Philosophy of Mind and Metaphysics

Lecture VI: Causes and Conditions

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I. Questions of Causation

a. We want to know what statements of the form 'Event *e* caused event *c*' *mean*. We want a non-circular analysis of causation; that is, we want to express the truth conditions of causal statements in terms that do not themselves involve any causal concepts.

II. The Humean Analysis of Event Causation

a. The View: Event *c* was a cause of event *e* if and only if (a) *c* preceded *e* and (b) *c* and *e* are, respectively, events of types T_1 and T_2 such that every event of type T_1 is followed by an event of T_2. This is often called the *constant conjunction* analysis of event causation, since it suggests that *c* cannot be a cause of *e* unless *c* and *e* are constantly conjoined.

b. Problem: It seems that two events, c and *e*, can satisfy clauses (a) and (b) of the Humean analysis even though *c* and *e* are *causally unrelated*. That is, it seems that the Humean analysis "fails to distinguish between genuinely causal conjunctions of events and purely accidental conjunctions of events. ... The objection, in effect, is that [the Humean analysis] misrepresents a causal relation between two events as holding in virtue of what may be nothing more than a cosmic accident or coincidence" (p. 160).

III. The Counterfactual Analysis of Event Causation

a. The View: Event *c* was a cause of event *e* if and only if (a) *c* occurred, (b) *e* occurred, (c) *c* and *e* are wholly distinct events, and (d) if *c* had not occurred, then *e* would not have occurred.

b. Problems

i. The counterfactual conditionals in the Counterfactual Analysis can be true "even if *c* and *e* are, plausibly, events which are not related as cause to effect. For instance, let *c* be the event of Napoleon's birth and let *e* be the event of Napoleon's death: the counterfactual conditional 'If Napoleon's birth had not occurred, then Napoleon's death would not have occurred' is plainly true—and yet it would be unnatural to say that Napoleon's birth was a *cause* of Napoleon's death" (p. 161).

ii. The Counterfactual Analysis "seems to imply that an event which is a part of another event may be a cause of the latter event, and likewise that an event may be a cause of another event which is a part of the former event" (p. 174). For example, it seems true that the lighting of the Olympic flame would not have occurred if the Olympics had not occurred, where it seems that the former event—the lighting of the Olympic flame—is a part of the latter event—the Olympics. However, in spite of the apparent truth of the counterfactual conditional, it seems false to say that the Olympics is the *cause* of the lighting of the flame.

iii. The Counterfactual Analysis "appears to have difficulty in distinguishing between cause and effect" (p. 175). Consider the following two counterfactual conditionals: (a) If the eight ball hadn't hit the nine ball as it did, the nine ball would not have gone into that pocket; and (b) if the nine ball had not gone into that pocket, it would not have been hit by the eight ball as it was. We can make a decent case for the truth of each of these conditionals. Yet, according to the Counterfactual Analysis, this suggests that the movement of the nine ball was both the cause and the effect of the eight ball's hitting it as it did.

iv. The Counterfactual Analysis "will not necessarily distinguish between a pair of events related as cause and effect and a pair of events which are merely different effects of a common cause. Consider, for instance, the following situation. Suppose that we ... have a bomb fitted with a reliable mechanism which enables it to be exploded only by pressing a certain button, but that, quite independently, the mechanism also enables a warning light to be activated, once more only by pressing the button. The button is pressed and—either simultaneously or in sequence—the bomb explodes and the warning light flashes. We want to say that the pressing of the button caused both the explosion of the bomb and the flashing of the light, but it seems that [the Counterfactual Analysis] commits us to saying, in addition, that the explosion of the bomb caused the flashing of the light and vice versa" (p. 177) since it seems true both that the light would not have flashed if the bomb had not exploded, and that the bomb would not have exploded if the light had not flashed.

IV. THE PROBABILISTIC ANALYSIS OF EVENT CAUSATION

a. THE VIEW: Event *c* was a cause of event *e* if and only if *c* occurred and *e* occurred and the occurrence of *c* raised the probability of the occurrence of *e* by some amount.

b. PROBLEM: If the Probabilistic Analysis is interpreted as a version of the Counterfactual Analysis—for example, in the following way: If *c* had not occurred, then the probability of *e*'s occurring would have been less than it actually was—then the Probabilistic Analysis is subject to the same criticisms as the Counterfactual Analysis.