

# Not sure if this is relevant..

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## 1. Observation

- (1) a. Which colours do you like most? (minimally:  $\exists xPx$ )  
b. Blue... [with final rise] ( $Pb$ )

Readings (a.o.):

- I. Not sure if I really like blue that much. (Gunlogson)  
II. Should I have said ‘aquamarine’ instead?  
III. Did I pronounce ‘blue’ correctly?  
IV. Not sure about the other colours. (Constant)

## 2. Aims of this poster

I claim that **a final rise conveys uncertain cooperativity** (the latter à la Grice).

- Reading *I* = uncertain Quality
- Reading *II* = uncertain Quantity
- Reading *III* = uncertain Manner
- Reading *IV* = **uncertain Relevance**

I will derive reading *IV* based on:

- attentive/inquisitive semantics (Roelofsen);
- relevance as context-relative entailment (Roberts);
- previous work on exhaustivity implicatures (Westera).

I leave readings *I-III* to intuition.

## 3. Notation

- $A, B$ : meanings, i.e., sets of sets of worlds.
- $s, t$ : information states, i.e., sets of worlds
- $w$ : a world.
- $A_s = \{a \cap s \mid a \in A\}$ :  $A$  restricted to  $s$ .
- $\models$ : entailment.
- $[\varphi]$ : the meaning of sentence  $\varphi$ .

## 4. Ingredients (Westera, 2013)

Relevance is world-dependent (non-logical):

- $B$  is **relevant** to  $A$  in  $w$  iff for some  $t, w \in t, B_t \models A$ .
- An agent with knowledge state  $s$  **knows how**  $B$  is relevant to  $A$  iff  $B_s \models A$ .

**Maxim of Relevance:** know how your utterance is relevant to the question under discussion (cf. Roberts).

Intuitive example:

- (2) a. Will John go to the party?  
b. It's raining.  $\rightsquigarrow John \{\text{hates/loves}\} \text{rainy parties.}$

The richer the semantics, the stricter this maxim.

- **Attentive semantics** models the possibilities a sentence draws attention to (Roelofsen).
- $B \models A$  iff  $\bigcup B \subseteq \bigcup A$  (info) and  $B \supseteq A_{\bigcup B}$  (attentive).
- Now (1b)  $\neq$  (1a), because  $[Pb] \neq [\exists xPx]_{\bigcup [Pb]}$ .

## 5. Predictions

**Fact:** (1b) complies with the Maxim of Relation iff for all  $c \neq b$ , the speaker believes  $Pb \rightarrow Pc$  or  $Pb \rightarrow \neg Pc$ .

For (1), *without* its final rise, we would get (Westera):

1. The speaker believes that  $Pb$  (Quality)
2.  $\forall c \neq b$ , she lacks the belief that  $Pc$  (Quantity)
3.  $\forall c \neq b$ , she believes  $Pb \rightarrow Pc$  or  $Pb \rightarrow \neg Pc$  (Relation)
4.  $\forall c \neq b$ , she believes  $\neg Pc$  = exhaustivity!

But *with* its rise, conveying uncertain relevance, we get:

1. The speaker believes that  $Pb$  (Quality)
2.  $\forall c \neq b$ , she lacks the belief that  $Pc$  (Quantity)
3.  $\forall c \neq b$ , she's unsure whether  $Pb \rightarrow (\neg)Pc$  (**final rise**)
4.  $\forall c \neq b$ , she's unsure whether  $Pc$  = reading *IV*!

## 6. Conclusions

- Final fall/rise conveys certain/uncertain cooperativity.
- Reading *IV* arises from semantics-pragmatics interplay.
- Pragmatics is sensitive to attentiveness (cf. Ciardelli).
- Pragmatic notions (e.g., ‘relevance’) enter semantics.

## A. Available upon request (please ask!)

1. A recent handout with formal details and pictures.
2. Contextual entailment of Roberts is too strong.
3. ‘Within a world, everything is related.’
4. The focus in *rise-fall-rise* makes quantity/relevance readings more salient (cf. Constant).
5. Perhaps not all final rises are the same (but so what).
6. Bonus: implicatures are not (explicitly) cancellable.

## B. References

- Ciardelli, et al. (2009). *Attention! Might in Inquisitive Sem.*
- Constant (2012). *English rise-fall-rise: a study in the semantics and pragmatics of intonation.*
- Grice, H. (1975). *Logic and conversation.*
- Gunlogson (2008). *A question of commitment.*
- Roberts, C. (2012). *Information structure in discourse: Towards an integrated formal theory of pragmatics.*
- Roelofsen (2011). *Information and attention.*
- Westera (2013). *Inq. pragmatics: entailment as relatedness.*

## C. Acknowledgements

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