One *-hii* to rule them all: Functions and intonation of particle *-hii* in Hindi movie dialogues

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1 Introduction

This paper presents an analysis of the particle *-hii* in Hindi/Urdu. Drawing on the data from a corpus of Hindi/Urdu movie dialogues, we demonstrate that *-hii* can be used as a pure exclusivity marker outside of negation, without reference to scalarity. We also bring evidence from intonation to determine if different interpretations of *-hii* warrant a single or multiple entries in the lexicon.

The particle *-hii* in Hindi/Urdu has been argued to perform several functions, ranging from the equivalent of the English exclusive 'only' to having a scalar meaning (Bhatt, 1994; Kidwai, 2000; Bajaj, 2016). In her dissertation, Bajaj (2016) concluded that the seemingly diverse functions of *-hii* - exclusivity, scalarity, and intensification - can be unified under a single analysis of *-hii* as a conventional scalar implicature particle. Her analysis was based on two acceptability judgment tasks. Experiment 1 tested the acceptability of *-hii* on the scales of likelihood and desirability. She found that the particle indicates a maximum endpoint on the likelihood scale and a minimum as well as maximum endpoint on the desirability scale. Experiment 2 examined the interpretation of *-hii* in the presence of negation. Her data showed that speakers can access both 'even not' and 'only not' interpretations of *-hii*. The 'even not' interpretation arises when there is a salient scale of alternatives in the context out of which a maximally-ranked alternative is chosen (scalarity marker). The 'only not' interpretation arises when there is no possibility to make a scale salient (exclusivity marker). Hence the purely exclusive interpretation of *-hii* only arises in cases of negation.

2 The puzzle of *-hii*

In line with Bajaj's claims we find a range of examples with a scalar component. In cases such as (1), *-hii* falls on the scale of minimum desirability, which is only scalar and not exclusive.

(1) a. Context: Sandhya is a teacher by profession and she has liked teaching since her childhood. Reminiscing about Sandhya's past, her mother says:

b. choti thi toh gudde gudiya
Young.F be.PST.F then dolls.M dolls.F
ko-hii paharre yaad karati
DAT-HII tables memorize do.CAU.F
phirti thi.
go.F be.PST.F
'When she was young, she used to teach (help memorize) tables to just dolls.'

In (1), it is not the exclusivity of teaching dolls that is highlighted. Rather, the emphasis is on the fact that Sandhya 'just' taught dolls, this being the most she was capable of teaching, and situated at the lowest point on the desirability scale.

While Bajaj's analysis covers a broad range of data, it does not readily apply to cases like (2), which is i) exclusive in meaning, ii) lacks a scalar component, and iii) is not associated with negation. Our data reveals that the exclusive interpretation of *-hii* is not limited to the context of negation.

(2) a. Context: Rita is upset with her family for not liking her boyfriend. Her father finally agrees with her and says:

b. tum-hii thik kah rahi thi,
You.F-HII right say PROG be.PST.F-
hum sab galat the, bas?
we all wrong be.PST.PL, fine?
'Only you were right. All of us were wrong, fine?'

We used a dialogue-based corpus that provides contextual information to analyse the different interpretations of *-hii*. Using examples extracted from the corpus, we investigate whether Bajaj's analysis can adequately account for instances of *-hii* that ex-

hibit a purely exclusive interpretation.

3 Data description and analysis

Our corpus consists of 12 randomly selected Bollywood movie scripts. We extracted all instances of *-hii* from this corpus (N = 448). The data showed that several grammatical categories feature as hosts for the particle *-hii*: (pro)nouns, adjectives, adverbs, and verbs. We restrict our analysis to sentences with (pro)nominal hosts in non-negation contexts (n = 96). Two Hindi/Urdu speakers annotated different interpretations of *-hii* based on the preceding and the following context. Table 1 shows the annotation labels for different contexts of *-hii* and their frequency. While partly confirming Bajaj's analysis of *-hii* indicating scalarity, Table 1 illustrates that *-hii* is also used to mark pure exclusivity. Furthermore, it shows that the scalar and exclusive interpretations of *-hii* are not mutually exclusive as indicated by the hybrid categories in rows 4-6 of the Table. This brings us to the question of lexical entries for *-hii*.

4 Lexical entries for *-hii*

Given the purely exclusive and the hybrid interpretations of *-hii*, it is pertinent to ask if *-hii* has a single or multiple entries in the lexicon. We can either accommodate the purely exclusive and the hybrid usage in Bajaj's analysis of a single *-hii* or show that *-hii* is homophonous and has separate lexical entries for its different interpretations.

While the scalar and exclusive uses of *-hii* may suggest multiple entries, its use in the hybrid contexts alludes to a single entry for the particle. The results from Bajaj's first experiment illustrate that some participants preferred unranked alternatives, as opposed to scalar endpoints, even when presented with an explicit scale in the context. This indicates that the scalar reading of *-hii* is optional and speakers vary in their ability to derive such this reading. Without going into detail of how a unified lexical entry could look accounting for the whole range of data, we turn to the intonation analysis of *-hii*, used in scalar and exclusive contexts, to investigate if intonation supports an analysis of single or multiple entries for *-hii*.

5 Intonation of scalar and exclusive *-hii*

To analyse the intonation of *-hii* in the context of scalarity, we used the sentences presented in Bajaj. The sentences carrying the exclusive interpretation of *-hii* were extracted from our corpus. (3) presents the intonation of sentences produced by a female speaker of Hindi/Urdu. The F0 contour of these sentences is illustrated in Figure 1. (3-a) provides the intonation contour of a sentence with the scalar interpretation of *-hii* indicating maximum likelihood. (3-b) is an example of scalar *-hii* produced in the context of least desirability. (3-c), an example from our corpus, uses *-hii* to mark exclusivity. The labels for the intonation contour, provided in subscript, show that the host of *-hii* is produced with an upstepped F0 peak, regardless of its scalar or exclusive interpretation. Thus, the intonation analysis supports only one lexical entry for *-hii* in Hindi/Urdu.

(3)   a.   ravi=ne$_{L\,H}$ billi-hii$_{L\,\wedge H}$ xaridi
           ravi=ERG cat.F-HII   buy.PERF.F.SG
           'Ravi only bought a cat.'

       b.   amiit=ne$_{L\,H}$ aam-hii$_{L\,\wedge H}$
           amiit=ERG mango.M-HII
           xarida
           buy.PERF.M.SG
           'Amit only bought a mango.'

       c.   ye   sare$_{L\,H}$ photograph$_{L\,H}$ ek-hii$_{L\,\wedge H}$
           these all   photograph   one-HII
           larki=ke   hain
           girl=GEN be.PRES.PL
           'All these are only one girl's photos.'

6 Discussion and conclusion

Our analysis, based on the data from a corpus of movie dialogues, demonstrates that *-hii* can be used to mark pure exclusivity in non-negative contexts. This is the first corpus based evidence of the distribution of *-hii* in different contexts. Our data shows that *-hii* can be used in purely exclusive, scalar, as well as in hybrid contexts.

One could argue that the primary function of *-hii* is to mark exclusivity as it occurs most frequently in this context in our data. However, frequency is highly susceptible to genre (movie scripts in this instance) and is not a reliable criterion to determine the primary association of *-hii* or explain its lexical entry. As for proposing a single or multiple entries for *-hii* in the lexicon, we show that the intonation analysis warrants a single entry for the particle.

Bajaj's data alludes to speaker-based variability in the interpretation of *-hii*, as only some of them could enrich the contexts to derive a scalar reading. Hence, a linguistic creativity-based account of this variability merits further investigation in future.

Acknowledgements

References

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A Annotation labels

Label	Explanation	Freq.	%
scalar	collective term for different scales	24	25
exclusive	host of *-hii* is purely exclusive	32	33.3
contrastive	host of *-hii* is explicitly contrastive	3	3.1
scalar-exclusive	scalar+exclusive interpretation	18	18.7
scalar-contrastive	scalar+contrastive interpretation	8	8.3
exclusive-contrastive	exclusive+contrastive interpretation	11	11.4

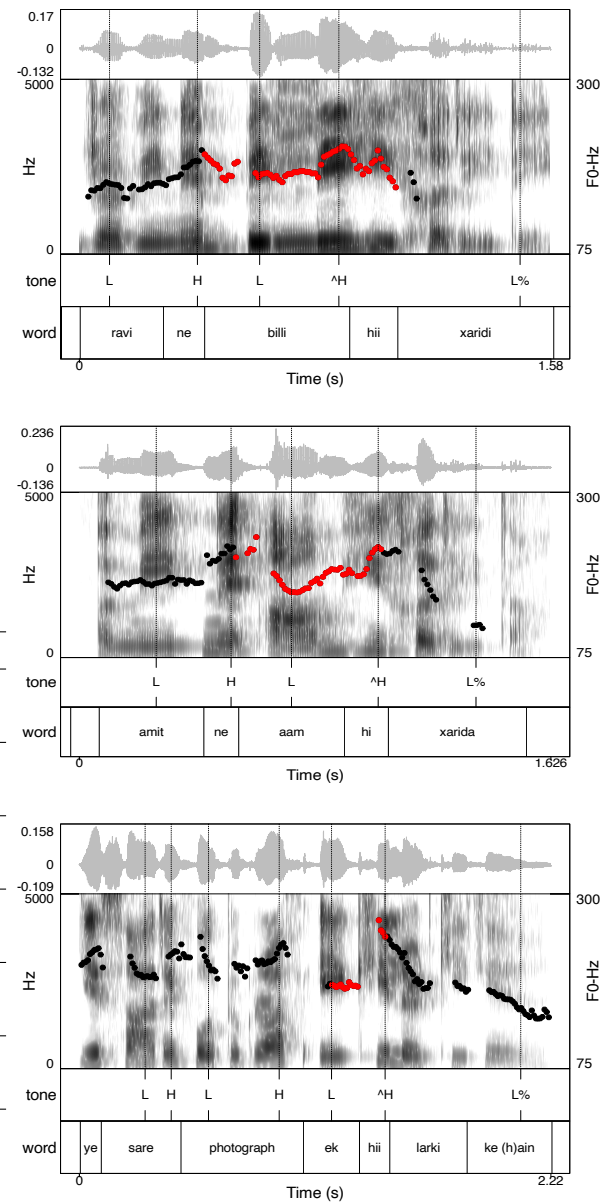Table 1: Distribution and association of *-hii* with different contexts.

B F0 contour

Figure 1: F0 contour of sentences given in (3)a (top panel), (3)b (mid panel), and (3)c (bottom panel). The F0 contour of the host of *-hii* is illustrated in blue.