LIN241

Introduction to Semantics

Lecture 3

Conversational Implicatures

What are conversational implicatures?

- Consider the following discourse:

  A: **Are you hungry?**

  B: **I just had dinner.**

- You will certainly infer from B's answer that B is not hungry.

- Yet, this is not an entailment of B's answer, since it can be denied without contradiction:

  A: **Are you hungry?**

  B: **I just had dinner, but I'm starving.**

What are conversational implicatures?

- This inference is an implicature.

- This kind of inference is generated by reasoning about the communicative intentions of the speaker.

What are conversational implicatures?

- Here is a simplified description of the thought process through which the implicature could arise in our mind:

  1. A asked whether B was hungry, so B's answer ought to address this question.

  2. In general, when people have just eaten, they're not hungry.

  3. So it is reasonable to assume that B said that she had just eaten in order to convey that she was not hungry.

What are conversational implicatures?

- In a different context, the same sentence could have generated a different implicature:

  A: **Do you want to go skydiving?**

  B: **I just had dinner.**

- You will now infer from B's answer that B doesn't want to go skydiving.

- The reasoning that leads to the implicature is similar but uses different background assumptions.

What are conversational implicatures?

- Other examples of implicatures seem to be generated in a similar way.

- This example is due to the philosopher Paul Grice

  A: **Smith doesn't seem to have a girlfriend these days.**

  B: **He has been paying a lot of visits to New York lately.**

  Implicature: Smith has, or may have, a girlfriend in New York.

What are conversational implicatures?

- What is going on in these cases?

  - The literal meaning of a sentence does not fit the goals of the conversation.

  - Because of this, one tries to infer additional propositions from the literal meaning of this sentence.

  - This additional meaning is meant to make the sentence fit in the conversation.

  - The process of inference may exploit additional premises that are part of the common ground.

Gricean pragmatics

Conversational Maxims

- Grice's insight is that when a discourse participant interprets an utterance, she tries to make her interpretation consistent with the assumption that the speaker is being cooperative.

- Likewise, when a speaker plans her utterance, she assumes that the addressee will assume that she (the speaker) is being cooperative.

- What it means to be cooperative is fleshed out in the *cooperative principle*.

Conversational Maxims

The Cooperative Principle: Make your contribution as is required, when it is required, by the conversation in which you are engaged.

- Quality: Contribute only what you know to be true. Do not say false things. Do not say things for which you lack evidence.

- Quantity: Make your contribution as informative as is required. Do not say more than is required.

- Relation (Relevance): Make your contribution relevant.

- Manner: (i) Avoid obscurity; (ii) avoid ambiguity; (iii) be brief; (iv) be orderly.

Conversational Maxims

- Let us illustrate how the maxims work with our two previous examples. First:

  A: **Are you hungry?**

  B: **I just had dinner.**

Conversational Maxims

- Here, A's question sets a topic that B should address.

- In other words, B's assertion will be relevant only if it is a proper answer to the question.

- Since this is a yes/no question, B's assertion will be relevant only if it can be interpreted as meaning one of two propositions:

  - B is hungry.

  - B is not hungry.

Conversational Maxims

- Let us now calculate B's implicature, from A's perspective.

- This calculation will make use of the following piece of common knowedge:

  (X) People who have just had dinner are generally not hungry.

- In addition, we distinguish "what is said" from "what is meant":

  - what B said is the literal meaning of B's assertion.

  - what B meant is the proposition that B meant to convey.

Conversational Maxims

- Calculation of B's implicature, from A's perspective:

  - Let me assume that B is cooperative.

  - What B said appears to violates the maxim of relevance.

  - However, (X) is part of our common ground.

  - From (X) and what B said, one can infer that B is not hungry.

  - If we do so, B's utterance becomes relevant.

  - I can assume that B knows I can figure this out.

  - I conclude that B intended me to infer he wasn't hungry.

Conversational Maxims

- We have explained how A can infer that B meant to convey a certain implicature with his assertion.

- When we do this, we think about the implicature as an inference that is drawn by an interpreter (here: A).

- But we can also think about implicatures as propositions that the speaker intends to convey.

- On the next slide, we calculate the implicature from the perspective of the speaker (i.e. B).

Conversational Maxims

- Calculation of B's implicature, from B's perspective:

  - Let me assume that A will assume that I am cooperative.

  - What I said appears to violate the maxim of relevance.

  - However, (X) is part of our common ground.

  - From (X) and what I said, one can infer that I am not hungry.

  - If we do so, my utterance becomes relevant.

  - I can assume that A can figure this out.

  - Therefore, it is reasonable for me to expect that my utterance will convey that I am not hungry.

Conversational Maxims

- In these examples, we have used the maxim of relevance.

- Other implicatures may exploit other maxims.

- We will now discuss quantity implicatures.

- Note that this implicature will also depend on:

  - quality (do not say that for which you lack evidence)

  - relation/relevance (be relevant).

Conversational Maxims

- A is planning with B an itinerary for a holiday in France. Both know that A wants to see his friend C, if to do so would not involve too great a prolongation of his journey:

  A: **Where does C live?**

  B: **Somewhere in the South of France.**

  Implicature: B does not know in which city C lives.

Conversational Maxims

- Calculation of B's implicature, from A's perspective:

  - Let me assume that B is cooperative.

  - It would have been more informative for B to tell me in which city C lives, and this would have been relevant.

  - On the other hand, if B didn't know in which city C lives, telling me in which city C lives would have been unreliable.

  - If B is cooperative, he might have given me less information than I wanted in order to give me reliable information.

  - I can assume that B knows I can figure this out.

  - I conclude B meant he doesn't know in which city C lives.

Conversational Maxims

- Finally, here is an example of manner implicature:

  A: **What did you do this morning?**

  B: **I replied to emails and I went to the gym.**

  Implicature: B replied to emails first and then went to the gym.

- The maxim of manner enjoins us to say things in the order in which they happen ("be orderly").

Avoiding a misconception

- A misconception about Grice's account of implicature is that Grice argued that speakers always respect the cooperative principle.

- This is false. Grice never said that speakers are always cooperative as a matter of fact.

- What Grice argued is that speaker's utterances are interpreted (and planned) under the assumption that the speaker is cooperative.

Properties of Implicatures

Properties of Implicatures: calculability

- The most important property of conversational implicature is that they are **calculable**:

    - we can reason out how to derive the implicature from the literal meaning of a sentence

    - this reasoning will use the conversational principle

Properties of Implicatures: cancelability

- Another propery of conversational implicatures is that we can cancel them without contradiction:

  A: **Are you hungry?**

  B: **I just had dinner, but I'm starving.**

- In this example, the implicature is cancelled by adding content that is inconsistent with it.

Properties of Implicatures: cancelability

- Note that some authors prefer to say that in such cases, the implicatures are just never calculated.

- What matters for us is that implicatures are not "tied" to a sentence in the same way as its entailments are.

- If you utter a sentence and deny one of its entailments, you get a contradiction.

- Not so with implicatures.

Properties of Implicatures: reinforceability

- Levinson (2000) observes that:

  It is often possible to add explicitly what is anyway implicated with less sense of redundancy than would be the case if one repeated the coded content.

- Example:

  - **I replied to emails and went to the gym, in that order.**

- Compare:

  - ?**I replied to emails, then I went to the gym, in that order.**

Testing for implicature

- Check the three aforementioned properties:

  - calculability

  - cancellability

  - reinforceability

- Let's apply these tests to the following implicature:

  John lives somewhere in the south of France.

  ⤳ the speaker doesn't know in which city or town John lives

Testing for implicature: example

- Cancellation test (no contradiction):

  - **John lives somewhere in the south France, in a small village called Roussillon.**

- Reinforceability (no redundancy):

  - **John lives somewhere in the south of France, but I don't know where.**

- Calculabilty: see slide 20.

Discourse Connectives

Conjunctions

- Conjunction often convey that the first conjunct occurred before the second:

    - **John walked in and sat down.**

Conjunctions

- Order can be explained by reference to the maxim of manner:

  - Manner: (i) Avoid obscurity; (ii) avoid ambiguity; (iii) be brief; **(iv) be orderly.**

- When relevant, expect that events are described in the order in which they occur.

Conjunctions

- Is this an implicature? The inference certainly seems to depend on the context of use, and is not hard-wired in the lexical meaning of **and**:

  1. **The musician saluted the audience and (afterwards) sang her most famous tune.**

  2. **The musician sang their most famous tune and (afterwards) saluted the audience.**

  3. **Chris is famous and (#afterwards) powerful.**

  4. **Chris is powerful and (#afterwards) famous.**

- It is also reinforceable, as we saw already.

Disjunctions

- Lost in translation:

  - Exclusion:

    - **You can have cheese or dessert.**

  - Ignorance:

    - **The book is in the office or in the library.**

Disjunctions: Exclusion

- Exclusive uses of the disjunction could be explain by positing lexical ambiguity:

  - Inclusive disjunction

  - Exclusive disjunction

- We can also analyze them as implicatures.

Disjunctions: Exclusion

- (p XOR q) is equivalent to the conjunction of:

  - (p ∨ q)

  - ~(p & q)

- (p XOR q) is equivalent to the conjunction of:

  - (p ∨ q)

  - the rejection of (p & q)

- Hypothesis: the rejection of (p & q) is an implicature.

Disjunctions: Exclusion

- We can derive this implicature as a conflict between quantity and quality:

  - If the speaker said X instead of a more informative alternative Y infer that the speaker meant ~Y.

- We know that (p & q) is more informative than (p ∨ q):

  - (p & q) entails (p ∨ q)

- If the speaker said (p ∨ q), infer that she meant ~(p & q)

Disjunctions: Exclusion

- Implicature calculation, in a context where (p & q) is relevant:

  - The speaker S said (p ∨ q)

  - Let me assume that S is cooperative.

  - It would be more informative and relevant to say (p & q).

  - However, if S didn't know whether (p & q), saying it would have been unreliable.

  - If S is cooperative, she might have given me less information in order remain reliable.

  - I can assume that S knows I can figure this out.

  - I conclude S meant that she doesn't know if (p & q).

Disjunctions: Ignorance

- Remember ignorance inferences:

  - **The book is in the office or in the library.**

  - The speaker doesn't know if the book is in the office.

  - The speaker doesn't know if the book is in the library.

- We can also analyze these inferences as quantity implicatures.

- What entailment relations are relevant?

Disjunctions: Ignorance

- (2) entails (1), and (3) entails (1):

  1. **The book is in the office or in the library.**

  2. **The book is in the office.**

  3. **The book is in the library.**

Disjunctions: Ignorance

- Implicature calculation, in a context where p is relevant:

    - The speaker S said (p ∨ q)

    - Let me assume that S is cooperative.

    - It would be more informative and relevant to say p.

    - However, if S didn't know whether p, saying it would have been unreliable.

    - If S is cooperative, she might have given me less information in order remain reliable.

    - I can assume that S knows I can figure this out.

    - I conclude S meant that she doesn't know if p.

Disjunctions: Ignorance

- Implicature calculation, in a context where q is relevant:

  - The speaker S said (p ∨ q)

  - Let me assume that S is cooperative.

  - It would be more informative and relevant to say q.

  - However, if S didn't know whether q, saying it would have been unreliable.

  - If S is cooperative, she might have given me less information in order remain reliable.

  - I can assume that S knows I can figure this out.

  - I conclude S meant that she doesn't know if q.

Disjunctions: Ignorance

- In a context where p, q and (p & q) are relevant, (2), (3) and (4) can be generated as implicatures of an utterance of (1):

  1. (p ∨ q)

  2. The speaker doesn't know if p.

  3. The speaker doesn't know if q.

  4. The speaker doesn't know if (p & q)