Causation Lecture 1

1 AN OVERVIEW OF THE LECTURE COURSE

1. Introduction to causation and David Hume's analysis
2. Criticisms of Hume and J. L. Mackie's 'INUS' condition analysis
3. David Lewis' analysis: counterfactuals, possible worlds and causal dependence
4. Lewis' analysis: causation, and criticisms of Lewis

2 WHAT IS CAUSATION AND WHY DO WE CARE?

• Examples of causal talk: ‘the ball caused the window to smash’, ‘the bad weather caused train delays’.
  • **Argument:** Bertrand Russell (1912): causal talk is dispensable.
    • **Counterargument:** Verbs are inherently causal, thus making causal talk indispensable (‘the footballer scored a goal’ becomes ‘the footballer’s kick caused a goal’).
  • Causation is a relation.
    • Relations connect relata. **Argument:** Philosophers typically think that the relata of causation are events (but not Mellor [1995]!)
      • **Counterargument:** Causation sometimes seems to hold between objects and events (‘the skunk caused the smell’).
      • **Response:** We can reinterpret such examples (‘the skunk spraying caused the smell’).
      • **Counterargument:** This strategy may fail for some examples (‘the fragility of the glass caused it to break’).
    • Relations can be reflexive, symmetric and/or transitive.
      • $R$ is reflexive iff for all $x$, $Rx$. Causation is irreflexive.
      • $R$ is symmetric iff for all $x$ and $y$, if $Rx$ then $Ry$. Causation is asymmetric.
      • $R$ is transitive iff for all $x$, $y$ and $z$, if $Rxy$ and $Ryz$ then $Rxz$. Causation is transitive.
    • This logical analysis doesn’t pin down what causation is, however. The relation ‘$x$ is an event that happened after event $y$’ admits of the same logical analysis.

3 WHAT ARE METAPHYSICAL ANALYSES?

• A metaphysical analysis answers the question: **In virtue of what is one event a cause of another?**
• There are other philosophical projects associated with causation. For example, J. S. Mill (1843) offers an epistemological analysis of when we know an event to be cause.
  • For example: the **method of agreement**.
• Sometimes these philosophical projects are interrelated.
4 David Hume, Causation and Empiricism

• If one event causes another, there is a metaphysical connection between those events.
• Hume is an empiricist. He separates knowledge into two categories: relations of ideas and matters of fact.

<table>
<thead>
<tr>
<th>Relations of ideas</th>
<th>Matters of fact</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. ‘a triangle has three sides’</td>
<td>e.g. ‘snails move slowly’</td>
</tr>
<tr>
<td>Known a priori</td>
<td>Known a posteriori</td>
</tr>
<tr>
<td>Negations imply contradictions</td>
<td>Negations don’t imply contradictions</td>
</tr>
</tbody>
</table>

• Our idea of causation should amount to knowledge of causation. So is our idea of causation a relation of ideas or matter of fact?
• **Argument:** Causation is not a relation of ideas. Example: ‘one billiard ball striking another causes the second billiard ball to move’.
  o That the second billiard ball will move is not contained in our understanding of one billiard ball striking another. It is not known a priori.
  o We can conceive of the second billiard ball not moving. It does not imply contradiction.
  o We cannot infer that the second billiard ball will move from knowledge that one billiard ball strikes another.
• So our idea of causation is a matter of fact.

5 Ideas and Impressions

• Matters of fact are known a posteriori from impressions.
  o Impressions are either external (e.g. we see the apple is red) or internal (e.g. a habit of the mind). If causation is mind-independent, our idea should come from external impressions.
• What external impressions do we have of causation?
  o Temporal succession: the effect temporally follows the cause.
  o Contiguity: the cause and the effect are spatiotemporally close.
  o Constant conjunction: events like the cause (of the same type) are regularly followed by events like the effect.
• These external impressions don’t constitute an idea of a metaphysical connection between cause and effect. To give a full analysis, Hume looks to internal impressions.
• What internal impression do we have of causation?
  o Habitual expectation: we get into the habit of expecting the effect after seeing the cause. This gives us the idea of necessary connection between causes and effects.
• Our idea of causation is that of temporal succession, contiguity, constant conjunction and habitual expectation. However, does this make causation mind-dependent?
6 INTERPRETING HUME

- Helen Beebee (2012) offers three available interpretations of Hume: the traditional interpretation, the sceptical realist interpretation and the projectivist interpretation.

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Sceptical realist</th>
<th>Projectivist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causation just is partially mind-dependent.</td>
<td>Our best idea of causation is mind-dependent. However, it refers to a mind-independent phenomenon.</td>
<td>Causation is a perspective we project on mind-independent events.</td>
</tr>
<tr>
<td>Talk of mind-independent causation is flawed.</td>
<td>Talk of mind-independent causation is validated by our partial understanding.</td>
<td>Talk of mind-independent causation is validated as a projection.</td>
</tr>
</tbody>
</table>

- Make sure to justify your own interpretation!

7 SINGULAR CAUSATION AND ACCIDENTAL REGULARITIES

- Hume’s analysis is a regularity account: based on the idea that like causes are regularly followed by like effects.
- Problem: There are cases of singular causation (e.g. ‘the Big Bang caused the creation of the universe’).
  - Response: There is constant conjunction in analogous events (e.g. the Hadron Collider).
  - Counterargument: There may be some cases where analogies are not available.
  - Counterargument: Scientists spoke of the Big Bang causing the creation of the universe before analogies were available.
- Problem: There are cases of non-causal, accidental regularities (e.g. Reid’s [1786] case of night and day).

8 BIBLIOGRAPHY


*HUME, David, Enquiry Concerning Human Understanding, sect. 4

*HUME, David, Treatise of Human Nature, Book 1.iii., sects. 1, 2 & 14

MELLOR, Hugh, The Facts of Causation (Routledge, 1995)

MILL, John Stuart, A System of Logic (1843)

REID, Thomas, Essays on the Intellectual Powers of Man (1786)