

Grice on Indicative Conditionals

A critique of his thesis that 'if' is ' $\supset$ ' plus something more

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Introduction

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 a matter of conversational implicature. In 'Indicative Conditionals' he continues this argument, focusing merely 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 ' $\supset$ ', it must be a divergence in sense (meaning, conventional force). I now aim to show, using the same material, that no such divergence exists."¹

Now it is important to recognize that if natural conditionals 'if p then q' are in fact adequately interpreted as material conditionals ' $p \supset q$ ', then their conventional, and 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 function of certain combinations of truth-values for two statements 'p' and 'q'. Thus ' $p \supset q$ ' is defined as true when 'p' and 'q' have the truth-values (TT), (FT) and (FF), while the combination (TF) gives it the truth-value false. And this is all there is to the material conditional. If 'if p then q' is supposed to be equivalent in meaning or conventional force to ' $p \supset q$ ', then, this means that what they must be equivalent with respect to is their truth conditions: that they are true and false under the same circumstances.

To Grice, therefore, it is important that truth and falsity are properties that 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 natural language, at least as far as conditionals are concerned.

¹ [IC], p. 58.

The inclination to uphold the formal system of logic is thus a central motivation for Grice to distinguish between two levels of meaning: semantics and pragmatics.² This is also the motivation for Grice's strategy when he distinguishes between what is said and what is conversationally implicated by what is said, in order to validate the equivalence between material and natural conditionals, at least with respect to truth conditions. What is said will then always coincide with the truth functional hence truth relevant meaning of an utterance, while a conversational implicature is defined as cancelable, and therefore not part of the conventional, truth relevant meaning.

With the distinction between conventional meaning and conversational implicature constituting the basis of his theory, Grice sets out to prove that even though a conditional 'if p then q' seems to involve some sort of "strong" relation between 'p' and 'q', what he calls the Indirectness Condition, this is only a matter of conversational implicature, hence not part of the conventional, truth relevant meaning of a conditional. I will in this paper argue that Grice does not succeed in demonstrating that (1) natural conditionals are in essence material, (2) that the Indirectness Condition is something that is correctly identified as a conversational implicature, and (3) that it should follow from (1) and (2) that natural conditionals have truth conditions according to the material conditional while the Indirectness Condition does not affect the truth or falsity of the utterance of the conditional, but only separate assertion conditions. In 'Indicative Conditionals', interestingly enough, Grice himself provides us with several arguments that contribute to undermine his position as it is presented in (1) to (3).

"Conversational implicatures are not truth relevant"

Grice argues against a position that he calls "the strong theorist"; the position that the natural connectives have at least two senses, a strong and a weak one. The weak sense coincides with the truth functional content, while the strong sense is some set of non-truth functional grounds for asserting this truth functional content. Hence 'if' is on the strong theorist view supposed to have at least two separate conventional senses: one sense expressed in the truth functional material conditional and one sense indicating some

² In Segerdahl's view, pragmatic theory is just a way to protect a semantic reading of language, which again is based on what he calls "a calculus conception of language". On this calculus conception of language, language is considered as an autonomous system that can be accounted for by means of a formal logical system. Pragmatics is thus a way to explain away everything that does not conform to such a view (indexicals, implicatures, speech acts and presuppositions) as being "merely" a matter of language use. Cf. Segerdahl (1996).

stronger relation of inferrability holding between the two statements involved, namely the Indirectness Condition. This condition may be formulated in various ways: 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 $p \supset q$. Grice claims that there are minor differences between these three formulations, but chooses the third formulation as the standard, since he finds this to be the most perspicuous with respect to the relation of “the strong theorist” position to Grice’s own.

In ‘Indicative Conditionals’ he wants to examine the thesis of the strong theorist that in standard cases to say ‘if p then q ’ is to be conventionally committed to both the material conditional ‘ $p \supset q$ ’ and the Indirectness Condition. According to Grice, the main problem with the strong theorist position is that ‘if’ (and the other connectives) are thought to have more than one conventional sense. He then puts forward a principle that he calls the “Modified Occam’s Razor”, which states that “senses are not to be multiplied beyond necessity”.³

We should notice how Grice unduly restricts the premises for the debate already in stating the problem, by presupposing that there is a general agreement that the material conditional must constitute the basis for natural conditionals; that the meaning of ‘if p then q ’ is ‘ $p \supset q$ ’ plus eventually something more. This may be an indisputable point in the debate in which Grice participates. I will however question the premise that one basic conventional meaning of ‘if’ is that of the truth functional material conditional, among other things since, according to my understanding, the material and natural conditionals are placed on different levels. More precisely, the material conditional, dealing with combinations of truth-values only, is placed on a different level than natural conditionals. Thus, I will argue, the material conditional cannot represent one or the basic conventional meaning of ‘if’, since it is not placed on the level for basic meanings of (ordinary) sentences and connectives, which is where we find (ordinary) conditionals and disjunctions. Though this is not the place to argue this fully, I will touch on the subject at the end of the paper. Suffice it here to say that I will challenge the general supposition Grice takes for granted.

³ [FN], p. 47.

Grice argues thus that the Indirectness Condition is not part of the conventional meaning of 'if p then q', but rather something that is conversationally implicated. But in what way is he justified in claiming that a conversational implicature is not part of the truth relevant meaning of an utterance? Take the following example of what on Grice's view is a particular conversational implicature:⁴ I am complaining to my friend that I am tired of being single, and she tells me that men don't like women who are too dominant. Assuming her to be observing what Grice calls the Cooperative Principle (which says that one shall make one's conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which one is engaged)⁵ and its underlying maxims of relevance and quality (truthfulness), I will interpret her utterance as a suggestion that I am too dominant, and that this is why I am still single. Here, it seems consistent to say both that it is true that, or at least many, men do not like women who are too dominant, but that it is false that I am too dominant. In fact, Grice explicitly states that a conversational implicature can have a different truth-value from what is said (although this is not his main point):

And since the truth of a conversational implicature is not required by the truth of what is said (what is said may be true – what is implicated may be false), the implicature is not carried by what is said, but only of the saying of what is said...⁶

However, when Grice subsequently sets out to argue that the Indirectness Condition is not part of the conventional, semantic meaning of a conditional expression, but merely a conversational implicature, he does so in order to rule out everything that seems to go against the assumption that the material conditional constitutes the truth relevant content of the utterance of a natural conditional. This passage from something being a conversational implicature to something being not part of conventional meaning is justified by the characterizations of a conversational implicature as being non-detachable and cancelable. That a conversational implicature is non-detachable means that if one replaces what is said (that men don't like women who are too dominant) with another expression with the same conventional meaning (that men feel threatened by strong women), the conversational implicature remains (that I am too dominant and strong and that this is why men don't

⁴ Sægerdahl argues against the whole idea of meaning more than what is actually said. The notion of conversational implicatures is according to him an attempt to justify the traditional conception of literal meaning as something that is determined by semantic reading. Cf. Sægerdahl (1996), Part II: 'Conversational Implicatures', pp. 53-106.

⁵ [LC], cf. p. 26.

⁶ [LC], p. 39.

want to be with me). Moreover, a conversational implicature is cancelable, which means that no implicature should be made if my friend never meant to indicate that I am too dominant and so on, and it is directly or indirectly indicated that she did not. She might simply have been repeating something she recently read in the *Cosmopolitan* as a sarcastic comment on our still overly sexist culture.

Assume now that Grice is right about conversational implicatures being non-detachable and cancelable; how could this justify his thesis that the truth conditions of the utterance only concern the level of what is said, and not also the level of conversational implicature. When a conversational implicature is involved, this seems to be what is in focus and should first of all be subject to validation as true or false. And since Grice explicitly states that a conversational implicature can be false even though what is said may be true, then whether or not he succeeds in making the Indirectness Condition a conversational implicature, this will not suffice to exclude it from the truth relevant meaning of the utterance of a conditional. Do we not here detect some confusion in his argument?

One reason why Grice makes his distinction between a semantic, conventional, hence truth relevant, meaning on one side, and a pragmatic, cancelable and non-detachable conversational implicature, hence not relevant for truth, on the other, may be that he seems to confuse two different distinctions between semantics and pragmatics. According to one distinction, semantics attaches to the conventional meaning of the words, while what is conversationally implied from a context is a matter of pragmatics. According to another distinction semantics deals with truth relevant meaning while everything else is pragmatics. So in fact, we see that both these distinctions between semantics and pragmatics *per se* are compatible with the view that truth is something to be found also on the level of conversational implicatures. Whether or not one accepts any of these distinctions between semantics and pragmatics, the problem is that once the difference between the two definitions of this distinction is blurred, one may conclude that only the conventional meaning of an utterance can be subject to the “semantic” determinations of truth and falsity.

This is what Grice seems to do when he argues that (i) the cancelability of the Indirectness Condition is sufficient support for the claim that it is not part of the conventional meaning of ‘if’, and that (ii) ‘if p then q’ and ‘ $p \supset q$ ’ have the same conventional meaning. And

since the material conditional is defined as a function selecting certain combinations of truth values, it follows that (iii) the Indirectness Condition cannot be part of the truth relevant meaning of ‘if p then q’. I will however claim that Grice is mistaken on all points. First of all since it is obvious that when a conversational implicature is involved, the implicature is what is in focus, with respect to both what is conversationally conveyed and what is truly or falsely asserted, and secondly because the Indirectness Condition is in fact part of the conventional meaning of ‘if’, even if it, though very unlikely, may be described as cancelable under some bizarre circumstances, as in Grice’s examples.

“The Indirectness Condition is a conversational implicature”

Now Grice claims that the Indirectness Condition in a conditional expression is a *general* conversational implicature, which means that the implicature is closely related to the conventional meaning of the linguistic expression. 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.⁷

So the property that distinguishes a general conversational implicature from the conventional content of what is said is according to Grice that all conversational implicatures are supposed to be contextually or explicitly cancelable.⁸ However, while natural conversational situations demonstrating cancelability in the case of particular conversational implicatures are easy to find (as in the example about sexist men and strong women), general conversational implicatures can hardly be shown to be cancelable other than in extremely intricate and artificial situations. Accordingly, Grice makes every effort

⁷ [LC], p. 37.

⁸ According to Grice, another characteristic of (general) conversational implicatures is that they are also supposed to be non-detachable. Non-detachability in the case of conditionals means that other truth functionally equivalent expressions using other sentential connectives, as for instance ‘ $\neg p \vee q$ ’ and ‘ $\neg(p \& \neg q)$ ’, carry the same (general) conversational implicature as the conditional, 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 cancelability, if demonstrated, would prove that the Indirectness condition is a general conversational implicature and not part of the conventional meaning of the conditional.

to provide convincing examples of cancelability of the Indirectness Condition. I will in the following argue that he does not succeed in his efforts.

Grice gives several examples where the Indirectness Condition allegedly is implicitly or explicitly cancelable. For instance, he says that even though to say 'If Smith is in the library, he's working' would normally carry the implicature of the Indirectness condition, this condition is explicitly cancelable 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.' Grice maintains that 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. Even though this kind of conversation could make some awkward sense for instance as a move in a game of some sort, I will however claim that one would in fact be quite surprised if one were to find out that this conditional was asserted by someone who had just looked out in the garden and found Smith feeding the cat, namely on the knowledge of 'not-p'. Anyway, constructions of plausible occasions for this kind of use of the conditional form will show that they are based in the establishment of natural conditionals in a social conventional sense, that is, in ordinary language use.

Grice however maintains that the Indirectness Condition is always explicitly cancelable, and that this is indicated by the fact that one can say 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 how can we give any sense to such a statement? One way is perhaps to understand it as an expression of a philosophical skepticism towards dispositions. Otherwise, the statement seems to involve a self-contradiction, first claiming a disposition, and then denying it, though this must somehow be exactly what is intended according to Grice's claim that the Indirectness condition is explicitly cancelled here. Anyhow, Grice seems to suppose that the statement simultaneously supports a reading of the conditional as material. How should that be understood? In what way does it seem plausible, or even meaningful, to claim that what is actually conveyed here is that 'it is true that either 'you put that bit of sugar in water' is false or 'the bit of sugar dissolves' is true'? We cannot assert the conditional on these truth functional grounds, nor can we affirm it on these grounds. But we shall still believe it to be strictly speaking true on these grounds, and actually state so with the words cited above?

It should however be obvious that, in this example, the Indirectness Condition is precisely the disposition that is expressed, namely that sugar dissolves in water. The truth of this statement is supported by a whole range of chemical facts, and is not at all justified on truth functional grounds. Actually, it seems therefore to be much easier to give sense to situations in which the example slightly altered is used to explicitly cancel the material conditional rather than the Indirectness Condition. Consider the following statement: ‘If you put that bit of sugar in water, it will dissolve, but by this I do not mean that either it is false that you put it in water or it is true that it will dissolve.’ This might make sense as a statement that I do know about the disposition sugar has for dissolving in water but that I do not know whether you will put that bit of sugar in water or not.

Grice goes on to demonstrate how the Indirectness Condition is contextually cancelable. This is for instance the case, he says, in logical puzzles and in games such as bridge.

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.⁹

However, one correlation between these examples of situations in which the Indirectness Condition is or seems to be cancelable is that they are all exceptional (though natural) cases, contrasting with how we normally use conditionals. In Grice’s examples of logical puzzles and bridge, we need the explanatory context of conventional rules or additional remarks in order to infer that the conditional in use should be taken as asserting this particular type of conditional relation. That the bridge example does in fact show a situation in which the conditional is not meant as a general “natural” conditional (for example in the sense of expressing a physical disposition of some sort), as holding between Grice having a red king and him having a black king, is true. But this does not suffice to infer that what he is stating is not a natural (understood as something essentially different from a material) conditional relation. 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 nonetheless 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

⁹ [IC], p. 60.

other players can infer that I also have a black king. The conditional refers to a conventionally established disposition, which the players can count on takes effect during the bidding process, and which is used in reasoning about the distribution of the cards among the players. What is not natural conditional about that?

The fact Grice calls attention to, namely that if one negates this conditional, one gets that I have a red king but no black king, is not an indicator that the conditional is material rather than natural.¹⁰ Many natural conditionals are negated in particular situations such that 'not if p then q' means or implies 'p and not q', and particularly conditional relations that already have been carried out or actualized and therefore can be checked directly: 'If Pimmi is there, then Ria is also there.' '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 in any way demonstrate that they are actually material conditionals.

The insufficiency of Grice's examples as demonstrations of cancelability of the Indirectness condition strongly indicates that there is something puzzling about the whole idea that the material conditional is a basic part of the conventional, truth-relevant meaning of 'if' while the Indirectness Condition is cancelable and therefore not part of the truth relevant content of conditionals. In effect, Grice does neither manage to justify his assumption that the Indirectness Condition is explicitly and implicitly cancelable, nor his inference from its alleged explicit and implicit cancelability to its lack of truth-relevant meaning. This indeed indicates a major chink in his armor. It seems that, unless one's theoretical motivation strongly suggests otherwise, it is impossible not to see that the Indirectness condition is in fact part of the conventional meaning of the conditional.¹¹

¹⁰ That one negates this (kind of) conditional could also mean that one denies that particular conventional rule as something one has agreed on and has a duty to obey, without therefore claiming to have both a black king and no red ones. This confirms that the conditional is not material or understood as material.

¹¹ There is an ongoing debate on how or whether the 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 (explicature) 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 (Bach). For further readings on this debate, see for instance works of Bach (1994), Carston (1988), Gazdar (1979), Levinson (2000) and Récanati (1989).

“Truth is one thing; assertability is something else”

When faced with examples in which there are obvious divergences between how we consider the truth-value of a natural conditional and how it is judged if understood as a truth functional material conditional, Grice explains these putative counterexamples as the result of a confusion between violations of truth conditions on the one hand and violations of the Cooperative Principle and the conversational maxims on the other.¹² We have seen that if natural 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 means that a natural conditional is supposed to be true if the antecedent is false or if the consequent is true. So if I for instance tell my brother that ‘If Ria lives in Jaipur, she lives in Pakistan’, knowing that Ria does not live in Jaipur, I have said something that is strictly speaking true ($\neg p \vee q$) even though it may seem to be false, since Jaipur actually is in India, and not in Pakistan.

According to Grice, the reason why this conditional may seem false is that we fail to distinguish what is true from what is assertable. To assert a conditional merely based on truth functional grounds, namely on the knowledge of a false antecedent or on the knowledge of a true consequent, is to violate the conversational maxim of quantity: do always assert the stronger rather than the weaker. So even though a conditional strictly speaking is true if it fulfills the truth conditions of the material conditional, one cannot assert or believe a conditional merely on such grounds. The misleading part of my conditional is that my brother would expect me at the same time to have asserted the Indirect Condition of the conditional; that to live in Jaipur is a sufficient condition for living in Pakistan.

Though Grice thinks he has proved the Indirectness Condition cancelable (and that it is therefore identified as a conversational implicature, and supervening on the basic material conditional conventional meaning of ‘if p then q’), he sees that there are some serious problems related to the material interpretation of natural conditionals and that these problems differ significantly from those related to the truth functional interpretation of the

¹² Sægerdahl argues against the view that our language use is governed by some set of rules: “...the general notions of relevance, information, truth, cooperation and rationality are contingent upon the particular forms of language use that the theory attempts to explain or reconstruct in terms of those notions. Grice’s theory suffers from a circularity that is concealed by the general philosophical readiness to accept oversimplifications as fundamental notions.” Sægerdahl (1996), p. 98.

other connectives. For instance, although according to Grice the disjunction is established on non-truth functional grounds; observing the maxims of quantity and relevance, it can be confirmed truth functionally by establishing one of the disjuncts, though he admits that this does not hold for conditionals. A natural conditional, however, is not confirmed for instance by establishing the truth of the consequent or the falsity of the antecedent, though that is the case with the material conditional. Therefore, Grice concludes, 'if p then q' is not normally *used* as a material conditional.¹³

As I see it, the same problems concern disjunctions as well as conditionals. Say I assert the following disjunction based on truth functional grounds: 'Pimmi is at home or she is on her way home from her daughter's wedding.' Have I then said something false if I know that Pimmi is at home? It seems not. But what if I know that Pimmi's daughter got married two years ago, and is still happily married to the same person: have I then said something true? Or what if I know that Pimmi does not have a daughter at all: is my disjunction then still true? And under these circumstances, is not someone who hears me utter the disjunction justified in telling me to stop lying about Pimmi having a daughter? I think it is imperative to get these things right on the point of disjunctions, or else we must permit anyone who hears me utter this disjunction to infer the conditional: 'If Pimmi is not at home, she is on her way home from her daughter's wedding.' But obviously, if Pimmi does not have a daughter, how can she be on her way home from her daughter's wedding if it (against all the odds) turns out that she is not at home? It does not seem possible to let the disjunction and the conditional take separate roads on the issue of use in the way Grice suggests, since if the disjunction takes one road, then the conditional has to follow.

Surprisingly enough, Grice totally agrees that also disjunctions must be asserted on non-truth functional grounds. He claims that disjunctions are characteristically employed to answer so-called W-questions. We can for instance ask: 'Who killed Cock Robin?' The point with the disjunction is then to 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 then of course this disjunction cannot be stated on the truth functional grounds that we for instance already know that the sparrow killed Cock Robin:

¹³ [IC], p. 63-64.

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.¹⁴

But to Grice, that a disjunction must be asserted on non-truth functional grounds is not part of the conventional meaning of the disjunction, which means that if one asserts a disjunction ‘p or q’ because one knows ‘p’ to be true, the disjunction will be true, though unassertable. In my opinion though, this has everything to do with truth, something that seems obvious when the disjunction ‘not-p or q’ is to interact with a conditional. For instance, my brother and I disagree about where Ria lives, and I claim that she lives in India while my brother claims that she lives in Pakistan. I know that she has just moved to Delhi, but my brother believes that she still lives in Jaipur. So he says: ‘If Ria lives in Jaipur, then she lives in Pakistan.’ Am I then logically obliged to consent to this, based on the knowledge that Ria does no longer live in Jaipur? Would we say that by uttering this conditional, my brother has truth conditionally claimed merely that it is either false that Ria lives in Jaipur or it is true that she lives in Pakistan? Or has he not non-truth functionally asserted the stronger claim that Jaipur is in Pakistan, which is false no matter how we twist it? And when I deny this conditional, is it not exactly this fact (or the Indirectness Condition) I deny?

If the truth functional content is what constitutes the conventional truth relevant meaning of a conditional, then what is asserted with a conditional must 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.

However, in order to prevent us from going so far as to assert the truth functional content, Grice provides us with the Cooperative Principle and the conversational maxims. And whenever the material conditional is what is asserted, we have a violation of the maxim of

¹⁴ [IC], p. 73.

quantity and the maxim of relevance, but not of the maxim of quality. So why then say that what constitutes the basis of a conditional is the truth functional meaning? And why care about the truth or falsity on the level of what is “literarily” said when an implicature is in focus? Should we at least not expect that when we have a conversational implicature, then this is the focus of our attention, concerning both what is actually expressed and the truth-value? Anyway, as Grice himself submits, our consciousness and judgments about conditionals and disjunctions are constantly and consistently based on knowledge about and evaluation of the relevant specifications of the Indirectness Condition. So we certainly should be able to express this knowledge and these evaluations, and one would naturally expect that our language has provided conventionally for such expressions. Well, where are those expressions to be found if not among our natural conditionals and disjunctions? That these expressions should be reserved for some arbitrary combinations of truth-values of arbitrarily selected pairs of sentences is completely implausible. It is also so far unfounded, when considered apart from the ideologically biased interest in supporting the truth functional conception of the logic of our natural language.

“Conditionals are reducible”

Grice seems at least to have an idea about how to show that his theory is not completely implausible and unfounded on this score. As mentioned above, Grice has mistakenly assumed that the connective ‘if’ is superfluous, since its conventional meaning allegedly is preserved in the truth functional disjunction ‘ $\neg p \vee q$ ’ and the negated truth functional conjunction ‘ $\neg(p \ \& \ \neg q)$ ’.¹⁵ It could in that case be thought possible to order the connectives so that some of them (‘and’, ‘not’) are considered more primitive than others (‘or’, ‘if’), and then assume that the less primitive ones have survived because they for evolutionary reasons are selected to perform supplementary tasks. Grice thus raises three questions whose answers he hopes will help him solve the problem of 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.’”¹⁶ As we see, his questions point to central problems with the truth functional approach to conditionals:

¹⁵ This is what Grice presupposes in his treatment of detachability, and what follows if the natural connectives are all truth functional, as he has argued in ‘Logic and Conversation’.

¹⁶ [IC], p. 67.

- (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”?¹⁷

As admitted by Grice himself, he has only been able to give partial answers to these questions. Thus his approach to the problem of explaining the use of ‘if’ in our language in a manner consistent with his theory remains at best a torso. A more serious problem with his approach is that the equivalence between the conditional, the disjunction and the conjunction holds only when they are all treated truth functionally. They should therefore be represented with formal devices instead of through natural expressions.

Secondly, a conjunction ‘not both p and not-q’ will most plausibly be considered true if based on non-truth functional grounds as for instance the supposition of a conditional ‘if p then q’. If we start out with a conditional ‘If Adhiti chooses her lover over her fiancé, the wedding will be canceled’, we can infer from this the conjunction that ‘It will not be the case that Adhiti chooses her lover over her fiancé and the wedding is not canceled (that the wedding goes on)’.

But in general, to assert such a conjunction or conditional merely on the truth functional grounds that not both ‘p’ and ‘not-q’ are true, would not give us a natural conjunction or a natural conditional. We would only have asserted a certain combination of truth-values, corresponding to the combination of truth-values for the truth functional expressions ‘ $p \supset q$ ’, ‘ $\neg(p \ \& \ \neg q)$ ’, ‘ $\neg p \vee q$ ’ and so on.

¹⁷ [IC], p. 67.

Furthermore, a natural conditional can be asserted on different grounds, for instance on disjunctive grounds. Supposing the disjunction ‘Alice is in the kitchen or in the garden’, we can infer the conditional ‘If Alice is not in the kitchen, then she is in the garden’. But in general a conditional ‘if p then q ’ will be asserted on some set of facts or assumptions that supports the supposition of a conditional relation between ‘ p ’ and ‘ q ’, namely what Grice calls the Indirectness Condition. We are once more brought back to our question: why should not natural conditionals originally be expressions in a natural language that states the occurrence of such particular Indirectness Conditions?

Accordingly, a natural conditional is not reducible to any other connective, but one can on the supposition of a conditional *infer* a statement with another connective. Moreover, one can infer a natural conditional ‘if not- p then q ’ from a natural disjunction ‘ p or q ’, even though one cannot say that one connective is reducible to another or that the one is more basic or primitive than the other. And if one absolutely wants to rank the primitiveness of connectives, one commits a fatal mistake in giving the conditional a subordinate role. If we did not have the concept of conditional relations, how would we ever be able to even think of or look for connections between events such as causes and effects, dispositions, means and ends or explanations?

“Although ‘if p then q ’ and ‘ $p \supset q$ ’ are equivalent, their negations are not”

One crucial problem in connection with the interrelations of the connectives made Grice himself seriously doubt his assumption of the equivalence between ‘if p then q ’ and ‘ $p \supset q$ ’; namely the case of negated conditionals. The material conditional is false only in those cases where the antecedent is true and the consequent is false ‘($p \ \& \ \neg q$)’. This means that if we deny my brother’s claim that if Ria lives in Jaipur, then she lives in Pakistan, we would have asserted that she lives in Jaipur and not in Pakistan. But what we want to state would actually be that if she, or anyone, lives in Jaipur, they would not live in Pakistan, since Jaipur is in India. Thus what we want to deny is the Indirectness Condition. 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 hence not be cancelable, but rather part of the conventional meaning of the conditional. Grice sees the problem clearly:

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 “ $p \supset q$,” then the conventional meaning of the negation of “if p , q ” might be the same as the conventional meaning of the negation of “ $p \supset q$,” 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 Bromberg’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.¹⁸

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.e. by claiming: 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’) or; iii) ‘not (if p then q)’ (as when I deny that there is a relation between getting penicillin and feeling better).¹⁹ 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. (We have already questioned this assumption above.) However, as soon as the affirmation of a conditional carries this implicature, a denial of the conditional must be interpreted as a denial of the implicature.²⁰ This would seem to contradict the assumption in Grice’s theory that what is actually stated in a conditional with the Indirectness Condition as a conversational implicature is the material conditional, and not the implicature.

Grice does not find a solution to this problem. In fact, at 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) $A \supset B$ is true.

By definition of $\supset$, 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.

¹⁸ [IC], p. 80.

¹⁹ [IC], pp. 80-81.

²⁰ Cf. [IC], p. 83, and [RE], p. 375.

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.²¹

Obviously, this inference is both fishy and smelly. It presupposes that the disjunction in (2) is treated truth functionally, while, as I have argued, only a non-truth functional disjunction can entail a natural conditional, as in (3). When these two types of disjunction are represented through identical formulations, one is led to believe that they have the same properties and are in fact one and the same. Actually, Grice mixes various levels in his argument. Assuming that (1) to (5) are all on the same level, he thinks that he has demonstrated that (5) follows from (1). However, (1) and (2), being about the truth of the truth functional material conditional, are on a meta-level in relation to the truth functional language of logic. And since the truth functional language of logic is only concerned with combinations of truth-values of linguistic entities, the first two steps in Grice’s proof do not have anything to do with the level with which we are concerned in our natural language, namely facts or events and the relations between them. This is however the level we are on in (5), even though we here assert that a natural conditional is true. In (3) and (4) we find statements that seem to be on the same level as (5). The difference here is however that (3) and (4) treat the natural statements as though they were truth functional. Hence these statements should have a formal logical reading, not a natural reading. Accordingly, all the statements in the proof differ from statements that we normally use, where one instead of saying that ‘If A is true, then B is true’ states that ‘If A then B’.

In light of this observation, it is not surprising that Grice in his antithesis finds that ‘if A, B’ is not a material conditional:

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 $A \supset B$), but “it is false that $A \supset B$ ” 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)

²¹ [IC], p. 84-85.

yields the negation of (1).
So the “proof” given in the Thesis is invalid.²²

How does Grice deal with this paradox that he calls attention to? Since the negation strikes the Indirectness Condition, and not the material conditional, we cannot have the case that a natural conditional is basically a material conditional while the Indirectness Condition is a conversational implicature and therefore not part of the truth relevant conventional meaning of ‘if’. 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’.²³ However, in ‘Retrospective Epilogue’, he admits that he has not managed to solve the problem with interpreting negated conditionals as negated material conditionals, and hence the paradox is still unsolved. In Grice’s own words:

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.²⁴

Obviously, Grice has not been able to prove the inference from the material conditional to the natural conditional. First of all, the Indirectness Condition is what is denied in a negated natural conditional and can thus not be said to be cancellable. Secondly, the material and natural conditionals are on different levels, where the material conditional is empty of intentional content, merely defined as indicating certain possible combinations of truth-values for some arbitrary pair of statements. So even if we try to move from a natural conditional to a material conditional, this cannot be done unless we start distributing truth-values to the different parts of the natural conditional. And then we would have to say things like: ‘If the antecedent is true, then the consequent is also true’ or ‘The antecedent is a sufficient condition for the consequent and the consequent is a necessary condition for the antecedent’, which certainly involves the natural use of conditionals. However, expressing relations between truth-values of linguistic entities, such remarks would also take us away from the intentional content of the natural conditional, namely the conditional relation between events, facts or states of affairs that is expressed in what Grice excludes from the truth conditions of the conditional as the Indirectness Condition.

²² [IC], p. 85.

²³ [IC], p. 85.

²⁴ [RE], p. 375.

“‘If’ is ‘ $\supset$ ’ plus something more”

When it comes down to it, why would we even care about the material conditional if we were not interested in natural conditionals, including the Indirectness Condition? When would it be useful for us to talk about possible combinations of truth-values for any arbitrary pair of statements? It seems clear from Grice’s failed attempt to cancel the Indirectness Condition that what is actually stated with a conditional is exactly this conditional relation. And if this is what is actually stated, it creates major problems to try to stick with an understanding of natural conditionals as being primarily material, while some Indirectness Conditions may or may not come on top. In fact, one should rather expect that the Indirectness Condition could be expressed also in other expressions, non-truth functionally equivalent to the natural conditional.

Another point that must not be forgotten about the difference between natural and material conditionals is that the material conditional does not belong to natural language at all, but is only a defined function within a formal logical system. A natural conditional, on the other hand, is an essential, flexible and fundamental part of our language. To try to reduce language to a formal logical-syntactic system in order to be able to explain or elucidate the essence of language seems to me both a misleading and impossible project. In fact, the whole idea of language having one semantic dimension, in which the literal, conventional and truth conditional meaning is found, and one pragmatic dimension, where everything that cannot be explained within semantics is placed, seems to get us into severe problems. Once we try to explain away all features of language that does not conform to our logical-syntactic account, we seem to be throwing out everything that gives language a meaningful use. This is what happens when Grice argues that a natural conditional is nothing but a material conditional, plus some pragmatic conditions.

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References

- Bach, K.: 'Conversational Implicature', *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.
- Segerdahl, P.: *Language Use*, London, MacMillan 1996.