Lecture 2 – Hume's Theory: Objections and Responses

1. Hume and Russell on Necessary Connection

According to Hume, *A* is a cause of *B* just in case (i) events of type *A* are constantly conjoined with (i.e. always followed by) events of type *B*, and (ii) we form a habit in the mind whereby we expect a type-*B* event whenever we see a type-*A* event.

Russell, like Hume, takes the idea of causation to involve the idea of necessity. But, no such necessity, Russell argues, is to be found in our laws. For this, and other reasons, Russell concludes that there *are* no laws of causality, just *laws of association*.

2. Objections

There are several categories of counterexample to Hume's understanding of causation. These are:

- **Necessary connection without causation:** *e.g. Day and night*
- **Causation without necessary connection:** *e.g. Buying a lottery ticket and winning*
- **Constant conjunction without necessary connection:** *e.g. CO_2 levels and milk prices*

3. Anscombe on Necessary Connection

Anscombe, responding to Hume and Russell, argues that both have begun from a misguided assumption. The idea of causation, she argues, involves no such idea of necessary connection! She offers several arguments against Hume and Russell, illustrating that **our idea of causation does *not* involve an idea of necessary connection**.

She also argues against the claim that we cannot *see* causation. Hume, she argues, goes looking for causes, but refuses to see them. He excludes from contention the very thing that would constitute seeing a cause, and then concludes that we cannot see causes at all.

4. Necessary and Sufficient Conditions

Necessary Condition
X is a necessary condition for Y if and only if, ¬X —> ¬Y. I.e. X is required for Y; without X, Y cannot exist. *E.g. Water is necessary for our survival.*

Sufficient Condition
X is a sufficient condition for Y if and only if, X —> Y. I.e. X is enough for Y's existence. *E.g. Rain is sufficient for the ground's being wet.*

Necessary and Sufficient Condition
X is a necessary and sufficient condition for Y if and only if, X <—> Y. *E.g. Placing at least third at the Olympics is necessary and sufficient for winning a medal.*

5. Mackie's Regularity Theory, I — INUS Conditions

Like Anscombe, Mackie recognised that our beliefs about causation seldom involve a belief about a necessary connection. For instance, imagine that there is a short circuit in a house, and a house fire ensues. When I say that the short circuit *caused* the house fire, I certainly don't mean that it was *necessary* for the fire. After all, there are other ways it might have started: e.g. a neglected stove element. Instead, Mackie argues that, when we pick out some *A* as the cause of a distinct event *B*, we are saying that *A* was **necessary under the circumstances** for *B*'s occurrence.

What does it mean to be "necessary under the circumstances"? Mackie cashes this out in terms of being an **insufficient but necessary part of an unnecessary but sufficient** set of conditions. An **INUS condition**. In the case of the fire, the short circuit was part of a whole array of conditions that together sufficed for the fire. Taking each part of the acronym in turn:

Insufficient — The short circuit is insufficient for the fire, since it alone is not enough for the fire's occurrence.

Necessary — The short circuit is a necessary *part* of the set of sufficient conditions. That is, without the short circuit, the set of conditions that occurred would *not* have sufficed for the fire.

Unnecessary — This refers to the set of conditions, of which the short circuit is a part, that together sufficed for the fire. These conditions are, together, unnecessary for the occurrence of the fire, since there are different sets of conditions that would also have resulted in fire (e.g. one involving a neglected stove element).

Sufficient — This too refers to the set of conditions, of which the short circuit is a part. Together, the *set* of conditions sufficed for the fire; that is, they were enough for the fire's occurrence.

6. Mackie's Regularity Theory, II — An Objection?

One objection to Mackie's theory is that it leads to counterintuitive results. In particular, it lumps **background conditions** in with other causes. Consider the house fire once again. The short circuit is a cause of the fire, according to Mackie, because it is an INUS condition for the fire. Now consider the presence of oxygen. This too is an INUS condition! The presence of oxygen is an insufficient but necessary part of an unnecessary but sufficient set of conditions (the very same set of conditions of which the short circuit was a part) for the fire. But there seems to be something wrong with saying **'The presence of oxygen is a cause of the fire.'**

Is there a meaningful distinction between causes and background conditions that Mackie is overlooking? Or is he right to count them both as causes?

Next week: Lewis on counterfactual and causal dependence