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Interpreting the shifty first person inclusive pronoun in Marathi*

Shweta Akolkar
University of California, Berkeley

Abstract In some languages, indexicals (e.g. *I*, *you*, *today*) can shift in attitude reporting clauses to be interpreted with respect to the attitude context rather than the utterance context (Schlenker 1999; Anand & Nevins 2004; Anand 2006; Deal 2020, i.a.). This paper demonstrates that Marathi is a language with shiftable indexicals, but one which exhibits non-canonical properties. First, Marathi indexical shift enables the first person *inclusive* pronoun, rather than the first person singular pronoun, to refer to the attitude holder. Second, the shifted reading of the first person inclusive pronoun is available in mental attitude reports but not typical speech reports, in apparent violation of Deal's (2020) and Sundaresan's (2021) implicational hierarchies of indexical shift licensors. I propose a shifty operator-based analysis (Anand & Nevins 2004; Anand 2006) of this unusual pattern, which has implications for the semantics of mental attitude ascription.

Keywords: perspective, indexical shift, context shift, mental attitude reports, self-directed speech, first person inclusive, Indo-Aryan, Marathi

1 Introduction

In many familiar languages, indexicals get their reference strictly from the context in which they are uttered. The English first person indexical *I*, for example, refers invariably to the speaker of the utterance, even in the scope of a modal operator (1).

(1) a. I$_{\checkmark\, speaker}$ am sick.
b. Arun thinks that I$_{\checkmark\, speaker;\ \times Arun}$ am sick.

It is now well-known that there are languages whose indexicals do not behave like those of (standard) English (Schlenker 1999, 2003; Speas 2000; Anand & Nevins 2004, i.a.). There are a number of languages in which indexicals shift under certain

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propositional attitude verbs to get their reference from the reported attitude context rather than the utterance context. In these languages, as illustrated for Zazaki in (2), a first person indexical embedded under an indexical-shift-licensing verb can refer to the *attitude* author (i.e. attitude holder) instead of the utterance author (i.e. speaker). Similarly, a second person, locative, or temporal indexical may make reference to the addressee, location, or time of the attitude holding event rather than those of the utterance.

(2) *Zazaki* (Anand & Nevins 2004: 21)
Hɛseni va kɛ **ɛz** dɛwletia.
Hesen.OBL said that **I** rich.be-PRES
1 ✓: 'Hesen said that I am rich.'
2 ✓: 'Hesen$_i$ said that he$_i$ is rich.'

In languages previously identified as allowing indexical shift, there is a consistent and predictable relationship between the interpretations of shifted indexicals and their unshifted counterparts: the two draw on different contexts but otherwise calculate their meanings in the same way. This paper demonstrates that Marathi (Indo-Aryan) has a type of indexical shift that seems to trigger an asymmetry in the interpretation of shifted and unshifted indexicals. Specifically, it enables the first person inclusive (i.e. 1st + 2nd person) pronoun *āpaṇ* to behave like a standard first person pronoun in shifted contexts, referring to the attitude author alone (3).[1]

(3) **Gauri**-lā wāṭ-ta [ki **āpaṇ** ājāri āh-ot].
Gauri-DAT feel-IPFV.3SG.N C **1.INCL** sick be.PRS-1PL
'Gauri$_i$ thinks that she$_i$ is sick.'

Previous work has assumed that shifted *āpaṇ* is a long-distance anaphor—a distinct lexical item from the first person inclusive (Dalrymple 1990; Wali, Lalitha & Subbarao 1991; Pandharipande 1998; Dhongde & Wali 2009). I demonstrate that the form identity between the two uses of *āpaṇ* is not coincidental, and that an indexical shift analysis is necessary to explain the full range of properties of shifted *āpaṇ*.

I connect the apparent form-meaning mismatch of shifted *āpaṇ* to a crucial observation regarding the environments in which it is licensed: shifted *āpaṇ* is licit in mental attitude reports but not in canonical speech reports. While it is commonly

1 Marathi examples throughout the paper follow simplified ISO 15919 conventions for transliteration from Devanagari. I use the following glossing abbreviations: 1,2,3 = first, second, and third persons, AGR = unspecified agreement, ANAPH = anaphor, C = complementizer, DAT = dative, DEM.DIST = distal demonstrative, ERG = ergative, F = feminine, FUT = future, GEN = genitive, HON = honorific, INCL = inclusive, IPFV = imperfective, LOC = locative, M = masculine, N = neuter, NEG = negation, NONFIN = nonfinite, OBL = oblique, PTCP = participial, PFV = perfective, PL = plural, PRS = present, PST = past, REFL = reflexive, REL = relative pronoun, SG = singular.

assumed that mental attitude holding events lack addressees (Banfield 1982; Sudo 2010; Deal 2020), I take the Marathi data as evidence that mental attitudes (can) instead involve self-address. The first person inclusive pronoun is able to refer to the attitude holder in shifted mental attitude reports because the attitude holder is both the attitude author *and* addressee.

The paper is structured as follows. Section 2 provides background on Marathi and its relevant morphosyntactic properties. Section 3 elaborates on the distribution and interpretation of *āpaṇ*, discussing the ways in which this morpheme does and does not pattern like a typical shifted indexical. The analysis, based in the shifty operator theory of indexical shift (Anand & Nevins 2004; Anand 2006), is presented in Section 4, followed by a discussion of its implications for the semantics of mental attitude ascription in Section 5. Finally, Section 6 concludes the paper.

2 Preliminaries

2.1 Language & source of data

Marathi is a Southern Indo-Aryan language and the official state language of Maharashtra, India. There are approximately 83 million L1 Marathi speakers (Eberhard, Simons & Fennig 2023). Marathi examples included in the paper are either generated by the author (a heritage speaker) and verified with at least two native speakers, or generated by a native speaker in elicitation and confirmed with at least one other.

2.2 Marathi morphosyntax background

Marathi has basic SOV word order (4) with scrambling; except where movement is explicitly discussed, examples in this paper will reflect the SOV order.

(4) Gauri-ni Aruṇ-lā pāh-ila.
Gauri-ERG Arun-DAT see-PFV.3SG.N
'Gauri saw Arun.'

Finite complement clauses typically follow the verb (5a), while nonfinite complement clauses precede the verb (5b).[2]

(5) a. Aruṇ-ni ma-lā sāngit-la **[ki kāl pāus paḍ-lā]**.
Arun-ERG 1SG-DAT tell-PFV.3SG.N C yesterday rain.M fall-PFV.3SG.M
'Arun told me that it rained yesterday.'

2 Marathi also has a preverbal finite clausal embedding strategy; I have omitted examples using this strategy for uniformity. As far as I am aware, the generalizations developed in this paper extend equally to both types of finite embedded clauses.

b. Aruṇ-ni ma-lā [**bhāji** **cir-āylā**] sāngit-li.
Arun-ERG 1SG-DAT vegetable.F chop-NONFIN tell-PFV.3SG.F
'Arun told me to chop the vegetable.'

Nominal expressions in Marathi are often marked overtly for case. Subjects can take a number of different cases, including nominative (unmarked), ergative, and dative (Wali 2004). Attitude verbs, which will occur frequently in examples, often take quirky dative case-marked subjects (6). Verbs that fit this characterization include *wāṭ* 'feel, think,' *jāṇaw* 'sense,' *māhit as* 'know,' *kaḷ* 'find out, realize,' and *āṭhaw* 'remember.'

(6) Gauri-**lā** **kaḷ**-la [ki Aruṇ khoṭa bol-lā].
Gauri-DAT find.out-PFV.3SG.N C Arun.M false speak-PFV.3SG.M
'Gauri found out that Arun lied.'

3 Properties of long-distance *āpaṇ*

At first glance, Marathi does not appear to be an indexical shift language. The first person singular pronoun, like its English counterpart, can only refer to the speaker of the utterance unless it is inside a quotation. The sentence in (7a) is ambiguous between a reading where the embedded clause is quoted and one where it is not;[3] only when it is quoted can *mi* refer to the attitude holder *Gauri*. We can be sure of this because when there is a syntactic dependency into the embedded clause—which would not be possible if it were a quote—*mi* unambiguously picks out the utterance speaker (7b).

(7) a. Gauri-ni mhaṭ-la [ki **mi** pahila bakśis jink-le].
Gauri-ERG say-PFV.3SG.N C **1SG** first prize win-PFV.1SG.F
1 ✓: 'Gauri said that $I_{speaker}$ won first prize.'
2 ✓: 'Gauri said "I_{Gauri} won first prize."'

b. Gauri-ni **kāy**$_1$ mhaṭ-la [ki **mi** t_1 jink-le]?
Gauri-ERG **what** say-PFV.3SG.N C **1SG** win-PFV.1SG.F
1 ✓: 'What did Gauri say that $I_{speaker}$ won?'
2 ✗: 'What did Gauri$_i$ say that she$_i$ won?'

This section elaborates on the distribution of a different morpheme, long-distance *āpaṇ*, which unlike first person singular *mi* does behave like a shifted indexical. I use the term 'long-distance *āpaṇ*' as an analysis-neutral label for any instance of *āpaṇ* that occurs inside a CP (i.e. finite clause) and is interpreted as bound by an

3 Unlike English *that*, the Marathi complementizer *ki* is compatible with both quoted and non-quoted clauses.

expression outside of its CP. This terminology will be useful in distinguishing the morpheme we are interested in from its homophones, discussed further in §3.3.1.

I will first show that the licensing environments and interpretation of long-distance *āpaṇ* demonstrate a sensitivity to perspective; long-distance *āpaṇ* is not an anaphoric expression whose distribution and coreference possibilities are determined purely syntactically (§3.1). Then, I will elaborate on the similarities between long-distance *āpaṇ* and shifted indexicals, as opposed to other types of perspective-sensitive expressions (§3.2). Finally, I will address the properties that distinguish long-distance *āpaṇ* from standard shifted indexicals (§3.3), laying the groundwork for the analysis to come in Section 4.

3.1 Perspective sensitivity

Long-distance *āpaṇ* is sensitive to perspective in three ways: it is licensed only in the scope of attitude predicates, its antecedent must be an attitude holder, and it is obligatorily read de se. In these respects, it is similar to logophoric pronouns found in West African languages (e.g. Ewe (Clements 1975) and Yoruba (Anand 2006)),[4] logophorically-licensed long-distance reflexives (e.g. in Japanese (Nishigauchi 2014) and Icelandic (Charnavel & Sportiche 2017)), and shifted indexicals (e.g. in Zazaki (Anand & Nevins 2004) and Nez Perce (Deal 2020)).

Long-distance *āpaṇ* can occur in any position within the complement of an attitude verb—e.g. embedded subject (8a) or object (8b) position—and be construed as coreferent with the attitude holder DP.

(8) a. **Gauri**-lā wāṭ-ta [ki **āpaṇ** ājāri āh-ot].
Gauri-DAT feel-IPFV.3SG.N C APAN sick be.PRS-AGR
'Gauri$_i$ thinks that she$_i$ is sick.'

b. **Aruṇ**-lā wāṭ-ta [ki Gauri-ni **āplyā** -lā pāh-ila].
Arun-DAT feel-IPFV.3SG.N C Gauri-ERG APAN.OBL-DAT see-PFV.3SG.N
'Arun$_i$ thinks that Gauri saw him$_i$.'

The attitude holder DP need not occur in any particular syntactic position in order to serve as the antecedent of *āpaṇ*: it does not have to be a subject or even in a c-command relation with *āpaṇ*. In (9) for example, long-distance *āpaṇ* is coreferent with an attitude holder DP that appears as a possessor in the matrix clause. This data

4 However, it is debated whether logophoric pronouns are obligatorily read de se. Pearson (2015) and Bimpeh (2023) find that the logophor in Ewe is compatible with de re readings, while Bimpeh (2019) and Bassi, Driemel, Bimpeh & Silleresi (2023) argue that it is not. Similarly divergent claims have been made for logophors in other languages as well (e.g., Akolkar & Hien (To appear) for de re-compatible logophors in Lobi, and Bassi et al. (2023) for de re-incompatible logophors in Yoruba and Igbo), with methodological challenges often cited as a source of discrepancies between studies.

rules out analyses where *āpaṇ* is syntactically controlled or bound by an argument of the matrix verb (as sometimes argued even for perspectival expressions (Alok & Baker 2022; Baker & Ikawa 2024, i.a.)).

(9) **Gauri**-cyā lakṣ-āt ā-la [ki **āpaṇ** ājāri āh-ot].
Gauri-GEN attention-LOC come-PFV.3SG.N C APAN sick be.PRS-AGR
'Gauri$_i$ realized (lit: it came to Gauri$_i$'s attention) that she$_i$ was sick.'

Long-distance *āpaṇ* is not licensed outside of attitude contexts. In non-attitudinal adverbial clauses (10)[5] and relative clauses (11), for instance, *āpaṇ* cannot have a long-distance bound interpretation.

(10) #Gauri nigh-āli [kāraṇ **āpaṇ** dam-lo].
Gauri leave-PFV.3SG.F because APAN tire-PFV.AGR
Intended: 'Gauri$_i$ left because she$_i$ got tired.'

(11) #Aruṇ-lā to māṇus māhit āh-e [jyā-ni **āplyā** -lā
Arun-DAT DEM.DIST man know be-PRS.3SG REL-ERG APAN.OBL-DAT
pāh-ila].
see-PFV.3SG.N
Intended: 'Arun$_i$ knows the man who saw him$_i$.'

Additionally, in all environments where long-distance *āpaṇ* is licensed, it must be read de se. In the scenario presented in (12), the attitude holder has a non-de se belief about herself. It is infelicitous to report this belief using *āpaṇ* in the embedded clause; the third person singular pronoun must be used for coreference with the matrix subject instead.

(12) *Scenario: Gauri is a singer with low self-confidence. When she listens to a recording of herself singing many years ago, she doesn't recognize her own voice in the recording and thinks: "This woman sang really well."*

a. #Gauri-lā wāṭ-ta [ki **āpaṇ** cāngle gā-ylo].
Gauri-DAT feel-IPFV.3SG.N C APAN good.AGR sing-PFV.AGR

b. Gauri-lā wāṭ-ta [ki **ti** cāngli gā-yli].
Gauri-DAT feel-IPFV.3SG.N C 3SG.F good.F sing-PFV.3SG.F
'Gauri$_i$ thinks that she$_i$ sang well.'

In a minimally different scenario where Gauri recognizes herself as the singer in the recording, (12a) would be felicitous.

5 In some languages, purpose clauses pattern with attitude reporting clauses in licensing perspectival expressions (Clements 1975; Thráinsson 1976; Charnavel 2019). However, we can conclude from (10) that Marathi purpose clauses headed by *kāraṇ* do not qualify as attitude environments.

3.2 Shifty behavior

Among the types of expressions that are licensed in attitude reports and obligatorily read de se, long-distance *āpaṇ* behaves most like a shifted first person indexical. It obeys Shift Together (Anand & Nevins 2004; Anand 2006; Deal 2020) and prompts clausemate locative and temporal indexicals to shift as well.

The Shift Together generalization describes a constraint on the interpretation of shifted indexicals across languages: indexicals of the same type occurring in the same minimal attitude report must derive their reference from the same context (following the formulation in Deal 2020). As illustrated in (13), long-distance *āpaṇ* obeys this restriction: when two instances of long-distance *āpaṇ* occur in a doubly embedded attitude CP, the only possible readings are ones where both *āpaṇ*s refer to the same attitude author. Mixed readings where they refer to different authors are ruled out. As a point of contrast, logophoric pronouns are known to allow mixed readings (Anand 2006; Pearson 2015, i.a.).

(13) **Gauri**-lā wāṭ-la [ki **Aruṇ**-lā māhit ho-ta [ki **āplyā**
Gauri-DAT feel-PFV.3SG.N C Arun-DAT know be.PST-3SG.N C APAN.GEN
bahiṇi-ni **āplyā** -lā bolaw-la]].
sister-ERG APAN.OBL-DAT invite-PFV.3SG.N
1 ✓: 'Gauri$_i$ thought that Arun$_j$ knew that her$_i$ sister invited her$_i$.'
2 ✓: 'Gauri$_i$ thought that Arun$_j$ knew that his$_j$ sister invited him$_j$.'
3 ✗: 'Gauri$_i$ thought that Arun$_j$ knew that her$_i$ sister invited him$_j$.'
4 ✗: 'Gauri$_i$ thought that Arun$_j$ knew that his$_j$ sister invited her$_i$.'

It follows from Shift Together that a shifted indexical should not be able to occur in the same immediate clause as its unshifted counterpart. Like a shifted first person indexical, long-distance *āpaṇ* is unable to cooccur with unshifted *mi* '1SG' (14).

(14) a. #Gauri-lā āṭhaw-la [ki **mi** āplyā -lā pāh-ila].
Gauri-DAT remember-PFV.3SG.N C 1SG APAN.OBL-DAT see-PFV.3SG.N
Intended: 'Gauri$_i$ remembered that I saw her$_i$.'

b. #Gauri-lā āṭhaw-la [ki āpaṇ **ma**-lā pāh-ila].
Gauri-DAT remember-PFV.3SG.N C APAN 1SG-DAT see-PFV.3SG.N
Intended: 'Gauri$_i$ remembered that she$_i$ saw me.'

Further evidence that long-distance *āpaṇ* is a shifted indexical comes from the behavior of clausemate locative and temporal indexicals. These indexicals obligatorily shift with long-distance *āpaṇ*, as illustrated for the locative *ithe* 'here' in (15a). Meanwhile in attitude clauses where indexical shift has not taken place and a third person pronoun is used to refer to the attitude holder, locative and temporal indexicals cannot shift (15b).

(15) *Context: Speaker is in Pune.*

a. **Mumbai**-t astānā Aruṇ-lā wāṭ-la [ki āpaṇ] **ithlyā**
Mumbai-LOC while.being Arun-DAT feel-PFV.3SG.N C APAN here.GEN
(/#tithlyā) gardi-t haraw-un jā-u].
there.GEN crowd-LOC lose-PTCP go-FUT.AGR
'While in Mumbai$_j$, Arun$_i$ thought that he$_i$ would get lost in the crowds there$_j$ (lit: here$_j$).'

b. **Mumbai**-t astānā Aruṇ-lā wāṭ-la [ki to **tithlyā**
Mumbai-LOC while.being Arun-DAT feel-PFV.3SG.N C 3SG.M there.GEN
(/#ithlyā) gardi-t haraw-un jā-il].
here.GEN crowd-LOC lose-PTCP go-FUT.3SG
'While in Mumbai$_j$, Arun$_i$ thought that he$_i$ would get lost in the crowds there$_j$.'

In languages where person indexicals shift, it is not always the case that all other types of indexicals shift as well. However, Deal (2020) proposes the crosslinguistic implicational hierarchy of shifting indexical classes in (16), according to which locative indexicals can only shift in clauses where person indexicals also shift. Given the observation that *ithe* 'here' shifts in (15a), this hierarchy suggests that there is also first person shift in long-distance *āpaṇ* clauses.

(16) **Implicational hierarchy of indexical classes** (Deal 2020: 90)
Within and across languages, the possibility of indexical shift is determined by the hierarchy Time > 1st > 2nd > Loc. Indexicals of a certain class undergo shift in a particular verbal complement only if indexicals of classes farther to the left undergo shift as well.

Finally, it is important to mention that the shifted readings of *āpaṇ* and its clause-mate indexicals cannot simply be attributed quotation. Unlike quotations, *āpaṇ* clauses are transparent for *wh*-dependencies (17) and NPI licensing (18).

(17) Aruṇ-lā **koṇ**$_1$ wāṭ-ta [ki t_1 āplyā -lā madat kar-el]?
Arun-DAT **who** feel-IPFV.3SG.N C APAN.OBL-DAT help do-FUT.3SG
'Who does Arun$_i$ think will help him$_i$?'

(18) Aruṇ-lā wāṭ-la **nawh-ta** [ki āpaṇ] **ek-ahi** sharyat-it
Arun-DAT feel-PFV.3SG.N **NEG**.be.PST-3SG.N C APAN one-**even** race-LOC
jink-u].
win-FUT.AGR
'Arun$_i$ didn't think that he$_i$ would win in any race.'

3.3 Complicating the picture

There are two properties of long-distance *āpaṇ* that do not obviously follow from its analysis as a shifted first person indexical. First is of course its form (§3.3.1), and second is a restriction on its licensing environments (§3.3.2).

3.3.1 Why the form *āpaṇ*?

The form *āpaṇ* has a number of different uses in Marathi. I propose that it maps to three distinct lexical items: a first person inclusive pronoun, a second person high honorific pronoun, and an anaphoric expression.[6] In terms of agreement, long-distance *āpaṇ* aligns with 1.INCL *āpaṇ*: both trigger the same 1PL φ-agreement on verbs (19). By contrast 2.HON *āpaṇ* triggers 2PL agreement, indicating that it is a separate lexical item (20).

(19) a. **Āpaṇ** ājāri āh-**ot**.
1.INCL sick be.PRS-**1PL**
'We (inclusive) are sick.'

b. Gauri-lā wāṭ-ta [ki **āpaṇ** ājāri āh-**ot**].
Gauri-DAT feel-IPFV.3SG.N C APAN sick be.PRS-**1PL**
'Gauri$_i$ thinks that she$_i$ is sick.'

(20) **Āpaṇ** ājāri āh-**āt**.
2.HON sick be.PRS-**2PL**
'You (honorific) are sick.'

Note that 1PL agreement is not a default in Marathi; rather, default φ-agreement results in 3SG.N verbal inflection. Evidence for this claim comes from clauses where no nominal expression meets the criteria for agreement. Verbal φ-agreement in Marathi reflects the features of the structurally highest nominal expression within the clause that is unmarked for case (Wali 2004), like in Hindi-Urdu (Pandharipande & Kachru 1977; Bhatt 2005; Keine 2020, i.a.). In clauses like (21), repeated from (4), where all nominals are case-marked and therefore unavailable for agreement, verbs take default 3SG.N agreement morphology.

(21) Gauri-ni Aruṇ-lā pāh-**ila**.
Gauri-ERG Arun-DAT see-PFV.**3SG.N**
'Gauri saw Arun.'

6 Some other uses of *āpaṇ* can likely be subsumed under the three discussed here. Notably, *āpaṇ* can function as an impersonal pronoun in generic sentences. Given that first and second person pronouns, including the first person inclusive, are known to have impersonal uses across languages (Malamud 2006; Zobel 2023; Pearson 2023; Little 2024), we can likely treat impersonal *āpaṇ* as an instantiation of 1.INCL *āpaṇ*.

We can similarly distinguish long-distance *āpaṇ* from anaphoric *āpaṇ* on the basis of agreement. I use the term 'anaphoric *āpaṇ*' to refer to any instance of *āpaṇ* that is construed as bound by a nominal expression *within* the same CP (while long-distance *āpaṇ* is always co-construed with an expression outside of its CP). A number of factors support this division of bound *āpaṇ* into two distinct morphemes. Notably, there is no perspectival requirement on the licensing and interpretation of anaphoric *āpaṇ*, even when it is bound from outside of its TP. Additionally, it does not display Shift Together effects or trigger clausemate indexicals to shift. Other Indo-Aryan languages, including Hindi-Urdu, have a cognate anaphor whose distribution and locality profile are similar to those of anaphoric *āpaṇ* but distinct from long-distance *āpaṇ*. I elaborate on these points with supporting data in the Appendix. The current section focuses on the evidence from agreement.

Anaphoric *āpaṇ* exhibits a restriction resembling the Anaphor Agreement Effect (Rizzi 1990), suggesting that it is a true anaphor: it is disallowed in positions construed with agreement. Generally, animate nominal expressions in Marathi are only unmarked for case in subject positions (Dhongde & Wali 2009: 183-192), and as noted earlier, unmarked case is a prerequisite for controlling agreement. To determine the agreement properties of anaphoric *āpaṇ*, we can examine its behavior in embedded nonfinite subject positions, where it has the potential to be unmarked and bound by a higher nominal. Embedded nonfinite subjects control agreement on matrix finite verbs in Marathi when they are the highest unmarked arguments within their CPs, as the pronoun *ti* '3SG.F' is in (22). However, when *āpaṇ* occupies the same agreement-controlling position, the result is ungrammatical, regardless of the choice of verbal agreement (23a). This ungrammaticality is directly linked to the absence of case on anaphoric *āpaṇ*: it is grammatical for anaphoric *āpaṇ* to occur as an embedded subject if it is an experiencer that takes quirky dative case and thus does not control agreement (23b). By contrast, long-distance *āpaṇ* readily occurs in positions that control agreement and shows 1PL agreement features (19a). The difference in agreement behavior between anaphoric and long-distance *āpaṇ* poses a challenge for any analysis that treats them as the same morpheme.

(22) Aruṇ-lā [$_{TP}$ **ti** jink-āylā] haw-**i** āh-**e**.
Arun-DAT **3SG.F** win-NONFIN want-**3SG.F** be.PRS-**3SG**
'Arun$_i$ wants her$_j$ to win.'

(23) a. *Aruṇ-lā [$_{TP}$ **āpaṇ** jink-āylā] haw-a/e āh-e/ot.
Arun-DAT **ANAPH** win-NONFIN want-3SG.N/PL be.PRS-3SG/1PL
Intended: 'Arun$_i$ wants himself$_i$ to win.'

b. Aruṇ-lā [$_{TP}$ **āplyā-lā** bara wāṭ-āylā] haw-a āh-e.
Arun-DAT **ANAPH.DAT** well feel-NONFIN want-3SG.N be.PRS-3SG
'Arun$_i$ wants himself$_i$ to feel well.'

In summary, the agreement facts support the conclusion that long-distance *āpaṇ* is a distinct morpheme from both honorific and anaphoric *āpaṇ*. Instead, long-distance *āpaṇ* behaves like 1.INCL *āpaṇ* with respect to agreement, indicating that the two have common underlying features.

3.3.2 An unusual licensing restriction

Another unexpected property of long-distance *āpaṇ* is that it is not licensed in the most common environment for indexical shift—a canonical speech report like (24).

(24) #Gauri-ni {**mhaṭ / sāngit / samjaw**} -la [ki āpaṇ har-lo].
Gauri-ERG say / tell / explain PFV.3SG.N C APAN lose-PFV.1PL
Intended: 'Gauri$_i$ said / told (someone) / explained that she$_i$ lost.'

Instead, it is licensed in the complements of thought, knowledge, and even perception verbs.

(25) *Thought reports*
Gauri-lā {**wāṭ / samaj**} -la [ki āpaṇ har-lo].
Gauri-DAT feel / understand PFV.3SG.N C APAN lose-PFV.1PL
'Gauri$_i$ thought / understood that she$_i$ lost.'

(26) *Knowledge reports*
Gauri-lā {**māhit ho-ta / kaḷ-la / āṭhaw-la**}
Gauri-DAT know be.PST-3SG.N / find.out-PFV.3SG.N / remember-PFV.3SG.N
[ki āpaṇ har-lo].
C APAN lose-PFV.1PL
'Gauri$_i$ knew / found out / remembered that she$_i$ lost.'

(27) *Perception reports*
Gauri-ni {**pāh / aik**} -(i)la [ki āpaṇ har-lo].
Gauri-ERG see / hear PFV.3SG.N C 1.INCL lose-PFV.1PL
'Gauri$_i$ saw / heard that she$_i$ lost.'

At first glance, long-distance *āpaṇ* seems to violate the implicational hierarchy of indexical shift-licensing verbs proposed in Deal 2020 and Sundaresan 2021, (28).[7]

(28) **Implicational hierarchy of logophoric licensors** (Sundaresan 2021: 20)[8]
speech > thought > knowledge (> direct perception)

7 The same hierarchy has been shown to apply to logophoric pronouns (Culy 1994) and logophorically licensed long-distance reflexives (Sundaresan 2021)—so in fact, the Marathi pattern is not predicted for any known type of perspective-sensitive expression.

8 Deal (2020) proposes the same hierarchy but excludes direct perception verbs.

Upon closer examination, we see that speech verbs *can* license shifted readings of *āpaṇ* in highly restricted contexts—namely, when the reported speech is self-addressed (29, 30).

(29) Aruṇ **man-āt** **mhaṇ-ālā** [ki āpaṇ puṇyā-lā jā-u].
Arun mind-LOC say-PFV.3SG.M C APAN Pune.OBL-DAT go-FUT.1PL
'Arun$_i$ said in his head that he$_i$ will go to Pune.'

(30) Gauri-ni **swataha-lā** **samjaw-la** [ki āplyā prayatnān-nā yaś
Gauri-ERG REFL-DAT explain-PFV.3SG.N C APAN.GEN effort.PL-DAT success
miḷ-el].
receive-FUT.3SG
'Gauri$_i$ explained to herself that her$_i$ efforts will pay off.'

These data suggest that speech verbs themselves are compatible with long-distance *āpaṇ*, but some other restriction tied to the choice of addressee blocks *āpaṇ* from occurring in typical speech reports. The next section will propose a source for this restriction and connect it directly to the apparent form-meaning mismatch of long-distance *āpaṇ*.

4 Analysis of Marathi indexical shift

We have seen evidence that long-distance *āpaṇ* is a shifted indexical, and that it shares both its form and features with the first person inclusive pronoun. A natural conclusion to draw from this evidence is that long-distance *āpaṇ* is a shifted first person inclusive pronoun. This prompts the question: how does an indexical that refers to a group including both the speaker and addressee in unshifted contexts come to refer exclusively to the attitude author in shifted contexts?

I propose that in the attitude environments where Marathi indexical shift is licensed, the author of the reported attitude is also its addressee. Therefore, once indexical shift takes place, the first person inclusive pronoun with its usual denotation is the best candidate for reference to that single individual who fulfills both the author and addressee roles. The surprising implication of this proposal is that mental attitude verbs and speech verbs alike can semantically encode self-address.

4.1 Assumptions

I adopt the shifty operator theory of indexical shift and begin by outlining its basic assumptions (Anand & Nevins 2004; Anand 2006; Deal 2020, i.a.). First, all linguistic expressions are evaluated relative to a context c, index i, and assignment g. The context and index are structured as homologous tuples consisting of (at least) author, addressee, time, location, and world coordinates (31).

(31) $[\![.]\!]^{c,i,g} = [\![.]\!]^{\langle auth(c),\ addr(c),\ time(c),\ loc(c),\ w(c)\rangle,\ \langle auth(i),\ addr(i),\ time(i),\ loc(i),\ w(i)\rangle,\ g}$

The values of the context coordinates are determined by the utterance itself and are unaffected by modal quantification. Meanwhile, the values of the index coordinates shift with modal quantification. Attitude verbs quantify over indices, changing the author, addressee, time, and location index coordinates to de se, de te, de nunc, and de hic individuals, respectively (32).

(32) $[\![\textit{think}\ \alpha]\!]^{c,i,g} = \lambda x.\forall i' \in \mathrm{DOX}(x)(i).[\![\alpha]\!]^{c,i',g} = 1$
where $i' \in \mathrm{DOX}(x)(i)$ iff

a. *w(i')* is compatible with what *x* believes at *i*
b. *auth(i')* is an individual in *w(i')* that *x* identifies at *i* as themselves
c. *addr(i')* is an individual in *w(i')* that *x* identifies at *i* as their addressee
d. *time(i')* is a time in *w(i')* that *x* identifies at *i* as their temporal location
e. *loc(i')* is a location in *w(i')* that *x* identifies at *i* as their spatial location

(Formulation from Deal 2020: 29)

Some languages additionally have context-shifting operators that merge just below attitude verbs and overwrite the context parameters of their complements with de se values supplied by the index. Languages vary in terms of whether their shifty operators change only some coordinate(s) of the context (like $\mathrm{OP}_{\mathrm{AUTH}}$ in (33)) or all coordinates (like $\mathrm{OP}_{\forall}$ in (34)).

(33) $[\![\mathrm{OP}_{\mathrm{AUTH}}\ \alpha]\!]^{c,i,g} = [\![\alpha]\!]^{\langle \underline{auth(i)},\ addr(c),\ time(c),\ loc(c),\ w(c)\rangle, i, g}$

(34) $[\![\mathrm{OP}_{\forall}\ \alpha]\!]^{c,i,g} = [\![\alpha]\!]^{\underline{i},i,g}$

Indexicals in the scope of these operators are evaluated relative to a shifted context parameter, with context dependence for indexicals working in the standard Kaplanian way (e.g. $[\![I]\!]^{c,i,g} = auth(c)$, $[\![here]\!]^{c,i,g} = loc(c)$). Indexicals cannot access earlier context values once they have been overwritten.

4.2 Formalizing the proposal

I posit a new type of shifty operator for Marathi, $\mathrm{OP}_{\mathrm{EGO}}$, which I assume occurs optionally at the left edge of attitude CPs in the language. $\mathrm{OP}_{\mathrm{EGO}}$, defined in (35), is similar to $\mathrm{OP}_{\forall}$ in that it shifts all parameters of the context, but it additionally presupposes that the author and addressee coordinates of the index refer to the same individual.

(35) $[\![\text{OP}_{\text{EGO}}\ \alpha]\!]^{c,i,g} = \begin{cases} [\![\alpha]\!]^{i,i,g} & \text{if } auth(i) = addr(i) \\ \text{undefined} & \text{otherwise} \end{cases}$

This presupposition can be met in reports of self-addressed speech and mental attitudes, but not in canonical speech reports where the author and addressee are distinct. Since OP_{EGO} is the only shifty operator in Marathi, indexical shift does not occur in environments where the presupposition is not met.

I assume the lexical entry for 1.INCL *āpaṇ* in (36): it denotes the binary sum of the contextually supplied author and addressee.

(36) $[\![\bar{a}paṇ]\!]^{c,i,g} = auth(c) \oplus addr(c)$

In the complement of OP_{EGO}, since the author and addressee context coordinates are equivalent, *āpaṇ* refers to the de se counterpart of the individual who is both the author and addressee (i.e. the *ego*). Locative and temporal indexicals also derive their reference from the shifted context.

This account captures the range of facts surrounding *āpaṇ* that we have established in this paper, including its perspectival properties, adherence to Shift Together, form-identity with the first person inclusive pronoun, and licensing restrictions. In addition, the analysis can explain the behavior of the first and second person pronouns, *mi* and *tu*, which never shift in Marathi. I assume the lexical entries for these indexicals in (37) and (38). In environments where OP_{EGO}'s presupposition is satisfied and indexical shift is licensed, *āpaṇ* is the most specified indexical that can refer to the ego, as it bears both first and second person features. I propose that, as a result, it outcompetes *mi* and *tu*.

(37) $[\![mi]\!]^{c,i,g} = auth(c)$

(38) $[\![tu]\!]^{c,i,g} = addr(c)$

The analysis likewise predicts that unshifty *mi* and *tu* cannot occur as immediate clausemates to *āpaṇ*. This data was shown for *mi* in (14), and is illustrated for both person indexicals in (39).

(39) a. #Gauri-lā āṭhaw-la [ki **mi/tu** āplyā -lā pāh-ila].
Gauri-DAT remember-PFV.3SG.N C 1SG/2SG APAN.OBL-DAT see-PFV.3SG.N
Intended: 'Gauri$_i$ remembered that I/you saw her$_i$.'

b. #Gauri-lā āṭhaw-la [ki āpaṇ **ma/tu**-lā pāh-ila].
Gauri-DAT remember-PFV.3SG.N C APAN 1SG/2SG-DAT see-PFV.3SG.N
Intended: 'Gauri$_i$ remembered that she$_i$ saw me/you.'

Once OP_{EGO} overwrites the author and addressee context coordinates, information about the utterance-level author and addressee is no longer available. Therefore, *mi*

and *tu* cannot receive unshifted readings in the scope of OP_{EGO}. Since they also cannot have shifted readings due to competition with *āpaṇ*, they are disallowed from shifted clauses altogether.

The next section focuses on the crucial implication of this analysis that mental attitude verbs can specify addressees and meet the presupposition of OP_{EGO}.

5 Implications for mental attitude verbs

It is generally assumed that mental attitude verbs do not have addressees. This assumption is grounded in the intuition that mental attitude-holding events involve only one participant: the attitude holder. Two types of evidence have been used to argue more concretely that mental attitudes lack addressees.

The first type of evidence comes from the argument structure of mental attitude verbs. While communication verbs often allow for their addressees to be expressed overtly as goal arguments, mental attitude verbs typically do not (Banfield 1982). However, there are exceptions to this generalization; for instance, the English verb *think* permits a reflexive to occur as its indirect object (40). As a result, Banfield (1982) categorizes *think* as a verb of self-communication.

(40) Arun thought **to himself** that he could win the race.

The implication of the analysis presented in this paper is that even mental attitude verbs that cannot take reflexive goal arguments may still entail self-address. Among the verbs that license indexical shift in Marathi, only speech verbs can take reflexive goal arguments (e.g., (30)); thought, knowledge, and perception verbs have just one syntactic position for their sole participants.[9] Nonetheless, we see from their ability to license shifted *āpaṇ* that these verbs at least optionally entail self-address.

The second piece of evidence comes from the behavior of second person indexicals in shifted mental attitude reports in other languages. Uyghur (Sudo 2010) and Nez Perce (Deal 2020) both have shifty first and second person indexicals, but in mental attitude reports, only the first person indexical can refer to the attitude holder; the second person indexical is blocked from the shifted clause altogether. Sudo (2010) and Deal (2020) take the unavailability of the shifted second person as evidence that mental attitude verbs have undefined addressees. While the ability of mental attitude verbs to encode addressees may be a point of crosslinguistic variation, an alternative analysis of the Uyghur and Nez Perce facts allows us to

9 As noted in §2.2, mental attitude holder DPs in Marathi often take dative case—the same case canonically associated with goal arguments. There may be a connection between the non-canonical case marking of these DPs and their dual roles as authors and addressees. However, not all non-speech verbs that license indexical shift take dative subjects (e.g. *aik* 'hear' in (27)), suggesting that argument structure is not fully transparent with respect to whether a verb entails an addressee.

maintain the stronger hypothesis that this property is universal. It is plausible that the unavailability of the second person indexical in these environments results from competition with the first person indexical for reference to the author-addressee or ego, rather than from an undefined addressee coordinate. Recall that in Marathi, both the first and second person pronouns are outcompeted by the first person inclusive pronoun in shifted clauses (39). Similarly, in Uyghur and Nez Perce, the second person indexical may be outcompeted by the first person indexical, perhaps because the ego's role as an author is primary to its role as an addressee (in some sense that requires further elaboration). This approach creates a parallel between Uyghur, Nez Perce, and Marathi. In all three languages, when multiple indexicals are able to refer to the attitude ego, they are not used interchangeably; rather, one pronoun is chosen and the alternatives are blocked.

A final point I would like to address concerns the grouping of perception verbs with other mental attitude verbs. The claim that thought, realization, and remembering events can involve self-address is perhaps more intuitive than the claim that seeing and hearing events can do the same. However, I demonstrate here that the perception verbs that license indexical shift in Marathi are not very different from the other licensing verbs, despite their translations: they all entail belief. It is well-known that perception verbs have different entailments depending on the types of complements they take (Barwise 1981; Moulton 2009, i.a.). When a perception verb in Marathi takes a standard unshifted clauses as its complement, it does not entail belief (41a), but when it combines with a shifted clause, it does (41b).

(41) a. Aruṇ-ni āik-la [ki **to** parikś-et nāpās jhā-lā],
Arun-ERG hear-PFV.3SG.N C 3SG.M exam-LOC fail become-PFV.3SG.M
paṇ tyā-cā tyā-cyā-war viśwās bas-lā nāhi.
but 3SG-GEN 3SG-GEN-on belief.M sit-PFV.3SG.M NEG
'Arun heard that he failed the exam, but he didn't believe it.'

b. Aruṇ-ni āik-la [ki **āpaṇ** parikś-et nāpās jhā-lo],
Arun-ERG hear-PFV.3SG.N C APAN exam-LOC fail become-PFV.1PL
(#/?paṇ tyā-cā tyā-cyā-war viśwās bas-lā nāhi).
but 3SG-GEN 3SG-GEN-on belief.M sit-PFV.3SG.M NEG
'Arun heard that he failed the exam, (#/?but he didn't believe it).'

Therefore, the verbs that license indexical shift in Marathi, including perception verbs, can be understood as variants of belief verbs.

6 Conclusion

I have argued in this paper that Marathi exhibits a novel pattern of indexical shift in which a first person inclusive indexical is construed as referring to a mental atti-

tude holder. Although the Marathi pattern looks different from canonical indexical shift in several respects, I have suggested that the differences are only surface-level. Once we adopt the assumption that mental attitude verbs can encode their single participants as both authors and addressees, the data are easily explained within the standard shifty operator theory of indexical shift.

There are many additional aspects of Marathi indexical shift that merit exploration but are beyond the scope of this paper. One open question concerns the availability of associative plural readings of the shifted first person inclusive indexical. Unshifted *āpaṇ* can refer not only to the sum of the author and addressee but also to groups that include the author and addressee; however, an initial look at the Marathi data suggests that such associative plural readings are not available in shifted contexts. I leave it to future work to explore this restriction and any potential interactions between context shift and associative plural formation.

Another area for investigation is the relationship between Marathi indexical shift and Free Indirect Discourse (FID), which has also been analyzed in terms of context shift (Sharvit 2008; Eckardt 2014). Both are used primarily for the expression of thoughts and mental attitudes rather than externalized speech (Banfield 1982). Another notable similarity between the two phenomena is that they allow only de dicto interpretations of definite descriptions. Exploring these connections may lead to valuable insights into each phenomenon.

Appendix: Long-distance *āpaṇ* ≠ anaphoric *āpaṇ*

It is in many ways intuitive to analyze long-distance *āpaṇ* as a subtype of anaphoric *āpaṇ*; indeed this is the underlying assumption in previous descriptive work and analyses (Wali et al. 1991; Pandharipande 1998; Dalrymple 1990). Anaphoric *āpaṇ* is an anti-local anaphor:[10] it cannot be bound by a coargument (42), but it can be bound within its TP when it is embedded inside a DP or PP (43), and it can be bound across a nonfinite clause (i.e. TP) boundary (44).

(42) *Aruṇ-ni **āplyā**-lā māph ke-la.
Arun-ERG ANAPH.OBL-DAT forgive do-PFV.3SG.N
Intended: ‘Arun$_i$ forgave himself$_i$.’

(43) Aruṇ **āplyā**-sāṭhi cāhā banaw-toy.
Arun ANAPH.OBL-for tea make-PRS.3SG.M.PROG
‘Arun$_i$ is making tea for himself$_i$.’

10 There is a separate Condition A-obeying reflexive in the language, *swataha* (Pandharipande 1998).

(44) Mulā-lā [āi-ni **āplyā**-lā jawaḷ ghy-āylā] hawa āh-e.
child-DAT mother-ERG ANAPH.OBL-DAT close take-NONFIN want be.PRS-SG
'The child$_i$ wants his mother to hold him$_i$ close.'

On the basis of its agreement, licensing, and perspectival properties, I argue that anaphoric *āpaṇ* is a distinct morpheme from long-distance *āpaṇ*, which must have an antecedent outside of its CP.

In §3.3.1, we observed that while long-distance *āpaṇ* triggers 1PL φ-agreement, anaphoric *āpaṇ* is blocked from positions construed with agreement. The two morphemes also differ in their licensing environments: anaphoric *āpaṇ* may be licensed in non-attitudinal clauses (45).

(45) Gauri-ni Aruṇ-lā [**āpli** bhāndi dhu-wāylā] **lāw**-li.
Gauri-ERG Arun-DAT ANAPH.GEN pots wash-NONFIN force-PFV.3PL
'Gauri$_i$ forced Arun$_j$ to wash his/her$_{i,j}$'s dishes.'

Additionally, unlike long-distance *āpaṇ*, anaphoric *āpaṇ* can be anteceded by the subject of a non-self-directed speech report (46).

(46) Aruṇ-ni Gauri-lā [**āpla** pustak wāc-āylā] **sāngit**-la.
Arun-ERG Gauri-DAT ANAPH.GEN book read-NONFIN tell-PFV.3SG
'Arun$_i$ told Gauri$_j$ to read his/her$_{i,j}$ book.'

Anaphoric *āpaṇ* also does not display the perspectival properties of long-distance *āpaṇ*. When it is embedded under an attitude verb, it does not have to be interpreted de se (47), and it is compatible with clausemate first and second pronouns (48).

(47) *Context: Gauri decides to close her eyes and flip to a random page in a poetry anthology. She then tells Arun to read the poem that she has randomly chosen aloud. She has no idea that the poem she has chosen is one that she herself wrote.*

Gauri-ni Aruṇ-lā [**āpli** kavitā wāc-āylā] sāngit-li.
Gauri-ERG Arun-DAT ANAPH.GEN poem.F read-NONFIN tell-PFV.3SG.F
'Gauri$_i$ told Arun to read her$_i$ poem.

(48) Gauri-ni Aruṇ-lā [**āpla** pustak **ma/tu**-lā dyā-ylā] sāngit-la.
Gauri-ERG Arun-DAT ANAPH.GEN book.N 1SG/2SG-DAT give-NONFIN tell-PFV.3SG.N
'Gauri$_i$ told Arun to give her$_i$ book to me/you.'

These differences support the claim that the two *āpaṇ*s are simply homophones.

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Shweta Akolkar
1203 Dwinelle Hall
Berkeley, CA 94720 USA
akolkar@berkeley.edu