The particle '*em*' in Gujarati

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ABSTRACT

This paper investigates the discourse particle *em* in Gujarati, which derives a specialized utterance-final discourse use across declarative and interrogative clauses from its origin as distal demonstrative in the language. I show that *em* contributes a unified discourse function: it foregrounds the prejacent proposition, marking it salient relative to a set of alternatives. However, its discourse effects vary depending on the clause types and contextual conditions it occurs in. In declaratives, *em* serves as a specification strategy that selects a particular alternative from a set of alternatives that over-answer the primary QUD. This move triggers and answers a related QUD to the primary QUD, thereby already answering the primary QUD. In interrogatives, *em* can be used to seek neutral confirmation or convey the speaker's negative epistemic bias towards the prejacent. *em* declaratives cannot be felicitously used to answer the primary QUD and *em* interrogatives are felicitous only when the context provides direct evidence for the prejacent and the speaker is negatively biased towards it. The analysis is framed within a commitment-based model of discourse structure (Farkas & Bruce, 2010; Roberts & Rudin, 2024), which captures how *em* adjusts the interlocutors' commitments to the propositions on the Table. I propose that *em* questions signal the speaker's assessment of whether the contextual evidence for the prejacent is adequate to warrant committing to it. This is formalized by introducing an adequacy value within the representation of evidence while placing the issue $\{p, \neg p\}$ on the conversational table.

1 Introduction

This study presents an analysis of the discourse particle *em* in Gujarati, which derives its specialized utterance-final discourse use from a distal demonstrative (1) in the language.

(1) [Context: Arun and Bina are shopping at the mall. At 5:00 pm, Bina leaves to go for a walk in the park next to the mall. At 5:30 pm, Mina comes to the mall and asks Arun where Bina went. Arun responds]

bina **em** baʤu ʧal-e ʧʰe.
Bina DEM side walk-IPFV be.PRS

Bina is walking on that side. (*em* as a demonstrative)

em is literally translated as *like that* in English, but in its utterance-final use: in interrogatives, it has a function similar to the same polarity tag (see Malamud & Stephenson (2015)) as in (2) and can be translated as 'you say'. In declaratives, it has a function similar to (but

not exactly) the reformulation marker (Cuenca, 2003) as in (3a) and can be translated as 'that is' as in (3b).

(2) It's raining, is it?

(3) a. ...in determining the point on the scale between them which is valid for the case in question. To be more precise, the extent to which a text is translatable...

b. This book has everything, everything good, that is. [1]

Rather than occurring in interrogative clauses per say, *em* gives rise to an interrogative strategy that emerges from the combination of a declarative with a falling pitch contour and a tag with a rising pitch contour, much like the tag-questions in English, which are classified as non-canonical questions.

em is used in polar questions (4) and declaratives (5), but not in wh-interrogatives.[2] A cross-linguistic observation is that *em*'s demonstrative counterparts in the neighboring Indo-Aryan languages, such as Hindi *vəisa* and Marathi *təsə* do not appear to exhibit these discourse uses. Thus, *em* presents a unique test case for theories of discourse particles.

(4) rija g^{h}ər=e gə-ji *em* (↑)
riya home=LOC go-PFV.F.SG em
Riya went home, Is it/ Did she?.

riya g^{h}ər gə-ji *vəisa* (↑) (Hindi)
riya g^{h}ər=i ge-li *təsə* (↑) (Marathi)

(5) rija g^{h}ər=e gə-ji, mira=na, *em* (↓)
riya home=LOC go-PFV.F.SG mira=GEN em
Riya went home, Mira's, that is.

I show that the utterance-final particle *em*, has a unified primary function across clause types: to foreground the prejacent proposition. Additionally, it has different discourse functions depending on the clause type in which it occurs. In declaratives, it can be used to pick out an entity from a set of alternatives as a specification move, as in (5). The *em* strategy is only felicitous when used to to trigger and answer a QUD related to the primary QUD. In interrogatives, it is used for neutral confirmation of the prejacent proposition or it is used to convey that the speaker is biased against the prejacent proposition. The felicity of utterance-final *em* is conditioned by the prior discourse context, which must provide direct evidence for prejacent and the speaker's negative epistemic bias. The use of an *em* question is associated with a diversity of pragmatic flavors of rhetoricity, skepticism, surprise and confrontation.

[1] All English examples are from COCA: Corpus of Contemporary American English- https://www.english-corpora.org/coca/

[2] The Gujarati data come from the following sources: (a) Leipzig Corpora Collection- https://corpora.uni-leipzig.de/en?corpusId=guj_newscrawl_2014_1M (b) Concordance: https://www.sketchengine.eu/gujarati-web-corpus/; (c) My own judgements with verification from other Gujarati speakers.

2 Empirical profile of *em*

The different discourse effects of *em* arise due to the interaction between the conventionally encoded meaning of *em*, varying contextual settings, and the conventional meaning associated with the clause types of interrogatives and declaratives.

2.1 Declaratives

Declarative clauses combined with the utterance-final *em* exhibit the pragmatic effect of a specification move / clarificatory move where *em* highlights the prejacent as offering a more specific answer than what is strictly required. By doing so, the speaker guides the listener to the speaker's preferred /intended interpretation of the discourse move, ie., narrowing the range of relevant alternatives and avoids potential for misinterpretation. An *em* declarative triggers and answers a related QUD and in effect indirectly answers the primary QUD.

2.1.1 Specification move / Clarificatory move

em is used to contrast the set of alternatives, where it flouts the maxims (Grice (1975)) of (1) quantity, where the speaker intentionally provides more information than minimally necessary, and (2) relevance, where the speaker chooses to answer a related QUD and indirectly answers the primary QUD. *em* is used to highlight and select the least expected answer within the contextually salient set of alternatives to the question under discussion rather than the expected answer[3]. In such contexts, the use of *em* signals that the speaker anticipates a potential misunderstanding and controls the interpretation of the response accordingly. It behaves similarly to the English *I mean*, as an explicit repair or specification strategy (6a). In (6b), use of another discourse particle in the language, *hə̃* (which behaves like the English *okay*, is demonstrated. *hə̃* is also used to select the unexpected answer to the QUD, but this strategy does not over-answer, but rather directly answers the QUD. It is important to note that the pragmatic considerations on the speaker's perspectives differ in the use of *em* versus *hə̃*. *em* can be felicitously used in contexts where the speaker preempts potential misinterpretation of the discourse move whereas *hə̃* is felicitously used in contexts where the speaker is aware of the divergence in the speaker's and addressee's attitude towards the proposition and hence this strategy is used to convey speaker attitude.[4]

(6) [Context 1: Bina loves khaman, and has bought some from a special shop. Mina informs Arun:]
[Context 2: Arun thinks Bina has no taste in food. Mina wants to prove Arun wrong by conveying that Bina shops at the best sweet shop in town:]

[3]This function of highlighting the alternative that is least expected as opposed to the most expected alternative as an answer to the QUD might relate to the property of *em* being a distal demonstrative in the language

[4]The empirical and theoretical complexity of this particle warrants a dedicated in-depth investigation to be undertaken in separate future work.

a. bina=e kʰəməɳ lav-ja, balubʰai=na, *em*
bina=ERG khaman.PL bring-PFV.PL balubhai=GEN.PL em
Bina brought khaman, from Balubhai's (shop), that is.
Context 1: [✓] and Context 2: [✗]

b. bina=e kʰəməɳ lav-ja, balubʰai=na, *hə̃* [5]
bina=ERG khaman.PL bring-PFV.PL balubhai=GEN.PL hə̃
Bina brought khaman, from Balubhai's (shop), okay.
Context 1: [✗] and Context 2: [✓]

In context 1, *em* provides specific information that strictly over-answers the question under discussion (QUD). The primary QUD is: 'What did Bina buy?' and the expected minimal answer would simply state the object 'kʰəməɳ'. But instead, when the speaker adds further information (here, Balubhai's shop) appending it with *em*, this move triggers a related QUD: 'Where did Bina buy it from?' and answers that. By doing so, the *em* declarative answers the primary QUD indirectly. In context 2, where the source of the 'kʰəməɳ' (Balubhai's shop) is at-issue and necessary for answering the primary QUD, *em* is infelicitous. This contrast shows that *em* is felicitous only when it contributes additional discourse content beyond a direct answer to the primary QUD, in other words, *em* is licensed only when it is used to indirectly address the primary QUD, not when it directly resolves it.

The example below illustrates the same pattern, *em* is felicitous only in context 1 where the response is an over-answer to the primary QUD. By mentioning 'the time of flight' adds specificity beyond merely asserting that the speaker will be traveling. In context 2, the response directly addresses the primary QUD and is infelicitous. Thus, the specification move with *em* selectively foregrounds secondary/ related information in response to discourse needs.

(7) [Context 1: Bina is Arun's student and asks him if they can meet to discuss her work the next evening. Arun responds:]
[Context 2: Bina and Arun are friends and Bina knows that Arun is traveling soon. She asks him when he is traveling and Arun responds:]

ma=ri kale flaiʈ ʧʰe, 6 wagje, *em*
1.SG=GEN.3.F.SG tomorrow flight be.PRS 6 o'clock em

I have a flight tomorrow, at 6 o'clock, that is.
Context 1: [✓] and Context 2: [✗]

In (8a) *em* signals that the speaker wants the preceding content to be interpreted in a specific way. By using the *em* strategy, the speaker ensures that 'he doesn't know me' is interpreted narrowly as in, 'that he did not know her from before, rather than implying that 'they don't know each other at all' which would be the broader interpretation.

[5]Utterance-final expressions like Hindi *ʈʰik hai na* and Marathi *bərə/ bərə ka* seem to have the same discourse effect.

(8) [Context: Mina is asking Bina if she and Arun know each other well. Bina says:]

a. e mə=ne nət^{h}i oɭək^{h}-to, pehla=t^{h}i, *em*
3.SG.M 1.SG=DAT/ACC NEG know-IPFV.3.SG.M earlier=from em
He doesn't know me, from before, that is.

b. e mə=ne nət^{h}i oɭək^{h}-to, *eʈle*, pehla=t^{h}i
3.SG.M 1.SG=DAT/ACC NEG know-IPFV.3.SG.M means earlier=from
He doesn't know me, I mean, from before.
[alternative strategy- more productive]

This section described the use of *em* in declarative clauses, a strategy used for making a specification/clarificatory discourse move.

2.2 Interrogatives

em does not occur in interrogative clauses, but rather it creates an interrogative strategy by combining a declarative with a falling pitch contour and a tag (*em*) with the rising pitch contour, much like tag-questions in English, which are analyzed as non-canonical questions.

2.2.1 Confirmatory *em* with an explicit prejacent

When the prior discourse provides explicit evidence for the prejacent proposition, *em* can be used in order to seek confirmation from the addressee as to whether the prejacent proposition is true.

(9) [Context: Arun and Bina are at a party with loud music. Mina, a mutual friend of Arun and Bina, just texted Bina that she urgently needs to go to Mumbai the next day. Bina tells Arun this and he asks to clarify:]

e kale mumbəi ʤa-j ʧ^{h}e ***em***?
3.SG tomorrow mumbai go-IPFV be.PRS em

She is going to Mumbai tomorrow, is she?

em is felicitous in a neutral context where the speaker has no prior positive or negative epistemic bias and requests to confirm if the prejacent proposition is true. The speaker has no commitment to p or $\neg p$.

2.2.2 Confirmatory *em* with an implied prejacent

The particle *em* sometimes, but not always, behaves like the English Same Polarity-tags. Specifically, *em* is not felicitous in contexts where the prejacent is implied, and not explicitly available in the prior discourse unlike the English Sp-tags.

Consider the 'Blushing/Innuendo context' from Malamud & Stephenson (2015), where the prejacent *p* is implied in the prior discourse and an uninformed speaker makes a guess about the hearer's commitment and in these contexts, SP-tags are permissible. The addressee's judgement is at issue, not the speaker's. This suggests that the SP-tags involve independent commitments of the addressee and may/may not involve dependent commitments of the speaker.

(10) [**Blushing/Innuendo context:** A and B are gossiping. A doesn't know anything about B's neighbor. B says, blushing, 'You've GOT to see this picture of my new neighbor!' Without looking, A replies:]

a. A: He's attractive, is he?

b. # A: He's attractive, isn't he?

c. # A: He's attractive.

em is unavailable in such a context by itself where the prejacent is implied and not explicitly provided by the context. In these contexts, *em* needs to be supported by other expressions as they connect the prejacent to the larger QUD operative in the previous discourse, thus making the prejacent available for the particle *em* to combine with. This is demonstrated below:

(11) [Context: Asha and Bina had made plans to go to a movie tonight and had purchased tickets the previous week. Asha tells Bina that she is going to a cafe with Dhruv instead. Bina is surprised and asks:]

tu e=ne ɖeʈ kər-e ʧʰe ***em***?
2.SG 3.SG=DAT/ACC date do-IPFV be.PRS em

You are dating him, are you?

In (11), the absence of explicit prior evidence about 'dating' renders the utterance-final *em* infelicitous. However, *em's* felicity can be restored when used with the wh-question *kem* in (12a), the discourse markers *eʈle* in (12b) and *to* in (12c). [6]

(12) a. **kem** tu e=ne ɖeʈ kər-e ʧʰe ***em***?
why 2.SG 3.SG=DAT/ACC date do-IPFV be.PRS em
Why? You are dating him, are you?

[6]It is also felicitous when used with hybrid- interrogative strategies (see Deo (2023)), but this needs further exploration.

(1) tu e=ne su ɖeʈ kər-e ʧʰe *em*?
2.SG 3.SG=DAT/ACC what date do-IPFV be.PRS em
You are dating him, are you?

b. **eʈle** tu e=ne ɖeʈ kər-e ʧʰe ***em***?
means 2.SG 3.SG=DAT/ACC date do-IPFV be.PRS em
Meaning, You are dating him, are you?

c. **to** tu e=ne ɖeʈ kər-e ʧʰe ***em***?
so 2.SG 3.SG=DAT/ACC date do-IPFV be.PRS em
So, You are dating him, are you?

In this subsection, it can be observed that *em* can be felicitously used in interrogatives for confirmation of the prejacent in contexts where the speaker is unbiased/neutral towards the prejacent, given that the evidence for the prejacent is explicitly provided by the prior context or by necessarily using explicit discourse connectives in the contexts where the prejacent is implied. Now, let us explore the use of *em* in contexts where the speaker is biased in the next subsection.

2.2.3 *em* and Bias

There is another layer of complexity in the felicitous use of *em* when we consider how it is affected by varying speaker's epistemic bias (positive, negative) and when the speaker is unbiased (Goodhue (2022); Sudo (2013)).

(13) [Context 1: Arun is disinterested in cooking as an activity and his friend Bina is aware of this. One day, Bina enters the house to see Arun cooking in the kitchen and says:] (Epistemic Bias: $\neg p$)
[Context 2: Bina has no knowledge of Arun's interest/ disinterest in cooking as an activity. One day, Bina enters the house to see Arun cooking in the kitchen and says:] (Unbiased speaker)
[Context 3: Arun has always been good at cooking as an activity and his friend Bina is aware of this. One day, Bina enters the house to see Arun cooking in the kitchen and says:] (Epistemic Bias: p)

tu rasoi kər-e ʧʰe ***em***?
2.SG cooking do-IPFV be.PRS em

You are cooking. Are you?
Context 1, Context 2: [✓], Context 3: [✗]

Based on the data, a generalization that can be drawn is that the use of *em* requires contexts involving either the speaker's negative epistemic bias or when an unbiased speaker has direct evidence for the pejacent. *em* can never be used in contexts where the speaker is positively biased towards the prejacent.

2.2.4 Other Discourse Effects

Besides confirmation-seeking, *em* can also be used to express sarcasm, rhetoricity[7] or a confrontational stance. In these uses, *em's* function is not to confirm whether the prejacent proposition *p* is true, but rather to verify addressee's commitment to the prejacent proposition.

(14) [Context: A teacher is correcting answer-sheets. They come across an answer-sheet and suspect that the student has plagiarized from ChatGPT and confronts the student:]

a ɖʒəwabo te potte ləkʰ-ja ʧʰe *em*?
DEM.PROX answer.3.PL 2.SG.ERG yourself write-PFV.3.PL be.PRS em

You have written these answers yourself. Have you? [Rhetorical, Sarcastic]

Here *em* is not used to confirm whether 'it is the case that the addressee has written the quiz responses themselves' but to signal that the speaker is biased towards $\neg p$ wants the addressee to retract their commitment to *p*. *em*, when used in these contexts, functions to challenge the addressee's prior commitments.

(15) [Context: A lot of things have gone wrong with Arun on the day of the utterance and Bina is aware of it. They both witness the thunderstorms and heavy rains looking out from the window. Arun, getting frustrated, says:]

aɖʒe vərsad bi pəɖ-se *em*?
today rain also fall-3.FUT em

It is going to rain today too. Is it? (on top of everything) [Rhetorical, Frustration]

Here, *em* is used to convey the speaker's preference for $\neg p$. The addressee's commitment to *p* or $\neg p$ is of no relevance in this context.

3 Proposal

Based on the various discourse effects of the utterance-final *em* across the clause types of declaratives and interrogatives as observed in the previous sections, I now try to unpack how these effects arise through the interaction of some conventionally encoded meaning of *em*, the conventional meaning associated with the clause types, and the varying contextual conditions. I propose a preliminary contribution of *em* by situating it within commitment-based discourse models (Farkas & Bruce, 2010; Roberts & Rudin, 2024) which track commitments, open issues, and projected common grounds.

[7] I follow Farkas (2025) analysis of rhetorical questions.

3.1 Contextual conditions for (in)felicity

Before we look at the conventionally encoded meaning of *em*, it is important to separate the contextual conditions under which *em* can felicitously occur. As noted, *em* can occur in the presence of negative speaker bias as in (14) and negative speaker preference as in (15). *em* is also felicitous in contexts where the speaker is unbiased (9). Hence, it must be the case that speaker bias and speaker preference are contextual discourse parameters and not conventionally encoded by *em* itself.

3.2 Interaction of *em* with meanings of the clause types

The idea I want to explore is that *em* uniformly points to the prejacent (like a demonstrative) and thereby foregrounds the proposition expressed by the prejacent. It is this foregrounding function that interacts differently with the conventional contribution of the clause-types because these clause types have distinct default commitments and discourse functions thus giving rise to the different discourse effects.

3.3 Notions adopted

To model the assumptions of how the *em* questions update the discourse, I adopt the Table model of discourse (Farkas & Bruce (2010)) within which a context is defined in terms of four components described below:

Components of the Table model Farkas & Bruce (2010)

(16) a. DISCOURSE COMMITMENTS: For all discourse participants x, there is a set DC_x of propositions that x has publicly committed to.
b. TABLE: T is a push-down stack of Issues (sets of propositions)
c. COMMON GROUND: cg is the intersection of the discourse commitments of each participant.
d. PROJECTED SETS: ps set of possible common grounds.

In Farkas & Bruce (2010)'s system, context updates for various conversational moves (assertions or questions) are defined in terms of how they update the interlocutors discourse commitments, how they update the Table. For example, if the speaker asserts a proposition p, then p is added to the discourse commitments of the speaker, to the top of the Table and to the projected set (ps) . If the addressee accepts the assertion, then that next move in the discourse removes p from the Table and adds it to the common ground (cg). In contrast, a polar question would add $\{p, \neg p\}$ on the Table and would create projected sets containing p as well as ones containing $\neg p$.

Maxim for commitment and projection: Roberts & Rudin (2024)

Rudin (2018, 2022) notes that most work on pragmatic reasoning focuses on propositional content, ie., drawing inferences about what propositions the speaker intends to convey

based on their choice of the sentence and how it relates to what alternative choices they could have made. In contrast, he shifts the focus of pragmatic reasoning to discourse moves instead, where inferences are derived based on the speaker's choice either to make a commitment or not and from how they shape the direction of the conversation. He provides formalizations of these underlying pragmatics of the Table model where he introduces various maxims for commitment and projection. The maxim relevant for my analysis is the maxim of viability where projecting common grounds is subject to this maxim.

- Viability: Violated by any move that adds a set including p to T, where $\cap DC_{\mathrm{X}} \cap p = \phi$ for some interlocutor X, or $DOX_{\mathrm{X}} \cap p = \phi$ for some interlocutor X.

As described in Rudin (2022), "This maxim states that a cooperative agent shouldn't project a possible future for the conversation that contradicts any interlocutor's commitments (or private beliefs), as that possible future state of the common ground would either be unreachable, as common ground is blocked by the incompatible commitment, or uncooperative, as it would not accurately reflect the beliefs of the interlocutors."

Hence, a cooperative agent should not place a proposition on the Table if it is incompatible with any interlocutor's commitment or private beliefs. This maxim is important for my analysis of the *em* questions and to describe the way in which they update the discourse context in order to reason as to why it is viable for the speaker to put p on the table despite their bias for $\neg p$. The maxim is useful for understanding the pragmatic reasoning of the discourse move made by an *em* question.

Evidenced possibilities: Farkas & Roelofsen (2017)

Farkas & Roelofsen (2017) note that tag-interrogatives are distinct from polar interrogatives as they propose that the former signal that the speaker has access to some *evidence* for the highlighted alternative and are infelicitous in contexts in which such access to evidence for the highlighted alternative cannot be assumed. They thus propose that the representation of a discourse context should include, not only the list of possibilities that x (interlocutor) has publicly committed to, *commitments(x)* but also, a list of possibilities for which x has signaled to have some evidence. This list is denoted as *evidence(x)* and the possibilities that it contains is referred to as *evidenced possibilities*.

The notion of evidenced possibilities is useful for my analysis of *em* questions, as they too are felicitous only in contexts where the speaker has access to direct evidence for the prejacent proposition (highlighted alternative) provided by the prior discourse context.

3.4 Declaratives

This section will discuss the previous analysis of a default declarative update and proposes an idea of how the *em* declarative updates the discourse.

3.4.1 Previous Theories

Farkas & Bruce (2010)

A declarative sentence adds the asserted proposition to the speaker *Sp's* discourse commitments DC_{Sp}, places it on the Table T, and adds it to the projected set *ps* (Farkas & Bruce (2010)). Given below are the basic conventional discourse effects of a declarative sentence and how the context update could look like.

(17) Default Declarative update:

DC_{Sp}	Table	DC_{Ad}

ps: $\{s_1\}$

$\longrightarrow$

DC_{Sp}	Table	DC_{Ad}
p	$\{p\}$	

ps: $\{s_1 \cup \{p\}\}$

Having looked at the default declarative update, the next section describes the *em* declarative update and how it differs from the default declarative update.

3.4.2 Analysis of *em* declaratives

When the default assertion is accompanied by *em*, it still adds p to the speaker's discourse commitments $DC_S p$. The contribution of *em* is to make salient (through pointing) a more specific answer than what is strictly required and guides the listener to the intended meaning. An *em* declarative has the discourse effect of specification/clarification where a related QUD is triggered and answered with a detailed/ more specific answer and this discourse move then in effect answers the primary QUD indirectly. An *em* declarative flouts the maxims (Grice (1975)) of (1) quantity, where the speaker intentionally provides more information than minimally necessary and (2) relevance, where the speaker chooses to answer a related QUD and indirectly answers the primary QUD.

An idea of the context updates of default assertions followed by *em* with a falling intonation is that it is a complex discourse move where there are two updates that are happening as part of the strategy, first that answers the primary QUD and second that triggers a related QUD and answers it, which is an over-answer to the primary QUD to avoid misunderstanding the first answer, hence the specification. Modeling the context update for this complex discourse move is beyond the scope of this paper and is left for future work.

3.5 Interrogatives

This section will discuss the previous analysis of a default polar interrogative update as well as the non-canonical same polarity tag interrogative updates. I propose an analysis of how an *em* interrogative updates the discourse.

3.5.1 Previous Theories

Farkas & Bruce (2010)

They describe the default polar interrogative places the question's denotation $\{p, \neg p\}$ on the Table T, and projects both p and $\neg p$ into the Projected set *ps* for the addressee to

resolve. The speaker will have a dependent commitment based on the addressee's commitment on the Issue I (Gunlogson (2008)) once resolved. Given below is how a context update of a default polar interrogative would look like.

(18) Default Polar Interrogative update:

DC_{Sp}	Table	DC_{Ad}

ps: $\{s_1\}$

$\longrightarrow$

DC_{Sp}	Table	DC_{Ad}
	$\{p, \neg p\}$	

ps: $\{s_1 \cup \{p\}, s_1 \cup \{\neg p\}\}$

Given below are some of the previous which works have analyzed the English 'same-polarity tags' by building on the (Farkas & Bruce (2010)) Table model.

Malamud & Stephenson (2015)

They propose that by asserting p with an SP-tag (same-polarity tag), there is no change made to the speaker's current DC_{Sp} or projected commitments $DC_{\mathsf{Sp}*}$, or the current or projected CGs (common grounds). But rather, the SP-tag utterance adds p to the Table and to the addressee's projected commitments DC_{Ad} which indicates that the speaker is making a guess about the addressee's beliefs. Upon the addressee's acceptance of the move, p gets added to the addressee's commitment set. This is shown as:

(19) SP tag interrogative update:

DC_{Sp}	DC^*_{Sp}	Table	DC_{Ad}	DC^*_{Ad}

$\longrightarrow$

DC_{Sp}	DC^*_{Sp}	Table	DC_{Ad}	DC^*_{Ad}
		$\{p\}$		p

As an SP-tag projects a commitment of the addressee, rather than the speaker, it is expected that SP-tags are felicitous only when the addressee's judgment is at issue, but is infelicitous when the speaker is conveying their own stance and/or seeking agreement.

Roberts & Rudin (2024)

They present a differing view. By using the positive polarity tag questions, the speaker commits to p (via the assertion) but then questions p (via the tag), setting up a pragmatic tension. This triggers an antipresupposition, forcing an interpretation where the speaker's commitment is dependent, that is, based on external evidence (see Gunlogson (2008) for dependent commitment). These type of questions are used to express surprise or skepticism towards the evidence for the proposition in the anchor. This non-canonical context update they present is shown as:

(20) SP tag interrogative update:

DC_{Sp}	Table	DC_{Ad}

ps: $\{s_1\}$

$\longrightarrow$

DC_{Sp}	Table	DC_{Ad}
p_d	$\{p, \neg p\}$	

ps: $\{s_1 \cup \{p\}, s_1 \cup \{\neg p\}\}$

The next sub-section discusses how the *em* questions differ from that of the English SP-tags and describes an analysis of the *em* interrogatives.

3.5.2 Analysis of *em* questions

The Gujarati *em* questions, even though they seem similar to the English same polarity tag questions, behave differently. *em* questions used to seek confirmation, convey speaker's negative epistemic bias, preference, skepticism, rhetoricity, confrontational stance and surprise. An analysis that captures all of these discourse functions and effects of *em* questions is required.

Felicity conditions:

Condition Type	**Condition**
Evidence for the prejacent proposition	Must be provided by the prior discourse and must be direct
Speaker epistemic bias	Negative (expects ¬p)
	Neutral / unbiased

Table 1: Felicity conditions for *em* questions

I propose that for Gujarati *em* questions: the speaker does not commit to *p* and neither is it added to addressee's projected commitment set. The speaker is either seeking confirmation or is simply signaling a pragmatic conflict between their epistemic bias/preference and the evidence that is provided by the prior context. By using an *em* question, the speaker is signaling that they are evaluating whether the evidence, presented by the context, for the prejacent proposition is sufficient / adequate in order for them to add *p* to their discourse commitments. This intuition holds uniformly across contexts involving an unbiased speaker, as well as those in which the speaker is biased towards ¬ *p*, wherein they would either be open to potentially revising their beliefs or they prefer for the addressee to modify their commitment for *p*.

Context update of *em* questions:

To model the context update associated with *em* questions, I borrow the notion of *evidence* from (Farkas & Roelofsen (2017)) in addition to the key components of the *table model* (Farkas & Bruce (2010)) and the *viability maxim* (Roberts & Rudin (2024)). Building on these, I introduce the notion of ***adequacy value*** that the speaker employs to update the discourse context. Given the above mentioned intuitions, it will be assumed that *evidence(x)* is not just a list of possibilities but a list of pairs $< p, a >$, where *p* is a possibility and *a* is the adequacy value: if the speaker considers the evidence as adequate for them to add the prejacent proposition to their discourse commitment, the adequacy value is **'+'** and if the speaker considers the evidence as inadequate for them to add the prejacent proposition to their discourse commitment, the adequacy value is **'-'**.

(21) *em* question update:

Evidence: {<p, + / ->}		
DC_{Sp}	Table	DC_{Ad}
	{p, ¬ p}	

ps: $\{s_1 \cup \{p\}, s_1 \cup \{\neg p\}\}$

Discourse effect of *em* questions:

Basic effect:

- The denotation of the question $\{p, \neg p\}$ is added to the *table* and the *projected set*.

Special effect:

- $<p, a>$ is added to *evidence(x)*

Cases where speaker is biased towards ¬p and receives direct evidence for *p* from the context, by using an *em* question strategy, the speaker signals that they consider the evidence to be inadequate for them to revise their belief and puts both *p* and ¬p on the table and in the projected set. The speaker must have a reason, which is the epistemic bias / preference for ¬p, to present ¬*p* as viable (see the Viability maxim by Roberts & Rudin (2024)) despite the evidence for *p*. Cases where the speaker is unbiased, the function of the *em* question is to confirm whether the prejacent proposition is true, the speaker here considers the evidence as being adequate for them to undertake a dependent commitment.

Aside:

A potential alternative analysis of utterance-final *em* could be that it results from ellipsis of a speech report. In Gujarati, both *evu* and *em* can function as complementizers that introduce speech reports (as illustrated in 22a). Given this, one might hypothesize that utterance-final *em* simply reflects a truncated speech report construction, where the matrix verb (such as "say") has been elided, leaving behind the complementizer. However, the empirical facts argue against this ellipsis hypothesis. Specifically, only *em*, and not *evu*, is felicitous in utterance-final position (as shown in 22b). This asymmetry indicates that utterance-final *em* is not an elliptical remnant of reported speech. Rather, it has developed an independent discourse function and should be analyzed as a discourse particle that helps structure speaker commitments and discourse flow.

(22) [Context: Arun is asking Bina about how Riya is doing. Bina tells him that Riya is happy and he says:]

a. rija $k^huʃ$ $ʧ^he$ ***evu / em*** kəh-e $ʧ^he$
riya happy be.PRS evu/em say=IPFV.3.SG be.PRS.3.SG
He is saying that Riya is happy, Is he?

b. rija $k^huʃ$ $ʧ^he$ ***#evu / em***
riya happy be.PRS evu/em
Riya is happy, # like that / is she?

The next section provides a comprehensive summary of the main empirical and theoretical findings of this paper and outlines avenues for future research.

4 Summary and Future Directions

This paper has investigated the Gujarati discourse particle *em*, which derives its specialized utterance-final discourse use from a distal demonstrative in the language. It occurs in declaratives and interrogatives. It has a unified function of foregrounding the prejacent proposition acorss clause types. However, depending on the clause type to which it attaches and contextual conditions, *em* clauses have additional discourse functions.

In Declaratives, *em* can be used to pick out a particular entity from a set of contextually available alternatives, as a specification move. This strategy triggers and answers a related question to the primary QUD and in effect indirectly answers the primary QUD. It provides an answer to the related question, which is an over-answer (more specific) to the primary QUD in order to avoid any misunderstanding and guide the discourse towards the intended meaning.

In Interrogatives, *em* can be used for either neutral confirmation of the prejacent proposition or to convey that the speaker is biased against the prejacent proposition. The felicity of such *em* questions is conditioned by the prior discourse context, which must provide direct evidence for the prejacent proposition as well as the speaker's negative epistemic bias towards it or the speaker's dis-preference of the prejacent proposition. *em* questions convey a range of pragmatic flavors of rhetoricity, skepticism, surprise, confrontation depending on the discourse context and speaker's stance towards the prejacent proposition. They differ from the English SP-tags both in discourse functions and felicity conditions.

The preliminary theoretical proposal describes that the contribution of *em* would be modeled best within commitment-based discourse models (see Farkas & Bruce (2010) and Roberts & Rudin (2024)). For Gujarati *em* questions, it is proposed that the speaker does not undertake commitment to p and neither do they add it to the addressee's projected commitment set. They signal that the speaker is evaluating whether the evidence, presented by the discourse context, for the prejacent proposition is adequate for them to add p to their discourse commitments. This is modeled using the components of the *Table model* (Farkas & Bruce (2010)), the notion of *evidence* (Farkas & Roelofsen (2017)) and introducing the notion of adequacy value, which the speaker employs to update the discourse context, which captures the speaker's assessment of wether the available evidence is adequate to commit to the prejacent proposition. An *em* question updates the discourse context by placing the issue $\{p, \neg p\}$ on the table while simultaneously encoding the speaker's evaluation of the adequacy of the evidence for p.

The idea to be explored further in order to formalize the effect of the conventionally encoded meaning of *em* and the discourse update is that *em* declaratives make a non-canonical assertion update where it still adds the prejacent to the speaker's discourse commitments but highlights it among alternatives, leading to over-answering related QUDs. An *em* declarative is a complex discourse move comprising of two updates happening as part of the strategy. The first update is the one that answers the primary QUD and the second is that it triggers and answers a related question to the primary QUD, which is an over-answer to the primary QUD to avoid misunderstanding the first answer.

Along with this, various other avenues for future research emerge from the present study.

- Intonation and *em*: To investigate the prosodic properties of utterance-final *em*. In particular as to how varied intonation would distinguish the uses of *em*, in interrogatives, to seek confirmation, convey various distinct pragmatic flavors of sarcasm, confrontation, rhetoricity, surprise, skepticism via phonetic production and perception experiments.
- Role of Connectives: To explore how discourse connectives like *kem* (the wh-word 'what'), discourse markers like *eʈle* ('means') and *to* ('so') to license *em* when the prejacent is implied, probably helping our understanding of presupposition, anaphora, and QUD structure in Indo-Aryan languages.
- Hybrid Interrogatives: To examine *em's* behavior in hybrid interrogative constructions.

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