

PHIL 4603: Metaphysics  
Prof. Funkhouser  
Lewis, "Causation"

\* Lewis notes Hume's two definitions of 'causation'. The first definition offers a regularity theory, the latter offers a counterfactual theory. Lewis says that theories of the former type have been dominant, for example as in Mackie's work.

"In present-day regularity analyses, a cause is defined (roughly) as any member of any minimal set of actual conditions that are jointly sufficient, given the laws, for the existence of the effect."

But Lewis will develop and endorse a counterfactual alternative.

Lewis mentions some problems for regularity theories – e.g., confusing the causal order, epiphenomenalism, and preemption.

\* Lewis recognizes that many have problems with counterfactuals in general. But, he reassures:

"Why not take counterfactuals at face value: as statements about possible alternatives to the actual situation, somewhat vaguely specified, in which the actual laws may or may not remain intact?"

\* He then describes four ways in which his discussion of causation will be incomplete.

\* Lewis takes "*comparative overall similarity*" as a primitive. That is, he will not explain what must obtain in order for, all things considered, possible-world<sub>1</sub> to more closely resemble possible-world<sub>3</sub> than does possible-world<sub>2</sub>. These resemblance judgments balance both comparisons of matters of fact and laws of nature. We should not think that a possible world that shares our laws of nature is thereby more similar to our world than is a possible world with different laws.

"It may be worth a small miracle to prolong or expand a region of perfect match."

\* A counterfactual of the form 'A  $\square \rightarrow$  C' is true if there are no possible A-worlds or if an A-world in which C obtains is closer to the actual world than any A-world in which C does not obtain. Some class of possibilities can also depend counterfactually on some other class of possibilities – e.g., the barometer example.

\* Lewis then connects counterfactual dependence to causation.

"If a family C<sub>1</sub>, C<sub>2</sub>, ... depends counterfactually on a family A<sub>1</sub>, A<sub>2</sub>, ... in the sense just explained, we will ordinarily be willing to speak also of causal dependence. We say, for instance, that the barometer reading depends causally on

the pressure, that my visual impressions depend causally on the scene before my eyes, or that the outcome of something under my control depends causally on what I do.”

So, what is causal dependence?

“Then  $e$  depends causally on  $c$  iff the family  $O(e)$ ,  $\sim O(e)$  depends counterfactually on the family  $O(c)$ ,  $\sim O(c)$ . As we say it: whether  $e$  occurs or not depends on whether  $c$  occurs or not. The dependence consists in the truth of two counterfactuals:  $O(c) \square \rightarrow O(e)$  and  $\sim O(c) \square \rightarrow \sim O(e)$ .”

\* Causation is always transitive, but causal dependence is not. So, some adjustment must be made to get from causal dependence to causation.

“We extend causal dependence to a transitive relation in the usual way. Let  $c, d, e, \dots$  be a finite sequence of actual particular events such that  $d$  depends causally on  $c$ ,  $e$  on  $d$ , and so on throughout. Then this sequence is a *causal chain*. Finally, one event is a *cause* of another iff there exists a causal chain leading from the first to the second.”

\* Lewis illustrates how his account is supposed to handle the problem of effects, epiphenomena, and preemption. Remember that each of these is supposed to be problematic for the regularity theorist.

For both the problem of effects and epiphenomena, it might seem, at first glance, as if there is the appropriate counterfactual dependence but without the causation (e.g., without the effect the cause would not have occurred, and without the epiphenomena the effect would not have occurred). Lewis’s solution, however, is to deny these counterfactuals.

“If  $e$  had been absent, it is not that  $c$  would have been absent (and with it  $f$ , in the second case). Rather,  $c$  would have occurred just as it did but would have failed to cause  $e$ .”

Note his reasons for thinking that this interpretation involves less of a departure from actuality.

Lewis tries to handle preemption by invoking a causal intermediary,  $d$ . Lewis then claims, without fully explaining why he believes so, that even if  $d$  had not occurred the actual cause would have blocked the preempted cause from occurring. So, even if the actual cause weren’t effective, the preempted cause wouldn’t have been either.

“I rather claim that if  $d$  had been absent,  $c_1$  would somehow have failed to cause  $d$ . But  $c_1$  would still have been there to interfere with  $c_2$  so  $e$  would not have occurred.”