

-*hii*: Modality meets Exclusivity

Vandana Bajaj¹ and Kristen Syrett^{1,2}

¹*Department of Linguistics, Rutgers University*

²*Rutgers Center for Cognitive Science*

We present evidence from two experiments demonstrating that the Hindi focus particle *-hii* is sensitive to variable scalar endpoints, and we relate these findings to previous work on *only* and modality to unify the taxonomy of exclusive particles with formalized notions of speaker expectations.

Only, and other exclusives in English, can appeal to a set of rank-ordered scalar alternatives. Such particles presuppose that ‘at least’ the prejacent is true, and assert that ‘at most’ the prejacent is true, thereby picking out a weak, minimal element on the scale and asserting that alternative as the upper bound (Coppock & Beaver (2014)). Hindi has several exclusives (*sirf*, *bas*, *keval*) that function equivalently to ONLY, but the clitic *-hii* has extra presuppositional meaning, as in (1).

- (1) JOHN-*hii* aaya.
John-HII come-PAST.M.SG
- a. ‘Only John came (nobody else did).’
 - b. ‘Only John came (and he was the one I thought most likely to come).’
 - c. ‘Only John came (and he was the one that I least wanted to come).’

-hii licenses a complement-exclusion meaning, shown in (1a). It can in certain contexts select for a MIN-ranked alternative on a scale of speaker desirability (cf. Varma (2006)), as in (1c). However it diverges from ONLY in two notable ways. First, absent negation, *-hii* appears to be felicitous with a MAX-ranked proposition on a scale of likelihood (Bajaj (2014)), shown in (1b). Second, *-hii* allows for two different interpretations in the presence of negation. When *-hii* takes scope outside of negation, it gives rise to an ‘only not’ reading ((2a)), but when *-hii* is in the scope of negation, it has a ‘not even’ meaning ((2b)) (Bhatt (1994)). This latter reading highlights a propositional alternative as the one that is necessary for achieving a goal.

- (2) JOHN-*hii* nahiiN aaya.
John-HII NEG come-PAST.M.SG
- a. ‘Only John didn’t come (everybody else did).’
 - b. ‘Even John didn’t come (and now we cannot accomplish some goal).’

We capitalized on the scalar variability of *-hii* and its interaction with negation to probe its meaning in two judgment studies with native Hindi speakers. Our first experiment probed for the existence of a scalar endpoint felicity requirement for *-hii*, for contexts with sentences like (1). Our second experiment investigated the availability of two interpretations when a *-hii*-marked NP interacts with sentential negation, with sentences like (2). Our results reveal that *-hii* does indicate exclusivity and associate with either MIN or MAX of a scale

of propositional alternatives, but that the endpoint targeted varies systematically with the scale type made salient by the discourse context (desirability, likelihood, or necessity).

For contexts that make salient a scalar ordering of desirability, Coppock & Beaver (2014)'s generalization for English exclusives fits *-hii* neatly, since *-hii* behaves like rank-order *only* in selecting for a MIN. However, scales of likelihood and necessity make *-hii* seem like an outlier because speakers select for a MAX-ranked alternative in these contexts.

We propose to recast the meaning of *-hii* to consistently target a MIN, and appeal to modally-based scales as a formalization of speaker expectations, critical to the lexical meaning of *-hii*. We build on insight from Lassiter (2011, 2014)'s analysis of graded modality, which shows that modals associate with speaker conceptions of probabilities about propositional alternatives. Furthermore, such modal expressions can make reference to the endpoints of probability scales. We refine the felicity conditions given for *-hii* in Bajaj (2014) to uniformly accommodate referencing probability comparisons for epistemic (likelihood), bouletic (desirability), and teleological (necessity) contexts invoking *-hii*, and we integrate this proposal with Coppock & Beaver (2014)'s taxonomy of English exclusives to demonstrate that, crosslinguistically, *only* and other exclusives may similarly be captured with a modal analysis of their scalar meaning.

References

- Bajaj, Vandana (2014). Hii at the semantics-pragmatics interface. *Proceedings of the 31st West Coast Conference on Formal Linguistics*, Cascadilla Press, vol. 31.
- Bhatt, Rajesh (1994). The semantics of hi. Unpublished ms .
- Coppock, Elizabeth & David Beaver (2014). Principles of the exclusive muddle. *Journal of Semantics* 31:3, 371–432.
- Lassiter, Daniel (2011). *Measurement and modality: The scalar basis of modal semantics*. Ph.D. thesis, New York University.
- Lassiter, Daniel (2014). Modality, scale structure, and scalar reasoning. *Pacific Philosophical Quarterly* 95:4, 461–490.
- Varma, Terry (2006). Some aspects of the meaning of the Hindi particle hii. Singh, Rajendra (ed.), *The Yearbook of South Asian Languages and Linguistics*, Mouton de Gruyter, 87–122.