Inquisitive Semantics: Attentive *might*

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based on joint work with Ivano Ciardelli

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[www.illc.uva.nl/inquisitive-semantics](http://www.illc.uva.nl/inquisitive-semantics)
What have we done so far? – Day 1

A new notion of meaning

• Propositions as proposals
• Sets of possibilities
• Each possibility embodies a possible update
• Captures both informative and inquisitive content

A concrete inquisitive semantics for a simple language

• Language of propositional logic
• Recursive definition of support relation
  • \([\varphi] = \text{set of maximal supporting states}\)
• As a result, propositions are sets of alternative possibilities in this system. A possibility is never contained in another.
Attentive content

- Besides informative and inquisitive content, the new notion of meaning can also be taken to capture **attentive** content
- In uttering $\varphi$, a speaker can be taken to draw attention to all the possibilities in $[\varphi]\]

A more liberal notion of propositions

- If attentive content is taken into account, it does not make sense to restrict ourselves to sets of **alternative** possibilities
- Propositions as **arbitrary** non-empty sets of possibilities
- $[\varphi]$ no longer defined as set of maximal supporting states
- Instead, we gave a **direct recursive** definition of $[\varphi]$
Today

Part I: Finish the story about attentive content and *might*

- Two puzzles for the standard modal account of *might*
- Attentive *might* in inquisitive semantics
- Attentive *might* in inquisitive pragmatics
- Comparison with modal and dynamic accounts

Part II: Algebraic foundations
A sentence $\varphi$ **draws attention** to all the possibilities in $[\varphi]$

Moreover, it **provides the information** that the actual world is contained in at least one of the possibilities in $[\varphi]$

and it **requests a response** that provides enough information to establish at least one of these possibilities

$\Rightarrow$ a single semantic object embodies informative, inquisitive, and attentive content
Might

- \([\Diamond \varphi] = [\varphi] \cup \{W\}\)

**Intuition:** \(\Diamond \varphi\) proposes exactly the same updates as \(\varphi\), but also offers the option to keep the common ground just as it is

**Examples**

- \(\Diamond p\)
- \(\Diamond (p \land q)\)
- \(\Diamond (p \lor q)\)
Might meets disjunction and conjunction

Zimmermann (2000)

The following are all equivalent:

1. John might be in London or in Paris. \( \Diamond (p \lor q) \)
2. John might be in London or he might be in Paris. \( \Diamond p \lor \Diamond q \)
3. John might be in London and he might be in Paris. \( \Diamond p \land \Diamond q \)
Might meets disjunction and conjunction

Further observation

- For the equivalence to go through, it is crucial that John cannot be both in London and in Paris at the same time.

Szabolcsi’s scenario

- We need an English-French translator, i.e., someone who speaks both languages. In that context, (8) is perceived as a useful recommendation, while (6) and (7) are not.

(6) John might speak English or French. $\Diamond (p \lor q)$
(7) John might speak English or he might speak French. $\Diamond p \lor \Diamond q$
(8) John might speak English and he might speak French. $\Diamond p \land \Diamond q$
*Might* meets disjunction and conjunction

- If the disjuncts are mutually exclusive, as in (c), all three sentences are equivalent.
- If the disjuncts are not mutually exclusive, then $\Diamond p \land \Diamond q$ differs from the other two in that it draws attention to the possibility that $p$ and $q$ both hold.
- This is what makes $\Diamond p \land \Diamond q$ a useful recommendation in Szabolcsi’s scenario.
Pragmatics

- Gricean pragmatics generally assumes a truth-conditional semantics, which captures only informative content.
- Gricean pragmatics is a pragmatics of providing information.
- Inquisitive semantics enriches the notion of semantic meaning.
- This requires an enrichment of the pragmatics as well.
- We need not just a pragmatics of providing information, but rather a pragmatics of exchanging information.
Inquisitive pragmatics

Quality

• Be sincere (speaker oriented)
  • Only assert what you take yourself to know
  • Only ask what you don’t know
  • Only draw attention to ‘live’ possibilities

• Be transparent: signal inconsistency (hearer oriented)
  Reject a proposed update if it is inconsistent with your information state

Quantity

• Among all the compliant and sincere responses to a given (possibly implicit) question under discussion, there is a general preference for more informative responses
(11) John might be in London.

Possibility

• (11) signals that the speaker considers it possible that John is in London

⇒ point of departure for a modal analysis of might
Back to *might*: three basic observations

(11) John might be in London.

Consistency test

- (11) imposes a **consistency test** on the hearer: if her information state is inconsistent with John being in London, she must report this

$\Rightarrow$ point of departure for Veltman’s **update semantics** of *might*
(11) John might be in London.

Ignorance

• (11) typically signals that the speaker is ignorant as to whether John is in London or not

⇒ typically analyzed as a Gricean implicature
The inquisitive account

(11) John might be in London.

Possibility

• (11) signals that the speaker considers it possible that John is in London

• Follows directly from sincerity

• Unlike the modal analysis, this account directly extends to:

(1) John might be in London or in Paris.
The inquisitive account

(11) John might be in London.

Consistency test

• (11) imposes a consistency test on the hearer: if her information state is inconsistent with John being in London, she must report this

• Follows directly from transparency

• Unlike update semantics, this account directly extends to:

(1) John might be in London or in Paris.
The inquisitive account

(11) John might be in London.

Ignorance

• (11) typically signals that the speaker is ignorant as to whether John is in London or not

• Follows from the quantitative preference for more informative compliant moves
Division of labor

Inquisitive semantics

- Specifies which proposals are expressed by which sentences

Inquisitive pragmatics

- Specifies what a context—in particular, the common ground and the speaker’s information state—must be like in order for a certain proposal to be made
- ... and how a hearer is supposed to react to a given proposal, depending on the common ground and her own information state.
Final remarks

- The idea that the core semantic contribution of \( \text{might-} \varphi \) lies in its potential to draw attention to certain possibilities has been entertained before.

- For instance, Groenendijk, Stokhof, and Veltman (1996) write:

  "in many cases, a sentence of the form might-\( \varphi \) will have the effect that one becomes aware of the possibility of \( \varphi \)."

- Similar ideas can be found in more recent work: e.g. Swanson (2006), Franke and de Jager (2008), Brumwell (2009), Dekker (2009).

- Related ideas in the literature on evidentials (Murray, 2010; Faller, 2002).
Final remarks

- However, Groenendijk, Stokhof, and Veltman continue to point out that their framework

  “is one in which possible worlds are total objects, and in which growth of information about the world is explicated in terms of elimination of worlds. Becoming aware of a possibility cannot be accounted for in a natural fashion in such an eliminative approach. It would amount to extending partial worlds, rather than eliminating total ones. To account for that aspect of the meaning of might a constructive approach seems to be called for.”
Final remarks

• We have taken a different route
• Possible worlds are still total objects
• Growth of information still amounts to eliminating worlds
• What has changed is the very notion of meaning
• No truth-conditions, no information change potential, but rather information exchange potential
• This shift in perspective immediately facilitates a perspicuous account of might, and of attentive content more generally