

Lgcs 106, Semantics. Lecture Notes. 20 Jan 2010.

1. What Is Semantics?

Semantics is the study of **meaning** in natural language.

The **goal** of semantics—as a branch of linguistic theory—is a theory that explains and predicts native speakers' intuitions about meaning.

What kinds of intuitions do native speakers have about meaning?

2. Intuitions about Meaning: The Empirical Domain of Semantics

2.1 Types of Inferences.

Native speakers have intuitions about what information can be inferred when a sentence is uttered. For example, as a native speaker of English, you know that if (1) is true, then (2) is also true.

- (1) Emery is sitting on the lawn.
- (2) Emery is sitting.

It would be **contradictory** to assert the first sentence and then deny the second:

- (3) Emery is sitting on the lawn, but Emery is not sitting.

We say in this situation that (1) **entails** (2).

- (4) "A entails B" means roughly:
 - whenever A is true, B is also true
 - the information that B conveys is contained in the information A conveys
 - "A and/but not B" is contradictory (can't be true in any situation)

The information conveyed by (2) is already included in the information conveyed by (1). This knowledge seems to be part of knowing what these sentences mean.

If A entails B, we say that A is more **informative**, or stronger, than B.

Exercise 1: Determine whether A entails B for the following pairs of sentences.

- (5) a. David saw Karen.
b. David saw someone.
- (6) a. It is late.
b. It is very late.
- (7) a. It is very late.
b. I am tired.
- (8) a. Missy is a little dog.
b. Missy is a dog.
- (9) a. Joel won the lottery.
b. Joel is happy.
- (10) a. Someone in this class is happy.
b. Everyone in this class is happy.
- (11) a. Most people in this class are happy.
b. Some people in this class are happy.
- (12) a. We stayed up all night.
b. We saw the sun rise.
- (13) a. This is a game.
b. This is a fun game.
- (14) a. Christian ate breakfast today.
b. Christian ate oatmeal for breakfast today.
- (15) a. You are a Russian physicist.
b. Someone Russian is a physicist.
- (16) a. You are a horrible liar.
b. Someone horrible is a liar.
- (17) a. I love you.
b. I like you a lot.

- (18) a. I like you a lot.
b. I don't love you.
- (19) a. There were many casualties.
b. There were some casualties.
- (20) a. Kali laughed and cried.
b. Kali laughed.
- (21) a. Kali laughed or cried.
b. Kali laughed.
- (22) a. Ana has five dollars.
b. Ana has two dollars.
c. Ana has ten dollars.
- (23) a. Emery is not sitting.
b. Emery is not sitting on the lawn.
- (24) a. Missy is not a dog.
b. Missy is not a little dog.
- (25) a. This is not a game.
b. This is not a fun game.
- (26) a. If Missy is a little dog, then she can get on the plane.
b. If Missy is a dog, then she can get on the plane.
- (27) a. Anyone who is sitting should be careful.
b. Anyone who is sitting on the lawn should be careful.
- (28) a. Everyone who is sitting should be careful.
b. Everyone who is sitting on the lawn should be careful.
- (29) a. If there are some casualties, you should retreat.
b. If there are many casualties, you should retreat.
- (30) a. Ana doesn't have five dollars.
b. Ana doesn't have two dollars.
c. Ana doesn't have ten dollars.

2.2 Negative Polarity Items

- (31) a. Nothing ever gets done around here.
b. *Something ever gets done around here.
- (32) a. No one ever calls me.
b. *Someone ever calls me.
- (33) a. I don't ever want to see you again.
b. I never ever want to see you again.
c. *I ever want to see you again.
- (34) a. Nothing gets done around here at all.
b. *Something gets done around here at all.
- (35) a. No one calls me at all.
b. *Someone calls me at all.
- (36) a. I don't want to see you again at all.
b. I never want to see you again at all.
c. *I want to see you again at all.

2.3 Ambiguity

- (37) All is not lost.
a. Nothing is lost.
b. Not all is lost.
- (38) Someone loves everyone.
a. There is one person who loves everyone.
b. For every person, at least one person loves that person.
- (39) Someone thinks that they love everyone.

3. Downward Entailing Environments

We have observed four linguistic environments in which entailment patterns are reversed: negated sentences, *if*-clauses, *every*-relatives, and *any*-relatives.

For example, in a positive sentence, (40) entails (41).

(40) Sara is a huge elephant.

(41) Sara is an elephant.

When the same two sentences are negated, this entailment pattern is reversed, so that (42) entails (43).

(42) Sara is not an elephant.

(43) Sara is not a huge elephant.

Entailment patterns are also reversed in *if*-clauses, as (44) entails (45).

(44) If Sara is an elephant, she can't get baptized in the church.

(45) If Sara is a huge elephant, she can't get baptized in the church.

Entailment patterns are also reversed in 'every relative clauses' and 'any relative clauses'. A *relative clause*, roughly speaking, is a clause that modifies a noun. For instance, in the example *every person that you talked to*, 'that you talked to' is a relative; it is a clause that modifies *person*.

In the following examples, the (a) sentences entail the (b) sentences, demonstrating that entailment patterns are reversed in these cases as well.

(46) a. Anyone who is an elephant can't get baptized in the church.
b. Anyone who is a huge elephant can't get baptized in the church.

(47) a. Everyone who is an elephant can't get baptized in the church.
b. Everyone who is a huge elephant can't get baptized in the church.

4. Implicature. Grice (1975, 1978).

Not all inferences are instances of entailment.

(48) a. I like you a lot.
b. I don't love you.

(49) a. There were some casualties.
b. There were not many casualties.

"Implicatures are inferences based on both the content of what has been said and some specific assumptions about the co-operative nature of ordinary verbal interaction." Levinson (1983).

The main idea: Interlocutors (participants in a conversation) expect each other to converse in a co-operative way. Being cooperative involves, among other things, making the most informative statement you can. In effect, when a speaker does not make the most informative statement from a scale of informativeness that he/she can, s/he implicates that any stronger expression does not hold.

In (49), the implicature arises because *many* is more informative than *some*, and thus, when a speaker uses *some*, s/he implicates 'not many'.

Unlike entailments, implicatures are *defeasible* (can be overtly denied):

(50) There were some casualties, in fact there were many.

That (50) is not a contradiction indicates that (46b) is not an entailment.