Metaphysics // Fall 2025

Handout 22

Counterfactuals: Lewis II

Analysis of counterfactuals. Consider the counterfactual:

(1) If kangaroos had no tails, they would topple over.

To evaluate it, we should ignore distal worlds where kangaroos have wheels or crutches. Consider how wrong it would be to say in response to (1):

(2) ?? No, because then they could use crutches!

Of course, it won't do to consider the worlds that are *too* similar to ours—for example, that differ in 9
the tailless kangaroos, but are the same in every other regard. Tailless kangaroos necessitate some further adjustments.

In effect, we now have an argument for interpreting the counterfactual $\phi \mathrel{\Box\!\!\rightarrow} \psi$ as a special case 9
of the strict implication $\Box(\phi \supset \psi)$. For the strict implication true at i is true in all i-similar worlds. This means that ψ is true in all ϕ-worlds in S_i. We have now said that not all ϕ-worlds should be taken into account. Therefore, once we have ruled those irrelevant worlds exhibited in (2), we get the truth conditions for our counterfactual.

Sobel sequences. But things aren't that simple. Consider the following where the truth of a counterfactual is preserved or reversed depending on whether we add more conditions to the antecedent:

(3) The Lawn: Walking on the lawn causes no harm; but if everyone did it, the lawn would be ruined.

The Nuclear war: If the USA disarmed, there would be war; if all nuclear powers disarmed, there would be peace; if they did so without pollution precautions, there would be war.

The Party: If Otto had come to the party, it would be lively; if Otto and Anna came, it would be dreary; if Waldo came too, it would be lively.

Question 1. Explain the relation of Sobel sequences to utilitarianism.

These sequences have the following form:

(4) $$\phi_1 \mathrel{\Box\!\!\rightarrow} \psi = {\sim}(\phi_1 \mathrel{\Box\!\!\rightarrow} {\sim}\psi)$$

(5) $$\phi_1 \,\&\, \phi_2 \mathrel{\Box\!\!\rightarrow} {\sim}\psi = {\sim}(\phi_1 \,\&\, \phi_2 \mathrel{\Box\!\!\rightarrow} \psi)$$

(6) $$\phi_1 \,\&\, \phi_2 \,\&\, \phi_3 \mathrel{\Box\!\!\rightarrow} \psi = {\sim}(\phi_1 \,\&\, \phi_2 \,\&\, \phi_3 \mathrel{\Box\!\!\rightarrow} {\sim}\psi)$$

In principle, such sequences can go on indefinitely.

Now, Lewis means to argue that any two adjacent stages, say (4) and (5), refute the idea that counterfactuals are constantly strict conditionals. If a counterfactual $p \mathrel{\Box\!\!\rightarrow} q$ were a strict implication $\Box(p \supset q)$ (i.e. true at every accessible p-world), then the first stage would logically imply the second and contradict its negation. In other words, if ψ is true at every accessible ϕ_1-world, it must be true at every accessible $(\phi_1 \,\&\, \phi_2)$-world.

Then we get that the second counterfactual in a sequence would have to be vacuously true. How 11
so? Well, consider the party example: the first counterfactual requires that the party is lively at every accessible Otto-world, i.e. where Otto came to the party. But every world where Otto and Anna came to the party ($\phi_1 \,\&\, \phi_2$) is of course also where Otto came to the party. Then, if the first counterfactual is true, then the party is lively also at every world where Anna and Otto came. But this presumably contradicts the second counterfactual which says that the party then would be dreary (${\sim}\psi$). So, to prevent this contradiction we should require that the second counterfactual is vacuously true.

This vacuity leads to an absurdity: from the premiss that the party would be lively if Otto came and dreary if both Otto and Anna came, it would follow that if both came, the cow would have jumped over the moon.

To save the theory, we might have to constantly change which strict conditional is being used for which stage. Less stringent standards of similarity will correspond to larger spheres of accessibility and thus to stricter conditionals. The resulting schema is in Figure 1.

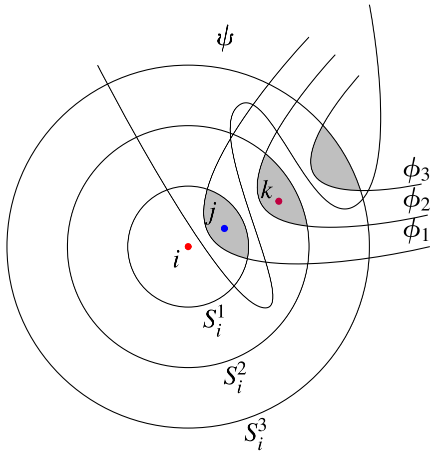
 11

Figure 1: Sobel sequences

Question 2. Narrate the explanation illustrated by Figure 1.

Question 3. Explain why tinkering with the context won't solve the problem. 13

Remark 4. We skip the discussion of vagueness. 12

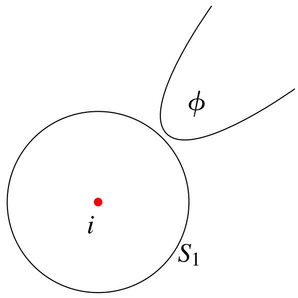

Figure 2: Vacuity:
$V(\phi \;\Box\!\!\rightarrow \psi) = V(\phi \;\Box\!\!\rightarrow \sim\psi) = 1$

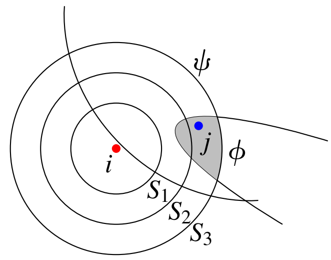

Figure 3: Non-vacuity:
$V(\phi \;\Box\!\!\rightarrow \psi) = V(\sim(\phi \;\Box\!\!\rightarrow \sim\psi)) = 1$

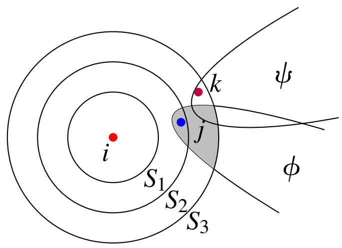

Figure 4: Falsity/opposite true:
$V(\phi \;\Box\!\!\rightarrow \sim\psi) = V(\sim(\phi \;\Box\!\!\rightarrow \psi)) = 1$

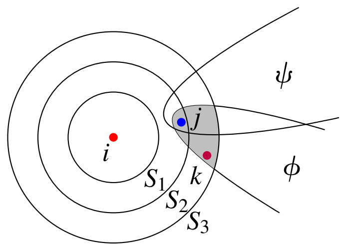

Figure 5: Falsity/opposite false:
$V(\sim(\phi \;\Box\!\!\rightarrow \psi)) = V(\sim(\phi \;\Box\!\!\rightarrow \sim\psi)) = 1$

Variably strict conditionals. Lewis proposes thatcounterfactuals are variably strict conditionals: any particular counterfactual is as strict as it must be to escape vacuity, and no stricter. See Figures 2, 3, 4, 5.