueness about how honorific features are interpreted; rather there is a grammatical ambiguity here, and it interacts with the grammar of indexical shift.

Here we do need to make sure that we are dealing with true indexical shift, rather than the difference between indirect speech and direct quotation. If the complement clauses in (22) and (23) are quotations of what the subject of the matrix verb said or thought, then it makes sense that that person refers to themselves with 'I' and uses pronouns that reflect their own relationship to the referent of the pronoun. As is well known, one cannot extract a question word out of a quoted sentence, whereas one can extract out of a clause with true indexical shift. Thus in (24) when 'when' is interpreted as questioning the time of the dying event, the pronoun 'I' in the embedded clause can still have the shifted reading in which it refers to the matrix subject Ram, showing this to be true indexical shift.

(24)   ?**Kab**, Ram socl-ai   ki **ham** -- marba-i?
         when Ram think:PFV-3.NH.S that I   die:FUT-1.S
         'When does Ram think that I (=Ram or =Sp*) will die?' ('when'=time of dying)

Then (25) shows that including a third person pronoun in the embedded clause does not change this. This sentence is imagined in a context in which one professor is talking to another professor about a student Chotu and a third professor. Here it is possible for 'when' to question the time of the proposal's acceptance, with 'my' referring to Chotu, and 'he' triggering HH agreement, expressing Chotu's relationship to the third professor (not Sp*'s).

(25)   **Kab**, Chhotu-aa sochk-ai   ki u   **hamar** baat maan ta-**thi?**
         when Chotu-FM   think-3.NH.S   that 3SG my.GEN word accept take-3.HH.S
         'When does Chotu think that he(HH) will accept my (=Chhotu's) proposal?'

The negative polarity item test gives similar results in that shifted readings of 'my' and 'he' in a sentence like (25) are compatible with there being a negative polarity item in the embedded clause licensed by negation in the matrix clause.

In fact, the principal groundwork for deriving these facts is already in place: it is our assumption that Hon heads bear the designated index {1} which they share with Sp, Speas & Tenny's (2003) syntactic representation of the speaker of a sentence. This assumption was already partially motivated by the basic meanings of simple sentences with honorific-marked elements and by our derivation of the fact that first person pronouns are always nonhonorific in Magahi. However, now it truly comes into its own. Given this assumption, the fact that the point of reference for evaluating the honorific status of the pronoun shifts if and only if first person pronouns in the same clause shift qualifies as a *Shift Together* effect, familiar from Anand & Nevins (2004) and subsequent work. Magahi obeys Shift Together quite strictly, in that two first person pronouns in the same clause must have the same reference. For example, in (26a) the two pronouns must both refer to Sp* or they must both refer to the matrix subject Santee; it is not possible for one of them to refer to Sp* and the other one to refer to Santee. This is reinforced by the fact that an example like (26b) is impossible: readings in which the two pronouns have

different referents are ruled out by Shift Together, whereas readings where they have the same referent are ruled out by Condition B of the Binding theory. (Magahi is different from some other languages including Amharic in this respect; see Schlenker 1999; 2003, Anand 2006, Deal 2020.)[18]

(26)   a.   Santee-aa Bantee-aa-se kahl-ai   ki **hamar** mammii **hamraa** madad karl-ai.
             Santee-FM Bantee-FM-INS tell:PFV-3.NH.S that my.GEN mother   me.ACC help   do:PFV-3.NH.S
             'Santee told Bantee that my mother helped me.'
             (only 'my'='me'=Santee, or 'my'='me'=Sp*)

        b.   *Santee-aa   kahl-ai   ki **ham hamar** hukkum na manb-ai.
             Santee-FM   say:PFV-3.NH.S that I   me.GEN order   NEG accept:FUT-3.NH.S
             ('Santee said that I will not obey me.')

We assume that an ingredient in this kind of Shift Together is the assumption that first person pronouns also share with Sp the designated index {1}. As such, two of them in the same clause will both be bound by the closest instance of Sp, and they thus have the same reference as each other, both referring to whatever Sp does in that structure. Our hypothesis that Hon heads also bear the index {1} then implies that their interpretation covaries with the factors that determine the reference of first person pronouns.

        We flesh out the details of this analysis within the control-based theory of indexical shift of Alok & Baker (2018) and Alok (2020), developing a view sketched in Baker (2008)—while acknowledging that the more standard shifty operator theory of Anand & Nevins (2004), Anand (2006) and Deal (2020) could likely work as well (see below for some discussion). The assumptions of the Baker/Alok view are outlined in (27), some of which have already been anticipated.

(27)   a.   The periphery of (some) finite clauses may contain two null DPs: Sp and Ad.
        b.   In unembedded clauses, Sp refers to the speaker of the sentence (Sp*), and Ad refers to those to whom the sentence is addressed (Ad*).
        c.   First person pronouns share the designated index {1} with Sp; second person pronouns share the designated index {2} with Ad.
        d.   In complement clauses, the Sp and Ad of the embedded CP may undergo obligatory control (OC) such that they are controlled by the corresponding arguments of the verb that selects CP (the agent/source of the verb controls Sp; the goal of the verb controls Ad). Either both Sp and Ad are controlled by matrix arguments, or neither is.[19]
        e.   If control as in (d) does not happen, then Sp and Ad are bound by the next highest Sp and Ad.

Assumptions (27a) and (27b) are taken from Speas & Tenny's (2003) neoperformative theory, which is intended to account for a wide range of phenomena at the interface of syntax and

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[18] Note that two first person pronouns in the same sentence do not need to have the same reference if they appear in different clauses. For example, in a sentence like 'Santee told me that I am hungry', 'I' can refer to Santee while 'me' must refer to Sp*. This shows that Shift Together in examples like (26) cannot simply be attributed to a superficial pragmatic principle like "Assign the same reference to indexical pronouns that look the same."
[19] Moreover, if the control option is taken but the matrix verb does not have a goal argument to control Ad, then the Ad in the complement clause is defective, incapable of referring to anything. See section 4.2 for discussion.

pragmatics. (Recall that in section 2 we used it to account for addressee agreement in Magahi.) Assumption (27c) descends directly from Baker's (2008) effort to derive why first and second person features often behave differently from third person features, being subject to stricter locality conditions. (27d) is the option that results in indexical shift in languages that permit it: Amharic, Zazaki, Nez Perce, and Magahi allow this type of control; English does not. Finally (27e) fills in what happens when control does not take place: then Sp and Ad default to the values of the next highest Sp and Ad. In cases with only one level of embedding, uncontrolled Sp and Ad are bound by the matrix Sp and Ad, and hence refer to Sp* and Ad* by (27b). This gives the unshifted reading.

Given these assumptions, an ordinary Shift Together example like (26a) has the representation in (28a) or (28b). One possibility is that the subject of 'tell' controls Sp, as shown in (28a). In this case, the same DP (Sp) is both a binder (of 'my' and 'me') and a bindee (of 'Santee', as a result of control). To represent this clearly, we adopt the semantic convention of distinguishing between the variable/bindee index that a DP might bear and the abstractor/binder index that it might be associated with. We indicate the variable/bindee index as a subscript at the end of the DP itself, whereas the abstractor/binder index associated with the DP is subscripted at the beginning of the sister of the binder—i.e., on the phrase that is abstracted over. The two indices can be distinct. In particular, in (28a) 'Santee' binds Sp by the index (say) 3 as a result of control, and Sp binds both 'my' and 'me' by the designated index 1. The result is that both 'my' and 'me' end up referring to Santee—the Shift Together reading. In contrast, if the subject of 'tell' does not control Sp, as in (28b), then Sp is bound by Sp* via the designated index 1. Meanwhile, both 'my' and 'me' are bound by Sp by the designated index 1; therefore, both 'me' and 'my' refer to the speaker of the whole sentence—the unshifted reading.

(28) a. $[\text{Sp*}_1[\text{Ad*}_2[\text{C }[\text{Santee}_3[\text{told Bantee}_4[_1\text{Sp}_3[_2\text{Ad}_4[$ that $[_1\text{my mother }_1\text{me helped}]]]]]]]]]$

$\qquad\qquad\qquad$ ⌞_____⌟ control

$\qquad$ b. $[\text{Sp*}_1[\text{Ad*}_2[\text{C }[\text{Santee}_3[\text{told Bantee}_4[_1\text{Sp}_1[_2\text{Ad}_2[$ that $[_1\text{my mother }_1\text{me helped}]]]]]]]]]$

Now compare this with (29), the corresponding representations of a sentence like (22a), which contains both a first person pronoun and a third person pronoun with honorific features.[20]

(29) a. $[\text{Sp*}_1[\text{Ad*}_2[\text{C }[\text{Santee}_3[\text{thinks }[_1\text{Sp}_3[_2\text{Ad}_0[$ that $[_1\text{I }[_4\text{him }_1\text{Hon}]$ market-in saw$]]]]]]]]]]$

$\qquad\qquad\qquad$ ⌞_____⌟ control

$\qquad$ b. $[\text{Sp*}_1[\text{Ad*}_2[\text{C }[\text{Santee}_3[\text{thinks }[_1\text{Sp}_1[_2\text{Ad}_2[$ that $[_1\text{I }[_4\text{him }_1\text{Hon}]$ market-in saw$]]]]]]]]]]$

Here if 'Santee' controls Sp in the complement clause, as in (29a), then 'I' refers to Santee, as in (28a). At the same time, the honorification status of 'him' is fixed relative to Santee, because Hon bears the same designated index as 'I' does, by hypothesis. In contrast, if 'Santee' does not control Sp, as in (29b), then Sp* binds Sp. Then 'I' refers to Sp* and the honorification status of 'him' is fixed relative to Sp*—again because Hon bears the same designated index 1 as 'I' does.

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[20] The notation Ad_0 here refers to the "defective Ad" mentioned in note 19. This is discussed in section 4.2 below.

In this way, we capture the covariance we observe in (22) and (23) by the same mechanisms used to capture Shift Together.

Before moving on, a brief comparison of our approach to indexical shift in Magahi with the more familiar "shifty operators" theory of Anand (2006) and Deal (2020) is in order. The context-shifting operator account says that an embedded clause in some languages can be interpreted relative to a context different from that of the sentence as a whole. Specifically, the embedded clause can be interpreted in a context associated with the event denoted by the matrix verb. First person pronouns inside the embedded clause then refer to the *author* of the context associated with that event. Lexical meanings for the honorification features could presumably also be stated such that they refer to the author of the local context; for example, Hon:HH could be assigned the meaning in (30), where the Hon refers to the author of the current context, rather than to a variable bound by Sp.[21]

(30)   Hon:HH: λx: x's social rank is much higher than that of the author of c . x.

Although we do not doubt that the gist of our account can be captured in this way, we prefer (27) because of concerns about the well-definedness of "author" in this shifty-operator analysis. How precisely this author relates to the syntactic arguments of the matrix verb is not specified explicitly in this account; rather, it is taken to follow in particular cases from what "author" means together with the lexical semantics of the matrix verb. With this in mind, consider the Magahi examples in (31).

(31)   a.   Santee-aa kaha h-ai   ki ham jaldiye mil-e   aibo.
            Santee-FM say   be-3.NH.S that I   soon   meet-INF come.FUT.1.S
            'Santee said that I (=Santee) will come soon.'

       b.   Santee-aa-ke   likhkal chiThii-aa kaha h-ai   ki ham jaldiye mil-e   aibo.
            Santee-FM-GEN written letter-FM say be-3.NH.S that I   soon meet-INF come.FUT.1.S
            'Santee's letter said that I (not =Santee) will come soon.'

       c.   ChiThii-aa je Santee-aa likhk-ai   kaha h-ai   ki ham jaldiye
            letter-FM   REL Santee-FM write:PFV-3.NH.S say   be-3.NH.S that I   soon
            mile   aibo.
            meet-INF come.FUT.1.S
            'The letter that Santee wrote said that I (not=Santee) will come soon.'

In purely semantic terms, it seems reasonable to say that Santee counts as the author in the context associated with the matrix event of saying in all these examples; certainly he is the source of the content expressible as "I will come to visit soon" in all three. Therefore, the shifty operator account might well predict that I=Santee will be possible in all three examples. Indeed, some constructions that are "logophoric" in a broad sense do show this grammatical freedom; for example NOC PRO in English is possible in (32b,c), where the antecedent of PRO is not an argument of the matrix clause, as well as in (32a), where the antecedent of PRO is an argument of the matrix clause.

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[21] (30) was suggested by an anonymous reviewer, whom we thank for discussion.

(32)   a.   It damaged John$_i$ [PRO$_i$ to perjure himself].   (Landau 2001: 110)
      b.   It damaged John$_i$'s reputation [PRO$_i$ to perjure himself].
      c.   It damaged the reputation John$_i$ built up over the years [PRO$_i$ to perjure himself].

Indexical shift in Magahi, however, does *not* have this latitude: it is possible in (31a) but not in (31b) or (31c). Thus, there seems to be an additional constraint on indexical shift: not only does the understood antecedent of 'I' in the embedded clause need to count as an author semantically, but it needs to be a grammatical argument of the matrix verb. Our account differs from the shifty operator account in using the well-studied operation of obligatory control to capture this additional constraint (see (27d); compare with Landau's 2013: 29 "OC signature"). In other words, at a high theoretical level we take (31) in Magahi to be akin to the OC paradigm in (33) rather than to the purely semantic/pragmatic NOC/logophoric paradigm in (32).

(33)   a.   Mary promised [PRO to come soon].
      b.   #Mary's letter promised [PRO to come soon].
      c.   #The letter Mary sent promised [PRO to come soon].

This is one of our primary motivations for adopting a control-based theory of indexical shift as in (27), even if the main insights about the nature of honorification features could also be expressed in a shifty operator approach.

4.2 Extension to second person pronouns

Armed with the explicit theory of indexical shift in (27), we can go on to generalize our account to honorific marking on second person pronouns in embedded clauses. Previous work has shown that second person pronouns also shift their reference in Magahi when the matrix verb is a dyadic verb such as 'tell' or 'ask' (Alok & Baker 2018; Alok 2020). For example, 'you' in (34) can refer to John, the goal of the telling event, or it can refer to Ad*, the addressee of the sentence as a whole. This is parallel to the optionality of first person indexical shift in (21).

(34)   Ram-aa John-waa-se puchhl-ai   ki   kaa   **tu**   aim-eN.
      Ram-FM John-FM-INS ask:PFV-3.NH.S that what you.NH come-2.NH.S
      'Ram asked John whether you (=John or =Ad*) will come.'

The assumptions in (27) provide for this by positing Ad as well as Sp ((27a)), Ad bearing its own designated index {2} ((27c)), and by optionally allowing the goal of the CP-selecting verb to control the Ad of its CP complement, parallel to the agent of the verb controlling the Sp of its CP complement ((27d)). Indeed, these two control options are linked, as seen in an example like (35) which has both a first person pronoun and a second person pronoun in the complement clause. This sentence has two readings rather than four: it is possible with 'I'=Santee and 'you'=Bantee, or with 'I'=Sp* and 'you'=Ad*. However, it cannot have the meaning 'I'=Santee and 'you'=Ad* or 'I'=Sp* and 'you'=Bantee. (This restriction, known also from Zazaki and Nez Perce among other languages, is also called Shift Together by Anand & Nevins (2004), but it is conceptually distinct and admits some variation across languages and constructions; see Deal (2020: 125-132) for clarifying discussion. Here we call the fact that two pronouns with the same person feature

have to shift together as in (26) *Shift Together 1* and the fact that two pronouns with different person features have to shift together as in (35) *Shift Together 2*.)

(35) Santee-aa Banteeaa-ke kahl-ai   ki **ham toraa**   dekhl-i-au   hal.
      Santee-FM Bantee-FM-DAT tell:PFV-3.NH.S that I   you.NH.ACC see:PFV-1.S-NH.AD be
      'Santee told Bantee that I (=Santee or =Sp*) saw you (=Bantee or =Ad*).'

This Shift Together 2 effect is asserted in (27d) in the statement that the arguments of the matrix verb either control the null DPs at the edge of the CP together as a package, or not at all. Alok (2020) suggests a deeper derivation of this in terms of saying that this type of control is fundamentally a relationship between heads: the matrix verb controls the head of its CP complement, and an implication of this control relation is that the arguments of the verb control the corresponding arguments of the C. We do not develop that further idea here, however.
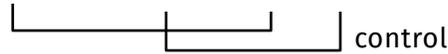
     So far this discussion has not taken into account honorific marking on second person pronouns. The ambiguity in (34) and (35) is partly due to the fact that the people imagined as being involved—the referent of the subject, the referent of the object, Sp*, and Ad*—are all peers, so second person NH marking is expected on both interpretations of the sentences. However, other scenarios show that honorific marking is affected by the control of Sp and Ad as much as person marking is. This can be seen in examples like (36). The context for these sentences is that Deepak is speaking to a teacher—note the HH addressee marking on the matrix verb—and Santee and Bantee are friends.

(36) a. Santee-aa Bantee-aa-ke kahl-ain   ki **ham apne-ke**   dekhl-i   hal.
        Santee-FM Bantee-FM-DAT tell:PFV.3.NH.S-HH.AD that I   you.HH.ACC see:PFV-1.S be:PFV
        'Santee told Bantee that I saw you.' (OK 'I'=Sp*, bad with 'I'=Santee)

      b. Santee-aa Bantee-aa-ke kahl-ain   ki **ham toraa**   dekhl-i   hal.
        Santee-FM Bantee-FM-DAT tell:PFV.3.NH.S-HH.AD that I   you.NH.ACC see:PFV-1.S be:PFV
        'Santee told Bantee that I saw you.' (OK 'I'=Santee, bad with 'I'=Sp*)

Here if 'I' shifts to refer to the matrix subject Santee, then 'you' also shifts to refer to Bantee and the form of the pronoun 'you' is NH, the form consistent with Santee's relationship to Bantee ((36b)). In contrast, if 'I' is unshifted and refers to Sp* (Deepak), then 'you' is unshifted, referring to Ad* (the professor), and its form is HH expressing the relationship of Deepak to the professor ((36a)). In broad terms, this is like what we saw with third person pronouns: in both cases, honorification on a pronoun in the embedded clause is determined relative to the matrix subject if 'I' shifts and relative to Sp* if 'I' does not shift. The explanation is also the same: Hon with 'you' as its complement is like Hon with 'he/she' as its complement in bearing the designated index {1} which is bound by the closest Sp. As a result, the status of the DP complement of Hon is evaluated relative to the matrix subject if the matrix subject controls the embedded Sp, and it is evaluated relative to Sp* if the matrix subject does not control the embedded Sp. Indeed, even if there is no first person pronoun in the embedded clause, the same possibilities arise for Hon, since Sp is still optionally controlled. A significant difference is that the reference of 'you' in the embedded clause changes depending on whether indexical shift happens or not, whereas the reference of 'he' need not change; nevertheless, the same theory of the honorific features applies to both.

A distinctive feature of our control-based approach to indexical shift is that it fits well with a simple analysis of addressee agreement in Magahi, as seen again in (37).

(37) Ham jaa-it   h-i-**ain**.   (=(7d)).
      I   go-PROG   be-1.S-HH.AD
      'I am going.' (said to a teacher)

As mentioned in section 2, our analysis of this taken from earlier work (Alok & Baker 2018; Alok 2020; Alok 2021) is that addressee agreement is the result of a C like head (Fin) agreeing with Ad—the same Ad that is posited in (27a). In root clauses, this Ad refers to the addressee of the sentence ((27b)), resulting in addressee agreement. This is essentially Oyharçabal's (1993) hypothesis about allocutivity in Basque put into the framework of Speas & Tenny (2003), as in Miyagawa (2012; 2017) among others. Now our hypothesis about indexical shift assumes that Sp and Ad can be found in embedded clauses in Magahi too. Therefore, we can find addressee agreement with an Ad on Fin in embedded clauses as well.[22] Moreover, under a verb like 'tell', there are two possibilities. The first is that Ad can be controlled by the goal of the matrix verb; then agreement with Ad on Fin expresses the social relationship that holds between the referent of the matrix subject and the referent of the matrix goal, as shown in (38a). The second option is that Ad can avoid being controlled by the goal of the matrix verb; then it is bound by the next highest Ad (here Ad*), and the features copied from it onto Fin in the embedded clause are those that express the social relationship between Sp* and Ad*, as in (38b). (See Alok 2020 for more examples and discussion.)

(38) a. Santee-aa <u>Bantee-aa-ke</u> kahk-**ain**   ki Ram-ke Sita-se
          Santee-FM Bantee-FM-DAT tell:PFV.3.NH.S-HH.AD that Ram-DAT Sita-INS
          baat kar-ke chah-**au**.
          talk do-INF should.3.NH.S-NH.AD
          'Santee told Bantee that Ram should talk to Sita.' (said to a teacher)

      b. Santee-aa <u>Bantee-aa-ke</u>   kahk-**ain**   ki Ram-ke Sita-se
          Santee-FM Bantee-FM-DAT tell:PFV.3.NH.S-HH.AD that Ram-DAT Sita-INS
          baat kar-ke chah-**ain**.
          talk do-INF should.3.NH.S-HH.AD
          'Santee told Bantee that Ram should talk to Sita.' (said to a teacher)

A formal implication of this is that Ad itself is embedded in an HonP with an index bound by the closest Sp—the Sp that inhabits the same CP periphery as Ad. (Note that this implies that Sp c-commands Ad, as Speas & Tenny 2003 assume.) This is represented in the bolded phrases in (39); (39a) shows the shifted Ad of (38a) and (39b) shows the unshifted Ad of (38b).

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[22] Magahi differs in this respect from some other languages, like Northern Basque dialects, where allocutive agreement is not possible in embedded clauses. One way of analyzing this (Alok 2020) is as a difference in what functional head bears the unvalued phi-features that trigger agreement with Ad: it could be a head that is not present in embedded clauses, like SA (speech act head) in Basque, or it could be a head that is present in embedded clauses, like Fin in Magahi. See also Alok & Haddican (this volume) for discussion.

(39)   a. [Sp*$_1$[[**Ad* Hon$_1$**]$_2$[C[Santee$_3$[told Bantee$_4$[Sp$_3$ $_1$[[**Ad$_4$Hon$_1$**]$_2$[that[Ram…talk]]]]]]]]]

           ⌞_____⌟_____⌞_____⌟ control

     b. [Sp*$_1$[[**Ad* Hon$_1$**]$_2$[C[Santee$_3$[told Bantee$_4$[Sp$_1$ $_1$[[**Ad$_2$Hon$_1$**]$_2$[that[Ram…talk]]]]]]]]]

This elaborated structure for Ad may seem a bit surprising at first glance, but it is simply the unpacking of our claim that Ad bears the same person and honorification features as overt 'you' does, as shown by the fact that addressee agreement on Fin manifests the same three-way honorification distinctions as second person subject agreement does (compare (4) and (7) above). Since the Hon features are on the Hon head and Ad has Hon features, Ad must be embedded inside an HonP. However, in most cases we continue to omit the Hon head associated with Ad to make the structures more readable.

       So far the examples in this section all involve a triadic matrix verb like 'tell'. The patterns are somewhat different if the matrix verb is a dyadic verb of cognition like 'think'. Unlike (36), in this situation there is only one choice for the honorification features on 'you' in the embedded clause: they must be determined by Sp*'s relationship to the referent of 'you', not by the matrix subject's relationship to the referent of 'you'. This is shown by (40) spoken by Deepak to his friend about his younger brother Santee, who admires Deepak's friend. 'You' here must be NH *tu* reflecting Sp*'s relationship to the friend; it cannot be HH *apne* reflecting Santee's relationship to the friend.[23]

(40)   Santee-aa   socha h-ai   ki   tu/#apne   tej   h-eN/#thin.
       Santee-FM   think be-3.NH.S   that you.NH/#you.HH smart be-2.NH.S/#2.HH.S
       'Santee thinks that you are smart.'

This is superficially different from a second or third person pronoun in the complement of 'tell' and from a third person pronoun in the complement of 'think', any of which can have their honorificity level calculated relative to the embedded subject.

       This difference can be derived from the close relationship between first person indexical shift and second person indexical shift—the Shift Together 2 phenomenon. In our theory, this is expressed in (27d), the claim that the arguments of the verb control as a package.[24] What happens, then, when the matrix verb does not supply a controller for Ad? The answer in Magahi as in Uyghur and Nez Perce is that when the subject of a goalless verb controls Sp, Ad is defective, receiving the value 0 (Deal 2020:84-86). Ad$_0$ does not give a pronoun that it binds a referent. The result is that a second person pronoun cannot appear along with shifted first person pronouns in the embedded clause of a verb like 'think', as shown in (41b). In contrast, the presence of a third person pronoun puts no restrictions on the shifting of a first person pronoun in the same clause (see (41a)), because third person pronouns do not have to be bound by anything the way that second person pronouns are bound by Ad.

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[23] Similarly, addressee agreement on the embedded clause in a sentence like (40) (with, say, a third person subject) can be unshifted NH.AD (*-au*) showing Sp*'s relationship to Ad*, but not shifted H.AD (*-o*) showing the matrix subject Santee's relationship to Ad*. This also follows from the representations in (41): Ad$_2$ in (41d) can trigger agreement on Fin in the usual way, but Ad$_0$ in (41c) cannot because it has no honorific features (it is not embedded in HonP) since it does not provide the referent which is required by the meanings of these features.

[24] For Anand (2006) and Deal (2020), this follows from the hypothesis that Op$_{Auth}$ and Op$_{Addr}$ can be packaged together as single operator, Op$_{Pers}$—not a much deeper analysis, in our view.

(41)   a.   Santee-aa   sochl-ai   ki   **ham** Ram-ke   dekhl-i.
            Santee.FM think:PFV-3.NH.S that   I   Ram-ACC see:PFV-1.S
            'Santee thought that I (=Sp* or =Santee) saw Ram.'

       b.   Santee-aa   soch-l-ai   ki   **ham toraa**   dekhl-i.
            Santee.FM think:PFV-3.NH.S that   I   you.NH.ACC see:PFV-1.S
            'Santee thought that I (=Sp*, not=Santee) saw you.'

       c. $[\text{Sp*}_1[\text{Ad*}_2[\text{C }[\text{Santee}_3[\text{thought}[\text{Sp}_{3\ 1}[\text{Ad}_{0\ 2}[\text{that I}_1 \text{ saw Ram}_4/\text{*you}_2]]]]]]]]$
                                            *you, gets no value
                                |_____| control

       d. $[\text{Sp*}_1[\text{Ad*}_2[\text{C }[\text{Santee}_3[\text{thought}[\text{Sp}_{1\ 1}[\text{Ad}_{2\ 2}[\text{that I}_1 \text{ saw Ram}_4/\text{you}_2]]]]]]]]$
                                          OK: you=Ad*

(40) can now be seen as a result of the same forces at work, with the two imaginable representations in (42), where the Hon head associated with 'you' is added in.

(42)   a. $[\text{Sp*}_1[\text{Ad*}_2[\text{C }[\text{Santee}_3[\text{thought}[\text{Sp}_{3\ 1}[\text{Ad}_{0\ 2}[\text{that }[\text{you}_2 \text{ Hon}_1] \text{ are smart }]]]]]]]]$
                                            *you, gets no value
                                |_____| control

       b. $[\text{Sp*}_1[\text{Ad*}_2[\text{C }[\text{Santee}_3[\text{thought}[\text{Sp}_{1\ 1}[\text{Ad}_{2\ 2}[\text{that }[\text{you}_2 \text{ Hon}_1] \text{ are smart }]]]]]]]]$

'You' is present in the complement, so its binder Ad in the embedded CP must not get the value 0 ((42a) is ruled out). Therefore, the arguments of 'think' must not be controlling the Sp/Ad arguments of the embedded C. Therefore, Sp in the CP complement of (42) must be bound by Sp* by (27e), as shown in (42b). A consequence of this is that the Hon head that takes 'you' as its complement has its designated index bound by the local Sp, which in turn is bound by Sp*, just as 'I' is in (41b). Therefore, the honorific features of 'you' must show the social relationship between Sp* and the referent of 'you'. The matrix subject cannot come into the honorification calculations in this case.

      Overall, we see that honorific features have fundamentally the same formal possibilities and interpretations on second person pronouns in embedded clauses as they do on third person pronouns in embedded clauses—a desirable result. However, second person pronouns are subject to a condition which does not apply to third person pronouns: they must be bound by the Ad argument of C. The control of Sp is entangled with the control of Ad (Shift Together 2), and this breaks the symmetry between second person and third person pronouns in a few well-defined respects.

4.3 Advanced indexical shift: pro versus overt pronouns

So far in this section we have concentrated on examples in which the pronouns in the embedded clause are all overt. However, we mentioned that Magahi has subject agreement, and therefore

ordinary pro-drop is possible for subject pronouns.[25] It turns out that when the embedded subject is a first person null pronoun, some different patterns can emerge—a plot twist. Although our account of this phenomenon does not go beyond a descriptive level, our discussion of this enriched data set makes clear one important result: here too the patterns of honorific interpretation are predictable from the patterns of indexical shift.

It is already known that some languages draw a distinction between overt pronouns and null pronouns licensed by rich agreement when it comes to indexical shift. For example, in Mishar Tatar, first person *pro* can undergo indexical shift, whereas overt first person pronouns cannot (Podobryaev 2014). This fundamental difference is not found in Magahi: indexical shift is generally optional with both pro and overt pronouns. But a difference with respect to Shift Together 2 arises in sentences like (41b). When the embedded subject is *ham* 'I', the presence of 'you' in the complement clause makes indexical shift of 'I' impossible, but when first person *pro* is used instead of *ham*, as in (43), it can undergo indexical shift. Here 'you' is licit and interpreted as Ad*. This can result in a so-called mixed context reading in which pro_{1st} gets its referent from the thinking situation and 'you' gets its referent from the speech situation.

(43)   Santee-aa sochl-ai   ki   (*pro*) toraa   dekhl-i.
        Santee.FM think:PFV-3.NH.S that   I   you.NH.ACC see:PFV-1.S
        'Santee thought that I (=Santee or =Sp*) saw you (=Ad*).'

We describe this pattern in theoretical terms as in (44).[26]

(44)   The subject of a 'think'-class verb can control a local pro_{1st} subject directly, bypassing the Sp/Ad system in CP.

We acknowledge that we do not fully understand this addendum to the theory of indexical shift and refrain from speculating about it here (see Alok 2020 for a proposal).[27] Whatever its ultimate nature turns out to be, the idea is that (44) makes possible the representation in (45a) for (43), alongside (45b) carried forward from the previous section.

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[25] Null objects are possible in Magahi too, but they are not identified by agreement. As a result, it is less clear what these null pronouns are—what person and honorific features they have. They may even be variables or elided DPs rather than true pronouns, as has been argued for other languages (e.g, Huang 1984 on Chinese). Therefore, we do not consider null objects here.

[26] Curiously the mixed context effect seen in (43) is not found under triadic verbs like 'tell', so the judgments with first person *pro* as the embedded subject are the same as with overt *ham* 'I' in examples like (35) and (36). This requires the restriction to 'think'-class verbs in (44). We omit further examples with 'tell' because of space limitations.

[27] Another possible idea to explore in future work might be to say that *pro* in examples like (43) is actually a logophoric pronoun rather than a true first person indexical. This is a conceivable analysis given that logophoric pronouns are known to trigger first person agreement on verbs in some languages (Deal 2020: Sec. 5.4; Messick, to appear).

(45) a. $[\text{Sp*}_1[\text{Ad*}_2[\text{C } [\text{Santee}_3[\text{thinks } [\text{Sp}_1{}_1[\text{Ad}_2{}_2[\text{that } pro_3 \text{ Ram/you}_2 \text{ saw-1.S}]]]]]]]]$

|_____| control

b. $[\text{Sp*}_1[\text{Ad*}_2[\text{C } [\text{Santee}_3[\text{thinks } [\text{Sp}_3{}_1[\text{Ad}_0{}_2[\text{that } pro_1 \text{ Ram/*you}_2 \text{ saw-1.S}]]]]]]]]$

|_____| control

Our main interest here is not to derive (44) but to understand its implications for the interpretation of honorific features on second and third person pronouns. The upshot is that the implications are positive. Consider first the possibility of third person pronouns in the complement of 'think'. We saw in section 4.1 that when a first person pronoun is overt, honorific features on the third person pronoun are interpreted relative to the matrix subject if and only if the overt first person pronoun also refers to the matrix subject. This is not necessarily the case with a pro_{1st} subject. Consider (46), again in the context where Deepak is talking about his younger brother Santee and referring to Deepak's friend. In this case, the third person pronoun can either be honorific *unkaa*, showing the relationship of the matrix subject Santee to its referent (Deepak's friend), or it can be nonhonorific *okraa*, showing the relationship of Sp* Deepak to its referent (his friend).

(46)   Santee-aa   sochl-ai   ki (*pro*) okraa/unkaa   dekhl-i.
        Santee-FM   think:PFV-3.NH.S that (I)   3SG.NH.ACC/3SG.H.ACC see:PFV-1.S
        'Santee thought that I (=Santee) saw him.' (also I=Sp* in a supportive context)

This optionality is what we expect given (44). Since there is no second person pronoun in (46), there are two ways that the matrix subject Santee can control: it can do so directly, using (44), or it can do so indirectly by using (27d), the same way that overt *ham* is shifted. This gives the two representations in (47).[28]

(47)   a. $[\text{Sp*}_1[\text{Ad*}_2[\text{C } \text{Santee}_3[\text{thinks } [\text{Sp}_1{}_1[\text{Ad}_2{}_2[\text{that } pro_3 [pro_4 \text{ Hon}_1] \text{ saw-1.S}]]]]]]]]$

|_____|

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[28] Notice that (45a) and (47a) have it that when the matrix subject controls the first person *pro* directly it overwrites with its own index the {1} index that this pronoun would otherwise bear as a first person element. This may be an oversimplification, but it does have a positive consequence: it leaves the index of the Hon head to be bound directly by Sp in (47a), which gives the right result. The designated index on an Hon head seems to behave slightly differently from the one on first person pronouns in this regard. (i) shows that a first person *pro* in the subject position of the embedded clause and another first person pronoun in the embedded clauses still obey Shift Together 1, such that the two pronouns must be coreferential and the result is ruled out by Binding condition B. This is the same as when the first person subject pronoun is overt ((26b)).

(i)   *Santee-aa socha h-ai   ki (*pro*) hamraa bajaar-me dekhl-i.
       Santee-FM think be.PRS-3.NH.S that I   me.ACC market-in see:PFV-1.S
       ('Santee thinks that I saw me in the market.')

In other words, (44) makes possible Shift Together 2 violations in Magahi, but not Shift Together 1 violations. It seems like a first person pronoun must depend on the first person pronoun that c-commands it—perhaps a form of Rule H—whereas the index on an Hon head is freer to depend directly on Sp. We leave further consideration of this subtle difference to future research.

control

b. [Sp* $_1$[Ad* $_2$[C Santee $_3$[thinks [Sp$_3$ $_1$[Ad$_0$ $_2$[that *pro$_1$* [*pro$_4$* Hon$_1$] saw-1.S]]]]]]]

control

The index 1 associated with Hon is bound by the closest Sp in both cases, but in (47b) this Sp is controlled by *Santee* whereas in (47a) it is not involved in control and is therefore bound by Sp*. The result is that Hon can express the social relationship of its DP complement relative to either Santee or Sp* in this case.

An important claim here is that honorific marking in a sentence like (46) is not syntactically unconstrained; rather the sentence is structurally ambiguous, with its two versions corresponding to two distinct syntactic representations. An empirical consequence of this arises if one puts two coreferential third person pronouns in the embedded clause with a first person *pro* subject. Imagine (48) in the context where Deepak is talking about his younger brother Santee and the two third person pronouns refer to Deepak's peer friend. Suppose that *pro* refers to Santee, the shifted reading. Here the two pronouns can both have the honorific form *unkaa*, showing Santee's relationship to Deepak's friend, or they can both have the nonhonorific form *okraa*, showing Deepak's relationship to his friend. One cannot, however, mix and match, with one *okraa* and one *unkaa*. This is a novel kind of Shift Together effect.[29]

(48)   Santee-aa sochl-ai   ki (pro) unkaa/okra   unkar/okar
       Santee-FM think:PFV-3.NH.S that (I)   3SG.H.DAT/3SG.NH.DAT 3SG.H.GEN/3SG.NH.GEN
       phonmaa   del-i.
       phone   give:PFV-1.S
       'Santee thought that I (=Santee) gave him his phone.'

This is predicted by our analysis. The two {1} indices associated with the HonPs containing the third person pronouns must both be bound by Sp, so they must have the same value. In addition, the two third person pronouns have the same referent, by hypothesis. Therefore, the same honorific features must be on both Hon heads, continuing to assume that two people can only stand in one social relationship at a time. There are two possibilities in (48) because Sp can be controlled by Santee or bound by Sp* (Santee controlling the subject *pro$_{1st}$* directly via (44)). However, these are the only possibilities allowed within this formal system.

Next, we consider the consequences of (44) for sentences that contain a second person pronoun. We already discussed (43) with matrix verb 'think', *pro$_{1st}$* with a shifted interpretation as the embedded subject, and 'you' in the complement CP, showing that this is possible with 'you' referring to Ad*. Now we consider the honorific marking on 'you' in this situation. Imagine (49) being said by one teacher to a fellow teacher. Here the second person pronoun in the CP complement must be nonhonorific *toraa*, reflecting the relationship of Sp* to the addressee, not the honorific *apne-ke*, reflecting the relationship of Santee (a student) to the addressee.

(49)   Santee-aa sochl-ai   ki (pro) toraa/#apne-ke   dekhl-i.

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[29] In contrast, with *ham* instead of *pro* referring to Santee in (48), the third person pronouns have to be *unkaa* and *unkar*; compare (22a).

26

Santee-FM   think:PFV -3.NH.S that   (I)   you.NH.ACC/#you.HH-ACC see:PFV-1.S
'Santee thought that I (=Santee) saw you (=Ad*, a teacher).'

The representations already given in (45) explain why. Here Santee must control pro_{1st} directly, not using Sp/Ad, or Ad would be defective and then 'you' in the complement CP would not be possible. In other words, the representation must be (45a), not (45b). Since Ad is uncontrolled in (45a), Sp is uncontrolled (Shift Together 2); therefore, Sp and Ad must be bound by Sp* and Ad*. The index {1} associated with the HonP containing 'you' is bound by Sp, which is in turn bound by Sp*. Therefore, 'you.NH' in (49) indicates that the addressee is socially equal to Sp*, not Santee.

      Finally, consider what happens when both 'you' and 'him' are in the complement of 'think' with a pro_{1st} subject. In this situation, 'you' can only refer to Ad* and must have honorific marking relative to Sp*, just as in (43). The interesting thing is that in this environment 'him' loses the flexibility that it has in (46): now it too can only bear honorific marking relative to Sp*, as shown in (50). Here the speaker Deepak is talking to his friend Bantee. He says of his younger brother Santee that he thought that he Santee gave Bantee's phone to a third friend of Deepak's and Bantee's, Chotu. Here the nonhonorific forms of both 'you' and 'him' must be used, showing Deepak's relationship to Bantee and Chotu, not the honorific forms showing Santee's relationship to Bantee and Chotu.

(50)   Santee-aa sochl-ai   ki   (pro) okraa/#unkaa   toraa/#apne-ke
        Santee-FM think:PFV-3.NH.S that (I)   3SG.NH.ACC/#3SG.H.ACC you.NH.GEN/#you.HH.GEN
        phonmaa del-i.
        phone   give:PFV-1.S
        'Santee thought that I gave him your phone.'

This result is also predicted. The presence of 'you' implies that the embedded Sp/Ad must not be controlled by the arguments of 'think'; rather 'Santee' must control the subject pro_{1st} directly. This implies that Sp and Ad are bound by Sp* and Ad*. But the {1} index of Hon in [3rd Hon] is bound by the closest Sp, just as the {1} index of Hon in [2nd Hon] is. Therefore, the third person pronoun is interpreted relative to Sp* in this case. As in sections 4.1-4.2, we see that the honorific features on second and third person pronouns behave grammatically in the same way, but some of the surface patterns are different because of the requirement that the second person pronoun is bound by the closest Ad.

      In this subsection, we presented a puzzle for the theory of indexical shift: how best to fit (44) into our understanding of this phenomenon. But we have also presented rich additional evidence that the grammar of honorificity marking is deeply related to the grammar of participant pronouns, such that quirks in the distribution of indexical shift correspond closely to quirks in the distribution of honorific marking in Magahi. And that is something worth knowing.

5 General conclusion

In this article, we investigated the syntax of honorific marking in Magahi, focusing on the fact that third person elements are like second person elements in showing such marking. Looking at the different patterns of syncretism that are found with second person and third person elements motivates an analysis of Magahi's three honorificity levels as being the result of two binary

features: [+/–HON] and [+/–HIGH]. The fact that different pronouns in the same clause can have different honorificity levels shows that these features live natively on an Hon head which is part of the extended projection of DPs in Magahi—not on C-like heads as proposed in previous work. Finally, we argue that these Hon heads bear the same designated index {1} that Sp and first person pronouns carry. This assumption allows us to explain the intricate ways that the interpretation of honorific marking interacts with indexical shift in Magahi. Overall, we see that there is value to being syntactically precise about honorificity, a phenomenon that has not often been subjected to formal syntactic analysis.

Abbreviations

1 = first person, 2 = second person, 3 = third person, ACC = accusative, AD = addressee (agreement), Ad* = addressee of the whole sentence, DAT = dative, FM = familiarity marker, FUT = future, GEN = genitive, H = honorific, HH = high honorific, INF = infinitive, INS = instrumental, NEG = negation, NH = nonhonorific, PFV = perfective, PROG = progressive, PRS = present, Q = question, S = subject agreement, SG = singular, Sp* = speaker of the whole sentence, Sp = speaker

Acknowledgements

Competing interests

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