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D. M. ARMSTRONG



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For Jenny

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Preface to this edition

MARC LANGE



David Armstrong's *What is a Law of Nature?* is a beautiful book. It offers its readers an exciting philosophical problem at the busy intersection of metaphysics, epistemology, and the philosophy of science – namely, what makes certain facts constitute matters of natural law? How do laws of nature (such as, according to current science, the fact that electric charge is conserved) differ from accidents (such as, in Reichenbach's example from *Elements of Symbolic Logic*, the fact that all solid gold cubes are smaller than one cubic mile)? In virtue of what is the former a law of nature whereas the latter is a coincidence – a 'historical accident on the cosmic scale' (Kneale, 'Natural Laws and Contrary-to-Fact Conditionals')? I am one of the many students who, after reading Armstrong's magisterial book, was firmly in the grip of this problem. It has never let go.

Armstrong's book exemplifies a familiar pattern of philosophical exposition. Armstrong begins by marshalling a wide variety of arguments against various proposed answers to his title question. His systematic exploration of the resources available to 'regularity accounts' of law ultimately leads him to investigate the advantages of and obstacles facing David Lewis's 'Best System Account'. Having sharpened the challenges facing any proposal, Armstrong then gives his own account of what laws of nature are: contingent relations of 'nomic necessitation' among properties (i.e., universals). Armstrong works out his proposal methodically, displaying both its strengths and its difficulties. (Fred Dretske (in 'Laws of Nature') and Michael Tooley (in 'The Nature of Laws') made roughly similar proposals at about the same time as Armstrong.)

In the years since Armstrong's book, many philosophers have investigated how Lewis's view of laws as arising 'from below', supervening on the global spacetime mosaic of instantiations of certain fundamental properties, contrasts with Armstrong's view of laws as governing the universe 'from above' so that two possible universes may differ in their laws despite having exactly the same global property mosaic. Philosophers have also followed Armstrong in investigating which view best accounts for the laws' relations to inductive confirmation, natural necessity, counterfactual conditionals, and scientific explanations. Philosophers have

explored whether the virtues that Armstrong attributes to his own view are more fully realized by accounts according to which the laws are metaphysically necessary rather than contingent (see, for example, Bird's *Nature's Metaphysics*) or according to which counterfactuals sustain laws rather than the reverse (Lange, *Laws and Lawmakers*). Armstrong's book has been enormously influential in deepening the philosophical investigation of natural lawhood – research that continues vigorously today.

What is a Law of Nature? is a rare achievement: not only a pungently written, accessible, opinionated introduction, but also a cutting-edge contribution to philosophy. Let us go on learning from it!

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I leave to the last mention of my quite special debt to Michael Tooley. As I hope that the text makes clear, he has everywhere influenced my thinking on this thorny and difficult topic of the nature of the laws of nature.

Sydney University D. M. A.
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