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Meanings as Proposals: an Inquisitive Approach to Exhaustivity

oral presentation in session: 6A Semantics-pragmatics
interfaces (Kai von Stechow & David Beaver)

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Long live Grice!
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An implicature, the supposition of which is necessary for maintaining the assumption that the speaker is cooperative.

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Wrong, it does!

Outline

1. Diagnosis
2. Solution
3. Conclusion
4. Related concepts and puzzles

1. Diagnosis

- (2) a. Which colours (among red, green and blue) does John like?
b. He likes blue. \leadsto *He doesn't like red*
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(2b) and (2c) differ in their *attentive content*.

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maxim of Relation

2. Solution

- 2.1. Translation into logic
- 2.2. Semantics
- 2.3. Pragmatics
- 2.4. Predictions

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- (3) a. There are colours (among red and blue) that John likes.
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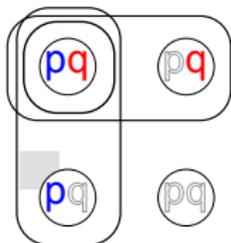
(3a) $[p \vee q \vee (p \wedge q)]$

(3b) $[p]$

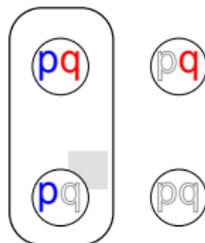
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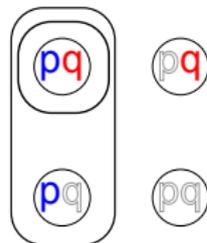
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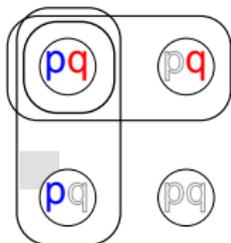
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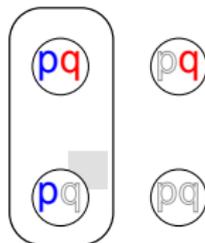
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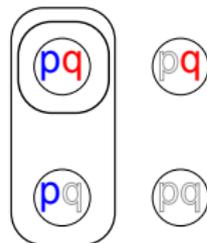
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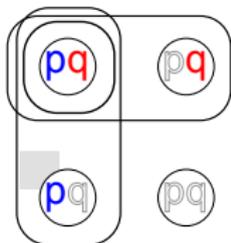
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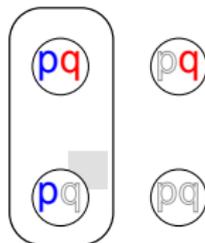
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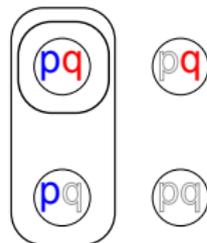
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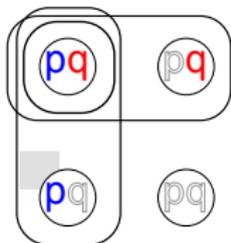
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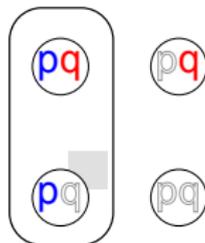
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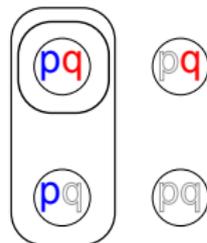
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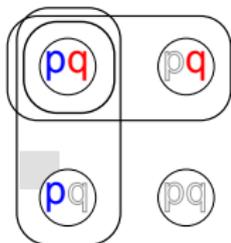
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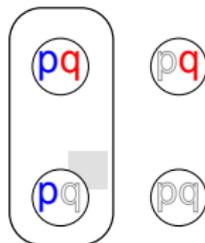
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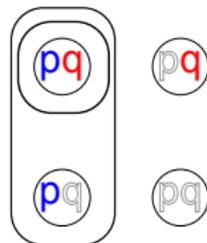
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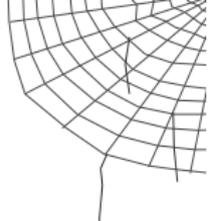
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Now, (3c) \models (3a), but (3b) $\not\models$ (3a).

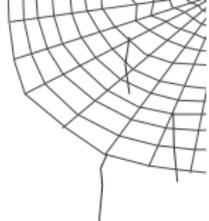
2.3. Pragmatics



The relevant maxims

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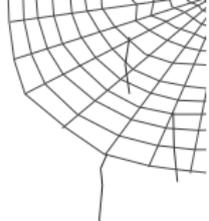


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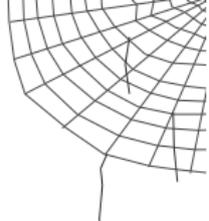


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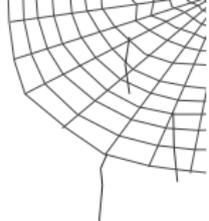


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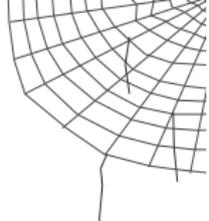


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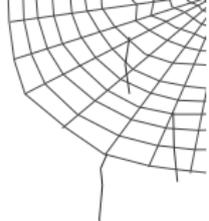


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It was raining.

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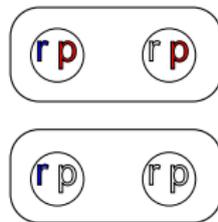
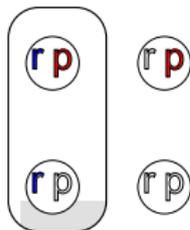


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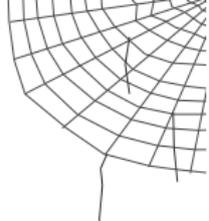
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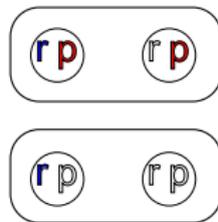
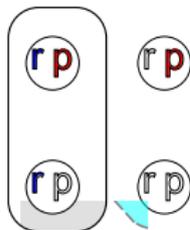


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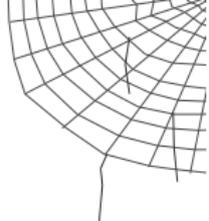
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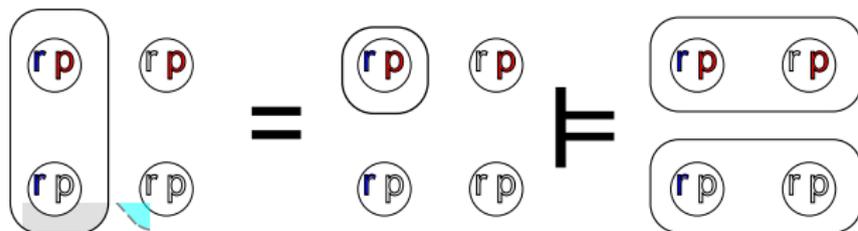


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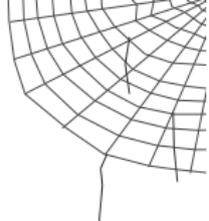
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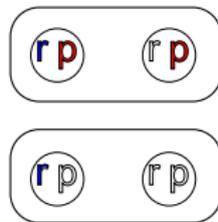
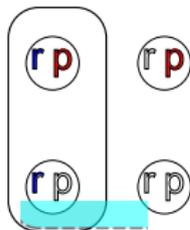


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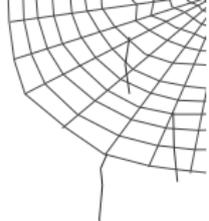
For a cooperative speaker with information s , responding R to Q :

1. **Quality:** $s \subseteq \cup R$.
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- (4) Did John go to the party?
It was raining.



2.3. Pragmatics

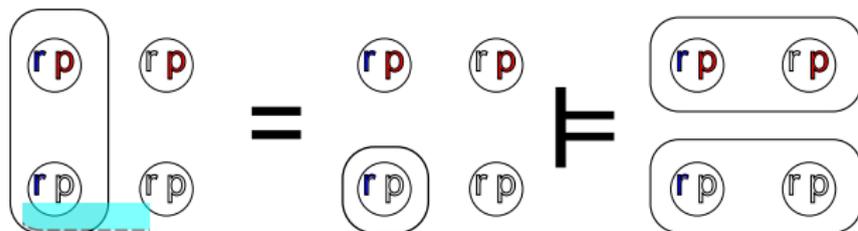


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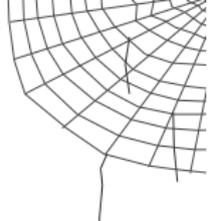
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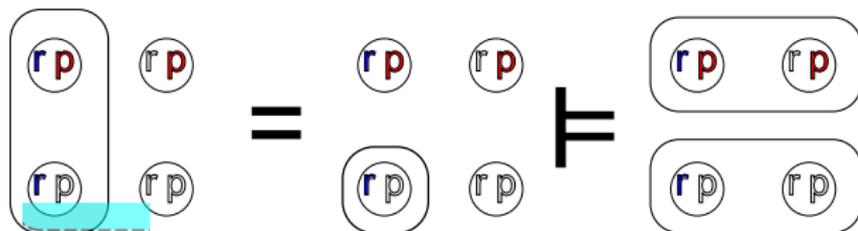
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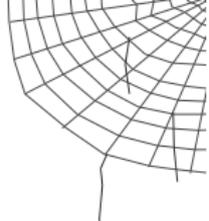
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(4) Did John go to the party?

It was raining. \rightsquigarrow If it rained, John {did / didn't} go.



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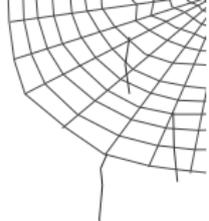
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(cf. Groenendijk and Stokhof, 1984; Roberts, 1996; Spector, 2007)



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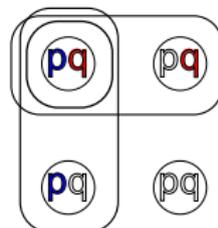
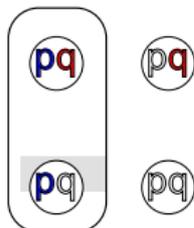
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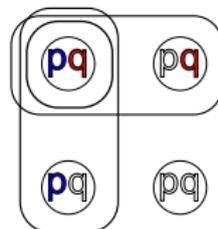
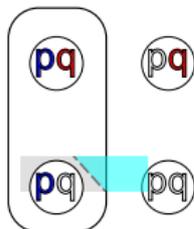
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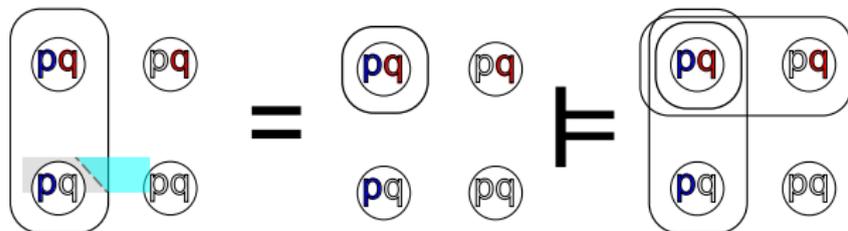
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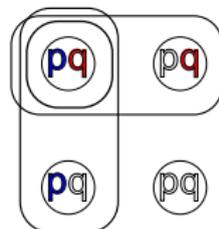
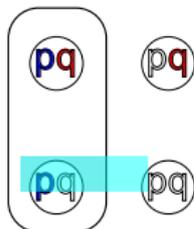
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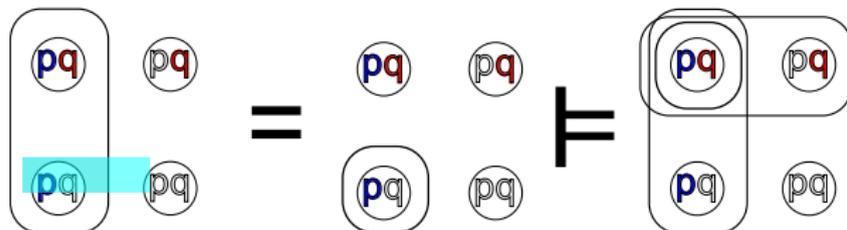
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 4. $s \subseteq \overline{|q|}$ exhaustivity!
- Handwritten notes:*
 $p \neq p \vee q \vee (p \wedge q)$
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Take-home messages:

- ▶ Pragmatic reasoning is sensitive to attentive content.
- ▶ *Exhaustivity implicatures are conversational implicatures.*

4. Related concepts and puzzles

- 4.1. The opinionatedness assumption
- 4.2. 'Alternatives'
- 4.3. 'Embedded' implicatures
- 4.4. Other suitable semantics
- 4.5. Roberts's (1996) 'relevance'
- 4.6. One-sided/two-sided numerals

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Counterexample:

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Instead, in my approach:

- ▶ Opinionatedness follows from Quality + Relation implicatures

4.2. 'Alternatives'

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More take-home messages

- ▶ The 'alternatives' are fully determined by the maxims.
- ▶ Speakers need not reason in terms of alternatives.

4.3. 'Embedded' implicatures

Chierchia, *et al.* (2008), and much subsequent discussion

- (6) Which books (among O. and K.L.) did every student read?
Every student read O. or K.L. \leadsto No student read both.

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The 'embedded' implicature of (6) is in fact predicted.

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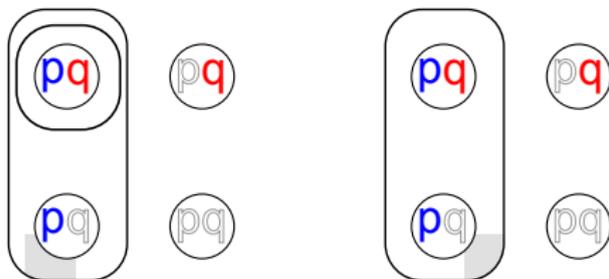
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E.g., in case of exhaustivity:

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4.6. One-sided/two-sided numerals

- (7) a. There are three apples.
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4.6. One-sided/two-sided numerals

- (7) a. There are three apples. $\exists x.Ax \wedge |x| = 3$
b. There are at least three apples. $\exists x.Ax \wedge |x| \geq 3$
c. There are exactly three apples. $\exists!x.Ax \wedge |x| = 3$

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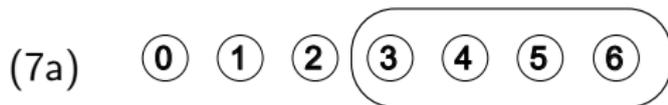
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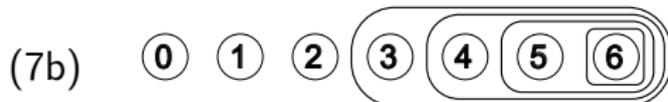
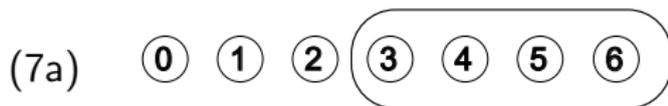
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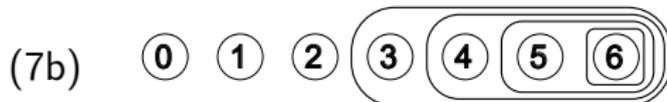
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(cf. Coppock and Brochhagen, 2013)

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Fin.

Contact

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Article

- ▶ Attentive Pragmatics: Exhaustivity and the Final Rise.
ESLLI StuS proceedings (staff.science.uva.nl/~westera/)

Thanks to the *Netherlands Organisation for Scientific Research* (NWO) for financial support; to F. Roelofsen, J. Groenendijk, the audiences of *SemDial* (Paris), *S-Circle* (UC Santa Cruz), *SPE6* (St Petersburg) and many anonymous reviewers for valuable comments.

Appendix A. Semantics (Roelofsen, 2011)

Ingredients

- ▶ *Possibility*: a set of worlds (a, b)
- ▶ *Proposition*: a set of possibilities ($A, B, [\varphi]$)
- ▶ *Informative content*: $|\varphi| := \cup[\varphi]$
- ▶ *A restricted to b*, $A_b := \{a \cap b \mid a \in A, a \cap b \neq \emptyset\}$

Semantics of relevant fragment

1. $[p] = \{\{w \in \mathbf{Worlds} \mid w(p) = \text{true}\}\}$
2. $[\varphi \vee \psi] = ([\varphi] \cup [\psi])_{|\varphi| \cup |\psi|} = [\varphi] \cup [\psi]$
3. $[\varphi \wedge \psi] = ([\varphi] \cup [\psi])_{|\varphi| \cap |\psi|}$

Entailment

A entails B , $A \models B$, iff (i) $\cup A \subseteq \cup B$ and (ii) $B_{\cup A} \subseteq A$.

Appendix B. The final rise

To be presented at ESLLI.

- (7) Which colours (among red, green and blue) does John like?
He likes blue ↗.

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Proposal

The final rise conveys *uncertain cooperativity*.

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(Quality)

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Conveys uncertainty regarding:

- ▶ whether he really likes blue (Quality)
- ▶ whether this is sufficient info (Quantity)
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- ▶ whether he likes red

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- ▶ whether 'blue' is pronounced correctly (Manner)
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- ▶ whether he likes red (Relation)

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