Mind, Matter and Language

Philosophy of Language

Saying vs. Implicating

Outline

Formal Languages

- Formal languages are often viewed as superior to natural languages because these languages eschew vagueness, context-sensitivity, ambiguity, etc.
- That is, in a formal language, referential terms always have referents, predicate extensions are precisely defined, and quantifier domains are perfectly determinate. In short, formal languages are precise in a way that natural languages are not.
- It is thus straightforward, in a formal language, to formulate a range of precise principles, e.g. inference rules, that guarantee validity. And since reasoning according to principles that guarantee validity is generally desirable, rational agents should adhere to such logical principles.

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Natural Languages

- Grice observes that even in natural language, with all its imperfections, there are numerous recognizably valid inferences that speakers consistently make—what Grice refers to as *implicatures*.
- But since natural language is rife with vagueness, context-sensitivity, and ambiguity, the question is how speakers are capable of performing such inferences?
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Saying vs. Implicating

- Consider Grice's example below.

> Suppose that A and B are talking about a mutual friend, C, who is now working in a bank. A asks B how C is getting on in his job, and B replies, 'Oh quite well, I think; he likes his colleagues, and he hasn't been to prison yet.' At this point, A might well inquire what B was implying, what he was suggesting, or even what he meant by saying that C had not yet been to prison. [...] It is clear that whatever B implied, suggested, meant in this example, is distinct from what B said, which was simply that C had not been to prison yet. (Grice 1989: 24)

- So, B *said* that C has not yet been to prison.
- But, B *implied/suggested/meant* something else, e.g. that C is a person who is potentially dishonest/likely to go to prison/etc.

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- Grice distinguishes between what is *said* by an utterance (or sentence) and what is *implicated* by that utterance:

> **What is *said*** by an utterance of a sentence S is its literal meaning, i.e. the compositionally determined truth conditional content of S.
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> **What is *implicated*** by an utterance of a sentence S is a content that is distinct from the literal meaning of S, but somehow derivable after having determined S's literal content.

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Deriving Implicatures

- To understand the meaning, i.e. *what is said*, by a sentence *S*, one needs only understand the truth conditions of *S*.
- But the question is how do speakers come to understand *what is implicated* by a sentence? For example, in Grice's earlier example, how does one come to understand that the speaker is implying that C is the kind of person who is likely to go to jail? What is the relevant process by which this additional non-literal content is derived?
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Conventional Implicatures

- In some cases, a sentence may implicate something simply in virtue of its *conventional* meaning. For example:

  (1) Jack is English, therefore Jack is brave.

- This sentence seems to implicate that there is some kind of important relation between being English and being brave.
- However, the literal meaning of the sentence in (1) is intuitively just (*i*) that Jack is English and (*ii*) that Jack is brave. So, if Jack is both English and brave, the sentence is intuitively true (even if misleading).
- This implicature arises as a result of the word 'therefore'. It is part of the conventional meaning of 'therefore' that it triggers this kind of implicature.

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- Words have meaning in virtue of the conventions of a language community. That is, the meaning of a word is the meaning that is conventionally associated with it. So, if there is a convention to use an expression e to mean M in the language community, the conventional meaning of e is M ("meaning is use" as the Wittgensteinian slogan says).
- By contrast, a meaning M' of an expression e is non-conventional if there is no convention that e must be used to mean M'.
- In other words, the mark of the conventional is that it is mandatory. If e conventionally means M, one cannot use e without thereby expressing that M.

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Conventional Implicatures (cont.)

- So, if an implicature is *conventional*, it is mandatory. That is, if an expression is such that it always triggers an implicature, this is part of its conventional meaning.
- Given that conventional meaning is mandatory, one way to assess whether an implicature is conventional or non-conventional is to test whether it is *cancellable*. Suppose, for example, a speaker follows up the utterance of (1) as follows:

  (2) Jack is English, therefore Jack is brave. #Although I don't mean to suggest that being English somehow entails being brave.

- This is infelicitous. Why? Well, if the speaker did not mean to implicate what she did, why did she use the word 'therefore'?
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- Here is an example. Suppose X is applying for a position as a lecturer in philosophy and that Professor Y is writing a letter of recommendation for X. Professor Y writes:

  (3) Dear Sir, Mr. X's command of English is excellent and his attendance at tutorials has been regular.

- If Professor Y were to say no more than this, she would intuitively convey that X is no good at philosophy.
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- Notice that the implicature generated by (3) is not the result of any particular word, but rather the context in which the sentence is asserted.
- Moreover, notice that Professor Y could felicitously cancel the implicature if needed.

  (4) Dear Sir, Mr. X's command of English is excellent and his attendance at tutorials has been regular. Although, I do not mean to imply that Mr. X is not a good philosopher. He is an excellent philosopher to boot.

- Thus what characterizes a conversational implicature is that it conveys a content that is not part of the literal meaning of the sentence uttered (not part of the truth conditional content) but also cancellable.
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Rational Behavior in Discourse

- To flesh out how conversational implicatures are generally derived (i.e. grasped by speakers in conversation), Grice introduces a broad general principle.

> **The Cooperative Principle**
> Make your conversational contribution as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.

- Grice then identifies four subcategories each containing maxims where these maxims are supposed to be more precise elaborations of rules that discourse participants must follow in order to obey the The Cooperative Principle.
- These subcategories are **Quantity**, **Quality**, **Relation**, and **Manner**.

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Quantity

- The category of **Quantity** contains two maxims.

1. Make your contribution as informative as is required.
2. Do not make your contribution more informative than is required.

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Quality

- The category of **Quality** contains a "supermaxim" and two submaxims.

> **Supermaxim**: Try to make your contribution one that is true.
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> 1. Do not say what you believe to be false.
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Relation

- The category of **Relation** only has one maxim.

> Be relevant.

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Manner

- The category of **Manner** also has a supermaxim and four submaxims.

Supermaxim: Be perspicuous.

1. Avoid obscurity of expression.
2. Avoid ambiguity.
3. Be brief (avoid unnecessary prolixity).
4. Be orderly.

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Rational Agents Obey The Cooperative Principle

- When speakers engage in linguistic communication, typically there is some general goal that the speakers are aiming to achieve, e.g. the exchange of information.
- Given this general goal of linguistic communication, Grice thinks that failing to act in accordance with the Cooperative Principle (and hence the various maxims) is irrational.
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Failing to Fulfill Maxims

- **Quiet Violations**
  A speaker may quietly and unostentatiously violate (i.e. without making it explicit) one or more maxims. In such cases, the speaker is likely to mislead.

- **Opting Out**
  A speaker may voluntarily opt out of the Cooperative Principle and the maxims, e.g. in cases where the speaker is not at liberty to provide more information ('I can't say anymore', 'my lips are sealed').

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Failing to Fulfill Maxims (cont.)

- **Maxim Clash**
  A speaker may face a clash of maxims. For example, the speaker might not have enough evidence to warrant a stronger assertion than one that is going to be insufficiently informative.

- **Flouting Maxims**
  A speaker may openly and blatantly fail to fulfill one or more maxims. These are cases that are most likely to give rise to conversational implicatures. In particular, the interlocutor is faced with the task of coming to reconcile the flouting of the maxim with the assumption that the speaker is still aiming to be cooperative.

Failing to Fulfill Maxims (cont.)

- **Maxim Clash**
  A speaker may face a clash of maxims. For example, the speaker might not have enough evidence to warrant a stronger assertion than one that is going to be insufficiently informative.

- **Flouting Maxims**
  A speaker may openly and blatantly fail to fulfill one or more maxims. These are cases that are most likely to give rise to conversational implicatures. In particular, the interlocutor is faced with the task of coming to reconcile the flouting of the maxim with the assumption that the speaker is still aiming to be cooperative.

Characterizing Implicatures

- On the basis of the above considerations, Grice characterizes the notion of a *conversational implicature* as follows:

> A man who, by [...] saying [...] that p has implicated q, may be said to have conversationally implicated that q, provided that (1) he is to be presumed to be observing the conversational maxims, or at least the Cooperative Principle; (2) the supposition that he is aware that, or thinks that, q is required in order to make his saying [...] that p [...] consistent with the presumption; and (3) the speaker thinks (and would expect the hearer to think that the speaker thinks) that it is within the competence of the hearer to work out, or grasp intuitively, that the supposition mentioned in (2) is required. (Grice 1989: 30-31)

Deriving Implicatures

- Grice continues:

> Apply this to my initial example, to B's remark that C has not yet been to prison. In a suitable setting A might reason as follows: "(1) B has apparently violated the maxim 'Be relevant' and so may be regarded as having flouted one of the maxims conjoining perspicuity, yet I have no reason to suppose that he is opting out from the operation of the Cooperative Principle; (2) given the circumstances, I can regard his irrelevance as only apparent if, and only if, I suppose him to think that C is potentially dishonest; (3) B knows that I am capable of working out step (2). So B implicates that C is potentially dishonest." (Grice 1989: 31)

Deriving Implicatures (cont.)

- So, roughly speaking, a speaker S conversationally implicates that q (by saying p) iff:
  - (i) It is assumed that S is observing the Cooperative Principle. (**cooperative presumption**)
  - (ii) The supposition that S believes that q is required to make S's utterance consistent with the Cooperative Principle. (**determinacy**)
  - (iii) S believes (or knows), and expects the hearer H to believe that S believes, that H is able to determine that (ii) is true. (**mutual knowledge**)

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Deriving Implicatures (cont.)

- To derive a conversational implicature q from an utterance of p, the hearer will generally need to rely on the following.
  1. The conventional meaning of the words and sentence.
  2. The Cooperative Principle and the associated maxims.
  3. The context in which p is uttered.
  4. Other kinds of background/world knowledge.
  5. The assumption that 1-4 are available to both speaker and audience.
- Let's now consider some examples.

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Outline

A Gas Station Around The Corner

- Consider the following exchange between A and B:

(5) **A**. Excuse me. I was wondering if you could help me. My car is out of gas.

B. There is a gas station around the corner.

- If **B** thinks that the gas station around the corner is closed, **B**'s utterance would not be relevant. So, **B** has implicated that the gas station is open.
- However, **B** has not, it seems, violated any maxim. Rather, **B** simply implicates what he must be taken to believe precisely in order to avoid a violation of the maxim of *Relation* ("Be relevant").

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- Remember, if the content conveyed is a *conversational* implicature, it should be cancellable. Now notice that **B** could have continued as follows:

(5) **A**. Excuse me. I was wondering if you could help me. My car is out of gas.

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'Some' vs. 'Every'

- Another example: Imagine that the following exchange takes place between **A** and **B**.

(5) **A**. How did the students do on the exam?

B. Well, some students passed.

- Intuitively, **B** has implicated that not all of the students passed the exam (and perhaps that not even *most* passed).
- Again, this implicature does not seem to arise from an immediate violation of a maxim, but rather from the observation that if **B** believed that all of his students passed, his utterance would violate **Quantity** ("Make your contribution as informative as is required").
- That is, if **B** believed every student passed, he could have made a *stronger* statement, i.e. a more informative statement. Since he did not, the hearer concludes that **B** believes the negation of the more informative statement.

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'Some' vs. 'Every' (cont.)

- This kind of implicature is typically referred to as a 'scalar implicature'. The idea is that 'some', 'most', and 'every' belong to a scale:

  (*a*) [some < most < every]

- So, asserting 'Some Fs are Gs' will implicate (at least) the negation of the strongest item on the scale
  - 'Some Fs are Gs' $\rightsquigarrow$ 'Not every F is G'
- But under negation, the scale reverses!
- So, if one asserts that not every F is G, one implies (at least) the weakest item on the scale. To illustrate.
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Other Scalar Implicatures

- Other examples of scalar implicatures include:

— **Numerical deteminers** ('one', 'two', 'three').

(6) Jack has three children. [one < two < three < ...]
⇝ Jack has no more than three children

— **Or–And**

(7) Mary or Louise went to Chicago. [or < and]
⇝ Mary and Louise did not both go to Chicago

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(8) This tea is lukewarm. [... cold < lukewarm < warm < hot ...]
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Avoiding Maxim Clashes

- Suppose **A** wants to know whether **C** passed the exam (and not merely whether **C** could have passed the exam). Moreover, suppose that **B** knows that this is what **A** wants to know.

  (9) **A**. Did C pass the exam?
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- **B**'s answer is less informative than what is required for **A's** purposes.
- However, this apparent violation of **Quantity** ("Make your contribution as informative as is required") can be explained by the assumption that if **B** had provided more information, he would then have violated **Quality** instead ("Do not say that for which you lack adequate evidence").
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Flouting Quantity

- Implicatures are often the result of maxims being *flouted*.
- For instance, the example involving Professor Y's letter of recommendation for Mr. X is a simple example of an implicature that is the result of the speaker flouting the maxim of "Make your contribution as informative as is required".
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- Cases that may be explained by appeal to the maxim of **Quality** being flouted include irony and metaphor.

  (13) **A**: Why don't you just win lottery?
  B: Just win the lottery? That's a great suggestion...

  (14) You are the cream in my coffee.

- In both (13) and (14), the speaker seems to be uttering a clearly literally false sentence, so the speaker is flouting the maxim "Do not say what you believe to be false".
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  B: The weather has been quite delightful this summer.

- The blatant violation of **Relation** here is meant to signal to **A** that his previous remark was inappropriate.

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- Compare the difference between (16) and (17).

  (16) Miss X sang "Home Sweet Home".
  (17) Miss X produced a series of sounds that corresponded closely with the score of "Home Sweet Home".

- If the speaker simply meant to convey (16), the utterance of the sentence in (17) would be an open violation the maxim 'be brief (avoid unnecessary prolixity)'.
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Generalized vs. Particularized Implicatures

- Grice ends the paper by drawing another distinction between *particularized* and *generalized* conversational implicatures.

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An implicature is *particularized*, if it is highly context-dependent. For example, the implicature generated by the sentence 'Mr. X's command of English is excellent' is essentially dependent on the context. This sentence would not give rise to this implicature *generally*.

Generalized Implicature
An implicature is generalized if it is not generally context-dependent. Indefinite descriptions, e.g. 'a woman', 'a house' quite *generally* implicate some kind of lack of familiarity. For example, a sentence such as 'John is meeting a woman tonight' would *generally* implicate that John is not meeting his wife.

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Summing Up

- In sum, a conversational implicature must possess the following features:
  - Conversational implicatures are not part of the meaning of (or 'what is said' by) the sentence from which they are derived.
  - The truth or falsity of a conversational implicature is independent of the truth or falsity of 'what is said'.
  - Conversational implicatures are cancellable: To assume that something is conversationally implicated requires assuming that the Cooperative Principle is being observed. However, since one can opt out of the Cooperative Principle, it follows that conversational implicatures can be cancelled.
  - Implicatures are non-detachable. Assuming that **Manner** is playing no role in the calculation of some implicature I from sentence S, it is then not possible to find an alternative to S (with the same content) that fails to implicate I.

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Outline

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- 'Logic and Conversation' initiated an entire research program in pragmatics and spawned many alternative theories of implicatures.
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    In the case of *irony* above ("that is a great suggestion"), if the speaker is interpreted literally, the speaker is violating **Quality** ("do not say what you believe to be false"). However, if as a result the speaker is assumed to mean the opposite, i.e. that it is a bad suggestion, the speaker would then be violating manner ("Be perspicuous").

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- Another serious problem with Grice's analysis is that the specified mechanism for working out implicatures is glaringly inadequate. One famous example of this is *the symmetry problem*.

— **The Symmetry Problem**
Suppose A asserts (18) below.

(18) Some students passed.

— The speaker typically implicates (19).

(19) Not every student passed.

— This implicature is derived by the following reasoning:

> If every student passed, the speaker could have said something more informative, namely that every student passed. However, since the speaker did not make this stronger statement, the speaker must believe that it is not the case that every student passed. **So, the speaker implicates that not every student passed.**

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  However, in cases involving scalar implicatures, it seems that there are (almost) always two separate things that the speaker could be implicating.

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- Grice's **Determinacy** condition states that to conversationally implicate q, the speaker must be assumed to believe q in order for the S's initial utterance to be consistent with the Cooperative Principle.
  - **Determinacy Failures**

    However, in cases involving scalar implicatures, it seems that there are (almost) always two separate things that the speaker could be implicating.

    (21) Some students passed.
    $\rightsquigarrow$ Not every student passed.
    $\rightsquigarrow$ S is not sure whether every student passed.

- But this shows that the **Determinacy** condition fails, because there is no unique proposition q that the speaker must be presumed to believe in order to make the utterance consistent with the Cooperative Principle.