

Lewis against Stalnaker
Conditionals Seminar
Loewer and Stanley

Lewis has three objections against Stalnaker's theory.

Lewis against the Limit Assumption

David Lewis, p. 20:

Unfortunately, we have no right to assume that there always are a smallest antecedent-permitting sphere and, within it, a set of closest antecedent worlds. Suppose we entertain the counterfactual supposition that at this point

there appears a line more than an inch long. (Actually it is just under an inch.) There are worlds with a line 2" long; worlds presumably closer to ours with a line 1½ inches long; worlds presumably still closer to ours with a line 1¼ inches long; worlds presumably still closer... But how long is the line in the *closest* worlds with a line more than an inch long? If it is 1+x" for any x however small, why are there not other worlds still closer to ours in which it is 1+½x", a length still closer to its actual length? The shorter we make the line (above 1"), the closer we come to the actual length; so the closer we come, presumably to our actual world. Just as there is no shortest possible length above 1", so there is no closest world to ours among the worlds with lines more than an inch long, and no smallest sphere permitting the supposition that there is a line more than an inch long.

Lewis against Conditional Excluded Middle

CEM: $(A > C) \vee (A > \sim C)$

David Lewis, p. 80:

Given Conditional Excluded Middle, we cannot truly say such things as this:

It is not the case that if Bizet and Verdi were compatriots, Bizet would be Italian; and it is not the case that if Bizet and Verdi were compatriots, Bizet would not be Italian; nevertheless, if Bizet and Verdi were compatriots, Bizet either would or would not be Italian.

That is:

$\sim(\Phi > \Psi) \ \& \ \sim(\Phi > \sim\Psi) \ \& \ (\Phi > \Psi \vee \sim\Psi).$

I want to say this, and think it probably true; my own theory was designed to make it true. But offhand, I must admit, it does sound like a contradiction. Stalnaker's theory does, and mine does not, respect the opinion of any ordinary language speaker who cares to insist that it is a contradiction.

But the cost of respecting this offhand opinion is too much. However little there is to choose for closeness between worlds where Bizet and Verdi are compatriots by both being Italian and worlds where they are compatriots by both being French, the selection function still must choose. I do not think it can choose – not if it is based entirely on comparative similarity, anyhow. Comparative similarity permits ties, and Stalnaker's selection function does not.

Lewis on the distinction between 'would' and 'might' counterfactuals

David Lewis, p. 80:

Another manifestation of Stalnaker's assumption is that, except in the vacuous case, the difference between 'would' and 'might' counterfactuals is lost. Given my definition of ' $\diamond \rightarrow$ ' (namely, $\Phi \diamond \rightarrow \Psi = \text{df. } \sim(\Phi \square \rightarrow \sim \Psi)$), it is a consequence of Conditional Excluded Middle that $\Phi \diamond \rightarrow \Psi$ implies $\Phi \square \rightarrow \Psi$; and $\Phi \square \rightarrow \Psi$ implies $\Phi \diamond \rightarrow \Psi$ on both Stalnaker's theory and on mine. Hence $\Phi \square \rightarrow \Psi$ and $\Phi \diamond \rightarrow \Psi$ cannot differ in truth value, for Stalnaker, except in the vacuous case. But surely English 'would' and 'might' counterfactuals do sometimes differ in truth value, and not only in the vacuous case.

Stalnaker's replies (from Chapter 7 of Inquiry)

We will look at Stalnaker's defense of the uniqueness assumption from Lewis's criticisms. We leave discussion of the Limit Assumption to the next handout.

Let's begin in inverse order, with Stalnaker's discussion of "might" counterfactuals.

Recall Lewis's objection. It is essentially that an utterance of the following is odd:

- (1) If p were the case, then q would be the case. But if p were the case, then it might be that $\sim q$.

Stalnaker is essentially going to argue that (1) is bad for the same reason that the discourse in (2) is bad:

- (2) Dogs bark. But it might be that dogs don't bark.

Let's review why (2) is bad. Let's assume that "might" means something like:

It might be for x that p: What x knows does not obviously entail $\sim p$.

(2) is bad because it then expresses something like:

(3) Dogs bark. But what I know does not entail that dogs bark.

Assuming the knowledge account of assertion, the assertion of the first sentence implicates the negation of what is asserted by the second. So (2) is an instance of Moore's Paradox. It is pragmatically self-defeating.

So that's Stalnaker's strategy. Let's look at it in detail.

Stalnaker, p. 143:

Note that Lewis's definition treats the apparently complex construction, if...might as an idiom which cannot be explained in terms of the meanings of "if" and "might". This is not a serious defect, but it would be methodologically preferable – less ad hoc to explain the complex construction in terms of its parts. So I will begin by looking at uses of "might" outside of conditional contexts and then consider what the result would be of combining the account of "might" suggested by those uses with our analysis of "if".

'Might' of course expresses possibility. "John might come to the party" and "John might have come to the party" each say that it is possible, in some sense, that John come, or have come, to the party. I think the most common kind of possibility which this word is used to express is epistemic possibility. Normally, a speaker using one of the above sentences will be saying that John's coming, or having come, to the party is compatible with the speaker's knowledge. But "might" sometimes expresses some kind of nonepistemic possibility. "John might have come to the party" could be used to say that it was within John's power to come, or that it was not inevitable that he not come. The fact that "John might come to the party, although he won't" is somewhat strange indicates that the epistemic is the dominant one for this example....What I want to suggest is that "might", when it occurs in conditional contexts, has the same range of senses as it has outside of conditional contexts. Normally, but not always, it expresses epistemic possibility. The scope of the "might", when it occurs in conditional contexts, is normally the whole conditional and not just the consequent. This claim might seem ad hoc, since the surface form of English sentences...certainly suggests that the antecedent is outside the scope of the "might". But there are parallel constructions where the wide scope analysis is uncontroversial. For example, "If he is a bachelor, he must be unmarried"...

So Stalnaker can account for the oddity of discourses like (1), consistently with his semantics. But why accept Stalnaker's analysis over Lewis's? (p. 144):

The main evidence that "might" conditionals are epistemic is that it is unacceptable to conjoin a "might" conditional with the denial of the corresponding "would" conditional. This fact is also strong evidence against Lewis's account, according to which such conjunctions should be perfectly normal. On Lewis's account, "might" conditionals stand to "would" conditionals

as ordinary “might” stands to “must”. There is no oddity in denying the categorical claim “John must come to the party” while affirming that he might come. But it would sound strange to deny that he would have come if he had been invited, while affirming that he might have come.

Stalnaker invites us to contrast the following two discourses:

X: Does President Carter have to appoint a woman to the Supreme Court?

Y: No, certainly not, although he might appoint a woman.

X: Would President Carter have appointed a woman to the Supreme Court last year if a vacancy had occurred?

Y: No, certainly not, although he might have appointed a woman.

As Stalnaker points out, “On Lewis’s analysis, one should expect Y’s second response to be as acceptable as his first”. But if “might” is epistemic, these facts follow naturally. Y’s second response would be tantamount to declaring that he is certain that President Carter would not have appointed a woman to the Supreme Court last year if a vacancy had occurred, but it might be that President Carter would have appointed a woman to the Supreme Court last year if a vacancy had occurred. In short, it is an instance of Moore’s Paradox.

Now let’s turn to Stalnaker’s defense against the second of the three Lewis criticisms, which is that it is just a brute fact that there can be ties for ‘most similar’.

Basically, Stalnaker accepts that a given selection function may be undefined for a pair of arguments A and w , when there are two equally close worlds w' and w'' to w at which A is true. But in such a case, one can still preserve CEM, by appeal to *supervaluations*.

The method of supervaluations:

Supervaluations as applied to vague terms. Suppose that the meaning of “heap” is deficient in such a way that any use of “heap” does not determine a unique extension. Instead, there are a variety of extensions of “heap” that are compatible with its meaning on an occasion of use. So, the actual interpretation does not provide a unique extension to “heap”. Pointing at an object that is in some extensions, but not in others, my utterance of “That’s a heap” lacks a truth-value. But if “that’s a heap” lacks a truth-value, one might worry that certain logical principles would be invalidated, e.g. “ $P \vee \sim P$ ”. If “that’s a heap” lacks a truth-value, then “It’s not the case that that’s a heap” also will lack a truth-value. If that’s so, then it looks like “That’s a heap or it’s not the case that that’s a heap” will lack a truth-value.

Supervaluational semantics is a way to save the validity of the logical principles, by altering the underlying semantics. In short, the supervaluationist saves the logic, by altering the semantics (classical logic without classical (Tarskian) semantics).

Let's abstract from context-sensitivity (so we will talk of *predicates* having extensions, rather than *uses* of predicates).

Call the different possible extensions for a predicate such as "heap", the potential extensions of "heap".

Admissible valuation: A valuation that assigns, to each predicate in the language, a unique member of its potential extensions.

Relative to any admissible valuation v , "heap" will receive a unique extension.

We will use the notion of an admissible valuation to define the notions of *supertruth* and *superfalsity*:

A sentence is *supertrue* if and only if it is true in every admissible valuation.

A sentence is *superfalse* if and only if it is false in every admissible valuation.

Supervaluationist claim: *Truth* is really *supertruth*.

" $P \vee \sim P$ " is supertrue, even when P has no truth-value. So appeal to supervaluations saves the logic, by altering the semantic theory.

Stalnaker's proposal: In a case in which (say) there is a tie for a closest A world relative to w , there are two possible selection functions, one for each of the two closest worlds. CEM will come out supertrue, and so the logic of conditionals he defends in "A Theory of Conditionals" is preserved.