Conditionals, Part IA: Meaning.

Lecture II, *The Equivalence Thesis and Jackson, 15th February*

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Last week, we discussed the Equivalence Thesis—the claim that the material conditional and the indicative conditional are equivalent, i.e., have the same truth conditions. We discussed some issues with that, and Grice's response which invoked the notion of conversational norms and conversational implicature. This week we will look at a few further problems with Grice and how Jackson's notion of conventional implicature offers an alternative defence of the Equivalence Thesis.

1. More Problems for Grice

1.1. We saw that there might be problems remaining for Grice, e.g., whether we should believe, and not just not assert, certain problematic conditionals and whether the material conditional gets the logic of the indicative conditional right. There are more problems. Take the classic indicative conditional from last week:

(1) If Oswald didn't shoot Kennedy, then someone else did.

For Grice, we should assert a conditional in just those cases where we should assert an appropriate disjunction; otherwise we should simply assert the relevant disjunct which we accept. But suppose I *did* already accept that Oswald shot Kennedy, i.e., I believe the antecedent in (1) is false. For Grice, (1) is thus not assertible. But surely I can assert (1), even if I believe Oswald shot Kennedy.

1.2. Another problem is how a Gricean strategy is supposed to explain away the need for a connection between the antecedent and the consequent in an indicative conditional. For instance:

(2) If $2 + 2 = 5$, then Paris is the capital of France

The truth or falsity of 2 and 2 making 4 has nothing to do with which city is the capital of France. One thought might be that we should only assert a disjunction if there is some connection between the disjuncts. This has some plausibility. If you asked me where where Philip is and I answered 'Well, Philip is either in his office or Paris is the capital of France', you may wonder *what* Paris *has to do* with where Philip is.

1.3. But, this kind of connection is plausibly weaker than what we require: unlike disjunctions, indicative conditionals seem to have a *direction*. This directional aspect of indicative conditionals is brought out by the fact that indicatives do not always *contrapose*. That is, $p \to q$ doesn't entail $\neg q \to \neg p$. For instance:

(3) If the US halt the bombing, their enemy will not agree to negotiate
(The US halt the bombing $\to$ their enemy will not agree to negotiate)

(4) If their enemy agree to negotiate, then the US will not half the bombing
($\neg$(their enemy will not agree to negotiate) $\to$ $\neg$(the US halt the bombing))

2. The Ramsey Test

2.1. Frank Jackson follows a similar strategy to Grice, but explicitly tries to account for this connection between antecedent and consequent. To best understand Jackson, we should first discuss what is known as The Ramsey Test. In effect, this rule describes what you should plausibly do to decide whether to believe the conditional 'if p, then q' given what you already believe. This test is first discussed by Frank Ramsey:

> 'If two people are arguing about 'If p then q' [i.e., $p \to q$] and are both in doubt as to p they are adding p hypothetically to their stock of knowledge and arguing on that basis about q ...' (Ramsey, 1929)

The thought here is simple. You should accept 'If p, then q' if, were you to add p to your stock of suppositions, you should also believe q. This seems compelling. It goes some way to explaining the failure of contraposition—supposing p is *not the same* as supposing $\neg q$—and the relevance constraint—if your supposing p has a bearing on whether you accept q, then you should accept the indicative conditional.

2.2. But it is difficult to make precise. Note, we have to here talk of 'suppositions', not just belief. That is, the rule is *not*: 'add p to your *beliefs* and if you then *believe* q, accept if p, then q'. Consider:

(5) If Nixon is a soviet spy, then no one (including me) will believe he is.

Adding 'Nixon is a Soviet spy' to your stock of beliefs is not going lead you to the belief that no (including yourself) will believe that Nixon is a soviet spy! One way of making this test more precise is to think about it probabilistically. That is, something like: accept if p, then q provided supposing p makes q more probable.

2.3. We have to hand a way of making this probabilistic framing precise, using conditional probability. Let $Pr(A|B)$ be the conditional probability of A, *given* B. Loosely, $Pr(A|B)$ is the probability that A occurs given that B occurs. The standard definition of conditional probability is given by the ratio formula:

$$Pr(A|B) = \frac{Pr(A\&B)}{Pr(B)}$$

So, tying this altogether, we can state a version of Ramsey's test for the assertibility of the indicative conditional which ties it to the relevant conditional probability being high. This is called *Adams's Thesis*.

(Adams's Thesis) An indicative conditional, 'If p, then q' is assertible/acceptable iff $Pr(q|p)$ is high.

3. Jackson, The Equivalence Thesis, and Conventional Implicature

3.1. Fundamentally, Jackson thinks that the feature described by Adams's Thesis is part of what is communicated when we assert an indicative conditional. However, it is not part of the truth conditions of an indicative conditional. Rather, this information is conveyed by *conventional implicature*, see (Jackson, 1979). Jackson calls this feature of 'If p, then q' where $Pr(q|p)$ is high, the conditional being *robust*. So, the idea is that when we assert an indicative conditional, we convey the conditional as robust, only by conventional implicature.

3.2. Conventional implicature is similar to conversational implicature but importantly different. What is conventionally implied is not part of the truth conditions, like what is conversationally implied. However, the key difference is that conventional implicature derives from the meaning of the words used, and not by conversational norms governing assertion. For instance, it's natural to think that 'but' has conventional implicature:

(6) He is from Teesside but he is honest

Asserting (6) suggests that he is honest *despite being from* Teesside. That is, he is honest and this is surprising given that he is from Teesside. Similarly, 'and' sometimes conventionally conveys temporal implicature:

(7) She was buried and died

Asserting (7) suggests that she was buried *and then* she died. A much more surprising piece of information in comparison to the way things are usually done. Now, crucially, both Grice and Jackson don't think that this implicature is part of the truth conditions. Both (6) and (7) have the same truth conditions as simple conjunctions. This is not implausible. Think about how we would naturally object to (6) and (7): they are highly misleading ways of phrasing the claims, not strictly speaking false.

3.3. Jackson thinks, then, that indicative conditionals similarly convey more information, *via* conventional implicature, i.e., they convey the information that the conditional is robust. Conditionals are not true only if they are robust, but they are assertible, given the conventional norms governing our language, only if they are robust. This gets us a slightly different version of the Equivalence Thesis.

Equivalence Thesis Jackson-Style: The material conditional $p \supset q$ and the indicative conditional $p \rightarrow q$ have the same truth conditions, but the indicative conventionally conveys that $Pr(q|p)$ is high.

3.4. Note that this conventional implicature explanation is intended by Jackson to replace the old Gricean story. According to Grice, conditionals like (1) are not assertible. However, on Jackson's approach we can now explain why (1) is indeed assertible: the probability that someone else killed Kennedy, given that Oswald did not is indeed high. For Jackson, conditionals have the same truth conditions as disjunctions, but we conventionally use them to convey a robust connection between antecedent and consequent.

4. Problems for Jackson

4.1. One might worry that Jackson's notion of robustness, whilst an improvement on Grice, is still not adequate. Consider, for instance, 'If $2 + 2 = 4$, then the coin will land heads' and suppose the coin in question is biased such that it lands heads nine times out of ten. If this is the case, then (8) is in fact *robust*. Let $A := 2 + 2 = 4$ and $B :=$ the coin land heads:

$$Pr(B) = 0.9 \text{ and } Pr(A) = 1. \text{ So, } Pr(B|A) = \frac{Pr(A\&B)}{Pr(A)} = \frac{0.9 \times 1}{1} = 0.9$$

If 0.9 doesn't seem high enough for you, then make the coin *very* biased. The important point: robustness doesn't really seem to capture all of what we should want to say about the connection between the antecedent and the consequent. A natural response to this kind of conditional, despite it being robust, is to challenge what the truth of $2 + 2 = 4$ has anything to do with the coin landing heads.

4.2. Another problem for Jackson (as well as Grice, for that matter) is that their approach to the indicative conditional—if correct—means that there is a substantive disunity between indicative conditionals and subjunctive conditionals. Subjunctive conditionals are not truth-functional. So, indicatives and subjunctives behave radically differently. And yet, both are indicated by 'if' in English. Coincidence?

4.3. To be clear, the worry here is not that we give a semantics for the indicative and subjunctive according to which there is no difference at all. There are clear differences. But what is surprising about Jackson and Grice's account is that the differences are represented by a *completely distinct underlying semantic account*. This overarching feature of the approach both Grice and Jackson take is questionable. In contrast, Stalnaker takes it that indicative and subjunctive conditionals behave in a very unified way—both are true iff the closest possible antecedent world is a consequent world—their differences amounting to which possible worlds are appropriate to consider in assessing them, see (Stalnaker, 1975).

References

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