

Semantic Theory

Lecture 8 – Presuppositions

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Summer 2013

Three levels of meaning

- **Assertions** (truth-conditions, entailment)
- **Presuppositions**
The requirements that the context must satisfy for the utterance to be interpretable at all
- **Conversational Implicatures**
Inferences that arise from observing or flouting the cooperative principle and conversational maxims

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Entailment

- Entailment is a relation between sentences
 - Strictly speaking: a relation between the propositions expressed by the sentences
- A sentence **A entails** a sentence **B** ($A \models B$) iff whenever A is true, then B must also be true.
- Examples
 - (1) *John and Mary flunked* \models *Mary flunked*
 - (2) *John or Mary flunked* \models *Someone flunked*
 - (3) *John is an intelligent student* \models *John is a student*
 - (4) *Every student works* \models *Every blond student works*

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Entailment?

- (1) *The mathematician who proved Goldbach's conjecture was a woman*
 \models ? *Someone proved Goldbach's conjecture*
- (2) *Mary loves her husband*
 \models ? *Mary has a husband / is married*
- (3) *It was Mary who broke the typewriter*
 \models ? *Somebody broke the typewriter*
- (4) *John kissed every girl at the party*
 \models ? *Girls have been at the party*

(Examples (1), (3) from von Fintel)

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Entailment vs. Presupposition

■ Entailment:

- (1) *John and Mary flunked* \models *Mary flunked*
- (2) *John and Mary didn't flunk* $\not\models$ *Mary flunked*

■ Presupposition: both (3) and (4) "entail" (5)

- (3) *The mathematician who proved Goldbach's conjecture was a woman*
- (4) *The mathematician who proved Goldbach's conjecture wasn't a woman*
- (5) *Someone proved Goldbach's conjecture*

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Presuppositions

■ Basic idea:

A presupposition of a statement is a proposition that must be true in order for the statement to be interpretable (to make sense) in the first place.

■ Slightly different view:

A presupposition is an implicit assumption about the world whose truth is taken for granted by the speaker.

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Definite Descriptions

- *the*
 $\mapsto \lambda F \lambda G \exists x (\forall y (F(y) \leftrightarrow x = y) \wedge G(x))$
- *the chancellor*
 $\mapsto \lambda G \exists x (\forall y (\text{chancellor}'(y) \leftrightarrow x = y) \wedge G(x))$
- *the chancellor decides*
 $\mapsto \exists x (\forall y (\text{chancellor}'(y) \leftrightarrow x = y) \wedge \text{decide}'(x))$
 - “there is exactly one chancellor, and (s)he decides”

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Definite Descriptions

- *It is not the case that the chancellor decides*
- **Compositional analysis** of the sentence leads to
 - $\neg \exists x (\forall y (\text{chancellor}'(y) \leftrightarrow x = y) \wedge \text{decide}'(x))$
 - “Either there is no chancellor, or more than one, or there is exactly one chancellor and she doesn’t decide.”
- **Correct representation** for the sentence:
 - $\exists x (\forall y (\text{chancellor}'(y) \leftrightarrow x = y) \wedge \neg \text{decides}'(x))$
 - “There is exactly one chancellor, and she doesn’t decide.”

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Presuppositions

- *The chancellor decides*
 - $\exists x (\forall y (\text{chancellor}'(y) \leftrightarrow x = y) \wedge \text{decides}'(x))$
 - “There is exactly one chancellor, and she decides.”
- A sentence (containing a definite description) contains meaning information of two different types:
 - **Presupposition:** the requirements that the context must satisfy for the sentence to be interpretable at all.
 - **Assertion:** the claims that are made, based on the context.

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Presuppositions and Negation

- *It is not the case that the chancellor decides*
 - $\exists x(\forall y(\text{chancellor}'(y) \leftrightarrow x=y) \wedge \neg \text{decides}'(x))$
 - “There is exactly one chancellor, and she doesn’t decide.”
- Negation only applies to the assertion.
- The presupposition isn’t negated.
- The presupposition is projected “upwards,” outside of the usual rules of semantic composition.
- Such a “survival” of negation (and other operators) is the standard test for presuppositions.

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Some Presupposition Triggers

- **Definite noun phrases**
 - (1) *John saw / didn’t see **the man with the two heads***
 - » *There is a man with two heads*
 - (2) *Mary loves / doesn’t love her **husband***
 - » *Mary has a husband*
 - (3) ***Mary’s brother** bought / didn’t buy a house*
 - » *Mary has a brother*
- **Quantifiers**
 - (4) *John kissed / didn’t kiss **every girl at the party***
 - » *Girls have been at the party*

[Notation: “A » B” means “A presupposes B”]

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Some Presupposition Triggers

- **Factive verbs** (regret, realize, being aware, ...)
 - (1) *John **regrets** that Pola is married*
 - » *Pola is married*
 - (2) *John **realized** that he was in debt*
 - » *John was in debt*
- **Implicative verbs** (manage to, forget to, ...)
 - (3) *John **forgot** to close the door*
 - » *John intended to close the door*
 - (4) *John **managed** to close the door*
 - » *John tried to close the door*

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Some Presupposition Triggers

■ Aspect

- (1) *John has **stopped** smoking*
 » *John used to smoke*
- (2) *John opened the window **again***
 » *John had already opened the window before (repetitive)*
 » *The window was open before (restitutive)*

■ Appositions, non-restrictive relative clauses

- (3) *John, (**who is**) a good friend of mine, studies CL.*
 » *John is a good friend of mine*

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Some Presupposition Triggers

■ It-Clefts

- (1) ***It was** John **who** ate the cake.*
 » *Somebody ate the cake*

■ Sentence particles

- (2) ***Only** John came to the party*
 » *John came to the party*

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Presupposition Projection

- (1) *The chancellor decides, **or** the states' prime ministers are responsible for decisions*
 » *There is a (exactly one) chancellor*
 - (2) *John **possibly** regrets that Mary is married*
 » *Mary is married*
 - (3) *Mary **believes** that John has stopped smoking*
 » *John used to smoke*
- Presuppositions “survive” not only negation, but also other kinds of embeddings.

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Presupposition Filtering

- (1) *If John is out of town, then his wife is unhappy*
 » *John has a wife / is married*
 - (2) *If John is married, then his wife is unhappy*
 NOT » *John is married*
 - (3) *If John is married, then his daughter is unhappy*
 » *John has a daughter*
- There are contexts that can “neutralise” or filter some presuppositions: they block projection of these presuppositions.

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Presupposition Cancellation

- (1) *John doesn't regret that Mary is married. Mary has no husband, and John knows about that.*
 - (2) *The king of France isn't bald. France is a republic.*
- In the context of negation, presuppositions can be overwritten or “cancelled” by explicitly claiming that they are false.

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Presupposition Projection

- **The projection problem** for presupposition is the task of stating and explaining the presuppositions of complex sentences in terms of the presuppositions of their parts.
- ⇒ Next Lecture

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Accommodation

(1) *My wife is a great cook.*

- Even if the fact that the speaker is married isn't given by the context, it can be accommodated unless an inconsistency arises.

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Summary (Presuppositions)

- Presuppositions are triggered by a number of different words and linguistic constructions, including definite noun phrases.
- Presuppositions behave differently than assertions in semantics construction: They are typically projected unchanged, rather than used in functional application.
- Projected presuppositions can be filtered in the semantic composition process, and can be cancelled by contextual knowledge.

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Conversational Implicatures

- **Basic claim:** there is a set of “guidelines” for effective and rational use of language:
 - A general cooperative principle
 - Plus four maxims of conversations
- **Conversational implicatures** are inferences that arise from observing or flouting these rules.

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Conversational Implicatures

- **The Cooperative Principle:**
Make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.
- **Four maxims of conversation:**
 - Quality, Quantity, Relevance, Manner

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Maxims of Conversation

- **Maxim of quality:** Try to make your contribution one that is true, specifically:
 - do not say what you believe to be false
 - do not say that for which you lack evidence
- **Maxim of quantity:**
 - Make your contribution as informative as is required for the current purposes of the exchange
 - Do not make your contribution more informative than is required.

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Maxims of Conversation

- **Maxim of relevance:** Make your contribution relevant
- **Maxim of manner:** Be perspicuous, specifically:
 - avoid obscurity
 - avoid ambiguity
 - be brief (avoid prolixity)
 - be orderly

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A simple Example

- A: *Where does Gerard live?*
- B: *Somewhere in the South of France*
- B's answer violates the maxim of quantity – it is less informative than required – but B adheres to the maxim of quality
 - Implicature: B does not know exactly where Gerard lives

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Literature

- Stephen C. Levinson. *Pragmatics*. Cambridge University Press. 1983. Chapters 3, 4.

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