Semantic Theory
Presuppositions (and Implicatures)

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(partly based on slides by Ivana Kruiff-Korbayova)

A Reminder

Final Exam:

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Three Levels of Meaning

- Assertions / truth-conditions
- Conversational Implicatures
  inferences that arise from observing or flouting the cooperative principle and conversational maxims.
- Presuppositions
  the requirements that the context must satisfy for the utterance to be interpretable at all.

Definite Descriptions

- An approximate meaning representation of definite noun phrases (definite descriptions) says that there is exactly one individual with a certain property:
  - *the*
    $\Rightarrow \lambda F \lambda G \exists x (\forall y (F(y) \leftrightarrow x = y) \wedge G(x))$
    $\Leftrightarrow \lambda F \lambda G \exists x (F(x) \wedge \forall y (F(y) \rightarrow x = y) \wedge G(x))$
  - *the chancellor*
    $\Rightarrow \lambda G \exists x (\forall y (\text{chancellor'}(y) \leftrightarrow x = y) \wedge G(x))$
  - *the chancellor decides*
    $\Rightarrow \exists x (\forall y (\text{chancellor'}(y) \leftrightarrow x = y) \wedge \text{decide'}(x))$
    - "there is exactly one chancellor, and he decides"

Definite Descriptions and Negations

- *It is not the case that the chancellor decides*
- A compositional analysis of the sentence leads to
  - ¬∃x(∀y(chancellor'(y) ↔ x = y) ∧ decide'(x))

Definite Descriptions and Negations

- *It is not the case that the chancellor decides*
- A compositional analysis of the sentence leads to
  - ¬∃x(∀y(chancellor'(y) ↔ x = y) ∧ decide'(x))
  - "Either there is no chancellor, or more than one, or there is exactly one chancellor and he doesn't decide."
- A correct representation for the sentence:
  - ∃x(∀y(chancellor'(y) ↔ x = y) ∧ ¬decides'(x))
  - "There is exactly one chancellor, and he doesn't decide."

Presuppositions

- A sentence (containing a definite description) contains meaning information of two different types: the presupposition and the assertion.
  - Presupposition: the requirements that the context must satisfy so the utterance can be interpreted at all.
  - Assertion: the claims that are made, based on the context.

- *The chancellor decides*
  - ∃x(∀y(chancellor'(y) ↔ x=y) ∧ decides'(x))
  - "There is exactly one chancellor, and he decides."

Presuppositions and Negation

- Negation only applies to the assertion.
- The presupposition isn't negated. It is projected "upwards," outside of the usual rules of semantic composition.
  - ∃x(∀y(chancellor'(y) ↔ x=y) ∧ ¬decides'(x))
  - "There is exactly one chancellor, and he doesn't decide."

- Such a "survival" of negation is the standard test for presuppositions: A sentence *S* presupposes *P* if *P* "follows" from both *S* and *it is not the case that S*.

Presupposition Triggers

- Definite noun phrases
  - ***The chancellor*** *decides*
  - ≫ There is a chancellor (and (s)he decides)
- Factive verbs
  - *John* ***regrets*** *that Pola is married.*
  - ≫ Pola is married (and John regrets that)
- Implicative verbs
  - *John* ***forgot*** *to close the door.*
  - ≫ John intended to close the door.

Presupposition Triggers

- Aspect
  - *John has* ***stopped*** *smoking.*
  - ≫ John used to smoke (and he has stopped doing it)
  - *John opened the window* ***again****.*
  - ≫ John had already opened the window before (repetetive)
  - ≫ The window was open before (restitutive)
- Appositions / non-restrictive relative clauses.
  - *John, a good friend of mine, studies CL.*
  - ≫ John is a good friend of mine (and he studies CL).

Presupposition Triggers

- It-Clefts
  - ***It was John who*** *ate the cake.*
  - ≫ Somebody ate the cake (and it was John who did this)
- Sentence particles
  - ***Only*** *John came to the party*
  - ≫ John came to the party (and nobody else did).

Presupposition Projection

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

Presupposition Filtering

- But there are contexts that can "neutralise" or filter some presuppositions: they block projection of these presuppositions.

- *If John is out of town, then **his wife** is unhappy.*
  - presupposes: John is married / has a wife
- *If John is married, then **his wife** is unhappy.*
  - does not presuppose: John is married
- *If John is married, then **his daughter** is unhappy.*
  - presupposes: John has a daughter.

Presupposition Cancellation

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

Detachability

- Presuppositions of sentences are generally detachable, i.e. it is possible to find another sentence expressing the same meaning but lacking the presupposition.
- *It wasn't John who ate the cake.*
  John didn't eat the cake.

Presuppositions: Summary

- 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.

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.

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

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.

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

Conversational Implicatures

- Conversational implicatures (CI) are inferences beyond the semantic content of utterances that are derived from
  - i. adherence to the maxims (standard CIs)
  - ii. flouting or exploiting the maxims (non-standard CIs)

Examples

A: *I am out of patrol.*

B: *There's a garage just around the corner*
  - implicature: it is open / A may obtain gas there
- B would infringe the maxim 'be relevant' unless he thinks that the garage is open and has petrol to sell.

Examples

A: *Where does C live?*

B: *Somewhere in the South of France.*
  - Implicature: B does not know in which town C lives
- B's answer is less informative than required. This infringement of the maxim of quantity can only be explained by the supposition that being more informative would infringe the maxim of quality.

Further Examples

- Some of the boys went to the party
- Implicature: Not all of the boys went to the party

- You might have a cookie or an ice cream
- Implicature: … but not both

Standard CIs

- If maxims can be assumed by hearer H to be observed by speaker S and S relies on H to amplify what's said by inference, the inference drawn are called standard CIs.

  A: *I am out of patrol*
  B: *There's a garage just around the corner*
  - implicature: it is open / A may obtain gas there

Non-standard CIs

- If S flouts the maxims in an obvious and deliberate way, H still assumes cooperation and draws the inferences needed to explain this violation. These are non-standard CIs.

  A: *Where is Bill?*
  B: *There's a yellow VW outside Sally's house.*

Properties of Conversational Implicatures

- Conversational implicatures are …
  - Defeasable
  - Calculable
  - Non-conventional
  - Non-detachable

Defeasability

- An inference is defeasible if it is possible to cancel it by adding new premises to the original ones.
  - *John has three children*
    - truth-conditions: "at least three"
    - SCI: "at most three" (maxim of quantity)
  - *Has John two children?*
    - *Yes, even three.*
  - *John has two children, if not three.*
- The SCI that John has two children is explicitly cancelled.

Non-Detachability

- An inference is non-detachable if it is attached to the semantic content of what is said rather than to its linguistic form.
- That is, the same conversational implicatures hold for synonymous expressions e.g. the ironic interpretation of:
  - John is a genius.
  - John is a big brain.
  - John is an exceptionally clever human being.
  - NCSI: John is an idiot.

Calculatability

- Conversational implicatures are calculable in that it is possible to construct an argument of the type described above, showing how from
  - (i) the literal meaning of the utterance and
  - (ii) the cooperative principle and
  - (iii) the maxims,
- it follows that the hearer would make the inference in question to preserve the assumption of cooperation.

Non-Conventionality

- Conversational implicatures are non-conventional in that they are not part of the conventional meaning of an utterance. This is because:
  - CIs are defeasible (truth-conditional meaning isn't).
  - The literal meaning of an utterance needs to be known before its CIs can be computed
  - An utterance can be true while its CI is false