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978-0-521-86081-9 - Hunting Causes and Using Them: Approaches in Philosophy and Economics

Nancy Cartwright

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Hunting Causes and Using Them

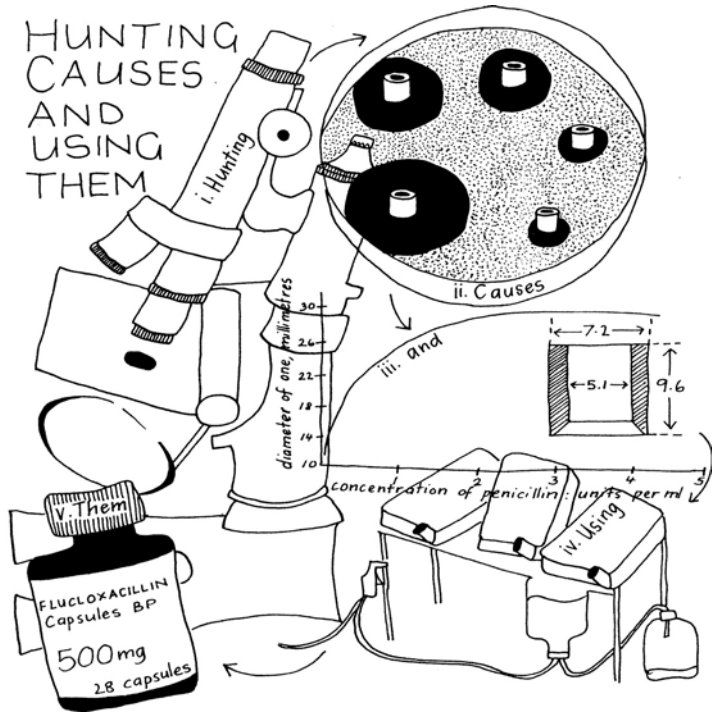
Hunting Causes And Using Them argues that causation is not one thing, as commonly assumed, but many. There is a huge variety of causal relations, each with different characterizing features, different methods for discovery and different uses to which it can be put. In this collection of new and previously published essays, Nancy Cartwright provides a critical survey of philosophical and economic literature on causality, with a special focus on the currently fashionable Bayes-nets and invariance methods – and exposes a huge gap in that literature. Almost every account treats either exclusively of how to hunt causes or of how to use them. But where is the bridge between? It's no good knowing how to warrant a causal claim if we don't know what we can do with that claim once we have it.

This book is for philosophers, economists and social scientists – or for anyone who wants to understand what causality is and what it is good for.

NANCY CARTWRIGHT is Professor of Philosophy at the London School of Economics and Political Science and at the University of California, San Diego, a Fellow of the British Academy and a recipient of the MacArthur Foundation Award. She is author of *How the Laws of Physics Lie* (1983), *Nature's Capacities and their Measurement* (1989), *Otto Neurath: Philosophy Between Science and Politics* (1995) with Jordi Cat, Lola Fleck and Thomas E. Uebel, and *The Dappled World: A Study of the Boundaries of Science* (1999).

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University of Oxford's Museum of the History of Science:

Lord Florey's team investigated antibiotics in 1939. They succeeded in concentrating and purifying penicillin. The strength of penicillin preparations was determined by measuring the extent to which it prevented bacterial growth. The penicillin was placed in small cylinders and a culture dish and the size of the clear circular inhibited zone gave an indication of strength. Simple apparatus turned this measurement into a routine procedure. The Oxford group defined a standard unit of potency and was able to produce and distribute samples elsewhere.

A specially designed ceramic vessel was introduced to regularize penicillin production. The vessels could be stacked for larger-scale production and readily transported. The vessels were tipped up and the culture containing the penicillin collected with a pistol. The extraction of the penicillin from the culture was partly automated with a counter-current apparatus. Some of the work had to be done by hand using glass bottles and separation funnels.

Penicillin was obtained in a pure and crystalline form and used internationally.

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