## Intonation and prosodic phrasing of particle '-hii' in Hindi/Urdu dialogues

## Farhat Jabeen<sup>1</sup> and Shravani Patil<sup>2</sup>

<sup>1</sup>Phonetics Work group, Department of Linguistics, <sup>1, 2</sup>CRC-1646: Linguistic Creativity in Communication Bielefeld University, Germany

farhat.jabeen@uni-bielefeld.de, shravani.patil@uni-bielefeld.de

#### **Abstract**

The particle -hii in Hindi/Urdu has been claimed to mark exclusivity, contrastiveness, scalarity, and focus. This paper offers a first analysis of the intonation and the prosodic phrasing of -hii. We bring evidence from a corpus of movie dialogues to show that the intonation of -hii differs from that of narrow focus. Finally, we offer a prosodic phrasing based account of the restriction against multiple instances of -hii in a single clause. This analysis offers a pertinent case for investigating the prosody-pragmatics interface and illustrates that prosody can help disentangle the pragmatic import and the distribution of this particle used in an under-studied language.

#### 1 Introduction

The discourse particle -hii in Hindi/Urdu has variously been described as an exclusive focus particle (Sharma, 1999), negative polarity item (Bhatt, 1994), and a scalar particle (Bajaj, 2016). All these analyses are based on the pragmatics and the syntactic properties of -hii to explain the distribution and the pragmatic import of this particle. There is no existing analysis of the intonation and the prosodic phrasing of -hii and how they differs from the intonation and prosodic phrasing of narrow focus in Hindi/Urdu. We aim to fill this gap and bring evidence from a corpus of Hindi/Urdu movie dialogues read aloud by non-professional speakers. This paper also offers evidence that -hii can optionally modify different components of a nominal constituent, leading to differences in prosodic phrasing based on its variable alignment.

#### 1.1 Prosodic phrasing in Hindi/Urdu

Hindi/Urdu is an intonational 'Phrase Language' that marks prominence at the postlexical level. Jabeen and Delais-Roussarie (2020) claimed that the lexical words in Hindi/Urdu are produced with a rising F0 contour (LH) that denotes the edges of

an Accentual Phrase (AP). (1) illustrates the F0 contour and the prosodic phrasing of a sentence produced in wide focus. It shows that each word is produced with a rising contour and hence parsed as an AP<sup>1</sup>. APs formulate Intonational Phrases (IP) whose right edge is denoted by '%' shown in (1).

(1) Noun1<sub>L H</sub> Noun2<sub>L !H</sub> Verb<sub>L(H)</sub>

$$[AP \quad AP \quad AP]_{IP}$$

In wide focus, the consecutive APs are produced with downstepped (denoted by '!') peaks. Jabeen (2022) showed that the F0 contour of narrowly focused words is similar to their counterparts in wide focus as they are realised with rising F0 contour in both the contexts. She argued that narrow focus is indicated by upstepping (denoted by '∧') the F0 peak on the left edge of the focused noun as illustrated in (2). While there is no difference in the prosodic phrasing of Noun2 in wide focus (1) and narrow focus (2), the upstepped F0 peak on Noun1 preceding narrow focus leads to the insertion of a recursive IP boundary on its right edge.

(2) Noun1<sub>L 
$$\wedge$$
H</sub> Noun2<sub>L !H</sub> Verb<sub>L</sub> [[AP]<sub>IP%</sub> AP]<sub>IP%</sub>

#### 1.2 Data description

Our data is drawn from a corpus of twenty dialogues extracted from twelve Hindi/Urdu movie scripts. The dialogues were read aloud by twenty-five speakers. These were naive speakers of Hindi/Urdu without any oratory training.

#### 2 Analysis

## 2.1 Intonation and prosodic phrasing of -hii

The example in (3), illustrated in Figure 1, depicts the F0 of a sentence with and without *-hii*. (3-a) shows that 'taım', the host of *-hii*, is produced with

<sup>&</sup>lt;sup>1</sup>The intonation of sentence final words is subject to positional constraints resulting in prosodic incorporation. For details, see chapter 3 in Jabeen (2019).

a rising F0 contour carrying an upstepped F0 peak. The same word, devoid of *-hii* in (3-b), is produced with a low tone and is prosodically incorporated with the following complex predicate verb.

- (3) a.  $ti.kit_{(L)H}$  bə.na.ne= $ka_{LH}$  ta**m**- $hi:_{L \wedge H}$  ticket make=Gen time-HII nə.hi  $t_{h}^{h}$ -a not be.Past-M.Sg
  - b.  $ti.kit_{(L)H}$  bə.na.ne= $ka_{L\ !H}$   $taim_{L}$  nə.hi ticket make=Gen time not  $t^h$ -a be.Past-M.Sg 'There was no time to buy a ticket.'
- (4) illustrates that the alignment of *-hii* with an upstepped F0 peak in (3-a) leads to the insertion of a recursive IP boundary on the right edge of the particle following by the dephrasing of the remaining words. Hence, the prosodic phrasing of the host of *-hii* differs from that of a narrowly focused word as reported by Jabeen (2022) and illustrated in (2). Given this, we argue that the host of *-hii* is prosodically prominent but not narrowly focused.
- $\begin{array}{lll} \text{(4)} & & [\;[\;\text{ti.kit_{AP}}\;\text{bə.na.ne=ka_{AP}}\;\text{ta}\textbf{\textbf{m}-hi:_{AP}}\;]_{IP\%} \\ & & \text{nə.hi}\;\underline{t}^{h}\text{-}\alpha]_{IP\%} \end{array}$

### 2.2 Variability in attachment of -hii

Existing analyses report that *-hii* attaches only to the immediately preceding word as it cannot take wide scope (Sharma, 1999; Bajaj, 2016). We argue that this claim fails to consider the potential ambiguity in the attachment of *-hii* in a nominal constituent. (5) shows the variability in the attachment of *-hii* as it can modify either the immediately preceding noun (5-a) or the possessive to the farther left of *-hii* (5-b). Their F0 contour is shown in Figure 2 in the Appendix.

- (5) a.  $m\tilde{\epsilon}_{LH} \text{ tom.ha.re}_{LH} \text{ æŋ.l=se-}hi:_{L \wedge H}$  I your angle=Ins-HII sot $\int r\partial_{t} \partial_{t} h$  think live-M be.1st.Sg
  - b.  $m\tilde{\epsilon}_{LH} \not tom.h\alpha.re_{L \wedge H}$  æŋ.l=se-hi:
    I your angle=Ins-HII
    sot $\int r\partial h \alpha h\tilde{u}$ think live-M be.1st.Sg
    'I am considering your angle.'

The F0 annotation of (5) shows that when -hii is attached to the immediately preceding noun, it carries an upstepped rising contour spanning the host and the particle (5-a). However, when -hii modifies the possessive in the nominal constituent, it's the possessive that carries the rising contour and the following noun and the particle carry a high

plateau (5-b). The differential attachment of *-hii* does not affect the prosodic phrasing of the possessive, but it determines if the noun immediately preceding *-hii* carries a rising contour or not. (6) depicts that the difference in the realization of the upstepped F0 peak results in the differential alignment of the recursive IP boundary with the noun (6-a) or with the possessive (6-b).

- (6) a. [  $\begin{bmatrix} m\tilde{\epsilon}_{AP} & \text{tom.ha.re}_{AP} & \textbf{æn.l} = \text{se-} \\ hi:_{AP} \end{bmatrix}_{IP\%} \text{sot} \begin{bmatrix} r_{\partial}.h_{\neg\alpha} & h\tilde{u} \end{bmatrix}_{IP\%}$ 
  - b.  $[[m\tilde{\epsilon}_{AP} \not t \sigma \mathbf{m.h} \alpha. \mathbf{re}_{AP}]_{IP\%} \approx \mathfrak{g}.l = \text{se-hi:}$  $sot[re.h-\alpha h\tilde{u}]_{IP\%}$

# 2.3 Constraint against multiple instances of -hii

Bhatt (1994) reported that the use of two instances of *-hii* in the same syntactic clause, as shown in (7), is ungrammatical.

(7) \*ram=ne-hi: si.ta=ko-hi: seb ram=Erg-HII sita=Dat-HII apple.nom.M di.ja give.perf.M.Sg 'Only Ram gave only Sita an apple.'

We argue that the relevant restriction against multiple instances of -hii is in fact prosodic. The example presented in (3)a shows that the words following -hii are prosodically dephrased. As the host of -hii obligatorily carries prosodic prominence, this disallows two consecutive instances of the particle within a clause. However, the insertion of a pause, and hence an IP boundary, between consecutive uses of -hii makes (7) acceptable. The resulting prosodic phrasing is shown in (8). The insertion of a pause leads to an iterative Intonational Phrase boundary after 'Ram' instead of a recursive IP boundary following -hii attached to 'Sita'.

(8) [ $\mathbf{ram}$ =ne-hi:] $_{\text{IP}\%}$  pause [[ $\mathbf{si.t}$ =ko-hi:] $_{\text{IP}\%}$  seb di.ja] $_{\text{IP}\%}$ 

#### 3 Conclusion and future work

This paper used data from a corpus of movie dialogue to analyse the intonation and prosodic phrasing of the particle *-hii* and its hosts. This enabled us to go beyond the self-constructed examples to investigate variability in the attachment of this particle. In future, we plan to set up a perception experiment to investigate if Hindi/Urdu speakers can reliably perceive the difference in the attachment of *-hii* in a nominal constituent.

## Acknowledgment

This research has been funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – CRC-1646, project number 512393437, project A03.

#### References

Vandana Bajaj. 2016. *Scaling up exclusive-hii*. Ph.d. dissertation, Rutgers University – New Brunswick.

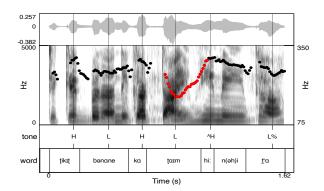
Rajesh Bhatt. 1994. The semantics of Hindi-Urdu -hii. Manuscript (squib for Sabine Iatridou's Intermediate Semantics class). Published as a short squib at UMass Amherst.

Farhat Jabeen. 2019. *Prosody and word order: Prominence marking in declaratives and wh-questions in Urdu/Hindi*. Doctoral dissertation, University of Konstanz, Germany.

Farhat Jabeen. 2022. Word order, intonation, and prosodic phrasing: Individual differences in the production and identification of narrow and wide focus in Urdu. *Languages*, 7(2).

Farhat Jabeen and Elisabeth Delais-Roussarie. 2020. The Accentual Phrase in Urdu/Hindi: A prosodic unit at the interplay between rhythm and intonation. In *Proceedings of Speech Prosody 2020*, pages 542–546.

Devyani Sharma. 1999. Nominal clitics and constructive morphology in Hindi. *Proceedings of LFG99*, pages 1–21.



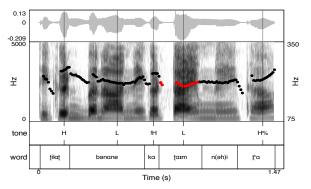


Figure 1: F0 contour of the sentences presented in (3)a (top) and (3)b (bottom panel).

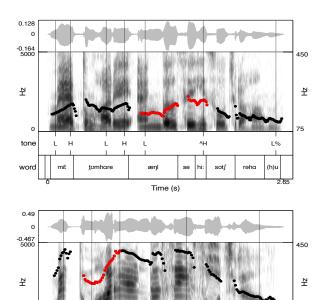


Figure 2: F0 contour of the sentences given in (5)a (top) and (5)b (bottom panel). The F0 of the host of -hii is shown in blue.

æŋ.l

H plateau

sot∫

rəha (hu)

75

tone

tomhare