A close look at *just* and how to derive intensification effects from exclusivity

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The semantics and pragmatics of intensification

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Background: Goals of my research

- Formalizing a common semantics accounting for the uses of all exclusive operators
- Explaining the differing meanings and distributions of those operators
- Specifically, focusing on just and its wide array of uses

Tying it to intensification:
- Rather than analyzing just as an intensifier independently, I will show a general account of how we can derive intensification from this broad notion of exclusivity
Roadmap

- Background on exclusivity
- In-depth look at one use of *just* (unexplanatory) & how to analyze it
- Discussion of why it’s desirable to extend the analysis to intensification
- Brief overview of two possibilities for extension
- Some remaining issues
Background: Exclusivity

• Exclusives can generally be paraphrased by
  “X and no more than X”

  (1) Bill only has \([2]_F\) dogs.
       → “Bill has 2 dogs and no more than 2 dogs.”

• Meaning has two components:
  • Prejacent: usually assumed to be presupposed
  • Quantificational negation of stronger alternatives: asserted
I posit the following lexical entry for the quantificational part of exclusives (including just), following Rooth 1985, 1992; Beaver & Clark 2008; Chierchia 2013, among others.

\[
[\text{EXCL}] = \lambda C_\leq. \lambda p. \lambda w. \forall q[(q \in C_\leq \land w \in q) \rightarrow p \leq q]
\]

(Rooth 1992; Chierchia 2013; Wiegand 2017)

Note: \(C_\leq\) represents an ordered pair \(\langle C, \leq \rangle\) of an alternative set \(C\), along with an ordering \(\leq\) on \(C\).

- This is included in order to account for differences between operators like only and merely.
- Just is unrestricted on the kind of ordering, so the \(\leq\) variable can be filled in as, e.g., \(\subseteq\) or a contextually salient scale.
• For exclusives, the alternative set is usually analyzed as a subset of the focus alternatives (Rooth 1985, 1992)

(3) Bill only introduced John to \([Sue]_F\). \quad \text{Rooth (1992)}
\quad \rightarrow \text{Bill did not introduce John to anyone other than Sue.}

(4) Bill only introduced \([John]_F\) to Sue.
\quad \rightarrow \text{Bill did not introduce anyone other than John to Sue.}

• Exclusives can also operate on lexical scales

(5) The coffee was merely warm. \rightarrow \text{The coffee was not hot}

• These uses still usually occur with a focus intonation on the part of the sentence that is giving rise to the alternatives (\textit{warm} above)
First extended use of exclusivity: Unexplanatory just

Context: Two girls, Cordelia and Harmony, are talking at the top of a staircase. Suddenly, Harmony jerks backwards and falls down the stairs. (It is later revealed that an invisible girl had pushed her.)

(6) Principal Snyder: . . . What happened?  
Cordelia: She fell! She, she, we were standing at the top of the stairs and she just fell! All by herself!  
Harmony: No! I was pushed!

(Buffy the Vampire Slayer, S1E11)
(6) Principal Snyder: . . . What happened?
Cordelia: She fell! She, she, we were standing at the top of the stairs and she just fell! All by herself!
Harmony: No! I was pushed!

• Intuitively, *just* is indicating (apparent) lack of cause or explanation here

• However, there is no focused element to give rise to an appropriate alternative set $C$
  • The only contender is *fell*, but this doesn’t get the right interpretation
  • $\neq$“Harmony only fell”
(6) Principal Snyder: . . . What happened?
Cordelia: She fell! She, she, we were standing at the top of the stairs and she *just* fell! All by herself!
Harmony: No! I was pushed!

• This also cannot be reduced to intensification
• *Just* is contributing at-issue information
  • It answers the question “what happened” in a context where it is already apparent that Harmony has fallen (i.e., the QUD is referring to the cause of the falling)
  • It can be contested/negated with the assertion of a cause
  • It could not be replaced with *flat-out, downright, absolutely*, etc. (importantly, *simply* is much better)
Covert sources of alternatives

• Variation previously observed among exclusives: availability of covert elements as the trigger for the alternative set
  • Described in Orenstein 2015 as ‘internal’ alternatives (Wiegand 2017 as lack of required association with focus)
• Evidence from Hebrew accented STAM

(7) kibalti Saon, ha-beaya hi Se-ze STAM Saon! Got.I watch the.proBLEM she that.it STAM watch “I got a watch. The problem is that it’s STAM a watch!” (Orenstein 2015: 103)

• Resulting paraphrase: ‘it’s just a plain watch, and not a better kind of watch’
• Orenstein (2015) argues that \textit{STAM} combines with alternatives including covert modifiers of ‘watch’
  • ‘It’s MOD watch’, where MOD is interpreted here as ‘standard’
• I have argued that unexplanatory \textit{just} can be analyzed in a very similar way (Wiegand 2017)

• If we encode causation/explanation relationships as accessible entities for quantification, unexplanatory \textit{just} can be analyzed as a negation of (stronger) causes
  • This move allows us to keep the semantics for \textit{just} given in (2)

(2) \[ [\text{EXCL}] = \lambda C_\leq. \lambda p. \lambda w. \forall q[(q \in C_\leq \land w \in q) \rightarrow p \leq q] \]
(Rooth 1992; Chierchia 2013; Wiegand 2017)
• This requires allowing covert internal modification of the prejacent

• When available, a covert minimal cause, which I label $\text{CAUSE}_0$ is filled in as the trigger for the alternative set

  • This availability is constrained to adhere to the QUD, or possibly a weakened version of the QUD/a framework that allows for fairly widespread accommodation

• $\text{CAUSE}_0$ is essentially a placeholder for the alternatives, and can be interpreted as ‘minimally necessary cause’
• So, for a sentence like (8a), we would get the computed prejacent as in (8b) and resulting alternative set \( C \) in (8c)

\[
(8) \quad \begin{align*}
\text{a. } & \text{The lamp just broke. (suddenly/unexpectedly)} \\
\text{b. } & \phi = \text{The lamp broke \textit{CAUSE}_0} \\
\text{c. } & C = \{ \text{The lamp broke \textit{CAUSE}_0, The lamp broke because the cat knocked it down, The lamp broke because the wind knocked it over, \ldots } \}
\end{align*}
\]

There is evidence that these causation relationships need to be modified by an epistemic necessity modal \( \Box \) to derive all of the correct truth conditions. Feel free to ask me about it if you’re interested, but the modal is not necessary to see the general picture.
Overt correlates

• We have evidence from some examples of overt \textit{because} clauses that it is possible to fill in redundant information as a cause or explanation

\begin{quote}
(9) I’m not just saying this \textit{because I’m saying it}. There’s evidence behind it.
\end{quote}

(The Young Turks, \textit{Voting for the Lesser of Two Evils}, 4/19/2016, 02:37–02:54)

• This sentence is virtually indistinguishable from one without the overt \textit{because} clause

\begin{quote}
(10) I’m not just saying this. There’s evidence behind it.
\end{quote}

• So, seems logical to conclude that this cause could be as minimal as the prejacent itself
• So, given an utterance of (8a), we get the following derivation and resulting paraphrase

(11) Utterance: The lamp just broke.
    e: the event of the lamp breaking
    C = \{ e \text{ because } x \mid x \text{ is a contextually salient potential cause for } e \}\n    \phi = e \text{ because } \text{CAUSE}_0, \text{ where } \text{CAUSE}_0 \text{ is some "minimal cause"}

\[ \text{EXCL}(\phi) = \lambda w. \ \forall q (q \in C \land w \in q) \rightarrow \phi \leq q \]

Resulting Paraphrase: “For all explanations \( q = \text{The lamp broke because } x \) that are not entailed by \( \phi = \text{The lamp broke because } \text{CAUSE}_0, \ q \not\in w.\)"
Interim summary

• For unexplanatory *just*, encoding covert causes allows us to use a standard notion of exclusivity for the semantics of *just*

• Can this be modified to account for intensification effects?
  • Is that even a desirable goal?

• Two viable avenues of approach:
  • Quantification over covert degrees of pragmatic slack
  • Quantification over speech acts
Non-extreme intensification?

• Claim by Morzycki (2012): *just* is infelicitous with non-extreme predicates

• Counterevidence (possible alternate use)

(12) a. Mark is just \{incredible/the best/a fantastic dude\}!
    b. Mark is just decent.

(13) a. That fish is just gigantic!
    b. That fish is just big.

• With the right context/prosody, these middle ground predicates seem fine with *just*
Playing with the at-issueness/negation

• Can you ever negate intensifying \textit{just}+predicate examples in contexts where the predicate is not denied?

(14) A: Most of your answers were just wrong.
B: #3 wasn’t just wrong! The logic made sense, I just made an error!
→ Answer #3 was not \{obviously/inevitably/etc\} wrong, (but it was in fact wrong)

• More often, when these uses are negated, the entire intensified phrase is interpreted under negation ($\neg$(just pred)$\rightarrow \neg$pred)

(15) A: Did you like the movie?
B: Meh, it wasn’t just amazing, but it was okay.
→ The movie wasn’t amazing

• These cases are marginal, but it’s worth looking into
A note on flipping the scale

• It might seem reasonable to argue that the intensifying effect comes from flipping the direction of the scale *just* operates on

\[(2) \quad [\text{EXCL}] = \lambda C_\leq . \lambda p. \lambda w. \forall q[(q \in C_\leq \land w \in q) \rightarrow p \leq q] \]

\[(16) \quad [\text{EXCL’}] = \lambda C_\leq . \lambda p. \lambda w. \forall q[(q \in C_\leq \land w \in q) \rightarrow q \leq p] \]

• This essentially amounts to changing the assertion from ‘...and no more than’ to ‘...and no less than’

• This approach can get us roughly the correct semantic intuitions

• However, this is no different than positing two separate uses of *just*, i.e., the ambiguity account

• Ambiguity is always an option, but there are reasons to want a tighter connection between ‘ordinary’ and intensifying *just*
Some reasons to extend to intensification

- The line is blurry between this intensification use and the unexplanatory use

\[(17)\]

a. I just love your necklace!
b. I just feel like it's going to rain.

- (17a) could be used to express lack of (knowable/accessible) cause for the love, but it also results in the intensification effect
- There is an intuition that (17a) and (17b) have the same just
• Even non-intensification uses seem much broader than causes
  • There are times when it could be quantification over consequences/results

(18) You can’t just hit someone.

• Unexplanatory: ‘You can’t just hit someone for no reason’
• Alternate: ‘You can’t just hit someone and get away with it’
  • Either follow-up felicitous; the second would require different kind of covert modifier
• There are uses of *just* that seem to indicate “without observation of the usual social expectations”

(19) John got a phone call in the middle of the meeting and he just got up and left!

(20) The priest gave Charlotte her communion wafer and she just ate it!

• These kinds of uses make direct use of social expectations or ‘normal’ ways of doing things
  • But they are clearly quantificational in the way that unexplanatory *just* is (definitely not intensifying)
• They are also targetable with negation:

(21) A: I heard that John got a phone call in the middle of the meeting and just got up and left!
    B: He didn’t just get up and leave—he was very apologetic about it!

• (Like we saw with unexplanatory just), they can occur in contexts where the alternative set is indicated overtly

(22) I’m not going to say goodbye. If we get through this, I’m just going to go.

    (Buffy the Vampire Slayer, S3E22)

• Despite this, I’d argue that the use in (22) is still not an ordinary exclusive:
  • could not substitute only (simply seems okay)
• This gradient indicates an underlying structural similarity
  • Where would we draw the line between just \textsubscript{1} and just \textsubscript{2}?

• We also have an intuition about intensifying uses of just that can be paraphrased with the schema for exclusivity:
  • “X and that’s all I need to say”
  • “X and that’s all there is to it”
  • “...with no need to add anything else” (Beltrama 2016: 84)
  • “It’s \{just/simply\} that X”
  • “I’m just saying X”

• How can we capture this ‘high-level exclusivity’?
Pragmatic slack hypothesis

• Rather than covert minimal causes, emphatic/EM uses of *just* quantify over covert minimal degrees of deviation from the truth of the extreme predicate

• This also captures the pragmatic/metalinguistic effect of contrasting with the less extreme lexical alternatives
  • Essentially, the restriction on the degree of deviation, formalized as pragmatic slack, entails that less extreme alternatives are insufficient
• This use would involve a covert degree of slack, or pragmatic halo, (Lasersohn 1999) over which just quantifies
  • In Lasersohn’s framework, every expression has a pragmatic halo, or degree of acceptable variation from the literal meaning
    • Slack regulators restrict or widen that halo
• So, given such a framework, we can say that EM just behaves much like a slack regulator in that it restricts the pragmatic halo to some minimal degree of deviation (\(\text{SLACK}_0\))
  • This might explain the restriction to extreme predicates, since the exclusive would require some precise value that it could restrict the slack to
  • However, with the right context and prosody, almost every non-extreme predicate example can be used with this just
• Once we introduce these kinds of covert degrees, it is also possible that we will be able to capture the remaining categories of polysemous meanings of *just*
  
  • One such category is shown below:

(23) Specificatory (Spacial/Temporal) *just*

  a. I’m just finishing my homework.
  
  b. I’ve just heard that you are leaving us.

    (Lee 1987: 390, ex. 72–73)

  c. You have something just below your eye.

• The examples in (23) might easily be captured if we encode covert temporal and spacial degree modifiers
• Utilizing covert modifiers allows us to capture the similarities between ordinary exclusives and quantification over these more pragmatic alternatives

• Many (if not all) of the covert modifiers we need have been independently posited (discourse coherence relations, slack regulators, covert temporal arguments, etc.)

• Main problem: as we saw earlier, ‘emphatic’ uses of just are not at-issue, not targetable with negation
  • So should we really be putting this in the same domain as ordinary exclusive uses (or even extended uses)?
A speech act quantification analysis?

- Rather than positing covert elements in the prejacent, another analysis involves quantifying over speech acts/speaker commitments.
- One ready framework for this is given in Cohen & Krifka 2011.
  - They use this to account for superlatives like at least/at most.
- Essentially, some quantifiers can operate above the ASSERT operator.
  - Assertions are taken to come with speaker commitments, which puts these commitments into the formal representation (and allows them to be negated).
- This allows just to operate over assertions, contrasting with what is not asserted (what is granted).
Some evidence for a speech act analysis

- Implicature/speaker commitment seems targetable with *just*

(24) A: My boss always approaches me at the end of the day with work for me to do. It’s very frustrating.
B: That’s too bad. But maybe she’s been really busy lately and other stuff has distracted her.
A: Well, that’s no excuse!
B: I know, I’m just saying. (Lee-Goldman 2011: 77)

(25) A: John said Mary owns 2 apartments.
B: No, that’s wrong. She owns 3.
A: He just said she owned 2. (He wasn’t implying she didn’t own more.)

- It also maps onto intuitions about paraphrases of these uses
Issues with the speech act analysis

- The framework is not fine-grained enough to pick out which implicatures/commitments are being quantificationally negated
- We would still likely need some kind of modal like ‘pragmatically necessary’ to derive the correct results for ‘this is all I need to say’ readings
Remaining issues: *Just fine vs. just okay*

- Why is it just fine to say *just fine* but not okay to say *just okay* to mean ‘just fine’?

(26) A: How are you?
    B: I’m just fine.
    \[\rightarrow\] B is fine and no worse than fine.

(27) A: How are you?
    B: I’m just okay.
    \[\rightarrow\] B is okay and no better than okay.

(28) A: How are you?
    B: I’m fine.
    A: Just fine?
    B: No, I’m just fine!
Remaining issues: *Just know*

- *Just* messes with *know’s* factivity

(29) It’s going to rain. I just know it.

(30) She just knew Hillary was going to win.

- These indicate strong belief, but do not presuppose the truth of their complement
  - The first may indicate lack of complete evidence
  - The second seems to mostly just indicate intensification of the belief

- What is *just* quantifying over here? Lexical alternatives? (Abusch 2002)

- Why would intensifying *know* result in nonfactivity?
Remaining issues: *Just any*

- *Just* exhibits some very interesting behavior when it modifies *any*
  - It seems that *just* can be used to force a low scope universal with respect to other operators

(31)  

a. He can’t lift anything.  

b. He can’t lift just anything.
• This behavior is not available to other exclusives like \textit{only}

(32)  \# He can’t lift only anything.

(33)  A: Can just anyone lift Mjolnir?
       B: No, only Thor can.

• However, it is available with \textit{simply} and other intensifiers/slack regulators like \textit{absolutely}

(34)  a. He can’t lift absolutely anything \(\neg\forall\)
       b. He can’t lift simply anything \(\neg\forall\)
• This scope-blocking behavior actually fits nicely with the analysis of these uses of *just* as exclusive
  • It has been noted that exclusive operators can block certain scopal relationships (Erlewine 2011)
  • In Japanese, *dake* ‘only’ blocks distributive readings of possessors

• An exclusive semantics for *just* could explain why the universal *any* must take low scope with respect to negation, as quantifiers cannot scope out of the focus semantic value of exclusive operators
Expressivity & discourse marker status

• My framework for the contribution of just has been truth-conditional
  • However, it seems clear that just is also contributing some expressive content
  • This can be seen in examples where it behaves like a discourse marker
    • It can exhibit concord behavior, as in (35)

(35) The legislators didn’t just\textsubscript{1} change the word because they just\textsubscript{2} felt like it.

• Here just\textsubscript{1} and just\textsubscript{2} contribute the same truth-conditional content
  • In fact, if we tried to compose (35) with two instances of just, we would get the wrong truth-conditions

• This is fairly common for discourse markers, where the expressive content can be repeated or reinforced
• *Just* has also been analyzed as a metalinguistic device
• Despite my compositional treatment of *just*, I do think that it can be used in non-truth-conditional ways
  • However, its expressive content follows the semantic structure of [EXCL]
• It is possible that this can give us insight into the diachronic development of discourse markers as extensions of semantic content to the pragmatic domain
Looking forward

• It’s clear that there are theoretical motivations to analyze all intensifiers as a class

• However, it’s also apparent that exclusivity can be broadened semantically and pragmatically
  • One endpoint of that broadening may be intensification

• I’ve made a case for analyzing *just*’s intensifying uses as extended exclusivity
  • Its intensification effects and similarity to slack regulators comes from the fact that it is underspecified enough to quantify over pragmatic slack
  • Other intensifiers likely derive their effects through a different mechanism (except *simply*, which will need an analysis very similar to *just*)

• But there’s clearly more work to be done!
Thanks for listening!

Email me with comments/suggestions/questions at jrw369@cornell.edu


