Ordering expectation: The semantics of scalar *only* in Indian English

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1 Introduction: The phenomenon

Indian English (IE) allows the use of exclusive *only* as in Standard American English (AmE).

(1) a. **Only** John came to the party.
     b. I read **only** two stories this week.
     c. Bill **only** danced, he didn't sing.

Indian English also has a post-positional scalar *only* (Bhatt 2000, Lange 2007, Parviainen 2009). Lange (2007) describes it as presentational or non-contrastive focus. But it seems to have contrastive uses. There is no previous formal account of its semantics.[2]

(2) $[John]_F$ **only** came to the party.
     = John, as opposed to someone else, came to the party, and he was the most expected person to come.
     $\neq$ John, but no one else came to the party.

(3) $[You]_F$ **only** told me to run away.
     = It was you who told me to run away, who else would it be?
     $\neq$ Only you told me to run away.

(4) John is $[here]_F$ **only**
     = John is *here*, not somewhere else, and this is the most expected situation.
     $\neq$ This is the only place where John is.

(5) John is $[dancing]_F$ **only**.
     = John is dancing, as opposed to doing something else. He was expected to dance, but not, for example, to sing.

<u>Generalization</u>: *only* has a scalar meaning, in a sense opposite to *even* in AmE. It implies that its prejacent is the most expected/least surprising option. Consider the following example:

(6) John ate $[apples]_F$ **only**.
     a. At-issue meaning = John ate apples.
     b. Presupposition = Of all the food options, he was most likely to eat apples.

Unlike with exclusive *only*, the prejacent of scalar *only* does not project out of negation, so it is asserted, not presupposed.

(7) a. John didn't eat **only** $[apples]_F$. $\rightarrow$ John ate apples.
     b. John didn't eat $[apples]_F$ **only**. $\nrightarrow$ John ate apples.

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[2]Data is based on native speaker judgements including but not limited to my own.

The scalar inference (6-b) projects out of (high-scope) negation, questions, and the antecedent of conditionals, so I propose it is a presupposition.

(8) a. John didn't eat [apples]$_F$ **only**.
     b. Did John eat [apples]$_F$ **only**?
     c. If John ate [apples]$_F$ **only**, then my hunch was right.

2 Proposal: Scalar presupposition

I propose that *only* is a focus-sensitive operator, which operates on a set of contextually-determined focus alternatives, as in Rooth (1985). I assume *only* always LF-raises and adjoins to S. It combines with α of type t as follows, assuming a trivalent semantics with weak Kleene logic.

(9) $only[\alpha] \rightsquigarrow \alpha \wedge \partial(\forall p[[C(p) \wedge p \neq {}^{\wedge}\alpha] \rightarrow p <_{expected} {}^{\wedge}\alpha])$
     If $\alpha = [_\alpha ... \beta_F ...]$, $C \subseteq \lambda p.\exists \beta[p = {}^{\wedge}[_\alpha ... \beta ...]]$ where $\beta \in D_{type(\beta)}$

For exclusive *only*, the right side of the implication would be $\neg p$, negating the alternatives. The lexical entry for IE *only* is then as follows:

(10) $only_{<t,t>} \rightsquigarrow \lambda q_t.q \wedge \partial(\forall p[[C(p) \wedge p \neq {}^{\wedge}q] \rightarrow p <_{expected} {}^{\wedge}q])$

In essence, IE *only* takes a proposition q, asserts that q is true, and presupposes that q is the most expected out of a set of contextually salient focus alternatives.

2.1 Applying the proposal

Consider a context where John is at a party where there are several fruits laid out on a table as snacks. John's favourite fruit is apples, and he is therefore expected by everyone to eat some apples. He may or may not additionally eat other fruits. Treating 'apples' as a proper name for convenience, consider example (6) again:

(11) John ate [apples]$_F$ only.
      At-issue meaning (a): John ate apples.
      Presupposition: $\forall p[[p \in F \wedge p \neq {}^{\wedge}a] \rightarrow p <_{expected} {}^{\wedge}a]$ where $F = [^{\wedge}\text{Ate}(j,x) : x \in D_c \subseteq D_e]$ and D_c is a contextually determined subset of D_e.

Thus, *only* creates a presupposition which places its complement at the highest end of an 'expectation scale', with the alternatives determined by the focussed constituent. Since the presupposition projects out of high-scope negation, I assume there is Neg-raising in LF to a position above where *only* attaches. However, it is possible for *only* to scope above negation when the negation is part of the focused constituent.

3 Negation and scope

The projection out of negation requires that negation scope above *only*. If negation is included in the focused constituent, this account makes a prediction of the opposite scope

which is borne out. The following minimal pair shows the two possible scopes, the sentences are distinguished by prosody.

(12) Context: I was expected to go to the party.
I didn't $[go]_F$ only.
At-issue meaning: I didn't go.
Presupposition: $^\wedge$I went$>_{expected}$ $^\wedge$I didn't go   Negation scopes above *only*

(13) Context: I was not expected to go to the party.
I $[didn't\ go]_F$ only.
At-issue meaing: I didn't go.
Presupposition: $^\wedge$I didn't go $>_{expected}$ $^\wedge$I went   *only* scopes above negation

3.1 Other types of negation

It is possible to get both scopes with negative elements that are less obviously separable. With *deny*, the default seems to be negation scoping above *only*.

(14) John denied going only.
Paraphrase: John completely denied going.
At-issue meaning: John denied going.
Presupposition: $^\wedge$John denied going $<_{expected}$ $^\wedge$John admitted to going.

However, there is another possibility here. With stress on *denied*, and especially with a pronominal object, one can get the opposite reading, that the denial was the most expected outcome, in which case *only* scopes above negation.

(15) The politician $[denied\ it]_F$ only.
At-issue meaning: The politician denied it.
Presupposition: $^\wedge$The politician denied it $>_{expected}$ $^\wedge$The politician admitted it

A similar scope ambiguity arises for *without*. Context: Mohan is making a curry for his American friends, who cannot tolerate chillies. Curry is expected to have salt, but this curry is expected to not have chillies.

(16) John made the curry without salt only.
At-issue meaning: John made the curry without salt.
Presupposition: $^\wedge$John made the curry without salt $<_{expected}$ $^\wedge$John made the curry with salt.   (Negation scopes above *only*)

(17) John made the curry $[without\ chillies]_F$ only.
At-issue meaning: John made the curry without chillies.
Presupposition: $^\wedge$John made the curry without chillies $>_{expected}$ $^\wedge$John made the curry with chillies   (*only* scopes above negation)

These examples suggest that elements like *deny* and *without* consist of negation plus something else, and in (14) and (16), the focussed element has to include that second part to get the observed alternatives. Given that negation is not transparently separable in the surface form, this lends support to there being Neg-raising in LF.

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Similar issues arise with elements like *nobody*. The contrast between *nobody* and *anybody* below with a Neg-raising verb, shows that the syntax is important. *only* cannot scope above negation unless negation is included in the focussed constituent.

(18) I think nobody came only. $\qquad$ both scopes possible

(19) I don't think anybody came only. $\qquad$ Negation scopes above *only*

4 Comparison with Exclusive *only*

4.1 Assertion and Presupposition

Exclusive *only* presupposes its prejacent, and asserts the negation of all the focus alternatives. (Horn, 1969; Rooth, 1985, 1992) The precise status of the presuposition is debated. (Ippolito, 2007)

(20) John ate only [apples]$_F$.
    Presupposition (a): John ate apples.
    At-issue meaning: $\forall p[[p \in F \land p \neq {}^\wedge a] \to \neg p]$ where $F = [{}^\wedge \text{Ate}(j, x) : x \in D_c \subseteq D_e]$ and D_c is a contextually determined subset of D_e.

By contrast, as shown above, scalar *only* asserts the prejacent, and presupposes that the prejacent is at the highest end of an expectation scale over focus alternatives.

(21) John ate [apples]$_F$ only.
    At-issue meaning (a): John ate apples.
    Presupposition: $\forall p[[p \in F \land p \neq {}^\wedge a] \to p <_{expected} {}^\wedge a]$ where $F = [{}^\wedge \text{Ate}(j, x) : x \in D_c \subseteq D_e]$ and D_c is a contextually determined subset of D_e.

4.2 Exclusivity

Unlike with exclusive *only*, this proposal predicts no entailment of exclusivity with IE scalar *only*, which seems to be borne out. The context is of a wedding, where the bride is (one of) the most likely to be present. These examples then involve negation scoping above *only*.

(22) [The bride]$_F$ only didn't show up to the wedding. Of course no one else came.

(23) [The bride]$_F$ only didn't show up to the wedding. But everyone else came.

Contrast these with parallel sentences with exclusive *only*, with either scope.

(24) Only [the bride]$_F$ didn't show up to the wedding. #Of course no one else came.
    (Entails everyone else came so continuation is odd.)

(25) It is not the case that only [the bride]$_F$ showed up to the wedding. #But no one else came.
    (Entails someone else came so continuation is odd.)

However, in non-negated contexts, there is an exclusivity inference that produces conflicting results on defeasibility and redundancy tests.

Context: John recently wrote his final exams in Math, Physics, and Biology. John is known to be particularly adept at Math, and was expected to surely get an A in Math. He was much less likely to get an A in Physics or Biology.

(26) John got an A in [Math]$_F$ only. ⤳ John did not get an A in Physics or Biology.

Let us apply the defeasibility and redundancy test.

(27) ?John got an A in Math only, but he also got an A in Physics.   (Defeasibility)

(28) John got an A in Math only. He didn't get an A in Physics or Biology. (Redundancy)

The exclusivity implicature remains the same when embedded under negation, but is more easily cancellable.

(29) John didn't get an A in Math only. ⤳ John didn't get an A in Physics or Biology.
    a. But he did get an A in Physics.   (Defeasibility)
    b. And he didn't get an A in Physics or Biology either.   (Redundancy)

Contrast this with exclusive *only*, for which exclusivity, which is asserted, interacts directly with negation.

(30) John didn't get an A in only Math. ⤳ John got an A in at least one other subject.

I propose that the source of the exclusivity implicature for non-negative contexts is the statement being interpreted as an exhaustive answer to the implied QUD: "Which subject(s) did John get an A in?" in the sense of Dayal (2016). In negative contexts, exclusivity is more easily accounted for as a scalar implicature.

    Exclusivity and its interaction with negation is something to look into further and the analysis needs to be formalized.

4.3 Co-occurrence

Finally, exclusive *only* can co-occur with post-positional *only*.

(31) Ram eats [only [vegetarian food]$_F$] only.
    = Ram eats only vegetarian food, and this was the most expected fact about his dietary preferences.

(32) I'm still working on only "only" only.

Scalar *only* always scopes higher regardless of syntactic position. It's unclear what the inverse scope would mean. Co-occurrence also seems to involve two levels of focus.

5 Other issues

5.1 The syntax of scalar *only*

Scalar *only* is always post-positional, it occurs to the right and can associate with a subpart of its complement.

By contrast, exclusive *only* is pre-positional, it occurs to the left of the focused constituent. Certain constructions disobey this generalization such as 'for your eyes only'. This is a little more productive in Indian English with the right prosody.

Although the details need to be looked into more carefully, I believe scalar *only* in Indian English is a contact phenomenon from focus particles in Indo-Aryan and Dravidian languages which occur post-positionally, which would explain its position as well as the increased productivity of exclusive *only* occurring to the right.

Comparative analysis with Hindi-Urdu *hi* (Bhatt, 1994), a possible source of scalar *only* that has both exclusive and scalar uses, might shed more light on this.

5.2 Comparison with NPI *even*

Although *only* under negation superficially patterns like NPI *even* (Giannakidou 2007) in its scalar properties, it does not have an additive meaning with or without negation. Therefore the NPI *even* theory cannot be used to account for the behavior of scalar *only*.

(33) John ate [apples]$_F$ only. He didn't eat anything else.

(34) John even ate [apples]$_F$. #He didn't eat anything else.

(35) John didn't eat [apples]$_F$ only. However, he ate other fruits.

(36) John didn't even eat [apples]$_F$. #However, he ate other fruits.

6 Conclusion

Given the facts above, IE scalar *only* cannot be subsumed under exclusive *only* as they are semantically distinct. However they are clearly not unrelated and given this polysemy, comparative study of the formal properties of the two *only*s might help arrive at a core semantics of *only*.

It is worth looking into the prosody contours of the two *only*s, and their interaction with the position of focus, since there seems to be a difference. In particular, post-positional *only* can be exclusive, but only with a particular stress pattern.

Indian English has other polysemous focus-sensitive particles. Fuchs (2012) proposes that *also* has acquired a presentational focus use, and further functions as *either* under negation. Interestingly, *only* and *also* are sometimes interchangeable. Both give rise to a Minimal Sufficiency Reading. (Coppock and Beaver, 2013)

(37) Just thinking about her makes me crazy.

(38) Thinking about her **only** makes me crazy.

(39) Thinking about her **also** makes me crazy.

References

Bhatt, Rajesh. 1994. The semantics of *hi*. Ms., University of Pennsylvania.

Bhatt, Rakesh M. 2000. Optimal expressions in Indian English. *English Language and Linguistics* 4:69–95.

Coppock, Elizabeth, and David I. Beaver. 2013. Principles of the Exclusive Muddle. *Journal of Semantics* 31:371–432.

Dayal, Veneeta. 2016. Exhaustive and non-exhaustive answers. In *Questions*. Oxford University Press. URL `https://doi.org/10.1093/acprof:oso/9780199281268.003.0003`.

Fuchs, Robert. 2012. Focus marking and semantic transfer in Indian English: The case of also. *English World-Wide* 33:27–53.

Giannakidou, Anastasia. 2007. The landscape of EVEN. *Natural Language & Linguistic Theory* 25:39–81.

Horn, Larry. 1969. A presuppositional analysis of 'only' and 'even'. *Papers from the Fifth Regional Meeting of the Chicago Linguistics Society* 98–107.

Ippolito, Michela. 2007. On the Meaning of Only. *Journal of Semantics* 25:45–91.

Jackendoff, Ray. 1972. *Semantic Interpretation in Generative Grammar*. Cambridge, MA: MIT Press.

Lahiri, Utpal. 1998. Focus and Negative Polarity in Hindi. *Natural Language Semantics* 6:57–123.

Lange, Claudia. 2007. Focus marking in Indian English. *English World-Wide* 28:89–118.

Parviainen, Hanna. 2009. Only in Indian English Only?: Focus Particles also, only and itself in Indian English and their use in Singapore and Philippine English. Doctoral Dissertation, University of Tampere, Tampere, Finland.

Rooth, Mats. 1985. Association with Focus. Doctoral Dissertation, Massachussetts Institute of Technology.

Rooth, Mats. 1992. A theory of Focus Interpretation. *Natural Language Semantics* 1:75–116.

Selkirk, Elizabeth O. 1984. *Phonology and Syntax: The Relation between Sound and Structure*. Cambridge, MA: MIT Press.