

# Causation Lecture 1

## 1 AN OVERVIEW OF THE LECTURE COURSE

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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?

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- 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  $x$ ,  $Rxx$ . Causation is **irreflexive**.
    - $R$  is symmetric iff for all  $x$  and  $y$ , if  $Rxy$  then  $Ryx$ . 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?

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- 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

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- 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**.

Relations of ideas	Matters of fact
e.g. 'a triangle has three sides'	e.g. 'snails move slowly'
Known <b>a priori</b>	Known <b>a posteriori</b>
Negations imply <b>contradictions</b>	Negations don't imply contradictions

- 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'.
  - 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**.
  - We can conceive of the second billiard ball not moving. It does not imply **contradiction**.
  - 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

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- Matters of fact are known **a posteriori** from **impressions**.
  - 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?
  - **Temporal succession:** the effect temporally follows the cause.
  - **Contiguity:** the cause and the effect are spatiotemporally close.
  - **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?
  - **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

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

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

- Make sure to justify your own interpretation!

## 7 SINGULAR CAUSATION AND ACCIDENTAL REGULARITIES

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- 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

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