Grice on Indicative Conditionals

Rani Lill Anjum

Introduction/Abstract

Grice argues that indicative conditionals 'if p then q' have conventional, truth conditional meaning according to the material conditional 'p ⊃ q'. In order to explain away the known paradoxes with this interpretation, he distinguishes between truth conditions and assertion conditions, attempting to demonstrate that the assumed connection between 'p' and 'q' (the Indirectness Condition) is a conversational implicature; hence a matter only relevant for the assertion conditions of a conditional. This paper argues that Grice fails to demonstrate i) that the Indirectness Condition is cancellable, hence a conversational implicature, ii) that the Indirectness Condition is not part of the conventional, truth-relevant meaning of 'if', and accordingly, iii) semantic or logical equivalence between indicative and material conditionals.

The material conditional

In 'Logic and Conversation' Grice argues that there are no divergences in meaning between the truth functional devices and their natural language counterparts, since any apparent divergence is only a matter of conversational implicature. In 'Indicative Conditionals' he continues this argument, focusing on the thesis that a conditional's conventional meaning coincides with the truth conditions of the material conditional:

> I am considering myself to have established, or at least put up a good case for supposing, that if any divergence exists between 'if' and '⊃', it must be a divergence in sense (meaning, conventional force). I now aim to show, using the same material, that no such divergence exists. (IC, p. 58)

Notice that if indicative conditionals 'if p then q' are in fact adequately interpreted as material conditionals 'p ⊃ q', then their conventional, hence truth conditional, meaning must be strictly and completely truth functional. This follows since the truth conditions of a material conditional are defined as a mere function of certain combinations of truth-values of its constituents. Thus 'p ⊃ q' is defined as true when 'p' and 'q' have the truth-values (TT), (FT) or (FF), while the combination (TF) gives it the truth-value false. And this is all there is to the material conditional. That 'if p then q' is equivalent in meaning or conventional force to 'p ⊃ q' can therefore only mean that they are equivalent with respect to truth conditions: that they are true and false under the same circumstances.

It is therefore crucial for Grice's argument that truth and falsity apply only to the conventional meaning or force, and, with respect to conditionals, that everything that falls outside a material interpretation is not part of the conventional meaning of the conditional expression. This would make the truth functional logic an adequate representation of the (truth relevant) aspects of language, at least as far as conditionals are concerned. So in order to account plausibly for the seeming divergences between 'if' and '⊃' Grice introduces a distinction between 'what is said' and 'what is conversationally implicated by what is said'. What is said always coincides with the truth functional, hence truth relevant, meaning of an utterance, while a conversational implicature is defined as cancellable, and therefore not part of the expression's conventional, truth relevant meaning.

The Indirectness Condition

On the view that Grice refers to as 'the strong theorist', 'if' is supposed to have at least two separate conventional meanings: one meaning expressed in the truth functional material conditional and one meaning indicating some stronger relation between the antecedent and the consequent, what he calls the Indirectness Condition. This condition may be formulated in various ways, namely i) that p is a good reason for q; ii) that q is inferable from p; iii) that there are non-truth functional grounds for accepting p ⊃ q. Grice claims that there are minor differences between these three formulations. Still he chooses the third formulation as the standard.

It is worth noticing that this is the only formulation in which the material conditional is taken as the logical basis for the conventional meaning of an indicative conditional. This leaves Grice with the assumption that if indicative conditionals have non-truth functional meaning, then this would have to be some stronger-than-material conditional meaning. As a result, the worst-case scenario for Grice is that 'if p then q' turns out to be something more than 'p ⊃ q', rather than something else.

The thesis to be examined is thus that in standard cases to say 'if p then q' is to be conventionally committed to *both* the material conditional 'p ⊃ q' *and* the Indirectness Condition. According to Grice, the main problem with this strong theorist position is that 'if' and the other natural connectives are thought to have more than one conventional sense. This violates a principle that he calls the Modified Occam's Razor; that 'senses are not to be multiplied beyond necessity' (FN, p. 47).

In order to rule out everything that seems to go against the assumption that the material conditional constitutes the truth relevant meaning of an indicative conditional, however, Grice has to argue that the Indirectness Condition is not part of what is said. If the Indirectness Condition can be demonstrated to be a conversational implicature, being non-detachable and cancellable, this would mean that it is not part of the indicative conditional's conventional meaning.

The cancellability of the Indirectness Condition

Grice provides us with several examples where the Indirectness Condition allegedly is implicitly or explicitly cancellable. The conditional 'If Smith is in the library, he's working' normally carries the implicature of the Indirectness Condition. However, according to Grice, this is explicitly cancellable if one says: 'I know just where Smith is and what he's doing, but all I will tell you is that if he's in the library, he's working.' According to Grice no one would be surprised if it turns out that the speaker said this because he had just looked into the library and found Smith working (IC, 59).

Grice argues that the Indirectness Condition is always explicitly cancellable in this way. This can be done by saying things like 'If you put that bit of sugar in water, it will dissolve, though as far as I know there can be no way of knowing in advance that this will happen'. But this seems at best confused. It is also not clear in what way does this supports a material conditional reading. If what is actually stated here is the material conditional, then what is conventionally said is that 'Either 'you put that bit of sugar in water' is false or 'the bit of sugar dissolves' is true'. Grice admits that we cannot assert or even affirm the

conditional on these truth functional grounds, but still he claims that it is strictly speaking true on these grounds. I find this argument unconvincing. The distinction between what is true and what is assertable and believable seems to be introduced as a purely ad hoc solution to a more serious problem, namely the inadequacy of a truth functional interpretation of 'if'.

Grice further argues that the Indirectness Condition is contextually cancellable. To illustrate this, he uses examples from logical puzzles and games:

> There are now some very artificial bridge conventions. My system contains a bid of five no trumps, which is announced to one's opponents on inquiry as meaning "If I have a red king, I also have a black king." It seems clear to me that this conditional is unobjectionable and intelligible, carries no implicature of the Indirectness Condition, and is in fact truth-functional. (IC, p. 60)

One thing that is common for all the examples of situations in which the Indirectness Condition is cancellable is that they take place in very specific contexts of for instance a particular set of game rules. This means that the utterance must be accompanied with an explanation of these rules in order to ensure that the conditional is understood correctly. Still, this is not sufficient to show that the Indirectness Condition is cancelled. To connect the bid of five no trumps conventionally to the conditional 'If I have a red king, I also have a black king' is nevertheless to assert that *if* I have a red king, *then* I am supposed also to have a black king. So supposing that I do have a red king (now), and show this by placing the cards on the table pictures up, the other players can infer that I also have a black king. The conditional thus refers to a conventionally established disposition that the players can count on takes effect during the bidding process and that is used in reasoning about the distribution of the cards among the players. This work is done by the Indirectness Condition, and not by the material conditional.

Grice claims that there is some relation to the material conditional in these conditionals. For instance, if one negates this conditional, this is to admit that I have a red king but no black king. This coincides with the negated material conditional, but not with all negated indicative conditionals. Still there are some indicative conditionals that in negated form would imply 'p and not-q': 'If John is there, then Mary is also there' and 'If I brought my wallet, I also brought my credit card'. Such conditionals are stated according to a particular situation, and their negation would imply that the antecedent is true but that the consequent is false. But this does not establish that these conditionals are material.

Truth versus assertability

As argued above, if indicative conditionals are supposed to have conventional meaning according to the material conditional, then their truth conditions must be adequately and completely given by the truth table of the material conditional. This makes an indicative conditional 'if p then q' true under the following circumstances:

1. Whenever 'p' and 'q' are both true.
2. Whenever 'p' is false.
3. Whenever 'q' is true.
4. Whenever 'p' and 'q' are both false.

So for any pair of true statements 'p and q', both 'if p then q' and 'if q then p' would come out as true. And the same would hold for any pair of false statements. But this seems clearly mistaken. So how does Grice get away with the truth functional account of indicative conditionals?

The move that seemed to really convince his critics was to draw a distinction between truth and assertability. So the only reason why we would think that indicative conditionals are false when based on truth functional grounds is that we mistake what is false from what is unassertable. A conditional is unassertable if it violates the Cooperative Principle and one or more of the conversational maxims. To for instance assert a conditional based on purely truth functional grounds like 1-4 above would be to violate the conversational maxim of quantity that says that one should always assert the stronger rather than the weaker. A consequence of this claim is that even though a conditional is strictly speaking true if it fulfils the truth conditions of the material conditional, one cannot assert or believe a conditional on truth functional grounds. But what is then the use of the material conditional if one cannot assert or believe any conditional that is true according to it?

Grice acknowledges that there are some problems related to the material interpretation of indicative conditionals. He also sees that these problems differ significantly from those related to the truth functional interpretation of the other connectives. For instance, although a disjunction must be *established* on non-truth functional grounds; observing the maxims of quantity and relevance, it can still be *confirmed* truth functionally by establishing one of the disjuncts. Grice admits that this does not hold for conditionals. An indicative conditional is not confirmed by for instance establishing the truth of the consequent or the falsity of the antecedent, though this is the case for the material conditional. Therefore Grice concludes that 'if p then q' is not normally *used* as a material conditional (IC, p. 63-4). But why then insist that the material conditional is the truth conditional core of 'if'?

Disjunctions

Another connective that Grice discusses is disjunctions. Neither these can be asserted on purely truth functional grounds. We can for instance ask 'Who killed Cock Robin?', and the disjunction can provide interim answers that bring us closer to a solution as the alternatives are eliminated, such as 'The sparrow or the hawk or the fox killed Cock Robin'. But that presupposes that the disjunction is not stated on the truth functional ground that we for instance already know that the sparrow killed Cock Robin:

> It should be obvious that disjunctive statements could not be put to work in the kind of way which I have been sketching unless initially they were accepted on non-truth-functional grounds. To suppose them to have been initially accepted on truth-functional grounds – that is, on the strength of the correctness of one particular disjunct, such as that which identifies the killer of Cock Robin as the sparrow – commits the gross absurdity of supposing that the problem which the initial disjunctive statement is invoked in order to solve has already been solved before the inquiry begins, and so is, after all, no problem. (IC, p. 73)

Still, that a disjunction must be asserted on non-truth functional grounds is according to Grice not part of its conventional meaning. This means that if one asserts a disjunction 'p or q' because one knows 'p' to be true, the disjunction will be true, though unassertable.

If the truth functional content is what constitutes the conventional truth relevant meaning of a conditional, then what is asserted with a conditional seems to be precisely this. But if a

disjunction or a conditional must be asserted on non-truth functional grounds, as Grice claims, then it should also be possible to assert these non-truth functional grounds; in the case of conditionals, the Indirectness Condition. So while the grounds for what is said are non-truth functional, what is asserted is supposed to be the truth functional content.

The role of the Cooperative Principle and the conversational maxims seems to be to prevent us from actually asserting the truth functional content. This is the only explanation of why we would violate the maxims of quantity and relevance, but not the maxim of quality whenever we assert a material conditional. So in what way does the truth functional material conditional constitutes the logical and semantic core of a conditional?

Grice's paradox

In 'Logic and Conversation' Grice treats the connective 'if' as superfluous, since its conventional meaning is supposed to be preserved by the disjunction '¬p ∨ q' or the conjunction '¬(p & ¬q)'.[1] But this faces Grice with a problem in 'Indicative Conditionals', namely why "it should be in general natural to 'read in' to a conditional a subordinating device (in effect, to treat 'if' as if it meant 'supposing'), on the assumption that we have earlier provided grounds for assuming that there is no such element in the conventional meaning or force of 'if.'" (IC, p. 67) Grice raises three questions whose answers he hopes will help him solve this problem:

> (1) Why, granted the logical equivalence of "if p, q," "either not-p or q," and "not both p and not-q," should it be the case that there are many utterances employing "if," for which the substitution of one of the logically equivalent forms, while intelligible, would be extremely unnatural? Why, for example, is the transformation of "If he rings, the butler will let him in" into "Either he will not ring or the butler will let him in" one of which, at least for most contexts of utterance, we should be unhappy to avail ourselves?

> (2) Why, given that the language contains expressions for negation and conjunction or that it contains expressions for negation and disjunction, should it also contain a unitary expression for the conditional form ("if")? Can we offer a rationale for having the connective "if" in the language, when it is possible, in more than one way, to express without "if" any facts that we can express by using it?

> (3) Why, granted that we have the conditional form in the language, should it be thought appropriate to call the F-sufficient component "the antecedent" and the T-sufficient component "the consequent"? (IC, p. 67)

Grice admits that he has only been able to give partial answers to these questions. A further problem that Grice explicitly acknowledges is the case of negated conditionals. The material conditional is false only in those cases where the antecedent is true and the consequent is false '(p & ¬q)'. So when we deny a conditional like 'If I smoke, I'll get cancer', what we deny is the Indirectness Condition. If we denied the material conditional, we would be committed to have said both that 'I smoke' and 'I will not get cancer'. In this way we often deny a conditional because it lacks a non-truth functional relation between the antecedent and the consequent. The Indirectness Condition should therefore not be taken as cancellable, but rather as part of the conventional meaning of the conditional. Grice argues along the same lines:

---

[1] This is what Grice presupposes in his treatment of detachablility, and what follows if the natural connectives are all truth functional, as he has argued in 'Logic and Conversation'.

Now a serious difficulty has to be faced. If, as the thesis under consideration maintains, the conventional meaning of "if p, q" is the same as that of "p ⊃ q," then the conventional meaning of the negation of "if p, q" might be the same as the conventional meaning of the negation of "p ⊃ q," namely "both p and not-q." But it seems implausible to suppose that this is the conventional meaning of "it is not the case that, if p, q." To employ a striking example of Bromber's: suppose that A says "If God exists, we are free to do whatever we like," and B replies "That's not the case" (which he would be prepared to expand into "It is not the case that if God exists, we are free to do whatever we like"). B could not, it seems, in any circumstances be supposed to have committed himself to the conjunction thesis that (1) God does exist and (2) we are not free to do whatever we like. So ordinary conditionals cannot, in general, be material. (IC, p. 80)

Grice observes that when we negate a conditional and say 'It is not the case that if p then q', we could intend to deny the conditional in three different ways:

i)   'p and not-q' (as in bridge where one denies that 'If I have a red king, I have a black king')
ii)   'If p then not-q' (as when I deny that 'If he proposes to her, she will refuse him')
iii)   'not (if p then q)' (as when I deny that there is a relation between getting penicillin and feeling better) (IC, pp. 80-1).

According to Grice, when the affirmation of 'if p then q' carries no implicature of the Indirectness Condition, the denied conditional has truth conditions according to the material conditional. However, as soon as the affirmation of a conditional does carry this implicature, a denial of the conditional must be interpreted as a denial of the implicature (Cf. [IC], p. 83, and [RE], p. 375). But then what is actually stated seems to be the Indirectness Condition, and not the material conditional.

Grice does not find a solution to this problem. In fact, towards the end of 'Indicative Conditionals' he presents what he calls a "Kant-type antinomy". First he sketches a proof of the thesis that 'if A, B' is a material conditional:

Assume:
(1) A ⊃ B is true.
By definition of ⊃, we derive:
(2) At least one of the pair of statements (not-A, B) is true.
From (2) we derive:
(3) If not-A is false, then B is true.
Provided that not-A is false iff A is true, then we derive:
(4) If A is true, then B is true.
This surely would yield:
(5) The conditional "if A, B" is true.
So an ordinary conditional is derivable from the corresponding material conditional. (IC, pp. 84-5)

Whether or not one accepts this derivation from the material conditional to the indicative conditional, it does lead Grice into trouble when he tries to derive its contraposition:

If the thesis is valid, that is, if (1) yields (2) yields (3) yields (4) yields (5), there must be a valid series of steps starting with the assumption that (5) is false, which derives that (1) is false. That is to say, assuming the negation of (5) (that it is false that if A, B) we must be able to derive the negation of (1) (that it is false that A ⊃ B), but "it is false that A ⊃ B" is by definition equivalent to "the conjunction of A with the negation of B is true." So, since "it is not the case that if A, B" does not entail "A and the negation of B are both true," it is false that the negation of (5) yields the negation of (1). So the "proof" given in the Thesis is invalid. (IC, pp. 85)

The paradox occurs because the negation strikes the Indirectness Condition and not the material conditional. Hence we cannot have the case that an indicative conditional is basically a material conditional, while the Indirectness Condition is a conversational implicature and therefore not part of the conditional's truth relevant and conventional meaning. In 'Indicative Conditionals' Grice has some hope of solving this puzzle at a later stage, invoking what he calls his "bracketing device" where 'if A, B' is thought to mean '[either not-A or] B' (IC, p. 85). However, in 'Retrospective Epilogue' he admits that he has not managed to solve the problem with interpreting negated conditionals as negated material conditionals. Hence Grice's paradox remains unsolved:

> The denial of a conditional needs to be treated as denying not the conventional import but the standard implicatum attaching to an isolated use of the embedded sentence… But where the limits of a license may lie which allows us to relate embedding operators to the standard implicata rather than to conventional meanings, I have to admit that I do not know. (RE, p. 375)

The truth relevance of the Indirectness Condition

Grice takes the Indirectness Condition to be a general, not a particular conversational implicature. He describes a general conversational implicature as follows:

> Sometimes one can say that the use of a certain form of words in an utterance would normally (in the absence of special circumstances) carry such-and-such an implicature or type of implicature. (LC, p. 37)

So the only property that distinguishes a general conversational implicature from the conventional content of what is said is that it is cancellable and non-detachable. In the case of conditionals this means that truth functionally equivalent expressions ('$\neg p \vee q$' and '$\neg(p \& \neg q)$') carry the same general conversational implicature as 'if p then q', namely the Indirectness Condition. Hence, non-detachability is a property that would also follow if the Indirectness Condition is something that is either part of the conventional meaning or conversationally implicated by the truth-functionally equivalent alternatives to the conditional, without it therefore being proved that the conditional itself only carries the Indirectness condition as a general conversational implicature. Accordingly, non-detachability cannot be used as an unambiguous proof of something being a general conversational implicature. Thus only cancellability would suffice to prove that the Indirectness condition is a conversational implicature, and not part of the conventional meaning of the conditional.

But even if the Indirectness Condition were in fact established as cancellable, hence a general conversational implicature, it would still not follow that it is not part of a conditional's truth relevant meaning. There are at least two accepted distinctions between semantics and pragmatics. According to one distinction semantics attaches to the conventional meaning of the words, while what is conversationally implied from uttering the statement in a context is a matter of pragmatics. According to another distinction semantics deals with truth relevant meaning while everything else is pragmatics. Both these distinctions between semantics and pragmatics per se seem to be compatible with the view that conversational implicatures are part of the truth relevant content. But Grice seems to presuppose that this is not an option. A further argument seems to be required in order to exclude at least general conversational implicatures from the truth-relevant meaning of an utterance.

In fact, there is an ongoing debate on how or whether general conversational implicatures are to be classified as part of the conventional meaning of the linguistic expression or as conversational implicatures. One has for instance argued that what is explicitly said (explicatures) must be extended or completed to include everything that is needed for the utterance to be a complete proposition (Carston, Gazdar). Others argue that one must introduce a new level of meaning that is between the explicature and the conversational implicatures, namely implicitures (Bach).[2] At least there seems to be some good reasons for treating the Indirectness Condition as part of what is said for indicative conditionals 'if p then q'.

rani.anjum@umb.no

References

Bach, K.: 'Conversational Impliciture', *Mind and Language* 9, 1994, pp. 124-162.

Carston, R.: 'Implicature, Explicature, and Truth-theoretic Semantics', *Mental Representations: The interface between language and reality*. R.M. Kempson (ed.), Cambridge, Cambridge University Press 1988, pp. 155-181.

Gazdar, G.: *Pragmatics: Implicature, presupposition, and logical form*, New York, Academic Press 1979.

Grice, P.: *Studies in the Way of Words*, Cambridge, Harvard University Press 1989.

- [LC]: 'Logic and Conversation', in Grice 1989, pp. 22-40.

- [FN]: 'Further Notes', in Grice 1989, pp. 41-57.

- [IC]: 'Indicative Conditionals', in Grice 1989, pp. 58-85.

- [RE]: 'Retrospective Epilogue', in Grice 1989, pp. 339-385.

Levinson, S.C.: *Presumptive Meaning: The theory of generalized conversational implicature*, Cambridge, Mass., MIT Press 2000.

Récanati, F.: 'The Pragmatics of What is Said', *Mind and Language* 4, 1989, pp. 295-329.

---

[2] For further readings on this debate, see for instance works of Bach (1994), Carston (1988), Gazdar (1979), Levinson (2000) and Récanati (1989).