

PHIL 4603: Metaphysics
Prof. Funkhouser
Mackie, "Causes and Conditions"

* One might, naively, think that a cause is an event that is necessary and sufficient for the occurrence of a later event. Mackie will argue against this, but he will exploit the notions of necessary and sufficient conditions in giving his own account of causation.

1.

* Example: the fire that was supposedly caused by an electrical short circuit at a particular place. But this condition was neither necessary nor sufficient for the fire.

Mackie notes that there was a set of conditions that were jointly sufficient but not necessary for this fire. The short circuit was a necessary part of this set (i.e., without the short circuit that set would not have been sufficient for the fire). So, Mackie offers the following proposal to cover this case and others:

"In this case, then, the so-called cause is, and is known to be, an *insufficient* but *necessary* part of a condition which is itself *unnecessary* but *sufficient* for the result."

This is Mackie's famous INUS condition for causation. Put more generally and formally:

"A is an INUS condition of a result *P* if and only if, for some *X* and for some *Y*, (*AX* or *Y*) is a necessary and sufficient condition of *P*, but *A* is not a sufficient condition of *P*, and *X* is not a sufficient condition of *P*."

Note all of the qualifications made, however.

* Mackie lists four claims that he thinks are implicit in any singular causal statement of the form "A caused *P*". Note that his account rules out many varieties of causal overdetermination – see claim (iv). Also note that Mackie's account allows for many causes of the same event.

2.

* Mackie introduces the notion of a *causal field*:

"In all such cases, the cause is required to differentiate, within a wider region in which the effect sometimes occurs and sometimes does not, the sub-region in which it occurs: this wider region is the causal field."

Mackie then modifies his account of singular causal statements such that the INUS conditions are relativized to a causal field. Why does he do this?

“This modification enables us to deal with the well-known difficulty that it is impossible, without including in the cause the whole environment, the whole prior state of the universe (and so excluding any likelihood of repetition), to find a genuinely sufficient condition, one which is “by itself, adequate to secure the effect”.”

* Mackie bites the bullet and denies cases of genuine causal overdetermination (e.g., two bullets simultaneously killing a man).

3.

* In this section Mackie extends his INUS theory to general causal statements.

“All we know is that sweet-eating combined with a set of positive and negative factors which we can specify, if at all, only roughly and incompletely, constitutes a minimal sufficient condition for dental decay – but not a necessary one, for there are other combinations of factors, which do not include sweet-eating, which would also make teeth decay, but which we can specify, if at all, only roughly and incompletely.”

But some general causal statements do pick out necessary conditions – e.g., “the yellow fever virus is the cause of yellow fever.”

* Mackie also reminds us that for almost any particular effect there will be numerous causes, not just *the* cause. Any condition belonging to the minimally sufficient set of conditions will (equally!) count.

4.

* General necessity and sufficiency statements are equivalent to (or at least entail) universal propositions – e.g., if S is necessary for T, then all T are S. But, we cannot account for singular necessity and sufficiency statements in a similar manner. Instead, these singular statements are to be understood in terms of counterfactual and factual conditionals. But, these conditionals are themselves supported by universal propositions.

“Thus if we said that a short circuit here was a necessary condition for a fire in this house, we should be saying that there are true universal propositions from which, together with true statements about the characteristics of this house, and together with the supposition that a short circuit did not occur here, it would follow that the house did not catch fire.”

8.

* Mackie’s account will have to address the fact that causation (like time) has a direction. But, Mackie claims that causal priority cannot be captured by mere temporal priority, because backwards and simultaneous causation are possible. And this is a real problem for Mackie because:

“... given that there is some necessary and sufficient condition of A in the field, it can be proved that if A is (at least) an INUS condition of P , then P is also (at least) an INUS condition of A ...”

Mackie only hints at a solution, in the final paragraph of this section.

9.

* Mackie briefly discusses the great role that singular and general causal statements play in scientific investigation. He also states that his theory falls under the category of regularity theories of causation. His account applies not only to physical causation, but also to mental causation and any other variety.