

I. Indicative Conditionals, Material Conditionals, & Grice

The webpage for the course:

<https://rjh221.user.srcf.net/courses/1Aconditionals/>

I Two Types of Conditional in Ordinary English

Consider the two sentences

- (1) If Oswald didn't shoot Kennedy, then someone else did;
- (2) If Oswald hadn't shot Kennedy, then someone else would have.

Clearly these don't mean the same thing. Following fairly standard usage, we'll call sentences of the form of (1) 'indicative conditionals'; and we'll call sentences of the form of (2) 'subjunctive conditionals' (they are sometimes called 'counterfactuals', since they are normally uttered when the antecedent is assumed to be false). Most philosophers and linguists think that subjunctive conditionals involve a modal claim—they are typically expressed using modal verbs like 'would'—and are best handled using a modal logic with the apparatus of possible worlds.

Here though our focus will be on the indicative conditionals like (1), which do not contain modal verbs. We will also be concerned with the conditional that is introduced in standard propositional calculus (e.g. in forall x). That conditional is stipulatively defined by the following truth table:

P	Q	$P \rightarrow Q$
T	T	T
T	F	F
F	T	T
F	F	T

Again following standard usage, we'll call it the 'material conditional'. When the material conditional was introduced in forall x , the English examples given to illustrate it were cases of the indicative conditional, for instance:

- (3) If Jean is in Paris, then Jean is in France.

That assumed the following:

The Equivalence Thesis: the indicative conditional of ordinary English is equivalent to the material conditional, ($P \rightarrow Q$), of propositional calculus.

This is tantamount to the idea that the indicative conditional is truth conditional; for if it is, the material conditional provides the only plausible truth table.

Our primary concern in these lectures is with whether the equivalence thesis is correct.

2 Three problems with the equivalence thesis

1. *False antecedent*

- (4) If Trump is French, he'll win every state in the 2020 election

Assuming that Trump is not in fact French, then if the indicative conditional has the truth conditions of the material conditional, (4) is bound to be true. But it is far from obvious that it is.

2. *True consequent*

- (5) If Trump was lying when he said he was married to Melania, then he spoke the truth when he said he was married to Melania.

Again, assuming that Trump is indeed married to Melania, and has truthfully said as much, then the consequent is true. So, if the indicative conditional has the truth conditions of the material conditional, then (5) is true, even if the antecedent is false. Again it is far from obvious that it is. It looks like a simple contradiction.

3. *No connection between the antecedent and the consequent*

(4) and (5) at least had some intuitive connection between the antecedent and the consequent. But if the truth conditions are really given by the truth conditions of the material conditional, there is not even any need for this. So consider:

- (6) If water is not H₂O, then Trump will win every state in the 2020 election

Again (6) will be true because of the false antecedent. But now there is a further problem, namely that the composition of water, and Trump's likely election result, having nothing to do with each other.

Collectively these problems are sometimes called the 'paradoxes of the material conditional'. But they are not paradoxes for the material conditional itself; that is stipulatively defined to have the truth table that it has. They are paradoxes for the Equivalence Thesis. One response to them is to change the logic: amend the rules governing the use of the material conditional to ensure that there must be a real connection between antecedent and consequent, one that blocks the paradoxes. This is what relevance logic tries to do. It is far from straightforward: the logic that results is messy, and there is debate whether it ultimately does the job (for a review see Ed Mare's *Stanford Encyclopedia* page 'Relevance Logic'). A second approach is to deny the Equivalence Thesis. Say instead that the indicative condition is not truth functional: either it should be understood as implicitly modal; or, more radically, it shouldn't be thought of. A third alternative is to argue that the paradoxes are not really

paradoxical once other features are taken into account. That is the approach that we shall investigate here.

3 Grice on conversational implicature

Grice's basic idea is that our assertions are governed by a general pragmatic rule 'be helpful'. This breaks down into specific requirements: be appropriately informative, be relevant, be orderly, brief, clear etc. Sentences that fail these rules are not assertible, even if they are true. We make sense of what people are saying on the supposition that they are meeting these requirements. As a result, we can communicate things even without explicitly saying them. This is the process of conversational implicature.

Some examples to bring this process out:

(i) If someone stops you outside Kings and asks where there is a branch of Marks and Spencers and you tell them that there is one at the station, that would be pretty misleading, given that you know there is one just the other side of the market square. Why is that? You haven't explicitly said that the one at the station is the nearest. It is rather that you reasonably assumed that given their question they wanted to go to Marks and Spencers; in which case it is reasonable to assume that they want to go to the nearest. So if you only mention the one at the station, then the conversational implicature would be that that is the closest one you know about, even if you don't explicitly say this.

(ii) A university advertising for a job in philosophy receives a letter of reference for candidate X that says simply: 'X is always punctual and has neat handwriting'. Clearly that is not a strong reference; punctuality and neat handwriting might have some benefits to a philosopher, but they are hardly central. But is it not simply that the reference fails to address the substantial issues; it actually succeeds in conveying something uncomplimentary about X. Having a reference like this is worse for X's application than getting no reference at all. Again the work is done by conversational implicature: we assume that the reference writer is trying to be cooperative; see that they don't say anything about the candidate's philosophical skills

Note that conversational implicature is a pragmatic phenomenon. It isn't simply produced by the lexical meanings of the words involved. You need to know the background, what the participants in the exchange are aiming for, and so on. The same words could be used in different contexts to give rise to very different implicatures. In fact even in these contexts, conversational implicatures can be cancelled by adding more words. So if the writer of the reference goes on to say 'Furthermore, X is the best philosopher I have ever met', you might think it odd that they have talked about punctuality and handwriting, but no derogatory implicature remains.

4 A Gricean Account of the Equivalence Thesis

The material conditional ($P \rightarrow Q$) is equivalent to the disjunction ($P \vee Q$). So in thinking about the pragmatic rules governing the conditional, we can start by thinking about the pragmatic rules governing the disjunction.

If someone asserts a disjunction they shouldn't, normally, be in a position to assert either of the disjuncts. The disjunction would be less informative, and more complex than simply asserting the relevant disjunct. Similarly, they shouldn't be in a position to deny either of the disjuncts: in that case, they should just assert the other one. And if they know that both of them are true, they should assert the conjunction, not the disjunction. So if someone does assert a disjunction, the normal conversational implicature is that, while they are committed to one of the disjuncts being true, they do not know which one it is.

But then if a conditional is equivalent to a disjunction, one shouldn't assert it if one can assert either of the disjuncts. Perhaps this also helps to explain the relevance constraint: for why else would we be in a position to assert the disjunction where we are not able to assert either of the disjuncts?