

# *Just:* Don't Ask the Question

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## All exclusives are NOT created equal

- *Just* has a number of **non-canonical** readings not possible with *only*.
  - This observation made persuasively by Wiegand (2016) and Beltrama (2018).
- (2) *You shouldn't blame yourself for your hamster's death.*  
Sometimes, bad things just/#only happen.
  - (3) *I've tried everything I can think.*  
The engine just/#only won't start.
  - (4) *I usually have to say "Open sesame" to open the gate.*  
But sometimes, it just#only opens.

# Proposal

- A unified analysis of these usages is possible.
- *Just* excludes pragmatic alternatives originating from a **potential question**, or possible future QUD.
- This contrasts with *only*, which excludes alternatives from the current QUD.<sup>2</sup>
- *Just* can both strongly exclude (negate) and weakly exclude (declare unassertable) alternatives.

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<sup>2</sup>(Beaver and Clark, 2008; Coppock and Beaver, 2013)

# Road Map

- Background/Data
- Analysis
- Prior Work
- Additional Predictions

# Exclusives

$$(5) \quad \llbracket EXCL \rrbracket^w = \lambda p : p. \forall q \in ALT(p) [p \not\subseteq q \rightarrow \neg q(w)]$$

- Exclusives negate non-entailed alternatives to the prejacent, and presuppose the prejacent.
- For simplicity, I consider only cases where alternatives are partially ordered by entailment.<sup>3</sup>
- Defining  $ALT(p)$  more specifically is key.

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<sup>3</sup>A more general lexical entry would presuppose “at least  $p$ ” to any partially ordered scale (Klinedinst, 2004; Coppock and Beaver, 2013).

## Usages of *just*

- Prior literature identifies at least 4 seemingly distinct usages of *just*.
- As I'm arguing for a unified analysis, these distinctions will have no theoretical significance.
- However, they *seem* different, so I discuss them for presentational purposes.
- Following Wiegand's (2016) "Unexplanatory" *just*, I name them after the discourse relation<sup>4</sup> between the prejacent and each alternative.

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<sup>4</sup>As in SDRT (Asher and Lascarides, 2003)

## Usage 1: Unexplanatory

Express there is no explanation for the prejacent.<sup>5</sup>

- (6) *You shouldn't blame yourself for your hamster's death.*  
Sometimes, bad things just happen.
- (7) *Betsy is worried her house may be haunted.*  
The lights just turn off and on.

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<sup>5</sup>Wiegand (2016)



## Aside: Strong vs. Weak *just*

Sometimes *just* is strong: it says there's no explanation whatsoever:

- (8) *Aristotle advanced the theory of spontaneous generation.*  
He said that flies just appear in rotting fruit.

Sometimes *just* is weak: it says the explanation is unknown or not worth exploring.<sup>6</sup>

- (9) *Betsy's house is haunted.*  
The lights just turn off and on.

This holds for the following usages, too.

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<sup>6</sup>Wiegand (2016); Beltrama (2018)

## Usage 2: Uncontrastive

A.K.A. Emphatic Exclusive, intensifies the prejacent<sup>7</sup> [no contrasting claim is possible]

- (10) *I have no complaints.*  
The soup is just delicious.
- (11) *I've tried everything I can think of.*  
The engine just won't start.

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<sup>7</sup>Beltrama (2018)

## Usage 3: Unelaboratory

Expresses there's no possible elaboration of the prejacent.<sup>8</sup>

(12) *I got him a watch for his birthday.*

The problem is, it's just a watch. [It's very plain.]

(13) *Betsy doesn't blame the kids for breaking the window.*  
She's just mad.

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<sup>8</sup>Orenstein (2015)

## Usage 4: Unconjunctive (= Canonical Exclusive)

Expresses there's no (focus congruent) conjunction that can be made.

- (14) *I don't know what to make for dinner.*  
Betsy just eats chicken nuggets.

## These really *are* exclusives

English *simply* works the same way:

- (15) a. Bad things simply happen.  
 b. The engine simply won't start.  
 c. Sometimes, the door simply opens.

Exclusives in other languages have similar readings:

- (16) Erzsi **csak** csirkefalatokat eszik. (Hungarian)<sup>9</sup>  
 Erzsi only chicken nuggets eats  
 'Betsy only eats chicken nuggets'
- (17) Ránéztem a pohárra, és **csak** leesett.  
 look.at-I the glass-on and only fell  
 'I looked at the glass and it just fell [=by itself]'

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<sup>9</sup>Thanks to Anna Szabolcsi (p.c.) for Hungarian examples.

## Usages *not* covered

- (18) **Temporal *just*:**  
The train just left 2 minutes ago.
- (19) **Scale restriction *just*:**  
Once the custard has just set, turn off the heat.

For relevant work, see Lee (1987, 1991); Aijmer (2002); Laparle and Truswell (2018)

# Road Map

- Background/Data
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# Overview

- The discourse function of *just* is to prevent interlocutors from entertaining possible future QUD.
- After Onea (2016), **potential questions** are a conventionalized part of grammar, and I propose they deliver alternatives for *just* to exclude.
- In its strong form, *just* says there is no true positive answer to a potential question licensed by the prejacent.
- In its weak form, *just* says there is no assertable answer to a potential question licensed by the prejacent.



## Intuition

- (20) a. A: I almost delivered a baby on the subway. I was going to school, and **the train stopped**.  
B: **Why did it stop?**  
A: It doesn't matter.
- b. A: I almost delivered a baby on the subway. I was going to school, and **the train just stopped**.  
B: **#Why did it stop?**
- (21) a. A: **I love my job**. The people are great. The work is interesting. The pay is good.  
**So what's wrong with it?**  
A: Nothing!
- b. A: **I just love my job**. The people are great. The work is interesting. The pay is good.  
**# So what's wrong with it?**

## Lexical Entry: Strong *just*

$$(22) \quad \llbracket just_{\text{strong}} \rrbracket^w = \lambda p : p. \forall q \in \text{PQ-ALT}_c(p) [p \not\subseteq q \rightarrow \neg q(w)]$$

- Identical to EXCL (5) ...
- ...except alternatives are generated by PQ-ALT.
- PQ-ALT returns the most contextually relevant potential question licensed by the prejacent.
- $\text{PQ-ALT}(p) := \text{MAX-RELEVANT}_c\{Q \mid \text{LICENSE}_c(p, Q)\}$

# Lexical Entry: Weak *just*

$$(23) \quad \llbracket just_{\text{weak}} \rrbracket^w = \lambda p : p(w). \forall q \in \text{PQ-ALT}(p) [p \not\subseteq q \rightarrow \text{UNASSERTABLE}(q)(w)]$$

- Instead of negating alternatives, alternatives are unassertable.<sup>11</sup>

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<sup>11</sup>This follows Beltrama (2018), and Wiegand (2016) sketches a very similar analysis.

## Deriving Strong from Weak

- Wait, does this *just* is lexically ambiguous? No!
- Strong *just* can be derived by strengthening weak *just*.
- This is analogous to how primary implicatures strengthen to secondary implicatures.<sup>1213</sup>
- Ways for a proposition  $p$  to be unassertable:
  - S is ignorant of  $?p$
  - S is reluctant to assert  $p$
  - S considers  $?p$  irrelevant
  - S believes  $p$  is false

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<sup>12</sup>Thanks to Philippe Schlenker (p.c.) for this observation.

<sup>13</sup>See Sauerland (2004) on primary/secondary implicatures.

## What are Potential Questions?

- I assume a Hamblin semantics: question  $Q$  with LF  $wh(Nuc)$  is  $\{Nuc(x) \mid x \in D_{wh}\}$
- So  $Q$  denotes the set of **positive answers**.
- However,  $Q$  does not presuppose a positive answer is true, but merely “supposes” (implicates) it.<sup>14</sup>

(24) A: What are you doing this weekend?  
B: Nothing.

- I use  $Q^{\exists}$  to name  $\bigcup Q$ , i.e. the “positive supposition” that  $Q$  has a true positive answer.

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<sup>14</sup>See similar view by Büring (2004) on “focus suppositions”.

## Potential Question: Definition

(25) Proposition  $p$  licenses  $Q$  as a potential question in context  $c$  only if  $P(Q^{\exists} \mid c \cap p) \geq \alpha$ , for some contextual threshold  $\alpha$ .<sup>15</sup>

- **Notation:**  $\text{LICENSE}_c(p, Q)$
- **Gloss:**  $p$  licenses  $Q$  only if  $Q$  is sufficiently likely to have a true positive answer given we add  $p$  to the context.

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<sup>15</sup>Adapted from Onea (2016)

## Potential Questions: Examples

$\text{LICENSE}_c(p, Q)$  only if  $P(Q^\exists \mid c \cap p) \geq \alpha$

- (26) *Context: It's before the company holiday party.*  
 Andy: The cookies you were saving have disappeared.  
 Betsy: Who ate my cookies?

- Why does Andy's utterance license Betsy's question?
- $Q =$  Who ate Betsy's cookies?  
 $= \left\{ \begin{array}{l} \text{Yvonne ate Betsy's cookies.} \\ \text{Zoe ate Betsy's cookies.} \\ \dots \end{array} \right\}$
- $Q^\exists =$  Someone ate Betsy's cookies.
- $P(\text{Someone ate Betsy's cookies.} \mid \text{It's before the party} \cap \text{B's cookies disappeared}) > \alpha$

## Potential Questions: Examples

$$\text{LICENSE}_c(p, Q) \text{ only if } P(Q^\exists \mid c \cap p) \geq \alpha$$

- (27) *Context: It's before the company holiday party.*  
 Andy: The cookies you were saving have disappeared.  
 Betsy': #Who put my cookies under quarantine?

- $P(\text{Someone quarantined Betsy's cookies.} \\ \mid \text{It's before the party} \cap \text{B's cookies disappeared}) \lll \alpha$



## Potential Questions: Examples

$\text{LICENSE}_c(p, Q)$  only if  $P(Q^\exists \mid c \cap p) \geq \alpha$

Prediction: This dialogue is fine if the contextual likelihood of Q is high.

- (28) *Context: Betsy is an allergist attending the tree nut allergy conference. However, she is not allergic to tree nuts. In fact she's addicted to peanut butter cookies, and has saved a few in her hotel room to enjoy secretly.*  
Andy: The cookies you were saving have disappeared.  
Betsy: Who put my cookies under quarantine?

$P(\text{Someone quarantined Betsy's cookies.}$

$\mid \text{B is at allergy conf.} \cap \text{B's cookies disappeared}) > \alpha$

## Back to *just*

$$\llbracket just_{\text{weak}} \rrbracket^w = \lambda p : p(w). \forall q \in \text{PQ-ALT}(p) [p \not\subseteq q \rightarrow \text{UNASSERTABLE}(q)(w)]$$

$$\text{PQ-ALT}(p) = \text{MAX-RELEVANT}_c \{Q \mid \text{LICENSE}_c(p, Q)\}$$

- In each usage, the prejacent  $p$  licenses a potential question ( $\text{PQ-ALT}_c(p)$ ) that is excluded (either strongly or weakly) by *just*.
- This boils down to the fact that, without *just*, some existential proposition would be highly likely given the prejacent, and could raise a potential question in the addressee's mind that's not productively entertainable.

## Potential Question Alternatives: Unexplanatory

$$\llbracket just_{\text{weak}} \rrbracket^w = \lambda p : p(w). \forall q \in \text{PQ-ALT}(p) [p \not\subseteq q \rightarrow \text{UNASSERTABLE}(q)(w)]$$

- (29) *Betsy is afraid of her new house.*  
 The lights just turn off and on.

$p$  = The lights turn off and on.

$\text{PQ-ALT}(p)$  = Why do the lights turn off and on?

$$= \left\{ \begin{array}{l} \text{The lights turn off because the wire is frayed} \\ \text{The lights turn off because I flip the switch} \\ \text{The lights turn off because the bulb is dying} \end{array} \right\}$$

$P$ (The lights turn off and on for some reason.

$$| c \cap \text{The lights turn off and on} > \alpha$$

## Potential Question Alternatives: Uncontrastive

$$\llbracket just_{\text{weak}} \rrbracket^w = \lambda p : p(w). \forall q \in \text{PQ-ALT}(p) [p \not\subseteq q \rightarrow \text{UNASSERTABLE}(q)(w)]$$

- (30) *I've tried everything I can think of.*  
 The engine just won't start.

$p$  = The engine won't start.

$\text{PQ-ALT}(p)$  = What can we do to make the engine start again?

=  $\left\{ \begin{array}{l} \text{The engine will start if we turn the key} \\ \text{The engine will start if we jump the battery} \\ \text{The engine will start if we turn the bang on the hood} \end{array} \right\}$

$P(\text{There's something we can do to make the engine start again.}$

$| c \cap \text{The engine won't start}) > \alpha$

## Potential Question Alternatives: Unelaboratory

$$\llbracket just_{\text{weak}} \rrbracket^w = \lambda p : p(w). \forall q \in \text{PQ-ALT}(p) [p \not\subseteq q \rightarrow \text{UNASSERTABLE}(q)(w)]$$

- (31) *I got him a watch for his birthday.*  
 The problem is, it's just a watch.

$p$  = It's a watch.

PQ = What kind of watch is it??

$$= \left\{ \begin{array}{l} \text{It's a gold watch} \\ \text{It's a Rolex watch} \\ \text{It's an atomic watch} \end{array} \right\}$$

$P$ (It's a particular kind of watch

| I got it for his birthday  $\cap$  It's a watch)  $> \alpha$

## Potential Question Alternatives: Unconjunctive (Classical Exclusive)

$$\llbracket just_{\text{weak}} \rrbracket^w = \lambda p : p(w). \forall q \in \text{PQ-ALT}(p) [p \not\subseteq q \rightarrow \text{UNASSERTABLE}(q)(w)]$$

- (32) *I don't know what to maker for dinner.*  
Betsy just eats chicken nuggets.

PQ = What does Betsy eat in addition to chicken nuggets?

$$= \left\{ \begin{array}{l} \text{Betsy eats corn in addition to chicken nuggets} \\ \text{Betsy eats potatoes in addition to chicken nuggets} \\ \text{Betsy eats okra in addition to chicken nuggets} \end{array} \right\}$$

$P(\text{Betsy eats something in addition to chicken nuggets.}$   
 $\mid \text{Betsy is picky.} \cap \text{Betsy eats chicken nuggets.}) > \alpha$

# Road Map

- Background/Data
- Analysis
- **Prior Work**
- Additional Predictions

## Comparison to Prior Work

- This is the first unified account of *just*.
  - Prior approaches to *just* have treated these usages as separate, and tended to focus on only one.
- The account gives a natural explanation for why alternatives look so unusual.
- The account derives strong exclusion from weak exclusion.

Paper	Usage	Alternative source	W/S
Coppock & Beaver (2013)	Unconjunctive	QUD-based alts	Strong
Orenstein (2015)	Unelaboratory	Rootian “internal” alts	Strong
Wiegand (2016, 2018)	Unexplanatory	Rootian “internal” alts	Modal Alts
Beltrama (2016, 2018)	Unelaboratory	Metalinguistic alts	Weak
<i>Present account</i>	<i>All of the above</i>	<i>Potential Question</i>	<i>Strengthening</i>



## QUD-based Alternatives

- **QUD-Alt Hypothesis:** *just* and *only* exclude all elements of the current QUD higher on a scale than the prejacent.<sup>16</sup>
- Problem: *just* can exclude alternatives that couldn't possibly be a QUD.

- (33) A: Why is Betsy afraid of her new house?  
 B: The lights just turn off and on.

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<sup>16</sup>Beaver and Clark (2008); Coppock and Beaver (2013)

## Covert Focus Alternatives

- Can we generate unelaboratory and unexplanatory alternatives using Roothian focus?<sup>17</sup>
- Problem: Where does the “extra” content come from?
- Covert focus approach: *just*'s alternatives are generated by focus on a covert modifier.<sup>18</sup>

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<sup>17</sup>Rooth (1985)

<sup>18</sup>Orenstein (2015); Wiegand (2016)

## Covert Focus Alternatives: Unelaboratory

- (34) kibalti Saon, ha-beaya hi Se-ze STAM shaon!  
 Got.I watch the.problem she that.it STAM watch  
*“I got a watch. The problem is that it’s STAM a watch!”<sup>19</sup>*

$$\begin{aligned} \llbracket \text{It's a } [\text{MOD}]_F \text{ watch} \rrbracket^f &= \{ \text{It's a MOD}' \text{ watch} \mid \text{MOD} \in D_{\langle et, et \rangle} \} \\ &= \left\{ \begin{array}{l} \text{It's a gold watch.} \\ \text{It's an antique Rolex watch.} \\ \text{It's an atomic watch.} \\ \dots \end{array} \right\} \end{aligned}$$

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<sup>19</sup>Hebrew, Orenstein (2015)

## Covert Focus Alternatives: Unexplanatory

(35) The lights just turn off and on.

[[The lights turn off and on because ~~CAUSE~~<sub>F</sub>]]<sup>f</sup>

= {Lights turn off and on because CAUSE' | CAUSE' ∈ D<<sub>s,t</sub>>}

= {  $\left. \begin{array}{l} \text{The lights turn off and on because I flip the switch.} \\ \text{The lights turn off and on because the wire is frayed.} \\ \text{The lights turn off and on because the bulb is dying.} \\ \dots \end{array} \right\}$  }

# Problems for the Covert Focus Approach

- 1 There is no external motivation that such a wide variety of covert content at LF is needed.
- 2 *Only* is wrongly predicted to give rise to the same non-canonical readings as *just*.

## *Just* vs. *Only*

- Wait...What distinguishes *just* from *only* on the potential question account?
- *Just* always gets its alternatives from a potential question, while *only* always gets its alternatives from the current QUD.<sup>20</sup>

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<sup>20</sup>Beaver and Clark (2008); Coppock and Beaver (2013)

# Metalinguistic Alternatives Approach

- Beltrama (2018) generates metalinguistic alternatives for uncontrastive *just*.
- Alternatives to *p* are gotten by deleting, replacing, and adding content.<sup>21</sup>
- Problem: How do we ensure that all the additional content comprises an explanation, contrast, etc.?

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<sup>21</sup>(Katzir, 2007)

## Summary of Prior Work

- Some earlier accounts<sup>22</sup> struggle because *just*'s alternatives contain “extra content” not found in the discourse or prejacent.
- Others<sup>23</sup> fail to constrain the alternatives along the relevant dimension.
- Potential questions naturally explain where this content comes from, and why it coheres to a topic.

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<sup>22</sup>Coppock and Beaver (2013) and Wiegand (2016)

<sup>23</sup>Beltrama (2018)



# Road Map

- Background/Data
- Proposal
- Potential Questions
- Previous Accounts
- **Additional Predictions**

# Embedded *just*

Non-canonical meanings of *just* embed:

(36) **Attitude Verbs (Unexplanatory)**

Aristotle believed that flies just appeared in rotting fruit.

(37) **Negation (Unelaboratory)**

That's not just a pie, that's my Aunt Sally's famous pecan pie!

(38) **Conditional (Uncontrastive)**

If the engine just won't start, you'll have to junk it.

# Grammaticalization of Potential Questions

- Potential questions can be calculated in embedded positions.
- This follows from Onea's (2016) claim that potential questions are a conventionalized part of grammar.
- Evidence, epistemic indefinites like German *irgend-QP* conventionally express that a potential (elaboration) question is not worth asking:

## Relevance Sensitivity

- Recall the excluded alternatives are the **maximally relevant** potential question licensed by the prejacent.
- Prediction: Highly specific potential questions can be excluded.

(39) *Context: Tina only eats her veggies if they are smothered in a new gourmet sauce. Her parents have to devise new sauces every night.*

Parent: Guess what! Tina just ate her veggies tonight.

PQ = What sauce did Tina eat her veggies with?

## Relevance Sensitivity: Potential Question = QUD

- The prejacent may license several potential questions, and which is excluded depends on the context.

(40) Betsy: What do you like about Justin Bieber?  
Andy: Nothing. I just hate him.

⇒ UNCONTRASTIVE

(41) Betsy: Why do you hate Justin Bieber so much?  
Andy: No reason. I just hate him.

⇒ UNEXPLANATORY

This is not a problem, as the prejacent licenses the QUD as a potential question.

## Conclusion

- *Just* is not just *only*'s little sibling.
- It presents a rich set of problems, which semanticists are only just beginning to tackle.
- Some of its non-canonical readings arise by considering alternatives derived from a potential question.
- We should not be surprised to find potential questions conventionalized in grammar, since reasoning about the future of the discourse is common and rational.
- New semantic frameworks—the commitment space model (Cohen and Krifka, 2014) and inquisitive semantics (Ciardelli et al., 2018)—emphasize reasoning about discourse futures.

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# Thanks

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