Implicatures

LING-053 Semantics 1
UCSC
Instructor: M. Ippolito
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Consider the following example:

(1) a. Can you give me a ride home?
   b. Well, my sister is coming to town tonight.

What is SAID:

(2) a. Do you have the ability to give me a ride home?
   b. My sister is coming to town tonight.

What is UNDERSTOOD:

(3) a. Do you have the ability to give me a ride home and if so will you?
   b. No, I can’t because my sister is coming to town.
- **Natural language conjunction**: Does order matter?

  (4) John and Mary got married **and** moved to Boston.

  (5) John and Mary moved to Boston **and** got married.

  or:

  (6) John met Mary **and** married her.

  (7) #John married Mary **and** met her.
but:

(8) Two plus two equals four and three plus two equals five.

(9) Three plus two equals five and two plus two equals four.

● Sometimes and just means what the logical conjunction means:

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**Conjunction:**

The only requirement is that both conjuncts are true. The order is irrelevant.
• Sometimes, however, **and** means more than that: in addition to the requirement that both conjuncts be true (logical conjunction), it is required that the two events described by the two sentences form a temporal sequence: *q after p*

• Is **AND** ambiguous between:

  1. logical conjunction: $\land$

  2. “temporal” **and**: “*and then*”

The ambiguity thesis is unattractive:

**DON’T MULTIPLY LEXICAL ITEMS UNLESS YOU REALLY HAVE TO**
• Take the modal adjective possible:

(10) It’s possible that they will be late.

(11) It’s possible that they will be late and it’s possible that they won’t be late.

• It certainly seems that (10) means (11). But if (11) is the meaning of (10), then (12) should be a contradiction, which is not!!

(12) It’s possible that they will be late, and in fact it is now certain that they will.
Solution: IMPLICATURES

1. The notion of implicature allows us to keep the meanings of our expressions simple and constant. All the variation will be explained away in terms of implicatures.

2. Once we find out where this “extra meaning” comes from, we will be able to keep the difference between logic and natural language minimal.
Paul Grice’s theory of implicatures

• Hypothesis: there are assumptions guiding the conduct of conversation that everybody involved in a given communicative exchange shares.

• These are 4 maxims of conversation which jointly express a co-operative principle.

• The co-operative principle: Make your contribution as it is required by the purpose of the talk in which you’re engaged.

1. MAXIM OF QUALITY
   make your contribution one that is true; i.e.
   (a) do not say what you believe to be false
   (b) do not say something for which you lack adequate evidence.
2. **MAXIM OF QUANTITY**

(a) make your contribution as informative as required by the purpose of the exchange

(b) do not make your contribution more informative than it is required

3. **MAXIM OF RELEVANCE**

make your contribution relevant

4. **MAXIM OF MANNER**

be perspicuous, i.e.:

(a) avoid ambiguity

(b) avoid obscurity

(c) be brief

(d) be orderly
• The maxims are tacit rules that everybody in the conversation follows and expects others to follow too.

• The point is not that the participants in a conversation always adhere to the maxims but that people will interpret what is said as conforming to the maxims at some level.

• Adhering to the maxims generate inferences. Crucially, these inferences are implicatures and not entailments.
Examples
Quantity

• Consider the following case:

(13) (How many questions did John answer?)
John answered 4 questions.

**Assertion**: John answered 4 questions.

**Implicature**: John answered **only** 4 questions.

• The speaker’s contribution was required to be as informative as possible in the context of the current exchange.

• Does the sentence above entails that John answered only 4 questions? NO!!!! Why?
Difference between entailments and implications

(14) John answered 4 questions.

1. **Assertion (what is said):** John answered 4 questions.

2. **Entailments of (14):**
   
   - Remember a sentence $S_1$ entails $S_2$ if and only if $S_1$ is true, then $S_2$ **could not** be false:

     (15) John left yesterday morning **ENTAILS** John left.

   - This is because if it is true that John left yesterday morning, then it **COULDN’T** possibly be false that he left.
(16) **Semantics 1 meets in Merrill 102 DOES NOT ENTAIL** Michela teaches Semantics 1.

- This is because, although they both happen to be true in the current situation, they didn’t have to be: i.e., you can imagine a situation in which it is true that Semantics 1 meets in Merrill 102, but somebody different from Michela teaches it.

- Nothing in the meaning of **Semantics 1 meets in Merrill 102** forces the sentence **Michela teaches Semantics 1** to be true.

- If they are both true, it’s in a sense just an accident.

- **ENTAILMENT IS NOT AN ACCIDENTAL RELATION BETWEEN TWO SENTENCES.**
Let’s go back to the entailments of (14):

(17) John answered 4 questions ENTAILS . . .

(a) . . . John answered 5 questions?
(b) . . . John answered 6 questions?
(c) . . . John answered 3 questions?
(d) . . . John answered 2 questions?
(e) . . . John did not answer 5 questions?

3. However, we said that the following inference seems to hold:

(18) John answered 4 questions.
    Therefore, he answered only 4 questions.

4. The inference that he did not answer 5, 6, 7, and more questions is not an entailment but an implicature!
• Consider this example:

(19) (What happened in court?)
   a. John got a parking ticket.

**Assertion:** John got a parking ticket.

**Implicature:** John only got a parking ticket.

• Again, this is not an entailment. . . . What triggers the inference is the Maxim of Quantity.
Relevance

- Consider the following:

(20) (During a quiz show:) The show man: Mr. Smith, do you know the name of the last Roman emperor?

**Question meaning:** do you have knowledge about who the last Roman emperor was?

**Implicature:**
tell me the name of the last Roman emperor.

- Whoever asks the question must have said something relevant. In the current exchange, his question is only relevant if in fact he wants her interlocutor to tell her the name of the last Roman emperor.
Manner

• Take the following two cases:

(21) Did Mary bake a cake?
   a. Yes, she did.
   b. Well, she mixed flowers with eggs, she put some sugar and chocolate, and then she put this in the oven...

• The reply in (21-b) is a violation of the Maxim of Manner (Be brief!)
• Or consider the case of conjunction:

(22) John met Mary and married her.

(23) # John married Mary and met her.

• (23) is a violation of the Maxim of Manner (Be orderly!).
**How to generate an implicature**

1. S has said that \( p \)

2. There is no reason to believe that S is not observing the maxims

3. In order for S to say \( p \) and at the same time be observing the maxims, it must be the case that S must think that \( q \)

4. S must know that it is mutual knowledge that \( q \) must be supposed if S is to be taken to be co-operating

5. S didn’t do anything to stop me from thinking that \( q \)

6. Therefore, S *intends* me to think that \( q \): S has implicated that \( q \)