

## Meaning 2.1: Cancellability and Negation

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## Inferential relationships

- (i) **Entailment**: Proposition  $A$  **entails** proposition  $B$  if the truth of  $A$  guarantees the truth of  $B$ .

Intuition:  $B$  is true when  $A$  uttered 'in a vacuum' — no context needed for  $B$ .

Notation:  $A \rightarrow B$

- (ii) **Implicature**: Proposition  $A$  is an **implicature** proposition  $B$  if  $B$  is inferred from  $A$  given the context, but  $B$  is not necessarily true.

Intuition:  $A$  intends to mean  $B$  but context necessary for  $A$  to mean  $B$ .

Notation:  $A \rightsquigarrow B$

- (iii) **Presupposition**: A proposition  $B$  is a **presupposition** of proposition of  $A$  if proposition  $B$  is a precondition on the truth / falsity of  $A$

Intuition:  $A$  makes no sense without  $B$  —  $B$  establishes context.

Notation:  $A // B$  (this notation is not standard)

## **Want:**

- . determine the relationships between propositions — ‘what goes to semantics and what goes to pragmatics’

## **Have:**

- . definitions for entailment, implicature and presupposition

## **Need:**

- . squint at definitions to see what diagnostics come out of them

# Cancellability and negation

Squinting hard enough at the definitions, there are two tests which emerge as pretty useful — both involve a negation of some sort.

## (i) Cancellability

Intent: test whether  $B$  is an implicature of  $A$

Test to perform: consider ' $A$  and not  $B$ '

Interpretation of result: if  $A$  can still be true,  $B$  is an implicature if it was derived from context and there is no relation if  $B$  was not derived from context; otherwise,  $B$  is an entailment or presupposition.

## (ii) Negation

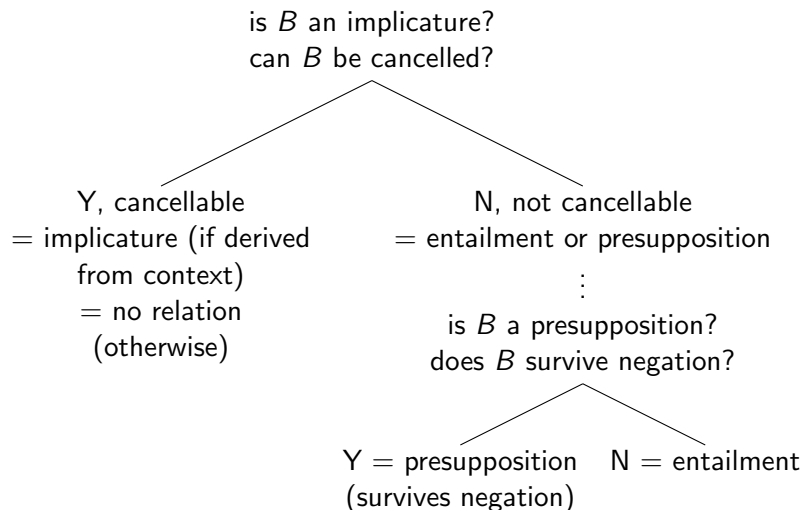
Intent: test whether  $B$  is an entailment or presupposition of  $A$

Test to perform: Assume 'it's not the case that  $A$ ' is true

Interpretation of result: if  $B$  must still be true,  $B$  is a presupposition; otherwise,  $B$  is an entailment. We say presuppositions **survive negation**.

## Work flow as a decision tree

Given an utterance  $A$ , want to know about the relationship proposition  $B$  has with  $A$



## Applying these tests — entailment: $A \rightarrow B$

**Note:** we denote infelicity ('semantic ungrammaticality') with the # symbol

*A*: Janelle wrote a song.

*B*: Janelle wrote something.

**Cancellability:** Try '*A* and not *B*'; is *A* still true?

Test: #Janelle wrote a song, but she didn't write anything.

Result: *A* can't be true.

*B* NOT AN IMPLICATURE

**Negation:** Assume 'it's not the case that *A*' is true; must *B* still be true?

Test: It's not the case that Janelle wrote a song (... in fact, she didn't write anything)

Result: We see that *B* doesn't have to be true.      *B* IS AN ENTAILMENT

## Applying these tests — No relation

*A*: Jermaine is in the USA.

*B*: Jermaine is in Chicago.

**Cancellability**: Try '*A* and not *B*'; is *A* still true?

Test: Jermaine is in the USA, but Jermaine isn't in Chicago.

Result: *A* can still be true and *B* not inferred from context.

*B* IS NOT AN IMPLICATURE

However, suppose we have the context: Jermaine is on a world tour, and he always comes back to his home in Chicago after international travel. If this is common knowledge, *B* could easily be an implicature of *A*.

## Applying these tests — implicature: $A \rightsquigarrow B$

**Context:** James, Rick, a dog, named Fido, and some cookies are in a room. James leaves the room for a few minutes only to return to an empty plate of cookies. The following question/answer exchange happens between James and Rick. Fido's tail is wagging, and he is cleaning his snout.

What happened to all the cookies?

A: Well, Fido looks pretty happy.

B: Fido ate all the cookies.

**Cancellability:** Try 'A and not B'; is A still true?

Test: Fido looks pretty happy, but, just to let you know, he didn't eat all the cookies (... I did. I didn't have lunch, and I couldn't resist. Sorry, James.)

Result: A can still be true and B was inferred from context.

*B* IS AN IMPLICATURE



## Applying these tests — presupposition: $A//B$

*A*: Quincy took a long time to parallel park my firetruck again.

*B*: Quincy parallel parked a firetruck before.

**Cancellability:** Try ‘*A* and not *B*’; is *A* still true?

Test: #Quincy took a long time to parallel park his firetruck again, but he never did it before.

Result: *A* can’t be true.

*B* NOT AN IMPLICATURE

**Negation:** Assume ‘it’s not the case that *A*’ is true; must *B* still be true?

Test: It’s not the case that Quincy took a long time to parallel park his firetruck (... he did it on the first try!)

Result: We see that *B* still must be true when ‘not *A*’ is true.

*B* IS A PRESUPPOSITION

# Take-homes

Things to keep in mind with all of this:

- (i) implicatures on context dependent; cancellability test ‘cancels’ the context assumptions which give rise to inference
- (ii) presuppositions are ‘strong’ in some sense: they can’t be cancelled and they survive negation. They are preconditions on the truth / falsity of something.
- (iii) entailments are those things which follow if you utter something in a vacuum — no context necessary.

When testing, I suggest using the order in that decision tree. It is not necessary, but I have found it to make things easier.

End of this video's material.