

Inquisitive Semantics and Pragmatics

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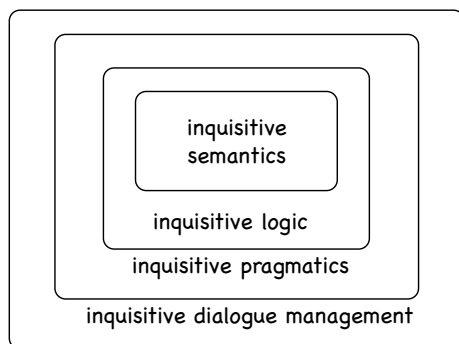
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Today

- ◉ Informal introduction dialogue management
 - Central notion: common ground
 - Management concerns the common ground
- ◉ Informal introduction inquisitive semantics
 - For logical language for the dialogues

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Mission Statement of Inquisitive Semantics

- ◉ Meaning is information exchange potential
 - Information exchange is a dynamic process of raising and resolving issues
 - Inquisitive meanings directly reflect this
 - They embody both information and issues
- ◉ When the notion of meaning changes, so does the logic that comes with it
- ◉ When the notion of meaning changes, so does the pragmatics that comes with it

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Information exchange

- ◉ Dialogue management is to model information exchange
- ◉ The effects of moves in the dialogue on the common ground
- ◉ Common ground has to register what issues have been raised
- ◉ What information has been obtained in the exchange

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Common Ground

- ◉ “the set of possible worlds compatible with what speaker and hearer can be presumed to take for granted at a given point in the conversation” Stalnaker
- ◉ Lewis ‘scoreboard’
- ◉ Discourse representation structures
- ◉ Information states in dynamic semantics

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External View

- ◉ Common ground as an external public entity
 - ◻ Compare Fregean senses
 - ◻ versus: common ground as common knowledge determined by looking ‘inside the heads’ of people
- ◉ Is established by the dialogue as such

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Internal – External View

- ◉ Gerbrandy 1999, Chapter 6: Changing the common ground
- ◉ “The main result is that even in simple cases [. . .], the ‘external’ viewpoint cannot be reduced to the ‘internal’ one, nor vice versa. I will try to argue, and, where possible, make precise formally, that under certain minimal assumptions on information change and the way the common ground is represented, the two approaches are incompatible

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Assumptions are:

- ◉ No ‘higher order information’
 - ◻ No information of agents about the information of each other
- ◉ No ‘repair’ should be made on the way

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Beware of repair and critical moves

- ◉ How should we beware of repair and allow for critical moves in a dialogue?
 - ◻ Denying what the other says
 - ◻ Expressing doubt or surprise
- ◉ Model the common ground as a stack
 - ◻ In case of denial you can just pop the stack

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Common ground as stack of stages

- ◉ I distinguish states and stages
- ◉ State: information state, current state of information of the common ground
- ◉ Stage: proposed transition from current state to some other more informed state
- ◉ Proposed transition by a proposition
- ◉ sentences of the language at hand express propositions

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Inquisitiveness and Informativeness

- Stages, the propositions in them, sentences expressing them:
 - can be be informative, and/or
 - can be inquisitive
- Informative proposition proposal for transition to a specific new state
- Inquisitive proposition proposal offers a choice between alternative transitions

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Hybrid propositions

- Do both at the same time
 - Propose to move to specific new state of information
 - Propose within the bounds of that several alternative transitions

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Inquisitive propositions

- Steer dialogue in certain direction
- Affect the current issue
 - subissue of the current issue
- Initial issue: The Big Question (Craig Roberts)
 - the question what the world is like
 - relative to the initial question, anything goes

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Two ingredients of coherent dialogue moves

- Provide a partial answer to the current issue
- Replace the current issue by an easier to answer subissue
 - This is what the logical notion of compliance is about
 - And inquisitive pragmatics, if on the face of it a move seems not compliant

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Information: Acceptance or cancellation

- To maintain a common ground:
 - An informative current stage calls for a reaction
 - If you can/do not accept the proposed move to an informative state you have to call for cancellation
 - A proposed transition is followed by a reaction
 - Reaction is absorbed in common ground

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Uptake and absorption reaction

- Two steps in modelling a dialogue move:
 - Uptake of the contents of the sentence uttered in dialogue
 - Absorption of reaction
 - Next move

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Current issue

- Effect of cancellation on the common ground:
pop the stack
- What happens after:
 - Alf will go the party
 - No!
 - He will not go
- You need question behind assertion as the current issue after cancellation

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Thematizing

- Uptake of a sentence in the common ground goes in two steps:
 - Thematize
 - Assume
- create two subsequent stages in the stack
- Cancellation of the rheme brings you back to the theme

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Inquisitive Semantics

- Semantics is to tell you what proposition the sentences of the language express
- Inquisitive semantics well suited to model the double function of moves in a dialogue
 - information
 - issues

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Conditional Questions

- (1) If Alf goes, will Bea go as well?
- Polar question, two possibilities:
 - (a) (Yes) If Alf goes, Bea will go as well
 - (b) (No) If Alf goes, Bea will not go
 - Not a partition, the possibilities overlap
- Velissaratou (2000), Isaacs & Rawlins (2008), Groenendijk (1999)

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Disjunctions of Conditionals

- (2) If Alf goes, Bea goes as well, or if Alf goes, Bea does not go
- Has many different intonation patterns
 - Most of them invite the same two responses as the conditional question (1)
 - Although $(p \rightarrow q) \vee (p \rightarrow \neg q)$ is a classical tautology, this is a rare response:
- (3) Of course! Either if Alf goes, Bea goes as well, or if Alf goes, Bea does not go!

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Disjunctive Consequent

- (4) If Alf goes, Bea goes as well, or Bea does not go
- Has many different intonation patterns
 - Most of them invite the same two responses as the conditional question (1)
 - Although $p \rightarrow (q \vee \neg q)$ is a classical tautology, this is a rare response:
- (5) Of course! If Alf goes, then either Bea goes as well or not!

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Disjunctive Antecedent

- (6) If Alf or Bea goes, Cor goes as well
- (7) If Alf goes, Cor goes as well, and if Bea goes, Cor goes as well
 - ☐ These are equivalent, and so are:
- (8) If Alf or Bea goes, will Cor go as well?
- (9) If Alf goes, will Cor go as well?, and if Bea goes, will Cor go as well?
 - ☐ Conjunction of two polar questions
 $2 \times 2 = 4$ possibilities

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Polar/Alternative Question Ambiguity

- (9) Did John drink coffee or tea?
 - ☐ Ambiguous between polar and alternative question (different intonation patterns)
- (10) a. Yes, John drank coffee or tea
 b. No, John did not drink coffee or tea
- (11) a. John drank coffee
 b. John drank tea

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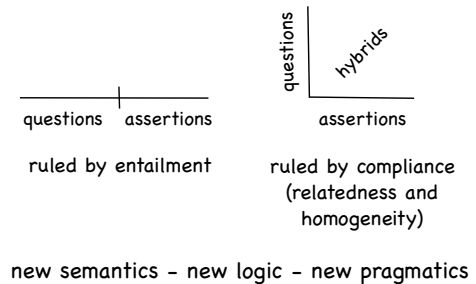
Alternative Questions and Negation

Han & Romero 2001

- (12) Didn't John drink coffee or tea?
 - ☐ No alternative question reading
- (13) a. No, John did not drink coffee or tea
 b. Right, he did drink coffee or tea
- (14) a. *John did not drink coffee
 b. *John did not drink tea
 john didn't drink coffee or tea?

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90° Semantics Paradigm Shift



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Grice on Disjunction

In 'Indicative Conditionals', Grice (1989:68), as cited in Simons (2000)

A standard (if not the standard) employment of "or" is in the specification of possibilities (one of which is supposed by the speaker to be realized, although he does not know which one), each of which is relevant in the same way to a given topic.

- ☐ Inquisitive logic deals with relevance to a given topic

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Conditional Questions and the Ramsey Test

Ramsey (1929)

If two people are arguing If p will q? and are both in doubt as to p, they are adding p hypothetically to their stock of knowledge and arguing on that basis about q; so that in a sense If p, q and If p, -q are contradictory. [...]

±25 years later Grice made similar observations in 'Indicative Conditionals'

- ☐ The natural conversational context for an indicative conditional, is a conditional question

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