

# LSA.311: Lecture 2

Kai von Fintel

June 29, 2005

## What We Did on Monday

- Semantics vs. Pragmatics
- Two Reasons to Study Pragmatics (as a Semanticist)
  - Context in Semantics
  - Pragmatic Inferences and the Data of Semantics
- Implicature

## The Plan for Today

- Gamut's reformulation of Grice's System
- Deriving quantity implicatures
  - Assumptions needed
  - Predicted properties of implicatures
- The Symmetry Problem
- Horn Scales

## Examples of Putative Implicatures

- I had dinner with some of my students.  
*implicates*: I did not have dinner with all of my students.
- John may be in the kitchen.  
*implicates*: John may not be in the kitchen.
- Morton has three children.  
*implicates*: Morton has no more than three children.
- Lindsay invited Mary or Paul.  
*implicates*: Lindsay did not invite both Mary and Paul.

### **The Gricean Analysis**

- The speaker said A.
- ASSUMPTION: If B, the speaker would not have said A (but something else).
- Therefore, not B.

### **Unravelling the ASSUMPTION**

- Q: Why would the speaker not have said A, if B?
- A: Because if B, they shouldn't have said A, but something else.
- Q: Why shouldn't the speaker have said A, if B?
- A: Because saying A, if B, would have violated the norms of rational communication (a.k.a. Grice's Maxims)

### **Gamut's Reformulation of Grice**

- A speaker S makes correct use of a sentence A in order to make a statement before a listener L just in case:
  - (i) S believes that A is true;
  - (ii) S believes that L does not believe that A is true;
  - (iii) S believes that A is relevant to the subject of the conversation;
  - (iv) For all sentences B of which A is a logical consequence (and which are not equivalent to A), (i) - (iii) do not all hold with respect to B.

### **Application to *Some***

- A = I had dinner with some of my students.
- B = I had dinner with all of my students.
- CORRECTNESS: S made correct use of A.
- A is a logical consequence of B. (discuss)
- CONCLUSION: at least one of (i) - (iii) does not hold with respect to B.

### **Some Additional Assumptions**

- (ii) does hold with respect to B. (discuss)
- RELEVANCE: S believes that B is relevant to the subject of the conversation. in other words: (iii) does hold with respect to B.
- CONCLUSION: (i) does not hold with respect to B. in other words: it is not the case that S believes that B is true.

### **Primary Implicature**

- What we have so far: It is not the case that S believes that B is true
- Not the same as: S believes that B is false.
- Don't be confused by the neg-raising nature of *believe*
- Better: use *be convinced that* in the calculation.
- So what we have so far: It is not the case that S is convinced that B is true.
- Let's call this the PRIMARY (QUANTITY) IMPLICATURE
- How can we go further?

### **One More Assumption**

- OPINIONATED SPEAKER: either S is convinced that B is true or S is convinced that B is false
- It is not the case that S is convinced that B is true.
- Therefore: S is convinced that B is false
- Let's call this the SECONDARY (QUANTITY) IMPLICATURE

### **Summary of the Derivation**

- Fact: S said "I had dinner with some of my students"
- Assumptions:
  - CORRECTNESS
  - RELEVANCE
  - OPINIONATED SPEAKER
- Conclusion: S is convinced that "I had dinner with all of my students" is false

### **A Final Step (if so desired)**

- If we want to go even further, we need one more assumption
- INFORMED SPEAKER: if S is convinced that B is false, then B is false
- Therefore: B is false

### **Predicted Properties of Q-Implicatures**

- Quantity Implicatures should not arise
  - if the stronger sentence would not be “relevant”
  - if it cannot be assumed that the speaker is opinionated
- Class Brainstorm: let’s find examples where the Q-implicature from *some* to *not all* doesn’t arise

### **Other Properties of Q-Implicatures**

- SUSPENSION
  - David had dinner with some, if not all, of his students.
- CANCELLATION
  - David had dinner with some of his students. In fact, he had dinner with all of his students.  
  
In a recent paper (“On Embedded Implicatures”), Uli Sauerland disputes that there is a natural sense in which secondary (strong) quantity implicatures can be cancelled. This might be a good squib topic.
- REINFORCEMENT
  - David had dinner with some but not all of his students.

### **Grice’s South of France example again**

- You are in the car with me. I say we should look up our old friend Ben. Fingers poised over the fancy GPS navigation doodad in your car, I ask you “Where does he live these days?”. You answer: “South of Boston.”
- Grice: “There is no reason to suppose that B is opting out; his answer is, as he well knows, less informative than is required to meet A’s needs. This infringement of the first maxim of Quantity can be explained only by the supposition that B is aware that to be more informative would be to say something that infringed the second maxim of Quality. ‘Don’t say what you lack adequate evidence for’, so B implicates that he does not know in which town C lives.”
- Class: How can we apply Gamut’s system to this example?

### **The Symmetry Problem**

- The Story So Far
  - A: I had dinner with some of my students.
  - B: I had dinner with all of my students.
  - CONCLUSION: S is convinced that B is false.
- Consider another stronger sentence:
  - C: I had dinner with some but not all of my students.
  - C is also a sentence that the Gamut definition of CORRECTNESS applies to
  - CONCLUSION: S is convinced that C is false.
- But that can't be!

### **What Went Wrong?**

- Somehow, we need to prevent C from counting as a competitor to A, even though C is logically stronger than A.

### **What Makes C not a Competitor to A?**

- Relevance?
- Manner?

### **Horn Scales**

- all, most, many, some, few  
and, or  
n, . . . , 5, 4, 3, 2, 1  
excellent, good  
hot, warm  
always, often, sometimes  
succeed in V, try to V, want to V  
necessarily p, p, possibly p  
certain that p, probable that p, possible that p  
must, should, may  
cold, cool  
love, like  
none, not all

### Where do scales come from?

- Gazdar 1977: relevant alternatives must share selectional restrictions and item-induced presuppositions.
- Gazdar 1979: “scales are, in some sense, ‘given to us’” (p. 58).
- Atlas & Levinson 1981: same semantic field, same brevity, and lexicalized to the same degree
- Hirschberg 1985: items must form a “salient” scale in a given discourse

### Horn’s Condition on Scales

- “Positive and negative quantifiers, modals, and related operators must be represented on distinct, though related, scales. There can be no single scale on which operators like some and not all, or possible and unlikely, can be plotted. Rather, there is one scale defined by the positive operators and one by their negative counterparts”. (Horn 1989, p. 235).
- not only a but b  
not only warm but hot  
not only some but all  
not only John but John and Mary  
#not only John but John and not Mary  
#not only John but only John  
#not only some but some and not all

### How to Refer to Scales

- “Given a quantitative scale of  $n$  elements  $p_1, p_2, \dots, p_n$  and a speaker uttering a statement  $S$  which contains an element  $p_i$  on this scale, then the listener can infer ...” (Horn 1972, p. 112)
- How to do it in Gamut’s system
  - Instead of looking at all sentences  $B$  of which  $A$  is a logical consequence, just look at those sentences  $B$  of which  $A$  is a logical consequence *and* which differ from  $A$  at most in the occurrence of an item from a Horn scale instead of another. We could call these the HORN ALTERNATIVES to  $A$ .

### Reflect on the System

- The Initial Vision
  - Grice’s Idea: Implicatures follow from principles of rational communication
  - Norm to choose the strongest relevant statement

- Kind of like: choose the best tool for the job
- What We Now Have
  - Only sentences that are Horn-alternatives are considered
  - This means that the system involves crucial reference to linguistic matters

### **Variants of the Neo-Gricean System**

- Q vs. I/R implicatures
- Hi-Tech Variants
  - Optimality Theory
  - Game Theory
  - Decision Theory
- Explore on your own

### **What We Did Today**

- Gamut's reformulation of Grice's System
- Deriving quantity implicatures
  - Assumptions needed
  - Predicted properties of implicatures
- The Symmetry Problem
- Horn Scales

### **What We'll Do on Wednesday**

- The Alternative to Q-Implicature
  - Ambiguity
  - What kind of ambiguity
- Embedded Implicatures
  - The Data
  - The Accounts
    - \* Simple Fix
    - \* Artefacts
    - \* Pragmatic enrichment
    - \* Local implicatures
    - \* Exhaustivity operators