On the grammar of allocutivity and indexical shift

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Abstract This paper undertakes one of the first detailed comparisons (but see Alok & Baker 2018; Alok 2021) of allocutive agreement and indexical shift, two clause-peripheral phenomena that engage with contextual participants in different ways. We showcase interactions between these phenomena in two languages: Magahi (Alok & Baker 2018; Alok 2021) and Tamil (Sundaresan 2012a; 2018; McFadden 2020). These interactions show that certain types of allocutive agreement in embedded clauses and indexical shift, in fact, involve the same underlying mechanism in syntax and semantics. In addition, we also provide new primary data on Tamil involving exceptions to Shift Together (Anand 2006; Deal 2020) in clauses that show both allocutive agreement & indexical shift. These facts will force us to compare the phenomena using the same grammatical toolbox & vocabulary. We conclude by outlining two ways to model the close parallels between allocutive agreement and indexical shift. But no analysis can be taken to be definitive until we develop a crosslinguistically robust profile of such interactions from a much wider range of languages.

Keywords: indexical shift, allocutive agreement, contextual participants, speech act phenomena, Magahi, Tamil

1 Introduction

In this paper, we will undertake one of the first detailed (with the notable exceptions in Alok & Baker 2018; Alok 2021) comparisons of allocutive agreement and indexical shift. Allocutive agreement marks grammatical agreement with the addressee of an utterance, rather than with a clausal argument (e.g. Oyharçabal 1993; Miyagawa 2012; McFadden 2020; Alok 2021), as in Basque (1):

(1) Pettek lan egin di-n.
Peter.E work.A do.PRF 3A.3E-ALLF
'Peter worked.' *Uttered to a close female friend* (Basque, Oyharçabal 1993)

In cases of indexical shift, so-called indexical pronouns (e.g.Ì', 'you', 'here' and 'now') that occur in the scope of an attitude verb (e.g. 'say') target the *Speaker*, *Addressee*, *Location* and *Time* of the intensional context (associated with the attitude described by this predicate) rather than the context of the utterance (Schlenker 2003b; Anand 2006; Deal 2020; Sundaresan 2018; 2021, a.o.) – as illustrated in (2):

(2) Language with indexically-shifted 'I':
Leela said [that I am sleepy].
≈ *Leela said that Leela is sleepy.*

In this paper, we introduce the typological properties of both phenomena in detail and also provide an overview of prominent analyses of these patterns in the syntax and semantics. We will see that, because allocutive agreement is handled primarily in the syntax while indexical shift is treated mostly in the semantics, the properties of one cannot be straightforwardly mapped onto the other. Nevertheless, interactions between allocutive agreement and indexical shift in

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two languages: Magahi (Indo-Aryan, Alok & Baker 2018; Alok 2021) and Tamil (Dravidian, Sundaresan 2012a; 2018; McFadden 2020) strongly suggest that certain types of allocutive agreement instantiate a form of indexical shift for 2nd-person. Furthermore, clauses with both allocutive agreement & indexical shift, based on novel primary data collected from speakers of the Kongu dialect of Tamil, show exceptions to Shift Together, a constraint that forces all shiftable indexicals in a local domain to shift at the same time, or not at all.

These results require us to find a unified grammatical machinery and vocabulary to handle both phenomena: our treatment of AllAgr must also handle the semantics, and our treatment of IndShift must also be syntactically grounded. We conclude by presenting two preliminary analytic directions we might take to model the isomorphism between certain types of AllAgr and IndShift and end with what looks like a promising way to syntactically model the difference between inherently shiftable and inherently unshiftable indexicals in a given language in order to accommodate exceptions to Shift Together.

2 Primer on indexical shift

2.1 Introducing indexical shift

In a seminal paper (Kaplan 1989), the philosopher David Kaplan postulates that indexical pronouns like 'I', 'you', 'here' and 'now' are uniquely characterized by the following properties:

(3) CONTEXT-SENSITIVITY: Indexicals are *purely context-sensitive* expressions: they derive their meaning purely from a speech or thought context.

(4) INTENSIONAL INSENSITIVITY: Indexicals are *rigid designators*: i.e. their reference is *rigidly* fixed to the utterance-context and cannot be shifted under an intensional operator.

Per (3), an indexical like *I* in English must denote the unique *Speaker* of the utterance, *you* the unique addressee(s) of the utterance, and so on. Per (4), *I* must denote the utterance *Speaker*, even when it lies in the scope of an attitude verb: i.e. it cannot be interpreted *de dicto* and denote the *author* of the attitude. Kaplan further proclaims (Kaplan 1989, 510-11) that a contextual operator which *could* manipulate the reference of an indexical in this manner simply doesn't exist in English, and calls it a fictitious "monster". The only way to alter the reference of an indexical like *I*, per Kaplan, is to enclose it inside a quotation.

One of the most exciting linguistic discoveries of the last two decades has been that Kaplan's conjecture regarding (4) is arguably falsified in cases of *indexical shift*, as in Uyghur (5):

(5) Ahmet [men ket-tim] di-di.
Ahmet [1SG leave-PST.1SG say-PST.3
'Ahmet$_i$ said that Ahmet$_i$ left.' (literally 'Ahmet$_i$ said that I$_i$ left.')

Unlike English *I*, the 1st-person indexical *men* in (5) is interpreted against the parameters of the matrix speech verb *di* ('say') and must denote its agent, Ahmet

(Shklovsky & Sudo 2014, 383, Ex. 4b). Shklovsky & Sudo also show that the embedded clause in (5) is demonstrably an indirect speech report: e.g. it allows *wh*-movement across it and allows an NPI to be licensed by matrix negation, neither of which would be possible if it were quoted.

Rather, *men* ('I') in Uyghur is obligatorily shifted: i.e. it derives its reference from the intensional context, rather than the utterance context. A prominent line of analyses takes this to mean that indexicals like *men*, can be manipulated by a contextual operator (or "monster") of precisely the sort that Kaplan deemed impossible in language.

2.2 Shifty variation

Indexical shift shows rich variation along multiple dimensions. Such variation is, furthermore, not random but restricted by *implicational* entailments holding across classes of indexical and intensional domains. We discuss these in turn below.

2.2.1 Variation in shifty environments

Indexical shift is not universal across languages. In a language like English, indexicals like *I*, *you*, *here* and *now* are "rigid designators" in the sense of (4). But in languages Uyghur (cf. Ex. (5)) and a range of others (see e.g. the list of close to 30 languages in Sundaresan 2018, Ex. 46, 26)indexical shift of one or more indexicals is possible. For most of these languages, indexical shift seems to be optional. For a much smaller handful of languages, indexical shift is obligatory. For instance, in Laz (Kartvelian, Demirok & Öztürk 2015), 'I' and 'you' obligatorily shift. In Slave (Athapaskan, Rice 1989), 'I' shifts obligatorily under 'say' but shifts optionally under 'think' and 'want'; both 'I' and 'you' shift optionally under 'ask' and 'tell'.

Shifty variation also occurs across different intensional domains in a given language. For instance, Amharic (Semitic, Schlenker 1999; 2003a, et seq.),allows indexical shift only under 'say'; Laz (Kartvelian, Demirok & Öztürk 2015) allows indexical shift under 'say' and 'think'. Nez Perce (Sahaptian, Deal 2017), Slave (Athapaskan, Rice 1989) allow indexical shift under 'say', 'think' and further allow certain indexicals to shift under 'know' and 'want', respectively. Yet others like Uyghur license indexical shift under all attitude verbs.

What is quickly apparent is that shifty variation across different intensional domains is not random but *implicationally restricted* (Sundaresan 2018) as in (6):

(6) For a given grammar (language or dialect), if IndShift is effected in the scope of a non-speech attitude predicate, it must also be effected in the scope of a speech predicate.

Deal (2017; 2020) proposes that this dependency may be even more articulated, as under (7):

(7) INTENSIONAL HIERARCHY FOR INDEXICAL-SHIFT:
Speech > Thought > Knowledge
IMPLICATION: if an indexical shifts in the scope of a certain predicate-class, it necessarily also shifts in the scope of all predicate-classes to its left on the hierarchy.

2.2.2 Variation in shifty indexicals

Shifty variation also obtains wrt. which indexicals may shift. In some languages (e.g. English), none may shift; in others (e.g. Dargwa, Ganenkov 2016), allow only 1st-person (agreement) may shift;yet others (e.g. Navajo, Speas 1999) shift both 1st- and 2nd-person shift both 1st- and 2nd-person, while languages like Zazaki (Iranian, Anand & Nevins 2004; Anand 2006) allow all classes of indexical to shift. Here again, shifty variation is not random but implicational, as described in 8:

(8) Hierarchy of shifty indexicals: 'I' > 'you' > 'here':

	Shifty 1st	Shifty 2nd	Shifty 'here'
Matses	✓	✓	✓
Uyghur	✓	✓	_
Tamil	✓	_	_
English	_	_	_

Per (8), there is no language that shifts 'you' to the exclusion of 'I' or 'here' to the exclusion of 'you' (and 'I'). These implicational restrictions are also mirrored language-internally. For

instance, Nez Perce allows shifty 'here', 'you', and 'I'. In an intensionally embedded proposition containing all three, 'you' cannot shift to the exclusion of 'I', and 'here' cannot shift to the exclusion of 'you' (and 'I'). But the reverse patterns are amply attested across both languages and individual structures.

2.2.3 Variation in shifty behavior across indexicals: Shift Together

Shifty variation across indexicals in a given domain has been argued (Anand 2006; Sudo 2012; Deal 2020) to be restricted by the "Shift Together" constraint in (9):[1]

(9) Shift Together Constraint: "All shiftable indexicals within an attitude-context domain must pick up reference from the same context" (Anand 2006, Ex. 297, 100).

For instance, in Zazaki (Iranian; Turkey) (Anand & Nevins 2004, 4, Ex. 13), all indexicals shift optionally, leading us a priori to expect four possible interpretations for the utterance in (10):

(10) *Scenario:* Ali tells Hasima:
Vizeri Rojda Bill-ra va kɛ ɛz to-ra miradiša
Yesterday Rojda Bill-to said that I you-to angry.be-PRES
LIT. 'Yesterday Rojda said to Bill that I am angry at you.'
READING 1: ✓ Yesterday Rojda said to Bill that I_{Rojda} am angry at you_{Bill}.'
READING 2: ✓ Yesterday Rojda said to Bill that I_{Ali} am angry at you_{Hasima}.
READING 3: ✗ Yesterday Rojda said to Bill that I_{Ali} am angry at you_{Bill}."
READING 4: ✗ Yesterday Rojda said to Bill that I_{Rojda} am angry at you_{Hasima}.

However, only two readings are actually attested: either both indexicals shift (Reading 1), or both remain unshifted (Reading 2). Readings 3 and 4, where only one indexical shifts, are illicit.

Sundaresan (2018) argues that genuine exceptions to Shift Together may obtain in certain configurations in Tamil, Korean, and Slovenian (pace Deal 2020). The Tamil example presented by Sundaresan is repeated below:

(11) SHIFT TOGETHER EXCEPTION – TAMIL MONSTROUS AGREEMENT:

Raman$_i$ [$_{CP}$ taan$_{\{i,*j\}}$ enn-æ paartt-een-nnŭ] ottŭŋɖ-aan.
Raman ANAPH.NOM me-ACC saw-1SG-COMP admitted.-3MSG

LIT: "Raman admitted [$_{CP}$ that self had seen me]."
READING 1: ✓ "Raman$_i$ admitted that he$_{\{i,*j\}}$ had seen me$_{c*}$]"
READING 2: ✗ "Raman$_i$ admitted that he$_{\{i,*j\}}$ had seen me$_i$."

In (11), we have an overt *unshifted* 1st-person indexical *naan* ('I') which co-occurs in the embedded clause with "monstrous" (or shifty) 1st-person agreement triggered by a silent, shifted 1st-person indexical (Sundaresan 2012a). Assuming that both instances of 'I' are inherently shiftable, constructions like (11) violate Shift Together. If this is correct, Shift Together emerges not as a universal, but as a robustly tendential restriction on shifting across (shiftable) indexicals in a local domain. Shift Together patterns and exceptions thereto will turn out to be relevant for the primary concern of this paper. In particular, we will see novel evidence for a new exception to Shift Together in interactions between indexical shift and allocutive agreement in Tamil.

Any theory of IndShift must be able to derive not only the mere fact of its existence but also the attested variation, and in particular its implicational nature.The dimensions of shifty variation outlined in the previous section thus serve as an analytical litmus test for the robustness of the

[1] Note that Shift Together is explicitly defined over *shiftable* indexicals. In a language like Amharic where only 'I' and 'you' may shift but not 'here', 'here' will continue not to shift even when it locally co-occurs with shifted 'I' and 'you'. This is, of course, not a violation of Shift Together.

various theories that are available. Among monster-based theories tof indexical shift, we can distinguish two main approaches: the context-overwriting approach and the quantifier-binding approach, which we discuss in turn below.

2.3 Indexical shift via context-overwriting

Under the context-overwriting approach (see e.g. Anand 2006; Shklovsky & Sudo 2014; Deal 2020, a.o.), the monster, selected by the attitude verb, replaces the utterance-context against which the intensional proposition under the verb would normally be evaluated with the intensional parameters of the attitude verb (12):

(12) $[\![\text{👻}\alpha]\!]^{c,i,g} = [\![\alpha]\!]^{i,i,g}$, for a given proposition α

All indexicals are treated as functions over contexts. Thus, the lexical entries for 'I' and 'you' in all languages are as in (13) and (14), respectively:

(13) $[\![I]\!]^{c,g} = \lambda c.Author(c)$
(14) $[\![you]\!]^{c,g} = \lambda c.Addressee(c)$

Since the contextual value associated with an indexical is always unspecified in this way, indexicals are, in principle, always shifty. In contrast, whether a monster is selected by a given attitude verb is a lexical choice on the part of the verb. When an indexical like 'I' in (13) is merged in a structure that has no 👻, *Author* is evaluated against c^*, the utterance context, by default, yielding an unshifted indexical; when 'I' is merged in the scope of a 👻, *Author* is evaluated against a "shifted" context, yielding a shifted indexical.

2.3.1 Deriving variation in shifty environments

The presence of a 👻 is parametrized both across languages and intensional domains, accounting for shifty variation across these parameters. English has no indexical shift, then, simply because attitude verbs in this language never introduce a 👻 in their scope. In Uyghur, on the other hand, an attitude verb like *di* ('say') in (5) must introduce a 👻 in a finite clausal complement, yielding obligatory shift of any indexicals that lie in its scope.

At the same time, something additional must be said to derive the fact that shifty variation is not random, but implicational (cf. Ex. (6)-(7)). Following work in Speas (2004); Sundaresan (2012a), Deal (2017; 2020) proposes that context-overwriting operators may be hosted on distinct complementizers which are ordered along the hierarchy in (15) which is itself implicational, involving a restriction of monotonic structural containment in clauses hosting these elements:

(15) Cinque Hierarchy (see also Cristofaro 2005):
SPEECH ACT ≫ EVALUATIVE ≫ EVIDENTIAL ≫ EPISTEMOLOGICAL ≫ ...

Different attitude verbs select clauses which vary in size according to how much of this sequence they project. Under a strong version of this idea, this variation is constrained by monotonicity. A speech verb like 'tell' selects a clause with a SpeechAct head, which then automatically entails the presence of the rest of the heads in (15). In contrast, an epistemic verb like 'know' selects the smallest clause, which contains an Epistemic head but not the heads to its left. If 👻 is hosted on the SpeechAct head, it will only be available in the scope of speech verbs, and IndShift will not obtain under any other classes of attitude verb. A 👻 on an Eval head, on the other hand, will occur not only under evaluative predicates, but also under speech predicate, because their complement also contains Eval. Consequently, IndShift will occur not only under 'think' but also under 'say', yielding the implication in (6).

2.3.2 Deriving variation in shifty indexicals

Under a context-overwriting view, the choice of which indexicals may be shifted reduces to the nature of the 👻 (Anand 2006; Deal 2020). Deal (2020) proposes that these come in three distinct shapes which are parametrized across languages and individual structures. OP_{auth} overwrites only the *Author* coordinate; OP_{addr} overwrites only the *Addressee* coordinate, and OP_{loc} overwrites the *Location* coordinate alone. To capture the implicational hierarchy of shifty indexicals in (8), Deal proposes that these operators must occur in the rigid functional sequence shown below, on the clausal spine:

(16) $\text{OP}_{loc} >> \text{OP}_{addr} >> \text{OP}_{auth}$

A clause that hosts OP_{loc} will necessarily also contain OP_{addr} and OP_{auth}; a structure that hosts OP_{addr} will necessarily contain OP_{auth} but need not also contain OP_{loc}, and so forth. Thus the hierarchy in (8) falls out of conditions of monotonic structural containment for functional heads along the clausal spine.

2.3.3 Deriving variation in shifting behavior

We have seen that a given indexical may shift optionally, obligatorily, or not at all. Under the context-overwriting approach, this reduces to whether the 👻 it scopes under is obligatorily, optionally, or never selected by the associated attitude verb.

It is in its ability to account for Shift Together patterns (cf. (10)-(9)) that the context-overwriting view truly shines. Again, under this view *all* indexicals are capable of shifting. The 👻 overwrites the utterance context, replacing it with the intensional one associated with the attitude verb. This ensures that, if two or more indexicals lie in the scope of a 👻 of the right shape, they will have no choice but to all shift, because there is only one context accessible.

The problem is that this is too strong. Shift Together is not just explained; it is predicted to be the only possible outcome. But as we saw in Section 2.2.3, genuine exceptions to Shift Together do seem to obtain. The only way to handle such exceptions under this view is to argue that they are outside the purview of Shift Together, e.g. because the shifty element is not an indexical to begin with (see Deal 2017, for such arguments & counter-arguments thereto in Sundaresan 2018). We will return to this issue when we consider interactions between IndShift and AllAgr in Section 6.1 below.

2.4 Indexical shift via quantifier binding

The alternative quantifier-binding view stems from the idea that "that attitude verbs are *quantifiers over contexts [tuples of indices <Speaker, Addressee, Time, World, Location>] of thought- or of speech*" (from Schlenker 1999, 2) rather than over possible worlds, as is standardly assumed. What this means, in effect, is that an attitude verb is itself an operator over contexts – or, in Kaplanian terms, a monster. If the context variable associated with an indexical scoping under an attitude verb is bound by this verb, the indexical is evaluated against the parameters of the attitude verb, and is thus shifted; if it is not thus bound, it is evaluated against the utterance-context by default and is thus unshifted. The choice of whether an indexical may be bound in this manner or not reduces to the lexical specifications of the indexical in question.

2.4.1 Deriving variation in shifty environments

In the classic Schlenkerian approach to indexical shift, indexicals come in three inherent varieties. An indexical like *I* in English is lexically specified to denote the *Speaker* of c^*, the utterance context. Such an indexical thus serves as an island for contextual quantification and may not be

shifted. In contrast, 'I' in Uyghur is lexically specified *not* to denote the utterance-context, thus is obligatorily shifted. Finally, in Amharic or Zazaki, where IndShift is optional, 'I' is lexically underspecified wrt. the context it is evaluated against. In recent work, Sundaresan (2018) suggests a variant of this approach which reduces to varieties of indexicals to two: UNSHIFTABLE which is specified not to shift, and SHIFTABLE which is specified to shift. Optional shift is dealt with in this approach by other means.

The Schlenkerian view cannot straightforwardly capture shifty variation across classes of attitude verb within a given language, much less the implicational nature of such variation, since every attitude verb is taken to be inherently monstrous. Sundaresan (2018, following insights on the modeling of intensionality in Kratzer 2006; Moulton 2009; Elliott 2017 a.o.) proposes to rectify this by proposing that the quantificational 👻 is a separate functional element selected by particular attitude verbs (just as under the context-overwriting view). The implicational hierarchy in selectional variation in (6)-(7) is also captured in terms of conditions of structural monotonicity (as per (15)) in the embedded clauses hosting 👻s.

2.4.2 Deriving variation in shifty indexicals

Under the classic Schlenkerian view, the question of which indexicals (may) shift in a given language or structure reduces, again, to the lexical properties of the specific indexicals. But this model does not by itself derive the implicational hierarchy of I > YOU > HERE for shifting across indexicals, in (8).

To accommodate this hierarchy, Sundaresan (2018) argues that both 👻s and individual indexicals come in different shapes with the implicational hierarchies built into their definitions. A "trivial" 👻 abstracts over singleton context sets containing just a *World*, $👻_{Auth}$ abstracts over *Worlds* and *Authors* (or centered worlds), $👻_{Addr}$ over *Worlds*, *Authors* & *Addressee(s)* and $👻_{\forall}$ over all types of indexical. An inherently shiftable 'you' will thus never be shifted to the exclusion of 'I', though the reverse is possible. This hierarchy is replicated in the structure of individual indexicals and restricts variation in whether an individual indexical is shiftable or not.

2.4.3 Deriving variation in shifty behavior

Capturing varying in shifty behavior across indexicals, i.e. the Shift Together restriction, is more problematic under this approach. Since the utterance-context may co-occur with the intensional one, two locally co-occurring indexicals under an attitude verb could, in principle, target distinct contexts, yielding a violation of Shift Together.

Sundaresan (2018) proposes to derive Shift Together by arguing that contextual binding is subject to locality, as under (17):

(17) LOCALITY RULE ON CONTEXT-BINDING: The silent context variable that is associated with an indexical must be coindexed with the λ that *locally* c-commands it.

(17) ensures that all indexicals in a local domain that are inherently capable of being shifted will be bound by the same quantifier (the intensional quantifier or the root quantifier associated with the utterance). They will thus shift or not shift together.

Such an approach has the additional advantage that, unlike the context-overwriting view, it can also accommodate legitimate exceptions to Shift Together. Such exceptions obtain when a lexically unshiftable indexical co-occurs with an lexically shifted one in a local domain. This means that, in (11), overt instances of 'I' must be unshiftable while covert instances are shiftable.

While the goal of this paper is not to adjudicate between these theories of IndShift, we will see that interactions between AllAgr and IndShift in Tamil provide crucial empirical insights which should contribute to such an adjudication.

3 Primer on allocutive agreement

3.1 Basic description of allocutive agreement

AllAgr is a pattern where clause-level agreement marking reflects properties of the *Addressee* of a context rather than those of an argument of the clause. This is illustrated by the examples from Souletin Basque in (18)-(21), reported by Antonov (2015).

(18) Etʃe-a banu
house-ALL 1.SG.go
'I am going to the house.'

(19) Etʃe-a banu-k
house-ALL 1.SG.go-ALLOC:M
'I am going to the house.' (familiar male addressee)

(20) Etʃe-a banu-n
house-ALL 1.SG.go-ALLOC:F
'I am going to the house.' (familiar female addressee)

(21) Etʃe-a banu-sy
house-ALL 1.SG.go-ALLOC:RSP
'I am going to the house.' (respected addressee)

All four examples express the same propositional content but vary in the morphology on the verb in a way that tracks the *Addressee*. (18) shows the basic form of the verb with 1.SG subject agreement. The others each add an allocutive suffix, restricting them to use with *Addressees* with specific gender, number and politeness status.

AllAgr has been most extensively described and studied in Basque (see e.g. Bonaparte 1862; Oyharçabal 1993; Alcázar & Saltarelli 2014), but has now been identified in a considerable number of other languages (see e.g. Amritavalli 1991; Antonov 2015; Zu 2015; Bhattacharya 2016; Miyagawa 2017; Alok & Baker 2018; Kaur 2019; McFadden 2020; Alok 2021). Following Antonov (2015), we can identify three defining properties of AllAgr. First, it marks properties of the *Addressee*. Second, it doesn't only occur when the *Addressee* is an argument, i.e. it is crucially distinct from 2nd person argument agreement. Third, it involves grammaticalized inflectional morphology at the verbal or clausal level. This last point distinguishes it from special vocative markers and clitics, which may serve similar functions but show different morpho-syntactic behavior.

3.2 Distribution of and variation in allocutive agreement

While there is non-trivial variation across languages in the details of AllAgr, some recurring patterns have been identified which are likely to be relevant for any theoretical treatment (see Antonov 2015, for an initial typology). First, while the information reflected about the *Addressee* falls under a suitably broad conception of ϕ-features, the distinctions marked in a given language are typically reduced relative to those made by argument agreement. Categories of honorificity and familiarity are especially common, gender is also common, while number seems to be less so. Person is usually not marked at all, or is only present in a fixed form without distinctions.[2]

Second, AllAgr is often blocked in cases where there is also 2nd-person argument agreement. I.e. in any given clause we can have agreement with the *Addressee* in its capacity as an argument, i.e. 2nd person argument agreement, or in its capacity as as speech act participant, i.e. AllAgr, but

[2] Thus the forms used in Basque are (nearly) the same as those used for argument agreement with 2nd person ergatives (see Antonov 2015, p. 66f. for discussion of the forms), but no alternation is possible with other persons. This makes sense, given that the *Addressee* is always 2nd person, or rather, 2nd person is defined on the basis of the *Addressee*.

not both. There is a question of whether this is a relatively surface-oriented restriction against two instances of overt agreement or something deeper that blocks AllAgr when there is a 2nd person argument, completely independent of whether the latter triggers argument agreement. The evidence that we are aware of seems to suggest the former. See Antonov (2015); Alok & Baker (2018); McFadden (2020); Alok (2021) and references there for discussion.

Third, AllAgr is typically restricted to appear only in clauses of certain types. There is significant cross-linguistic variation, but some important trends can be identified. The central environment, where it appears in all languages that have it, is in finite root declaratives, with languages differing in the extent to which it can appear in other clause types. Basque e.g. excludes it in interrogatives, exclamatives and imperatives, while Japanese allows it in interrogatives and exclamatives, but not imperatives, and Tamil allows it in all of them. In embedded environments, Basque bans AllAgr quite generally, whereas Japanese and Tamil allow it, but only in what look like embedded root clauses (Miyagawa 2012; McFadden 2020). Magahi, finally, allows AllAgr in an even wider range of embedded clause types, but restricts it to those that are finite (Alok & Baker 2018; Alok 2021).

A final point, which will be of central important to us here, concerns the interpretation of AllAgr in embedded environments. As we have seen, AllAgr targets the representation of the *Addressee*. In unembedded clauses, matters are straightforward: there is only one notional *Addressee*, the *Addressee* of the utterance, so this is what AllAgr invariably reflects, a pattern we will refer to as $\text{AllAgr}_{\text{unshifted}}$ going forward. In clauses embedded under an intensional predicate, however, matters are more interesting. Growing evidence from a number of sources shows that at least some such clauses, which describe an indirect speech act and display various syntactic properties of main clauses, may host information pertaining to the indirect speech act, including a representation of its *Addressee* (see e.g. Aelbrecht et al. 2012; Krifka 2017). In principle, this yields a choice: does AllAgr in such an embedded clause reflect the properties of the *Addressee* of the overall utterance, or does it target the *Addressee* of the matrix speech act? Consider some Magahi data from Alok & Baker (2018). In (22a), both matrix and embedded clause bear the same high honorific AllAgr, reflecting the fact that the sentence as a whole is addressed to a teacher. In (22b), things are different.

(22) a. Santeeaa Banteeaa-ke kahk-ain ki Ram-ke Sita-se baat kark-e chah-ain.
Santee Bantee-DAT told-HH.AL that Ram-DAT Sita-INS talk do-INF should-HH.AL
'Santee told Bantee that Ram should talk to Sita.' (said to a teacher) (Alok & Baker 2018, ex. (26), p. 23)

b. Santeeaa Banteeaa-ke kahk-ain ki Ram-ke Sita-se baat kark-e chah-au.
Santee Bantee-DAT told-HH.AL that Ram-DAT Sita-INS talk do-INF should-NH.AL
'Santee told Bantee that Ram should talk to Sita.' (said to a teacher) (Alok & Baker 2018, ex. (27)a, p. 23)

The matrix verb *kahk-ain* 'tell' still bears a high honorific AllAgr marker reflecting the utterance context. However, the embedded verb *chah-au* now bears distinct, non-honorific AllAgr, reflecting the status of Bantee, the *Addressee* of the speech act described in the matrix clause, who is a peer of the matrix speaker Santee. Taking inspiration from IndShift, we will refer to this kind of AllAgr that targets the intensional *Addressee* rather than the *Addressee* of the utterance as $\text{AllAgr}_{\text{shifted}}$. We will engage below with the question of whether this is a genuine kind of IndShift, or just something that looks superficially similar.

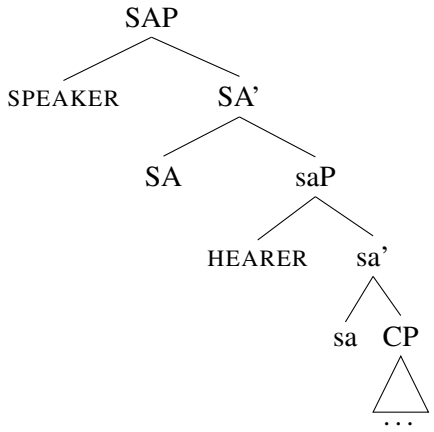
3.3 On theoretical approaches to allocutive agreement

AllAgr has received considerable recent attention because of its apparent theoretical implications. A fairly neutral conception of agreement is as a dependency between the form of one element and one or more properties of some other element. Thus assuming that AllAgr really is agreement,

there must be a representation of the *Addressee* for it to be agreement *with*, accessible at whatever level of grammar is responsible for agreement. It is probably uncontroversial that the *Addressee* and *Speaker* must be represented at a level accessible by the semantics and pragmatics, given their role in the interpretation of indexical items. It is normally assumed, however, that agreement is implemented in the morphosyntax. Hence AllAgr, if analyzed correctly, provides a strong argument in favor of the syntactic representation of the speech act and its participants.

There is thus a general consensus in recent Minimalist work that AllAgr should be analyzed as (morpho-)syntactic agreement with a syntactic representation of the *Addressee*, which we will refer to henceforth as ADDR_{syn}.[3] This leaves open a number of possibilities regarding what ADDR_{syn} looks like and where it appears, as well as the precise nature of the locus of agreement itself. Oyharçabal (1993), for example, proposes that AllAgr targets an allocutive operator adjoined to TP, which subsequently moves up to C. Most subsequent work has retained the idea that AllAgr is associated with the C domain, but has abandoned the idea of adjunction to TP.[4] Some version of the neo-performative hypothesis of Speas & Tenny (2003) (building on Ross (1970)) is typically assumed, whereby the speech act and its participants are represented by syntactic material in the clausal periphery (see e.g. Hill 2007; Haegeman & Hill 2013; Miyagawa 2012; Zu 2015; Haegeman & Miyagawa 2016; Miyagawa 2017; Krifka 2017; McFadden 2020). One instantiation of this (from Miyagawa 2017) is shown in (23):

(23)



The idea then is that AllAgr boils down to ϕ-agreement with ADDR_{syn} in the clausal periphery. In terms of the operation Agree, ADDR_{syn} is the Goal, which leads us to wonder about the. Indeed, specific analyses differ depending on the identity and location of the Probe and how it interacts with the Goal. For Miyagawa (2017), the Probe starts in C, then moves into SAP, where it can probe downward to Agree with the HEARER. McFadden (2020), on the other hand, assumes that the allocutive Probe remains in C and can probe upward to find the HEARER. Alok & Baker (2018); Alok (2021) depart most strongly in that they place both Probe and Goal in the T domain rather than the C domain, at least for Magahi.

For all of these accounts, it is primarily on the Probe side that cross-linguistic variation is situated. The availability of the right kind of Probe determines whether a language has AllAgr at all, and the specific properties of that Probe are responsible for its distribution and the distinctions made.[5] Even

[3] We do this both to abbreviate a wordy formulation, and to make explicit the contrast with *Addressee*, the semantic notion of the particular contextual parameter.

[4] The relationship with C was assumed in order to capture restrictions on AllAgr in embedding and questions in Basque, and has been taken over in some form in most subsequent work. Having the operator adjoined to TP, on the other hand, was meant to explain why it could not be pronounced overtly or bind anaphors and why the agreement is realized as a verbal suffix, but depended on particular theoretical assumptions about agreement, Case and government which have been superseded.

[5] This is essentially parallel to related theories of argument agreement. While the syntactic position and properties of particular arguments will affect certain details of a language's agreement system, the bare fact that it has argument

among languages with AllAgr, there seems to be variation in where the Probes appear, which is at least plausibly orthogonal to whether a clause contains a SpeechActP or not. This is presumably (part of) the explanation for the variation we find in whether languages which do have AllAgr allow it in non-declarative root clauses or embedded clauses.

The system proposed by McFadden & Sundaresan (2021) e.g. builds on McFadden (2020)'s analysis of AllAgr to develop theory that also covers upward and downward complementizer agreement. McFadden & Sundaresan propose that AllAgr involves a ϕ-probe high in the C-domain, crucially above the clausal phase boundary. It first tries to probe downward, but cannot find a Goal because of the PIC, so then it searches upward, involving a mechanism like those proposed by Béjar & Rezac (2009); Carstens (2016); Clem (2018). In an embedded clause with root syntax, containing a SpeechActP, the probe finds the ADDR_{syn} in this phrase as the closest Goal. This yields AllAgr with the *Addressee* of the intensional context, i.e. $\text{AllAgr}_{\text{shifted}}$, as illustrated in (24):

(24) $\text{AllAgr}_{\text{shifted}}$ – AllAgr with the "shifted" *Addressee*:
(Subj$_{Matrix}$) [$_{SAP}$ ADDR$_{syn}$ [ϕ:] [$_{phase}$ Subj$_{Embedded}$]]

In an embedded clause *without* root syntax, i.e. without its own SpeechActP, the closest Goal will be the ADDR_{syn} in the *matrix* SpeechActP, denoting the *Addressee* of the utterance context, yielding $\text{AllAgr}_{\text{unshifted}}$, as in (25a). $\text{AllAgr}_{\text{unshifted}}$ also arises straightforwardly in root clauses, as in (25b).

(25) $\text{AllAgr}_{\text{unshifted}}$ – AllAgr with the "unshifted" *Addressee*:

a. On embedded CP:
[$_{RootSAP}$ ADDR$_{syn}$ (Subj$_{Matrix}$) [$_{CP}$ ϕ: [$_{phase}$ Subj$_{Embedded}$]]]

b. On root SpeechActP:
[$_{RootSAP}$ ADDR$_{syn}$ [ϕ:] [$_{phase}$ Subj$_{Matrix}$]]

The representation of a SpeechActP including ADDR_{syn} is guaranteed in root clauses. In embedded clauses, it depends at least in part on the thematic properties of the selecting attitude verb, as we have seen. There are no handy shortcuts for knowing these *a priori*. Speech verbs don't always select a SpeechActP in their complement, nor do clausal complements of non-speech always lack a SpeechActP. And there is an additional complication. Certain non-communication predicates like 'think' can sometimes embedd clauses with root syntax, including their own SpeechActP (see Hooper & Thompson 1973; Meinunger 2006; Krifka 2014, for some related discussion), but since the relevant intensional act doesn't involve an *Addressee*, this embedded SpeechActP doesn't contain an ADDR_{syn}. Hence even though we have an embedded SpechActP, an allocutive probe will still yield $\text{AllAgr}_{\text{unshifted}}$ rather than $\text{AllAgr}_{\text{shifted}}$.

Under this approach, then, whether we can get $\text{AllAgr}_{\text{unshifted}}$ or $\text{AllAgr}_{\text{shifted}}$ will depend on whether the clause hosting the relevant ϕ-probe projects a SpeechActP with an ADDR_{syn}. However, the basic fact of whether a language has AllAgr at all is determined by whether or not a clause in this language may host the right kind of agreement probe, in McFadden & Sundaresan (2021)'s terms, a ϕ-probe on a C head above the CP phase.Most languages don't seem to have AllAgr at all, and even in those that do, it is frequently optional even in the contexts where it is possible (Antonov 2015; Alok & Baker 2018; McFadden 2020). This explains why, at least as of now, AllAgr data have only been reported for a small number of languages.[6]

agreement for a particular subset of the ϕ-features appearing in a particular place in the clause is determined by the presence and properties of the relevant Probes.

[6] Given the lack of wider famliarity with the phenomenon in the field and the difficulty of distinguishing it from functionally similar phenomena like vocative clitics, it is quite possible that AllAgr is actually there and waiting to be properly identified in a far wider collection of languages. As with IndShift. a good deal more careful empirical and typological work is needed. be.

4 Theoretical comparisons and predictions

4.1 Distributional similarities & differences

Both AllAgr and indexical shift target contextual participants and have been argued to have a syntactic component. The ultimate question, given these parallels, is to what extent the two phenomena involve shared underlying mechanisms. However, there are also systematic differences between AllAgr and IndShift. AllAgr is largely a phenomenon of root clauses, appearing in a cross-linguistically variable but typically restricted set of embedded environments, and specifically involves the *Addressee*. IndShift, on the other hand, *only* appears in environments embedded under attitude predicates, but under a wider range (again subject to cross-linguistic variation) of such predicates, and can involve the full range of contextual parameters, i.e. *Speaker*, *Time*, *World* and *Location* in addition to *Addressee*.

Given these distributional differences, we can already set aside a number of irrelevant cases where the two phenomena will trivially fail to interact, e.g. in unembedded clauses where shift is simply impossible, or in clauses that simply lack an indexical of the right kind or don't have AllAgr at all. Nonetheless, there is enough overlap that the two should be able to interact in those embedded environments where both are licensed. In particular, we expect potential interactions between IndShift and $\text{AllAgr}_{\text{shifted}}$ in clauses embedded under an intensional predicate, which furthermore actually contain a shiftable indexical and AllAgr. The question we are now concerned with is what the nature of such an interaction might be. In particular, what does shift of either one lead us to expect regarding shift of the other? We will consider two scenarios below.

4.2 Scenario A: Does shifted 'you' entail $\text{AllAgr}_{\text{shifted}}$?

An embedded clause that hosts an indexically shifted 'you' must contain a shifty instance of 'you' as well as a 👻 which can shift 'you'. Furthermore, given that shifted 'you' definitionally targets the addressee of the attitude event, the attitude verb that embeds this clause must itself be a verb of communication, e.g. 'tell'. As the complement of such a verb, it is further probable that the clause in question is itself a SpeechActP. [7] Now, If a version of this embedded clause now also displays AllAgr, it must also host an allocutive probe in the embedded clausal periphery. Taken together, this yields the template of input conditions in (26b) for the model sentence in (26a):[8]

(26) Embedded CP with indexically-shifted 'you' & AllAgr:

a. Leela told Ravi that you are a pest.
≈ Leela told Ravi that Ravi is a pest + AllAgr.

b. Leela_i told $\boxed{\text{Ravi}_j}$ $[_{CP} \ldots$ 👻$_{Addr} \ldots [\text{Probe}_{alloc} [_{phase}$ that $\boxed{\text{you}_j}$ are a pest]]]

Given the configuration laid out in (26b), will we get $\text{AllAgr}_{\text{shifted}}$, reflecting the properties of the *Addressee* of the matrix speech context, Ravi, or $\text{AllAgr}_{\text{unshifted}}$, reflecting the properties of the *Addressee* of the utterance-context?

[7] But as we have said in Section 3.3, not all speech verbs always select a SpeechActP. Hence our cautious formulation in the main text.

[8] We set aside the question of what precisely the nature of the allocutive probe is, whether it is simply a ϕ-probe in a particular structural position (as proposed by McFadden & Sundaresan 2021), an uninterpretable honorificity feature (as proposed by Alok 2021) or something that more explicitly targets the ADDR_{syn}, and simply label it Probe_{alloc}. We also set aside the question of the relative positions of the 👻 and the ADDR_{syn}. The representation in (26) is purely illustrative for now, and shows one possible version of how things could be. Finally, the two-way arrows between *Ravi*, 👻 and shifted 'you' are merely meant to show that the three are linked, with such linking being understood purely descriptively, for now.

The choice between $\text{AllAgr}_{\text{shifted}}$ and $\text{AllAgr}_{\text{unshifted}}$ ultimately depends on the presence vs. absence of an intensional ADDR_{syn} in the embedded clause. If such an ADDR_{syn} is locally present, any allocutive agreement will necessarily be shifted since Probe_{alloc} will Agree with it. But if ADDR_{syn} is absent, we will get unshifted $\text{AllAgr}_{\text{unshifted}}$, since Probe_{alloc} will instead Agree with the ADDR_{syn} of the utterance context. The 👻, on the other hand, is a contextual operator which must ultimately associate all instances of shifted 'you' in its scope with the addressee (or goal) argument of the attitude verb. But neither the context-overwriting nor quantifier binding approach to indexical shift, as far as we are able to discern, requires the addressee itself to be locally represented in the syntactic structure for such an association to obtain. In other words, the mapping between $👻_{Addr}$ & $\text{ADDR}_{syn}$is not clear. This means, in effect, that there is no obvious entailment that a clause that hosts shifted 'you' as well as an allocutive probe should yield $\text{AllAgr}_{\text{shifted}}$, and not $\text{AllAgr}_{\text{unshifted}}$.

4.3 Scenario B: Does $\text{AllAgr}_{\text{shifted}}$ entail shifted 'you'?

Let us now consider the reverse case. If we get $\text{AllAgr}_{\text{shifted}}$ occurring in a particular embedded clause in such a language, do we now predict that any 2nd-person indexicals in this SpeechActP will necessarily also be shifted? Recall furthermore from Section 2.2 that no language allows shifting of 'you' without shifting of 'I' (cf. Ex. (8) and the discussion in Section 2.2.2). Does this then mean that any 1st-person indexical in the SpeechActP will also be shifted?

In the analytic terms we have described so far, an embedded clause that exhibits $\text{AllAgr}_{\text{shifted}}$ must host a Probe_{alloc} as well as an intensional ADDR_{syn} on a local SpeechAct head, as shown below:

(27) Embedded CP with $\text{AllAgr}_{\text{shifted}}$:

a. Leela told Ravi that you are a pest.
POTENTIAL SHIFTED READING: ≈ Leela told Ravi that Ravi is a pest + AllAgr.
POTENTIAL UNSHIFTED READING: ≈ Leela told Ravi that you_{c*} are a pest + AllAgr.

b. Leela_i told $\boxed{\text{Ravi}_j}$ $[_{SAP}$ $\boxed{\text{ADDR}_{syn\_j}}$ … [Probe_{alloc} $[_{phase}$ that you are a pest]]]

For such a clause to also shift any instances of (shiftable) 'I' and 'you', it must also contain a 👻 of the right contextual shape to shift these elements, e.g. a $👻_{Addr}$. So the question we are really asking is whether the presence of a $👻_{Addr}$ is entailed in a clause with $\text{AllAgr}_{\text{shifted}}$.

Such a question is again difficult to answer because theories of allocutive agreement discuss the input conditions for $\text{AllAgr}_{\text{shifted}}$ in syntactic terms, not in terms of the presence or absence of a 👻 (let alone a 👻 of the right contextual shape).[9]

4.4 Summary & sneak peek

The fundamental problem we face in asking questions about the interactions between AllAgr and IndShift is this. The two phenomena are framed in very different terms, one syntactically and the other (predominantly) semantically, so it is not obvious how they align.

AllAgr is analyzed as an Agree dependency between an agreement probe and an ADDR_{syn} in SpeechActP or some other clausal functional projection. This ADDR_{syn} is straightforwardly syntactic, crucially containing ϕ-features associated with a particular individual, and may even simply be a (silent) DP. IndShift is, on the other hand, at least in the two main approaches we have discussed, handled in terms of a monster. Rather than dealing in individual participants, it

[9] The presence of such a 👻 is also not independently guaranteed simply because the clause in question is intensionally embedded. Even under the Schlenkerian view of indexical shift where all attitude verbs are monstrous, indexical shift for 'you' would obtain only if the clause in question hosts a 👻 of the right contextual shape, i.e. which can shift instances of 'you' in its scope.

deals in contexts, and thus may not even contain information about specific individuals like their ϕ-features.[10]

In the next two sections we will discuss actual interactions between IndShift and AllAgr in two languages which play out the hypothetical scenarios above, namely in Magahi (Alok & Baker 2018; Alok 2021) and Tamil (Sundaresan 2012a; 2018; McFadden 2020). The nature of these interactions strongly suggests that the two phenomena are intimately related and may even involve the same underlying mechanism. Specifically, we will see that there is a biconditional dependency between the availability of $\text{AllAgr}_{\text{shifted}}$ and that of indexical shift for 'you' in this language. Matters are a bit more nuanced in Tamil. Here, we will see that a biconditional dependency between $\text{AllAgr}_{\text{shifted}}$ and shifted 2nd-person holds only for covert instances of 'you' in this language; overt instances of 'you' may continue to be unshifted in a clause with $\text{AllAgr}_{\text{shifted}}$.

Given the paucity of crosslinguistic data,we will treat the implications of these results as significant guidelines for future research on these issues, but not as conclusively prefiguring an ultimate cross-linguistically valid analysis of these phenomena. Nonetheless, these results already force us to find a common analytic vocabulary and machinery with which to re-evaluate IndShift and AllAgr, and to question in these terms the relevance of a 👻 for cases of $\text{AllAgr}_{\text{shifted}}$, on the one hand, and the relevance of the ADDR_{syn} for cases of IndShift, on the other. Ultimately, we will also see that a comparison of the Magahi and Tamil data will provide us with useful empirical diagnostics involving Shift Together patterns which, in turn, will allow us to critically reappraise the comparative merits of the context-overwriting & quantifier-binding theories of IndShift discussed in this paper.

5 Indexical shift & allocutive agreement in Magahi

Magahi (Indo-Aryan) exhibits both IndShift and AllAgr. We describe the nature of these phenomena and their interactions here, based on the discussion in Alok & Baker (2018); Alok (2021).

5.1 Background on indexical shift & AllAgr in Magahi

Magahi marks honorificity, making the same three-way distinction between nonhonorific, honorific and high honorific that is found with argument agreement in the language (see Alok 2021, for detailed discussion). Though often preferred, it is generally optional, with its absence simply leaving the honorificity of the *Addressee* unspecified. Consider the four possibilities in (28) (Alok & Baker 2018, ex. (8), p. 7f.):

(28) a. Santee jaa-it h-ai. (Addressee unspecified)
Santee go-PROG be-3.NH.S
'Santee is going.'

b. Santee jaa-it h-au. (Addressee nonhonorific, a peer)
Santee go-PROG be-3.NH.S-NH.AL
'Santee is going.'

c. Santee jaa-it h-o. (Addressee honorific, e.g. a parent, grandparent)
Santee go-PROG be-3.NH.S-H.AL
'Santee is going.'

d. Santee jaa-it h-ain. (Addressee high honorific)
Santee go-PROG be-3.NH.S-HH.AL
'Santee is going.'

[10] I.e. we can imagine a monster meaning something like 'the speech act participants against which this clause will be interpreted are those of the matrix speech predicate', not, 'the speaker is Mary, and the addressee is John'.

Given the analysis of AllAgr in Section 3.1, we will take this to mean that the allocutive probe is optionally present in embedded clauses in Magahi. In addition to matrix clauses as above, AllAgr can occur in most types of finite embedded clauses. As briefly noted in Section 3.2, under embedding it can either target the utterance context, yielding $\text{AllAgr}_{\text{unshifted}}$, as in (29a) or the intensional context, yielding shifty $\text{AllAgr}_{\text{shifted}}$, as in (29b).

(29) a. Santeeaa Banteeaa-ke kahk-ain ki Ram-ke Sita-se baat kark-e chah-ain.
Santee Bantee-DAT told-HH.AL that Ram-DAT Sita-INS talk do-INF should-HH.AL
'Santee told Bantee that Ram should talk to Sita.' (said to a teacher) (Alok & Baker 2018, ex. (26), p. 23)

b. Santeeaa Banteeaa-ke kahk-ain ki Ram-ke Sita-se baat kark-e chah-au.
Santee Bantee-DAT told-HH.AL that Ram-DAT Sita-INS talk do-INF should-NH.AL
'Santee told Bantee that Ram should talk to Sita.' (said to a teacher) (Alok & Baker 2018, ex. (27)a, p. 23)

Analytically, the choice between $\text{AllAgr}_{\text{shifted}}$ and $\text{AllAgr}_{\text{unshifted}}$ in an embedded clause that also hosts the allocutive probe should boil down to the presence vs. absence of the intensional ADDR_{syn} in this clause.

Turning now to indexical shift, both 1st and 2nd person pronouns shift optionally in Magahi, and the choice of intensional predicates which license such shifting includes not just 'say', but also e.g. 'think' and 'dream'. (30) demonstrates (optional) shift of both 'I' and 'you' under 'ask':

(30) Ram John-se puuchh-kai ki kaa ham toraa dekh-l-i he.
Ram John-INS ask-3.NH.S that what I you.ACC see-PRF-1.S be
'Ram asked John whether I saw you.' (whether Ram saw John, or whether I saw you) (Alok & Baker 2018, ex. (33), p. 27)

Given the discussion of the two theories of IndShift in Section 2, Magahi must have a 👻 which is capable of shifting 'I' and 'you'. This 👻 must be situated on an Eval(uative) head on the clausal spine and will thus be selected under both verbs of speech like 'tell' and 'ask' and under verbs of thought, like 'dream'. However, 'you' will still be shifted only under speech verbs that take an addressee (or goal) argument, like 'tell', 'ask', 'convince' and 'remind'.

5.2 Interactions between indexical shift & AllAgr in Magahi

Interactions between AllAgr and IndShift in Magahi, present evidence for an intimate connection between the two phenomena. If a 2nd person pronoun appears in the same clause as $\text{AllAgr}_{\text{shifted}}$, it *must* get a shifted interpretation (Alok & Baker 2018, ex. (37), p. 30):

(31) a. Santeeaa Banteeaa-ke kahk-ain ki Ram toraa dekhl-i-au ha-l.
Santee Bantee-DAT told-HH.AL that Ram you.ACC saw-1.S-NH.AL be-PRF
'Santee told Bantee that Ram saw you (=Bantee, not hearer).' (said to a teacher)

b. Santeeaa profesar saaheb-ke kah-au ki Ram apne-ke dehkl-i-ain
Santeeaa professor HH-DAT told-NH.AL that Ram you.HH-ACC saw-1.S-HH.AL
ha-l.
be-PRF
'Santee told the professor that Ram saw you (=the professor, not hearer).' (to a peer)

Conversely, if the allocutive marking on an embedded clause is *not* shifted, then 'you' cannot be shifted either (Alok & Baker 2018, ex. (38), p. 30):

(32) * Santeeaa Banteeaa-ke kahk-ain ki Ram-ke toraa-se baat karke chah-ain.
Santee Bantee-ACC told-HH.AL that Ram-DAT you-INS talk do.INF should-HH.AL
'Santee told Bantee that Ram should talk to you (=Bantee).' (said to a teacher)

This same restriction applies to 1st-person IndShift. I.e. if there is shifted 'you' and AllAgr$_{\text{shifted}}$ in a given environment, any instances of 'I' in that environment must also be shifted (Alok & Baker 2018, ex. (39), p. 31):

(33) a. Santeeaa Banteeaa-ke kahk-ain ki ham toraa dekhl-i-au ha-l.
Santee Bantee-DAT told-HH.AL that I you.ACC saw-1.S-NH.AL be-PRF
'Santee told Bantee that I (=Santee) saw you (=Bantee).' (said to a teacher)

b. Santeeaa profesar saaheb-ke kah-au ki ham apne-ke dekhl-i-ain
Santeeaa profesar HH-DAT told-NH.AL that I you.HH-ACC saw-1.S-HH.AL
ha-l.
be-PRF
'Santee told the professor that I (=Santee) saw you (=the professor).' (to a peer)

5.3 Analytic implications: a deeper connection

The dependency between the shifting of 'you' and AllAgr on the one hand and the shifting of 'I' on the other isn't surprising. Indeed, given that (31) holds, we also expect (33) to hold, given the shifty hierarchy of 'I' > 'you' > 'here' in Ex. (8). However, taken together, the patterns in (31)-(33) present evidence for a biconditional dependency between AllAgr$_{\text{shifted}}$ and 2nd-person IndShift in Magahi, as under (34):

(34) Biconditional dependency between AllAgr$_{\text{shifted}}$ & IndShift in Magahi:
Within a given CP, AllAgr$_{\text{shifted}}$ $\leftrightarrow$ IndShift for 'you' (and thus for 'I')

This is an unexpected result, given our discussion in the previous section (Section 4). There, we surmised that the availability of AllAgr$_{\text{shifted}}$ does not entail that of indexical shift for 'you', and vice-versa. The biconditional dependency in (34) shows, however, that this is false. The pattern in (31) instantiates Scenario A in Section 4.2. Given the discussion there, the fact that 'you' must also shift in a clause with AllAgr$_{\text{shifted}}$ analytically entails the following. The embedded CP in (31), which hosts an intensional ADDR$_{syn}$ and Probe$_{alloc}$, must necessarily also host a 👻 which can shift instances of 'you' in its scope, at least in languages like Magahi. (32) instantiates Scenario B in Section 4.3. Analytically, this pattern shows that if the embedded CP in (32) lacks an intensional ADDR$_{syn}$, it must also lack a 👻 that can shift instances of 'you' in its scope. Taken together, this means that, in a language like Magahi, the licensing conditions for AllAgr$_{\text{shifted}}$ and shifted 'you' in a given embedded clause, are one and the same, as shown in (35):[11]

(35) Identical licensing conditions for AllAgr$_{\text{shifted}}$ & shifted 'you' (and 'I') in Magahi:

a. Leela told Ravi that you are a pest.
≈ Leela told Ravi that Ravi is a pest + AllAgr.

b. Leela$_i$ told $\boxed{\text{Ravi}_j}$ [$_{SAP}$ ADDR$_{syn-j}$ … 👻$_{Addr}$ … [Probe$_{alloc}$ [$_{phase}$ that $\boxed{\text{you}_j}$ are a pest]]]

UPWARD AGREE

5.3.1 The same underlying mechanism

Why should these phenomena involve identical licensing conditions? The simplest conclusion is that the biconditional dependency in (34) stems from the two phenomena being, underlyingly, one

[11] For now, we are keeping the dependencies involved in AllAgr$_{\text{shifted}}$ and IndShift separate. I.e. the former is shown, via the dashed arrow, to be an upward Agree dependency between Probe$_{alloc}$ and the ADDR$_{syn}$ denoting the intensional *Addressee*. The latter is shown, via the undashed two-way arrow, as a descriptive link between the shifty 'you', 👻$_{Addr}$ and, ultimately, the referent of 'you', namely *Ravi*.

and the same in some crucial respect. What this means conceptually is that $\text{AllAgr}_{\text{shifted}}$ instantiates (or at least involves) a kind of IndShift.

5.3.2 Biconditional dependency is a case of Shift Together

A concrete advantage of treating $\text{AllAgr}_{\text{shifted}}$ as shifted agreement is that the biconditional dependency between the shifting of AllAgr and 'you' (cf. (31)) can be derived as an instance of Shift Together (cf. Section 2.2.3). In other words, if $\text{AllAgr}_{\text{shifted}}$ diagnoses IndShift for the *Addressee* coordinate in some way, then any instances of shiftable 'you' in that same clause should necessarily be shifted too, and vice-versa.

Further empirical support for such a conclusion comes from the following pattern. IndShift in Magahi is incompatible with embedded AllAgr (shifty or otherwise) in the complement of verbs that don't take an *Addressee*, like 'think' and 'say' (in contrast with 'tell') (Alok & Baker 2018, ex. (36), p. 28).

(36) John kahk-au ki ham tej h-i-(#au).
John say-NH.AL that I smart be-1.S-#NH.AL
Not possible as: 'John said that I (=John) am smart.' (spoken to a peer)

This is entirely parallel to the fact, as Alok & Baker further report, that in this same intensional environment, the presence of a shifted 'I' precludes the presence of 'you' altogether, regardless of whether this is interpreted as shifted or not (Alok & Baker 2018, ex. (54), p. 39):

(37) # Santeeaa soch-it ho-t-ai ki ham toraa kal dekh-l-i.
Santee think-PROG be-FUT-3.S that I you.ACC yesterday see-PRF-1.s
Not: 'Santee must be thinking that I (=Santee) saw you (any meaning) yesterday.'
Only OK as: 'Santee must be thinking that I (=*Speaker*) saw you (=*Addressee*) yesterday.'

If $\text{AllAgr}_{\text{shifted}}$ is an instance of IndShift involving the *Addressee* parameter, then the entirely parallel unavailability of embedded AllAgr and embedded 'you' can receive a unified explanation. Shifted readings of 'you' and $\text{AllAgr}_{\text{shifted}}$ are impossible here since the relevant attitude predicates lack a thematic *Addressee* that could provide the reference for a shifted *Addressee* coordinate. But unshifted 'you' is impossible in conjunction with $\text{AllAgr}_{\text{shifted}}$ because this would violate Shift Together. As a result, both shifted and unshifted instances of 'you' are banned in such clauses.

6 Indexical shift & allocutive agreement in Tamil

In this section, we look at interactions between AllAgr and IndShift, this time in Tamil. While this interaction initially seems to parallel that in Magahi, a closer look reveals some significant differences which in turn restrict the space of possible explanations in important ways.

6.1 Background on indexical shift & AllAgr in Tamil

AllAgr in Tamil is quite impoverished in terms of the distinctions it makes as compared to argument agreement in the language. Whereas the former distinguishes person, number, gender and, in the 2nd and 3rd persons honorificity, AllAgr must make do with a single suffix, *-ŋgæ*, in alternation with the lack of a suffix. The contrast is demonstrated in (38):[12]

[12] The AllAgr data that we report here for Tamil, where not otherwise indicated, are drawn from McFadden (2020) which discusses primary data culled from fieldwork on the Kongu dialect of Tamil, spoken in parts of western Tamil Nadu in India. We have collected some additional data from consultations with two native speakers of this variety, which are explicitly marked as such.

(38) a. Naan ʤaangiri vaang-in-een-ŋgæ.
I jangri buy-PST-1sg.sbj-ALLOC
'I bought jangri' (plural or honorific *Addressee*)
b. Naan ʤaangiri vaang-in-een.
I jangri buy-PST-1sg.sbj
'I bought jangri' (unmarked *Addressee*)

Both examples have the same propositional content, reporting that the speaker has bought a delicious sweet, and both have 1SG argument agreement on the verb, targeting the subject. (38a) additionally has the allocutive suffix *-ŋgæ*, which indicates that the *Addressee* is honorific, or for some speakers of Kongu Tamil, a plural non-honorific *Addressee*.[13] (38b) lacks the suffix, and thus does not carry any explicit marking of the properties of the *Addressee*. In many colloquial varieties of Tamil, this is simply understood as underspecified, which in effect means that AllAgr is optional, since (38b) can be felicitously used even where (38a) would be possible. In Kongu Tamil, on the other hand, AllAgr seems to be obligatory when the conditions for it are met, which means that (38b) without the suffix can only be felicitously used with a singular, non-honorific *Addressee*.

AllAgr in Tamil is most frequently found in root clauses, and is not in any way restricted to declaratives. It is extremely common in interrogatives, both polar and *wh-*, as well as in fragmentary utterances. There are also some interesting patterns of variation in the ordering of the allocutive suffix relative to the polar question particle, but we will set these points aside as they are not directly relevant to current concerns. AllAgr is more restricted in embedded clauses, but it is far from ruled out. It is licit for example in the complements of 'bridge verbs' like 'say', as in (39), and also in some adverbial clauses, including temporal participial adjuncts like the one in (40):

(39) Maya [avæ pooʈʈi-le ʤejkkæ-poo-r-aaɭ-ŋgæ-nnŭ] so-nn-aa
Maya [she contest-LOC win-go-PRS-3SF-ALLOC-COMP] say-PST-3SF
'Maya said that she would win the contest.'

(40) [naan viʈʈ-ukkŭ poo-ji-ʈʈŭ-ŋgæ], call paɳɖ-r-een-ŋgæ
[I house-DAT go-PTCP-COMPL-ALLOC] call do-PRS-1SG.SBJ-ALLOC
'When I get home, I'll call.'

Like Magahi, Tamil displays both $\text{AllAgr}_{\text{unshifted}}$ and $\text{AllAgr}_{\text{shifted}}$ readings with embedded AllAgr, but we will delay discussion of examples until after we have introduced the IndShift patterns in the language.

Turning now to IndShift, Sundaresan (2012a; b; 2018; 2021) argues that Tamil shows IndShift for 1st-person. Interestingly, this is visible only on verbal agreement triggered in the scope of an anaphor. This anaphor, *taan*, itself takes only 3rd-person antecedents; in clauses embedded under verbs other than 'say' (and in some dialects, also 'think'), the verbal agreement triggered under *taan* is 3SG/PL reflecting the person and number features of *taan*'s extra-clausal antecedent. But in clauses embedded under 'say' (and, for some speakers, also under 'think'), the verbal agreement triggered under 'taan' continues to match *taan*'s antecedent for number but is marked 1st-person, even though the antecedent is a 3rd-person form. (41) instantiates this agreement in Tamil (Sundaresan 2018, Ex. 15, 10):

(41) Raman_i [$\text{taan}_{\{i,*j\}}$ Sudha-væ virŭmb-ir-een-nnŭ] so-nn-aan.
Raman ANAPH.NOM.SG Sudha-ACC love-PRS-1SG-COMP say-PST-3MSG
"Raman_i said [$_{CP}$ that $\text{he}_{\{i,*j\}}$ is in love with Sudha]."
Lit: "Raman_i said [$_{CP}$ that $\text{self}_{\{i,*j\}}$ am in love with Sudha]."

[13] Tamil often uses plural forms for singular honorific referents, and indeed *-ŋgæ* is a plural suffix elsewhere in the language. See McFadden (2020) for detailed discussion.

Sundaresan argues that, in configurations like (41), the embedded CP hosts a silent shifted 1st-person indexical in its clausal periphery, which binds *taan*, and triggers shifted 1st-person agreement on its clausemate verb as an instance of indexically shifted or "monstrous" agreement. Given that monstrous agreement predominantly obtains under 'say', Sundaresan further proposes that the context-shifting 👻 is hosted on a SpeechActP on the embedded CP.

6.2 Interactions between allocutive agreement and indexical shift

McFadden (2020) shows that monstrous agreement interacts in systematic and telling ways with embedded AllAgr in Tamil, precisely in the availability of $\text{AllAgr}_{\text{shifted}}$ vs. $\text{AllAgr}_{\text{unshifted}}$. Consider the context in (42):

(42) Maya has told Leela, her boss, that she (Maya) is going to win a contest. Anand witnessed this and wants to report it to Venkat, his boss, who wasn't there.

Anand may tell Venkat what Maya said to Leela in two different ways, as in (43) or (44):

(43) Maya$_i$ Leela$_j$-ṯṯæ [taan$_i$ pooṯṯi-le ʤejkkæ-poo-r-een$_i$-ŋgæ$_j$-nnŭ] so-nn-aa.
Maya Leela-LOC [ANAPH contest-LOC win-go-PRS-1S-ALLOC-COMP] say-PST-3SF
'Maya$_i$ told Leela that she$_i$ would win the contest.' (Maya being polite to Leela)

(44) Maya$_i$ Leela$_j$-ṯṯæ [avæ$_{i,j}$ pooṯṯi-le ʤejkkæ-poo-r-aal$_j$-ŋgæ$_{Venkat}$-nnŭ] so-nn-aa.
Maya Leela-LOC [she contest-LOC win-go-PRS-3SF-ALLOC-COMP] say-PST-3SF
'Maya told Leela that she would win the contest.' (Anand being polite to Venkat)

The utterances above involve the following salient players. We have Anand as the *Speaker* of the utterance-context and Venkat as its *Addressee*. Since Venkat is Anand's boss, Anand invariably uses the allocutive marker, indicating respect, when speaking to him. Leela is the *Speaker* of the intensional context associated with the matrix verb *soll* ('tell') and Leela its *Addressee*. Maya also invariably uses the allocutive marker showing respect when addressing Leela. The question we must now ask is this: is the allocutive marker on the embedded clause $\text{AllAgr}_{\text{unshifted}}$, referring to Venkat, or is it shifty $\text{AllAgr}_{\text{shifted}}$, targetting Leela?

The answer, it turns out, directly depends on whether we get monstrous agreement on the embedded clause or not. In (43), where the embedded clause shows first person monstrous agreement, the AllAgr it marks *must* be shifty $\text{AllAgr}_{\text{shifted}}$. Such agreement indexes the intensional *Addressee*, Leela, indicating an honorific relationship between Maya and Leela. In (44), where the embedded clause shows unshifted 3rd-person agreement, the AllAgr *must* be unshifted $\text{AllAgr}_{\text{unshifted}}$, targetting the *Addressee*, Venkat, of the utterance context and indicating an honorific relationship between Anand and Venkat.

6.3 Analytic implications: Shift Together in Tamil

The sentence in (43) instantiates Scenario A in Section 4.2: it shows that, in a clause that has IndShift for 'I', any AllAgr that surfaces must also be shifted. Conversely, (44) instantiates the reverse dependency from Scenario B in Section 4.3: it shows that, in a clause that does not exhibit IndShift for 'I', any AllAgr that shows up must remain unshifted, as well.

Thus, just like we stated for in Magahi (34), IndShift & $\text{AllAgr}_{\text{shifted}}$ in Tamil are biconditionally linked and must involve identical licensing conditions. The difference is that the IndShift we are talking about for Tamil is for 'I', not 'you', a distinction that will turn out to be crucial. This yields the biconditional dependency in (45) for Tamil:

(45) Biconditional dependency between $\text{AllAgr}_{\text{shifted}}$ & IndShift in Tamil:
Within a given CP, $\text{AllAgr}_{\text{shifted}} \leftrightarrow$ IndShift (monstrous agreement) for 'I'

As was the case with Magahi, the Tamil shifty patterns in (43) vs. (44) suggest that the intensional ADDR$_{syn}$ required for AllAgr$_{\text{shifted}}$, and the 👻 required for the IndShift of monstrous agreement always co-occur.

This can again be accomplished by proposing that AllAgr$_{\text{shifted}}$ in Tamil also instantiates IndShift involving the *Addressee* coordinate. Assuming this is correct, it expands the typology of IndShift in Tamil, showing that it has IndShift not only for 1st person, as reported in Section (2.2.2), but for 2nd person as well. AllAgr$_{\text{shifted}}$ in Tamil obtains when Probe$_{alloc}$ occurs in a clause that projects a SpeechActP hosting ADDR$_{syn}$ as well as a 👻 that shifts 2nd-person. But as discussed in Section 2.2.2, no language or structure shifts 'you' to the exclusion of 'I' (see also Table (8)). Under the monster-based theories of indexical shift discussed in Sections 2.3.2 & 2.4.2, this amounts to saying that a 👻 that shifts 'you' must automatically also shift 'I'. Thus, again as with Magahi, the co-occurrence of AllAgr$_{\text{shifted}}$ and monstrous agreement in Tamil, in a clause that contains both a Probe$_{alloc}$ and shifty 'I', can be treated as an instance of Shift Together.

6.4 A potential confound: new exceptions to Shift Together

At the same time, Tamil differs from Magahi in one important respect. As we noted above, the biconditional dependency in Magahi (34) involves IndShift for 'you' on one end of the dependency, while that for Tamil (45) involves IndShift for 'I'. This turns out to be a non-trivial distinction. As it turns out, overt 2nd person pronouns in Tamil cannot undergo IndShift, regardless of where they occur and regardless of the presence or absence of AllAgr. They can only refer to the *Addressee* of the top-level utterance context, as shown below:

(46) Maya Leela-ʈʈæ [nii ɖʒejkkæ-poo-r-æ-nnŭ] so-nn-aa.
Maya Leela-LOC [you win-go-PRS-2SG-COMP] say-PST-3SF
'Maya told Leela that you would win' you = *Addressee*$_{utt}$, ≠ Leela

The same holds for occurrences of the overt 1st person pronoun *naan* in the language, as well (cf. Section 2.2.3). We reported findings from Sundaresan (2018) involving an exception to Shift Together in a clause containing *naan* and monstrous agreement, as in (47):

(47) SHIFT TOGETHER EXCEPTION – TAMIL MONSTROUS AGREEMENT:
Raman$_i$ [$_{CP}$ taan$_{\{i,*j\}}$ enn-æ paartt-een-nnŭ] ottŭɳɖ-aan.
Raman ANAPH.NOM me-ACC saw-1SG-COMP admitted.-3MSG

LIT: 'Raman admitted [$_{CP}$ that self had seen me].'
READING 1: ✓ 'Raman$_i$ admitted that he$_{\{i,*j\}}$ had seen me$_{c*}$]'
READING 2: ✗ 'Raman$_i$ admitted that he$_{\{i,*j\}}$ had seen me$_i$.'

Given this, we now make another empirical prediction. In a clause containing AllAgr$_{\text{shifted}}$ and *naan*, *naan* should again remain unshifted. Now, given the implication hierarchy 'I' > 'you' > 'here', for shifty indexicals, 'you' cannot be shifted to the exclusion of 'I' in a given language or structure. Logically, then, if an instance of 'I' *cannot* be shifted in a language or structure, then there must also be a corresponding instance of 'you' that may not be shifted either. We thus predict that an instance of unshifted 'you' can locally co-occur with AllAgr$_{\text{shifted}}$ in a given clause. These predictions are fulfilled and constitute new exceptions to Shift Together in Tamil.

The data we present below has been collected from consultations with two native speakers of Kongu Tamil, a dialect that allows significant AllAgr. Consider the context described in (48), noting crucially that the cousins all use honorific forms with their grandfather, but non-honorific forms with each other. Against this background, both (48a) and (48b) are possible:

(48) Raman, Maya, Leela and Venkat are cousins. Leela and Venkat are aspiring actors who have recently appeared in their first movie roles. Maya has seen one of these movies, and

Raman has conveyed this fact to their grandfather. Leela is now telling this fact to Venkat, i.e. Leela is the *Speaker* of the following sentences and Venkat the *Addressee*.

a. SHIFT TOGETHER EXCEPTION – TAMIL ALLAGR$_{\text{SHIFTED}}$+ 'I':

Raman taattaa-kiʈʈæ [Maya enn-æ paa-tt-aa-ŋgæ-nnŭ] so-nn-aan.
Raman Grandpa-LOC [Maya me-ACC see-PST-3SF-ALLOC-COMP] say-PST-3SM
LIT: 'Raman told Grandpa that Maya saw me.'
READING 1: ✓ 'Raman$_i$ told Grandpa that Maya saw me$_{c*}$.'
READING 2: ✗ 'Raman$_i$ told Grandpa that Maya saw me$_i$.'

b. SHIFT TOGETHER EXCEPTION – TAMIL ALLAGR$_{\text{SHIFTED}}$+ 'YOU':

Raman taattaa-kiʈʈæ [Maya onn-æ paa-tt-aa-ŋgæ-nnŭ] so-nn-aan.
Raman Grandpa-LOC [Maya you-ACC see-PST-3SF-ALLOC-COMP] say-PST-3SM
'Raman told Grandpa that Maya saw you.'
READING 1: ✓ 'Raman$_i$ told Grandpa that Maya saw you$_{c*}$.'
READING 2: ✗ 'Raman told Grandpa$_j$ that Maya saw you$_j$.'

In each of these examples, we have AllAgr showing up in the embedded clause. Note that it is clear from the context that this must in fact be AllAgr$_{\text{shifted}}$ rather than AllAgr$_{\text{unshifted}}$. Again, the Tamil AllAgr suffix indicates honorificity, but Leela does not use honorific forms with Venkat, so the AllAgr must be with the intensional *Addressee*, Grandpa, with whom the intensional *Speaker* Raman *does* use honorific forms. Crucially, in each of the embedded clauses we find an overt indexical pronoun, and like all overt indexicals in the language, these receive unshifted interpretations. 'I' in (48a) can only refer to Leela, and 'you' in (48b) can only refer to Venkat. If AllAgr$_{\text{shifted}}$ is, as both we and Alok & Baker (2018) have argued, a type of IndShift, then we again have a particular type of genuine exception to Shift Together in these examples. In parallel to what we saw in 47 involving monstrous agreement together with overt pronouns, we have here AllAgr$_{\text{shifted}}$ together with overt pronouns.

The generalization for Tamil thus seems to be that normal indexical pronouns may not shift, but silent indexical elements in clause-peripheral positions can do so – a distinction we revisit later in the paper.

7 Modelling interactions between AllAgr$_{\text{shifted}}$ & indexical shift

We have seen that there is good reason to assume that, in languages like Magahi and Tamil, AllAgr$_{\text{shifted}}$ involves IndShift, and thus makes use of the same mechanisms as IndShift for 2nd person. The question this raises is how to get our theories of IndShift and AllAgr to work together to yield this result given that, as they stand, they depend on two distinct and orthogonal elements, 👻_{Addr} and intensional ADDR$_{syn}$, respectively. Since prior theories of these phenomena do not *a priori* motivate implicational relationships between 👻_{Addr} and ADDR$_{syn}$, required for AllAgr$_{\text{shifted}}$, we have no basis for the biconditional. The Tamil data brings a further variable to the table, in the form of exceptions to Shift Together, as in (47)-(48). Any account of the phenomenon that requires all indexicals to be in principle shiftable, like the context-overwriting approach or the obligatory binding account in Alok & Baker (2018) (cf. Section 7.3) is at a loss to deal with these systematic exceptions.

Our task is thus two-fold, as described below:.

(49) Desiderata:

a. We need to motivate a two-way implicational dependency between the presence of a 👻 which can shift 'you' (and 'I') and that of ADDR_{syn}.[14], and;
b. Such a system must also allow different indexical elements that target the same contextual parameter in a single language to differ in their shiftability, while still enforcing Shift Together among those which are shiftable.

Our goal in this section is not to develop a full-fledged mechanics for this analysis which, indeed, deserves many more pages than we are able to devote here and, above all, will require empirical research into a wider range of languages than is currently available. Instead, we lay out the main issues that any unified model of IndShift and AllAgr must contend with and offer some initial thoughts on avenues for addressing them. We start our discussion by asking what it even means to say that a case of agreement is shifty. One option is to say that the allocutive agreement probe is shifty, the other to say that the goal of allocutive agreement is shifty. We discuss these in turn below.

7.1 Option A. $\text{AllAgr}_{\textbf{shifted}}$ is monstrous agreement involving a ϕ-probe

The first option would be to say that, in cases of shifty agreement like $\text{AllAgr}_{\text{shifted}}$, agreement per se is not shifty. Rather, it reflects the shiftiness of the element that triggers this agreement. This would, in fact, be parallel to standard analyses of monstrous 1st-person agreement for Tamil, discussed above. Analogously, we could say that $\text{AllAgr}_{\text{shifted}}$ arises when we have a run-of-the-mill Probe_{alloc} Agreeing with ADDR_{syn}, but the ADDR_{syn} itself is a shifted indexical. Given that AllAgr involves the *Addressee*, it would make sense to think of ADDR_{syn} as a shifty 'you'.

Syntactically, we could model ADDR_{syn} as a nominal with inherently specified 2nd-person and other ϕ-features. This would allow us to treat Probe_{alloc} as a simple ϕ-probe (as proposed in McFadden & Sundaresan 2021). Semantically, ADDR_{syn} would be a variable, denoting the *Addressee* of an underspecified context. If it lies in the scope of a 👻 that can shift the *Addressee* parameter, like $👻_{Addr}$, it will necessarily be shifted, and AllAgr will be interpreted as $\text{AllAgr}_{\text{shifted}}$. But if ADDR_{syn} doesn't lie in the scope of such a 👻, AllAgr will be interpreted as unshifted $\text{AllAgr}_{\text{unshifted}}$.

All of this would mean that the availability of $\text{AllAgr}_{\text{shifted}}$ in a given clause would imply that any shifty 2nd-person indexicals in the same clause would get a shifted interpretation. This is because it is the same $👻_{Addr}$ that is responsible for shifting both. Such a 👻 must also be able to shift all instances of shifty 'I' in its scope, given again that 'you' cannot be shifted to the exclusion of 'I' (cf. the implicational hierarchy in Table (8)). This explains one side of the biconditional in both Magahi & Tamil: i.e. a clause with a local ADDR_{syn} (yielding $\text{AllAgr}_{\text{shifted}}$) must also host a 👻 that can shift instances of shifty 'you' and 'I' in its scope (yielding obligatory IndShift for these elements).

But this doesn't yet deliver the other half of the implication. Concretely, we need to derive the implication that the presence of a 👻 that can shift 'you' & 'I' in an intensionally embedded clause entails the presence of ADDR_{syn} in that clause. One quite reasonable way to approach this would be to take a page out of the book of dealing with implicational variations found with IndShiftin terms of structural containment relations (cf. Sections 2.3.1 and 2.3.2). That is, we would say that ADDR_{syn} is found on a projection that is lower in the clausal functional sequence than where $👻_{Addr}$ is found. Thus, any clause that includes the functional projection that hosts $👻_{Addr}$ must also

[14] One way to achieve this outcome, which we explore here, would be to maintain that a 👻 and ADDR_{syn} are separate elements but show that the presence of one always implies the presence of the other, and vice-versa. The other logical option, which we don't discuss here, would be to reduce our two distinct mechanisms to one, so that $👻_{Addr}$ and an intensional ADDR_{syn} reduce to the same thing. We can imagine many different ways to implement either alternative, and the current state of our empirical understanding will not be sufficient to decide among them.

include the projection that hosts ADDR$_{syn}$. Taken together, this yields the two-way implicational dependency between ADDR$_{syn}$ and the relevant kind of 👻, as outlined in desideratum (49a).

To derive the desideratum in (49b), this system needs to further be able to distinguish amongst classes of indexical. Semantically, this is fairly straightforward under the quantifier binding approach to IndShift (Schlenker 2003b; Sundaresan 2018), where indexicals are assumed to in shiftable and unshiftable lexical shapes. As discussed in Section 2.4.3, Sundaresan (2018) derives the exception to Shift Together in (47) by proposing that overt instances of 'I' involving *naan* are lexically specified to be inherently unshiftable, making them islands to contextual quantification; covert instances of 'I', however, are capable of shifting. Since, again 'you' cannot be shifted to the exclusion of 'I', the presence of unshiftable 'I' entails that of unshiftable 'you'. Similarly, the presence of shiftable 'I' entails that of shiftable 'you'. This leads us to predict exceptions to Shift Together whenever a covert 'I' or 'you' locally co-occurs with an overt 'I' or 'you', which is what we see for Tamil.

The challenge such a model faces is how to capture these distinctions syntactically. The proposed analysis treats ADDR$_{syn}$ as a nominal with valued 2nd-person and other ϕ-features. But it leaves unclear whether and how its shiftiness, which crucially distinguishes it from its unshiftable counterpart *nii* ('you'), is syntactically modelled. Having ADDR$_{syn}$ itself be 2nd person would also potentially introduce a kind of infinite regress if it is meant to be the standard against which 2nd person features in its scope are defined and interpreted. Finally, AllAgr does not crosslinguistically express person distinctions, as noted in Section 3.2 (and especially fn. 2). So it would be reasonable from a morphological perspective to think of it as Agree for all ϕ-features *but* person. At the same time, if we leave off the 2nd person feature from ADDR$_{syn}$, we would have to do some additional work to make it sensitive to shifting by 👻$_{Addr}$.

We merely note these challenges as desiderata for future work. Our alternative analytic approach, which we describe below, looks more promising with respect to these issues.

7.2 Option B. AllAgr$_{\textbf{shifted}}$ involves a shifty probe

A different option would be to say that AllAgr is itself shifty, i.e. it is the functional equivalent of a shifty 'you' pronoun. The trick to getting this to work would be figuring out how to implement the Probe$_{alloc}$ under this conception. One idea would be to treat it as being like a pronoun in the sense that it would have its ϕ-features pre-specified. But it would also have some unvalued contextual feature responsible for managing its interaction with the context. I.e. rather than a ϕ-probe, it would be something like a an affixal addressee bearing a context probe.

Recent work in Raynaud (2020) argues for a treatment of 1st & 2nd-person indexicals that is very much along these lines. Raynaud investigates a wide range of crosslinguistic evidence from reference-oriented agreement and person-based intervention effects (like the Person Case Constraint) obtaining across the verbal (i.e. v), clausal (C) and nominal (D) domains. Such evidence shows that, contrary to conventional taxonomies which partition anaphors together with 3rd-person nominals, and in opposition to 1st- and 2nd- person pronouns – anaphors actually pattern together with 1st and 2nd-person. To account for this clustering, Raynaud proposes that these elements are defined in terms of their need to be syntactically bound in different ways and thus have similar feature-specifications. Anaphors need to be referentially licensed. 1st- and 2nd-person indexicals, on the other hand, must be context-linked with the syntactic representation of *Speaker* and *Addressee* in the clausal periphery or elsewhere (adapting initial insights in Baker 2008).

For Raynaud, 'I' and 'you' bear valued ϕ-features but are probes by virtue of bearing an interpretable, unvalued ID feature, i.e. [iID: _]. The syntactic representations of *Speaker* and *Addressee* bear uninterpretable but valued ID features. Leaving aside the interpretable vs. uninterpretable distinction for now, let us now propose that AllAgr is the functional equivalent of shifty 'you', and is thus specified [ID: _]. ADDR$_{syn}$ in SpeechActP is specified as [ID: *A*]. AllAgr probes upward and

is successfully valued by ADDR$_{syn}$. The advantage of this system is that IndShift for 'you' may be derived in precisely parallel fashion. Any instances of shifty 'you' will also be featurally specified as [ID: _], just like Probe$_{alloc}$, with the only difference between them having to do with their respective grammatical categories. Agree will again proceed upward and terminate upon successful valuation with ADDR$_{syn}$. In both cases, the reference of the contextual value of ID, *A*, on ADDR$_{syn}$ will be computed at LF. If ADDR$_{syn}$ lies in the scope of a 👻 like 👻$_{Addr}$, *A* is ultimately mapped onto the *Addressee* of the intensional predicate; otherwise, it is understood as the *Addressee* of the utterance-context. In the former case, AllAgr will be interpreted as AllAgr$_{\text{shifted}}$ and 'you' will be interpreted as being shifted; in the latter, AllAgr will be interpreted as AllAgr$_{\text{unshifted}}$ and 'you' will remain unshifted. Thus, semantically, both shifted 'you' & AllAgr$_{\text{shifted}}$ require the presence of a relevant 👻. Syntactically, they both require the presence of ADDR$_{syn}$, as a Goal for Agree. Taken together, this derives the two-way implication described in desideratum (49a).

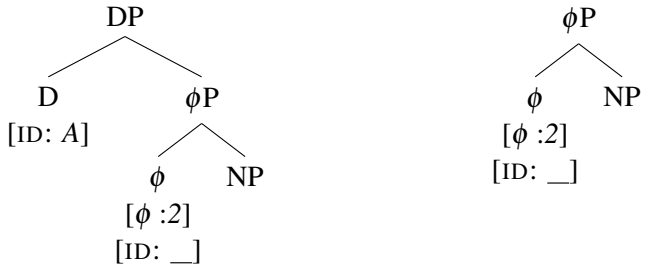
The system developed in Raynaud (2020) also has the significant advantage of being able to handle our second desideratum in (49b), involving exceptions to Shift Together, in structural terms.[15] Prior literature on the structure of pronouns (Cardinaletti & Starke 1999; Déchaine & Wiltschko 2002; Gruber 2013) has convincingly shown that 1st- and 2nd-person indexicals, crosslinguistically, do not behave uniformly with respect to person restrictions. Rather, they come in "strong" and "weak" varieties. The latter class, involving not only weak pronouns but also clitics and agreement markers, is syntactically active (e.g. participates in PCC effects) and has also been shown to be compatible with generic and deictic readings in languages like Dutch (Gruber 2013). The former, in contrast, is only associated with deictic readings and seems syntactically inert for person restrictions (e.g. is not subject to PCC effects).

Raynaud proposes that these distinctions stem from structural distinctions in the internal make-up of these indexicals (see also Stegovec 2020, for a similar proposal). Strong 1st- and 2nd-person pronouns have a D layer which, furthermore, is itself a locus for contextual anchoring (as independently argued in Gruber 2013, and further suggested by proximal vs. distal distinctions among pronouns). A strong 'you' pronoun, for instance, hosts ADDR$_{syn}$ on D with an [ID: *A*] feature. Such a pronoun also hosts a probe specified [ID: _] deeper in the DP. But this probe never ends up probing outside the DP because it is valued by *Addressee* on D. Strong indexicals are thus syntactic islands and cannot be manipulated further (but see Kaur 2016, for potential counter-examples in Punjabi). A weak indexical 'you', in contrast, lacks the D projection altogether; so the [ID: _] probe inside this indexical must search outside the DP to be valued, rendering the indexical syntactically active.

We can now simply adopt this model to derive distinctions between shiftable and unshiftable instances of 'you' and 'I'. Let us propose that shiftable indexicals are weak in the sense described above. Such an indexical is thus syntactically active and its probe Agrees with ADDR$_{syn}$ in SpeechActP. But unshiftable indexicals are strong and thus syntactically inert. The needs of the ID probe in such an indexical are met by ADDR$_{syn}$ within the DP rendering it indifferent to the presence of a clausal ADDR$_{syn}$ (or, indeed, any other clausal element, like a 👻). Adapting this idea, we can now illustrate the structural distinction between a shiftable and unshiftable 'you', as follows (Raynaud 2020, Exx. 36a-b, 129):

(50) a. Unshiftable, strong 'you': b. Shiftable, weak 'you':

[15] Again, deriving this semantically is fairly straightforward under a quantifier binding approach to IndShift.



This approach also explains a curious pattern in languages like Tamil, with "indexical doublets", i.e. containing a shiftable and unshiftable indexical in a given contextual class. Other languages like Turkish (Gültekin Şener & Şener 2011), varieties of Zazaki (Akkuş 2018) and Mishar Tatar (Podobryaev 2014) (pace Deal (2018)) have been reported to show indexical doublets. Interestingly, in all these cases, the shifty indexical is covert while its unshifty counterpart is overt. For instance, in Mishar Tatar (Podobryaev 2014), covert indexicals shift but overt indexicals do not. When two covert 'I's locally co-occur, they *must* Shift Together (Podobryaev 2014, 105, Ex. 261). But when a covert 'I' locally co-occurs with an overt one, we get an exception to Shift Together. We know of no languages where the reverse is true: i.e. the overt IndShift while its covert counterpart may not be shifted. Interestingly, as the literature on pronoun classes has shown, weak pronouns tend to be silent, while strong pronouns are overt. Thus, whatever the underlying explanation for this discrepancy, under the current account where the shiftable vs. unshiftable contrast is reframed in terms of strong vs. weak, respectively, this curious restriction on indexical doublets is to be expected.[16]

7.3 Brief excursus into Alok & Baker (2018)

Before we conclude this section, we present a brief excursus into the only other unified analysis of IndShift and AllAgr that we are aware of, namely that in Alok & Baker (2018, et seq.) and explain why we do not simply adopt it wholesale here. Alok & Baker also conclude that $\text{AllAgr}_{\text{shifted}}$ in Magahi is just another instance of IndShift.

For them, the shifting of the *Addressee* in $\text{AllAgr}_{\text{shifted}}$ essentially amounts to obligatory control (OC). Certain embedded clauses host silent DP representations of *Speaker* (Sp) and *Addressee* (Hr) in Spec-FinP.[17] These silent DPs behave like OC PRO and have their reference fixed in relation to the thematically appropriate arguments of an intensional predicate in the next higher clause yielding subject and object OC. AllAgr in general involves a probe in T/Fin agreeing with Hr, and when Hr is controlled in this way, the result is $\text{AllAgr}_{\text{shifted}}$.

Alok & Baker (2018) then propose that the mechanisms for AllAgr, and $\text{AllAgr}_{\text{shifted}}$ in particular, can be straightforwardly extended to IndShift, as well. The necessary additional assumption is that 1st and 2nd person pronouns in general are 1st or 2nd person by virtue of being locally bound by Sp and Hr (or by higher 1st/2nd person pronouns), respectively (Baker 2008). Since binding is subject to relativized minimality, an indexical that appears in an embedded clause which also has Sp/Hr in its periphery controlled by the argument(s) of a matrix intensional predicate, will be interpreted as 1st/2nd person relative to the context defined by that predicate. This yields IndShift.

[16] Note, too, that the existence of a morphological distinction between shiftable and unshiftable indexicals itself underscores the idea that they are structurally different.

[17] The reasoning for using FinP rather than SpeechActP as the locus for these DPs depends on patterns in Magahi that strongly suggest a lower locus of the phenomenon than in, say, Basque or Tamil. There are interesting questions as to whether the representations of *Speaker* and *Addressee* and the location of the allocutive probe c are parametrized or whether the cross-linguistic variation we see is due to something else, but we will set them aside as they are orthogonal to the concerns of the current paper. See Alok (2021, Section 6) for relevant discussion.

On the face of it, the account looks attractive. It seems parsimonious, deriving AllAgr and IndShift via standardly assumed operations like control & binding, and without positing special semantic mechanisms or operators in the form of 👻s. In further providing a unified account of these phenomena, it can also derive the Magahi facts: i.e. AllAgr & IndShift in Magahi are in lock-step with each other because they target the same bits of structure — Sp/Hr shifted via control by arguments of the matrix predicate. Finally, the account can derive Shift Together effects for IndShift in terms of syntactic minimality on the binding dependencies between indexicals and Sp/Hr and Agree between the Probe$_{alloc}$ and Hr.

At the same time, there is a genuine concern that this account may be too simple, undergenerating some patterns while overgenerating others. For one thing, Alok & Baker discuss IndShift in terms of variable binding over *individuals*, when what is needed is abstraction over *contexts*. Indexical pronouns like 'I' and 'you' are individual anaphors that are bound by Sp & Hr. The latter are instances of OC PRO and are thus themselves anaphoric, involving abstraction over individuals (Chierchia 1989). Anaphors are bound variables: their reference is fixed by variable assignment and not from a dependence on the context. Treating indexicals as anaphors ignores the Kaplanian arguments that indexicals are pure context-designators, i.e. functions over contexts. Sp & Hr, in Alok & Baker's system, are defined as the *Speaker* and *Addressee* solely by virtue of their structural positions inside FinP, by structural fiat, as it were.

Such an approach also faces empirical challenges. As discussed in Deal (2017; 2020), indexicals (shifted or otherwise) show a very different empirical profile from 1st- & 2nd-person anaphors (or "indexiphors", as Deal calls them). Shifted indexicals do not need to obey syntactic locality. They thus need not obey the De Re Blocking Effect, a relativized minimality constraint on the binding of *de se* elements (Percus & Sauerland 2003; Anand 2006; Deal 2020). But if these elements were indeed anaphoric, we would expect them to do so. Similarly, in cases of multiple clausal embedding, shifted indexicals may be licensed long distance. Again, if these were anaphoric elements, this would be unexpected. These are empirical patterns that the Alok & Baker approach cannot deliver, as far as we can see.

A further problem is that this approach cannot obviously deal with the implicational hierarchies for shifty variation across intensional environments cf. Section 2.2.1) and classes of indexical (cf. Section 2.2.2).[18] If e.g. Sp is deemed the *Speaker* of a context solely by virtue of occupying a dedicated structural position inside FinP, it is unclear how it is determined in clauses that lack a FinP altogether. We also cannot so easily say, as under the context-overwriting & quantifier binding approaches, that Sp can occupy distinct functional heads along the clausal spine, yielding shifty variation across attitude verbs. After all, it is its dedicated structural position inside FinP that defines it as the *Speaker*, to begin with. Finally, given that the theory traffics in individuals and not contexts, it is unclear how shifting for other contextual coordinates like *Location* and *World* are determined (an additional null DP for each, parallel to Sp and Hr?), much less how implicational dependencies between *Author*, *Addressee* and *Location* should be derived.

Finally, as mentioned above, Shift Together falls out under this account purely by syntactic means, as a result of Relativized Minimality restrictions on the binding of individual indexicals by Sp & Hr. Such a system thus predicts Shift Together to hold universally. This means that such an account, much like the context-overwriting approach, cannot easily deal with exceptions to Shift Together like those discussed here for Tamil.

8 Assessment and outlook

The central goal of this paper has been to study the interaction between two phenomena that involve the representation of contextual participants in the clausal periphery but are seldom discussed in the

[18] Though see some speculative discussion in their fn. 10, p. 32f.

same breath, namely AllAgr and IndShift. In presenting the typology and discussing prominent analyses of these phenomena, we have observed that the two phenomena are analyzed in very different ways which, in turn, makes the task of comparing them anything but straightforward. Where AllAgr is discussed predominantly in morpho-syntactic terms, IndShift is handled primarily in the semantics. This obscures the existence of deep parallels in the grammatical underpinnings of these phenomena, parallels that come to light when we closely study interactions between AllAgr and IndShift in languages like Magahi and Tamil.

These investigations showed that, in both languages, there is a biconditional dependency between the availability of $\text{AllAgr}_{\text{shifted}}$ and IndShift for person, in a given clause. This, in turn, shows that the licensing conditions for both are identical. This in turn strongly suggests that $\text{AllAgr}_{\text{shifted}}$ and IndShift must involve the same mechanism underlyingly, a move that also allows us to treat the identical patterning of $\text{AllAgr}_{\text{shifted}}$ and IndShift as a case of Shift Together. The interactions between $\text{AllAgr}_{\text{shifted}}$ and IndShift in Tamil bring further nuance to these results, showing that exceptions to Shift Together can obtain for both 1st- and 2nd-person.

In making sense of these patterns, we are forced to engage with the semantic properties of AllAgr and, conversely, with the syntactic properties of IndShift, a welcome result. We have outlined two ways to model these insights. Under the first option, $\text{AllAgr}_{\text{shifted}}$ comes out as a case of monstrous agreement for 2nd-person (analogous to monstrous agreement for 1st-person in Tamil, Sundaresan 2012a; 2018) involving a vanilla ϕ-probe Agreeing with ADDR_{syn} in SpeechActP. ADDR_{syn}, under this view, is itself a shifty 'you' that lies in the scope of a 👻 which can shift 2nd-person. But while this approach gives us the desired parallels between IndShift and $\text{AllAgr}_{\text{shifted}}$, it is not without its challenges. E.g. AllAgr crosslinguistically does not share morphosyntactic properties with 2nd-person agreement. A more promising alternative exploits insights in Raynaud (2020) to propose that the allocutive probe and shifty 'you' are featurally identical, both being contextually deficient rather than ϕ-deficient. These must both be context-linked with ADDR_{syn} in the syntax and shifted by the appropriate 👻 in semantics, explaining why $\text{AllAgr}_{\text{shifted}}$ and IndShift for 'you' must co-occur in clauses that contain both these elements. Raynaud's approach also gave us a way to model exceptions to Shift Together in languages like Tamil, by exploiting independent observations in the literature that pronouns come in two shapes, strong and weak. We adopted Raynaud's proposal that strong indexicals are structurally inert by virtue of having a D layer which hosts its own ADDR_{syn} that can internally value its shifty probe, and that weak indexicals are structurally transparent by virtue of lacking this D layer. Extending these insights to the case of IndShift, we argued that unshiftable indexicals are strong while shiftable indexicals are weak, which explains why the former are indifferent to the presence of ADDR_{syn} and a 👻, but the latter are not. Such an analysis looks promising because it also explains (by analogy if not principle) why, in languages with indexical doublets, the shifty indexical is often silent while its unshifted counterpart is overt, while the reverse is never the case.

We see a clear agenda for future work on these issues. The most urgent guideline for future work is that we need to collect data from more languages that show both phenomena. Additional data will allow us to test the empirical predictions that fall out of the two types of analyses we have suggested here. For instance, if we are correct that unshiftable indexicals pattern with strong pronouns while shiftable ones pattern with weak ones, we expect the latter but not the former to be sensitive to other person restrictions, like the PCC. Having predictions like this be confirmed or disconfirmed will, in turn, restrict the space of analytic possibilities and shape future work on these phenomena.

Abbreviations

For the standard abbreviations to be used here, refer to the Leipzig glossing rules.

Acknowledgements

We would like to thank our two native-speaker consultants for the Kongu Tamil variety, Arun Kumar Madheswaran and Arun Natessan, who gave us subtle intuitions about complicated structures in complicated discourse contexts.

Competing interests

The authors have no competing interests to declare.

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