

Causal Varieties in Science

A significant amount of philosophical work has examined different definitions of causation, but much attention has been paid to “distinctions within causation” or causal varieties within a definition. Examples of these varieties include causes that differ with respect to their speed, specificity, stability, and whether they provide reversible/irreversible control. This talk provides an analysis of causal varieties in science, with a focus on the life sciences. I show how these distinctions can be captured with a framework that includes: a three-part causal taxonomy and a specification of primary and secondary features of causation. I use this to clarify how these distinctions differ from defining causation, how they capture a unique type of causal pluralism and complexity in the world, and why they are important for achieving causation-related goals, such as explanation, prediction, and control.