

Knowledge and Reality

Causation

What sorts of things are related by causation, and what is it for one thing to cause another? Is causation a matter of necessitation or probabilification, or should it be understood in terms of universal laws or counterfactuals? What is the relation between causation and explanation? Could science do without causal explanation?

Note that many of the papers in this reading list are very well known, appearing in numerous different collections – for example Jaegwon Kim and Ernest Sosa (eds), Metaphysics: An Anthology (1998) contains the papers by Lewis, Mackie and Davidson mentioned below, and a different (but entirely appropriate) paper by Salmon.

READING

Crane and Farkas give a useful overview, including a brief discussion of Aristotle, Hume, Davidson and Lewis. They end with a summary of Mellor's view of probabilistic causation:

Tim Crane and Katalin Farkas, Introduction to section on 'Causation in *Metaphysics: A Guide and Anthology* (Oxford University Press, 2004), pp. 369-79.

*Crane and Farkas give snippets from Aristotle and Hume that will enable you to get the gist of their views easily (most of the Hume stuff should be familiar to you from the General Philosophy topic of "induction"). Make sure that you read at least the Hume (Section VII Part ii of the *Enquiry Concerning Human Understanding* if you don't have Crane and Farkas), and the article by Lewis (but go for the more extensive version with postscripts if you have time). Lewis develops a "counterfactual theory" of causation (discussed at <http://plato.stanford.edu/entries/causation-counterfactual/> in the *Stanford Encyclopedia of Philosophy*):*

David Lewis, "Causation", from *Journal of Philosophy* 70 (1973), pp. 556-67, also in Crane and Farkas (above), pp. 390-400; reprinted with postscripts in David Lewis, *Philosophical Papers, volume II* (OUP, 1986), pp. 159-214.

The articles by Davidson and Mellor in Crane and Farkas are less essential, but it's good to know the gist of what they say (from the Introduction, above). Another very useful collection on this topic, which also contains the Lewis and Davidson articles, is by Sosa and Tooley. Again the Introduction is well worth reading if you have time, and you can use this to identify other papers that might particularly interest you:

Ernest Sosa and Michael Tooley (eds), *Causation* (Oxford University Press, 1993).

Two noteworthy articles in this collection are by Mackie and Salmon. Mackie's is a very well known attempt to provide an improved "regularity" account, building on Hume and provoking (in somewhat the same way as Gettier's paper on knowledge) many other later attempts to refine the analysis in the same spirit:

J. L. Mackie, "Causes and Conditions", *American Philosophical Quarterly* 2 (1965), pp. 245-64; in Sosa and Tooley (above, pp. 33-55), and reprinted in many other collections.

*Salmon's approach has been less influential but is worth exploring if you have the time. He develops a "process" theory of causation (see <http://plato.stanford.edu/entries/causation-process/> for summary and discussion in the *Stanford Encyclopedia*):*

Wesley Salmon, "Causality: Production and Propagation", *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association* (1980), vol. 2, pp. 49-69, and reprinted in Sosa and Tooley (above).

*Finally, the recent *Oxford Handbook of Metaphysics* contains two very useful articles on causation, the first of which – "Causation and Supervenience" by Michael Tooley – covers much of the material above, while the other addresses causation and its role in science:*

Hartry Field, "Causation in a Physical World", in Michael J. Loux and Dean W. Zimmerman (eds), *The Oxford Handbook of Metaphysics* (Oxford University Press, 2003), pp. 435-60.