Radical Pragmatics:
Gricean Implicature — A Recap

David Beaver
Stanford University

Winter, 2001

1 The Maxims

The Cooperativity Principle Make your contribution such as is required by the commonly accepted purpose of the conversational participants.

Quality Speak the truth — don't say that which you believe to be false or that for which you lack evidence.

Quantity Make your contribution as informative as is required, and not more so.

Relevance Do not make contributions which fail to take the participants nearer the commonly accepted goals.

Manner Be perspicuous:

- Avoid obscurity
- Avoid ambiguity
- Be brief
- Be orderly

- The first three maxims concern the content of conversational contributions, what is expressed.
- "Manner" concerns the way in which it is expressed.
- Grice allows that there may be other maxims, e.g. "Be Polite!" which are "aesthetic, social or moral in character" (Grice 1989, p.28).

2 Implicatures

- Grice says that people, if they are cooperating at all, do usually follow the maxims *even if they appear not to*!
- The appearance of non-adherence to maxims can arise from looking too narrowly at what is said, and not what might be conveyed.
- The maxims can be taken as extra premises about the speaker's behavior which are available to the hearer when calculating what the speaker intended to convey.
- The assumption that the speaker is following some or all maxims, i.e. the assumption of the maxims as additional premises, allows the hearer to draw extra inferences: these are conversational implicatures.

3 Apparent Non-adherence to Relevance

A Do you have your bike with you?

B I walked in today.

B appears not to answer A's question. Taken literally, the answer is irrelevant. But if we assume that B is being cooperative, then we know B's answer must be relevant. So we guess that there is a simple rule connecting the answer to the question. Here the most *plausible* rule is: B walked in → B does not have bike. If B was assuming this rule, and if A realizes this, then the response provides A with the information needed.

A Is the chicken good?

B I once tried one of their their entrees. Now I always go for the salad.

This applies also when the question is not explicit:

A I guess Bill is missing another meeting!

B They're showing 2 episodes of the Simpsons back to back. Should be just finishing now.

- There is no overt question, but A clearly considers implicit question "Is Bill missing the meeting?", and indicates belief that the answer is "Yes."
- A goal of most conversations is to maximize agreement between the participants, so it is appropriate to challenge any suggestion believed to be false.
- Assuming B's comment is relevant to A's, it must deny it or reinforce it.

- Suppose B is agreeing: Bill is missing the meeting since the Simpsons is on. In that case, why is it relevant that it is just finishing now.
- Suppose instead that B is disagreeing: Bill is not missing the meeting. In that case the fact that show is just finishing could indicate that Bill is in fact to be expected soon, i.e. is late rather than absent.

4 Implicatures from Other Maxims

Quality "Bill has a small birth-mark on his left cheek."

This implicates that speaker believes that Bill has birth-mark, and has evidence for this belief.

Quantity "17 students came to my class"

Indicates that not more than 17 came.

Manner "The prof. came in and the student left."

Indicates that student left after (or, as a result of) the prof. coming in.

5 Flouting

- In all of the above cases the assumption that the speaker is following maxims creates implicatures.
- Another class of implicatures involve *flouting* or *exploiting* the maxims.
- Generally, one maxim is flouted so that another may be obeyed and yet avoid conflict with independent constraints.
- At the very least, the Cooperativity Principle is assumed to be obeyed.

6 Flouting Quality

A I'm gonna flunk this course.

B Sure, just like you flunk every course you take.

Suppose A has passed every course so far, and B knows this. Then B is flouting *Quality*. By forcing A to think about other courses taken, B conveys that A should be more optimistic.

7 Flouting Quantity

- Tautologies and truisms do not carry any information literally.
- "Boys will be boys."
- Assuming that the speaker is being cooperative, the point may be to indicate that hearer should not expect some particular boy to behave otherwise.
- "For every crime there's a criminal."
- The speaker may indicate e.g. (a) that some particular event should be classified as a crime, and/or (b) that a hunt for a criminal will now begin.

8 Flouting Relevance

A What do you think of the prof.?

B Nice weather for the time of year.

B implicates perhaps that the prof., or a potential snitch, is within earshot.

9 Flouting Manner

A Did you get my assignment?

B I got two pages clipped together and covered with rows of black squiggles.

B indicates, perhaps, that the assignment departed from what was expected.

10 Conventional Implicatures

- Grice believed that there is a class of inferences that are not part of what is said, and yet do not follow from application of the maxims. Rather, they are conventionalized inferences associated with particular expressions.
- Standard examples include discourse connectives "but", "since", and implicative verbs, "manage".
- As Karttunen and Peters (1979) make clearest, there is no sharp distinction between conventional implicatures and presuppositions.
- Intuitively, the only quality that distinguishes conventional implicatures from other standard types of presupposition is that the conventional implicatures are often difficult to state precisely and involve epistemic notions.

- For instance, analysing "but" requires an understanding of rhetorical contrast, and analysing "manage" might be be impossible without a theory of hearer's expectation.
- It is notable that all the conventional implicatures that Grice mentions pass standard projection tests.
- Sadock argues for a retaxonomizing of implicatures.
Grice suggests [conveyed: said, [implicated:[conventional,conversational]]]
Sadock: [Conveyed:[Conventional:[semantic nonsemantic], Conversational]]

11 Two un-usable tests for Conversational Implicature

A conversationally implicates B iff:

Calculability B can be calculated from A on the basis of the maxims.

Non-detachability B follows from anything that expresses the same as A.

- The power and imprecise statement of the maxims makes Calculability problematic: Nearly everything that is conveyed can be calculated, and the maxims "vie with for the privilege of explaining the same facts." (Sadock 1991)
- Non-detachability is dependant on the dubious assumption that we can list a set of perfect synonyms for A. Further, non-detachability does not apply in case B is a result of *Manner*, since then it is predicted to be detachable from A.

12 Two Standard Tests for Conversational Implicature

A conversationally implicates B iff:

Cancelability "A and not(B)" is consistent and felicitous.

Reinforcibility "A. Indeed B" is felicitous.

- These tests work very well. The first is due to Grice, and the second is from Sadock.
- As Sadock discusses, both are difficult in some cases of ambiguity, although I think they can be formulated in such a way as to avoid the problems he describes.

13 Two Non-standard Tests for Conversational Implicature

If B follows from B then A conversationally implicates B unless:

Non-projection "not(A)" implies B.

Non-contraposition "since not(B) I could truthfully deny A".

- Non-projection is an obvious way of distinguishing between conventional implicatures and conversational implicatures or entailments. There are cases where this gives the wrong results, but normally for transparent reasons.
- Non-contraposition is similar to cancelability, but is designed to deal with Sadock's objection that both cancelability and reinforcibility fail to be effective in cases of ambiguity.
- E.g. ⋆"Since Mary doesn't have three children I could truthfully deny that she has two children." vs. "Since there is no single language that everyone speaks, I could truthfully deny that everyone speaks one language."

14 Scalar Implicature

- A linguistic scale (or "Horn scale") is an ordered set of linguistic expressions (A, B, C, D...)
- For a simple assertive sentence S containing an instance of one of the expressions, say B, we write S[B]
- Replacing B by one of the other expressions, say D, produces another grammatical sentence.
- The scale is ordered by informativeness, so that S[X] is more informative than S[Y] if X is to the left of Y on the scale. We write $X > Y$.
- If a speaker asserts S[Y], then a scalar implicature is triggered for any X to the left of Y on the scale that the speaker does not believe S[X].
- Semi-formally, we can use $\Rightarrow$ to mean implicates, and write: If $X > Y$, then $S[Y] \Rightarrow \neg S[X]$.
- Arguably the implicature is not $\neg S[X]$, but "the speaker doesn't have the information that S[X]."

15 Examples of Scalar Implicatures

- The numeric determiners *...four, three, two, one* form a scale.
- Take "I have two sisters."
- We can write this as S[two].
- Since *four* > *two* on this scale, it follows that $\neg S[four]$.
- i.e. "I have two sisters." implicates "I do not have four sisters."
- The phrases *"all of the, most of the, some of the"* are on a scale.
- Thus "Most of the cake was eaten" implicates the negation of "all of the cake was eaten", i.e. "Not all of the cake was eaten"
- Note cancelability: both of the following are OK:
  1. Some of the cake was eaten, in fact most of it.
  2. Most of the cake was eaten, in fact all of it.
- The adjectives *"OK, interesting, exciting, orgasmic"* form a scale.
- Consider implicatures of "The lecture was interesting."

16 Other scales

- and, or
- necessarily, possibly
- always, often, occasionally
- will, must, should, may
- freezing, cold, cool, cool-ish

17 Clausal Implicatures

- Scalar implicatures arise from the maxim of quantity. Clausal implicatures also arise from this maxim.
- We have seen that "A or B" is associated with a scalar implicature "it's not (known to be the case that) A and B"
- But there are other implicatures: speaker doesn't know A to be the case, speaker doesn't know A not to be the case, and similarly, with B.

- In general, if a clause occurs in a sentence, but neither the truth nor the falsity of that clause is asserted or presupposed, a clausal implicature arises that the speaker does not know the clause to be true.
- Likewise, a clausal implicature arises that the speaker does not know the clause to be false

18 Examples of Clausal Implicatures

- If Mary won the race, she'll get lots of money.
  (Speaker doesn't know whether Mary won the race, or whether she'll get lots of money.)
- Fred thinks that milk is good for you.
  (Speaker doesn't know whether milk is good for you.)
- It's possible that Mary is happy and Fred is unhappy.
  (Speaker doesn't know whether Mary is happy, etc.)

19 Cancelability of Clausal Implicatures

- If Mary won the race, she'll get lots of money, and I just found out that she did win the race, so she will get lots of money.
- Fred thinks that milk is good for you, and he's right.
- It's possible that Mary is happy and Fred is unhappy, and I know that Mary is happy.

20 Particular vs. General Implicatures

Generalized Implicatures
Conversational Implicatures which occur by default in any conversational context. E.g. *Scalar* and *Clausal* implicatures, "a house" → not specifically speaker's house.

Particularized Implicatures
Result from specific features of the context of utterance. Typically these are triggered by the Maxim of Relevance.

21 Examples of Particularized Implicatures

- *(Variant on example due to Grice)* The candidate has excellent handwriting, and always arrives promptly for tutorials. On the basis of these qualities alone, he is the ideal candidate.
- *(From Friday's lecture)* Sure! Just like you flunk every course you take.

22 Competing Implicatures

- Consider "It's warm in here, if not downright hot."
- Scalar implicature "It's not hot in here." should arise.
- Also a clausal implicature "I don't know whether it's downright hot."
- Arguably, the clausal implicature here *cancels* the scalar implicature. This would be the prediction of Gazdar (1979).
- In general, the question of which implicatures are strongest, and why, is a difficult one.

23 Conversational Implicatures vs. Conventional Implicatures

Consider the following:

1. The provost doesn't know that you will pass this course.
2. I don't know that you will pass this course.
3. If the prof. realizes that nobody likes assignments, he won't give any.
4. If I realize that nobody likes assignments, I won't give any.
5. The provost doesn't regret that you will pass this course.
6. I don't regret that you will pass this course.

- In some previous work *factive* verbs were split up into two classes: full factives and semi-factives.
- The verbs *know, realize, discover* were said to be semi-factive, and others, such as *regret*, were said to be full factives.
- It was claimed that semifactives lacked a presupposition when used in the first person form.
- An alternative, pragmatic account was proposed by Stalnaker, Gazdar.
- In the case of "I don't know X", the entailment that the speaker doesn't know X cancels the presupposition of X, since the speaker cannot be assuming X while not believing it.
- For "If I realize that X. . . " there is a clausal implicature that the speaker does not know whether (s)he realizes that X. From this implicature, it follows that the speaker does not believe X, and this again cancels the presupposition that X.

- So, entailments and implicatures can both cancel presuppositions.
- It turns out that just as we've seen that one implicature can cancel another, sometimes two presuppositions can mutually cancel each other.
- Either the King or the President of Buganda will conduct the opening ceremonies.

24 Some Loose Ends

1. In ordinary conversation, approximately how often do you flout maxims in order to convey information?
2. Consider the following sentence: "I can run the 100 meters in 11 seconds". What are the implicatures derived by considering "100" and "11" both to be in scales? What are the differences between these scales? What consequences would this have for a view that scales are conventionally defined in the lexicon, rather than being calculated *on the fly*?
3. Different registers and genre's appear to vary considerably in terms of obscurity, lengthiness, or even the importance of truthfulness. Compare e.g. bar-room conversations to legal documents. Does this mean that the maxims are not universal, but vary even within a language community?
4. Given that sometimes Quality is flouted, does this mean that entailments are cancelable? If so, can we still distinguish entailments from implicatures?

25 Principal References

Gazdar, G., 1979. *Pragmatics: Implicature, Presupposition and Logical Form*, Academic Press, New York
Paul Grice, *Studies in the Way of Words*, Harvard University Press, 1989.
Lauri Karttunen and Stanley Peters, "Conventional Implicatures in Montague Grammar", in Peter Cole (ed.) *Syntax and Semantics 9*, Academic Press, London, pp. 1–56.
Steven Levinson, *Pragmatics*, Cambridge University Press, 1983.
Jerrold Sadock, "On Testing for Conversational Implicature", in Paul Davis (ed.), *Pragmatics: A Reader*, Oxford University Press, 1991, pp. 365–375.