

trivial, it is true that a realist's aspiration to get to things as they really are—and build a “scientific cosmology” or “analytic ontology”—could easily lead to a dominating scientism. It is not surprising that van Fraassen's view on science and religion would remind one of Pierre Duhem, as do some aspects of his philosophy of science.

For students of philosophy of science, this book is refreshing because it discusses issues familiar to the discipline, but brings it to broader realms. Quite a few of his points here have appeared in his earlier works, e.g., materialism as false consciousness, the analogy of *sola scriptura* and *sola experientia*, and science as representation and interpretation. But in this ambitious, yet relatively brief work, those ideas reappear well-connected with other parts of the book in a way that is accessible to non-philosophers. This work could thus also serve as a nice introduction to van Fraassen's big picture.

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REFERENCE

van Fraassen, Bas (1994), “The World of Empiricism”, in Jan Hilgevoord (ed.), *Physics and Our View of the World*. Cambridge: Cambridge University Press, 114–134.

Stathis Psillos, *Causation and Explanation*. Montreal: McGill-Queen's University Press (2002), xi + 324 pp., \$70.00 (cloth), \$22.95 (paper).

Even though Psillos's latest book is called *Causation and Explanation*, it is actually a unified discussion of causation, laws, and explanation. Despite the fact that these three topics are interconnected, it is rare to have detailed treatment of all of them. Psillos does not really aim at developing and defending his own detailed account of these issues. Instead, the book is best viewed as a textbook that gives a comprehensive overview of the literature on each of these topics and illuminates their interrelations. The discussion includes recent accounts such as Dowe's theory of physical causation and Lange's account of laws and their function in scientific reasoning.

After a discussion of Hume's account of causation, Psillos continues with a review of the current literature on causation. He compares and discusses the major regularity accounts, counterfactual (as well as agency and intervention) approaches, and physical theories of causation, including their motivations and problems. (A discussion of probabilistic causation is omitted because it is beyond the scope of a book of this length that also deals with laws and explanation.) So far the reader is left relatively unclear

about Psillos's sympathies on the issue of causation, which may be viewed as an advantage if it leads to an unbiased assessment of the different theories. The second part of the book is devoted to the discussion of scientific laws. Here Psillos is clear about the fact that he favors a regularity view of laws, more precisely, the Mill-Ramsey-Lewis approach that keeps laws and accidental generalizations apart by claiming that scientific laws are those generalizations that form the deductive axiomatic system of scientific knowledge with the best balance between strength and simplicity. The regularity approaches are primarily contrasted with necessitarian approaches to laws, and their advantages and disadvantages are compared. Other accounts such as laws as inference tickets, laws and capacities, laws and invariance and stability are briefly discussed.

The final part of the discussion concerns scientific explanation and in particular its relation to laws. Psillos surveys the deductive-nomological and inductive-statistical models and the criticisms that were raised against them. At this stage Psillos's views on the relationship between causation, laws, and explanation become clear. He agrees with standard counterexamples that not every inference that conforms to Hempel's deductive-nomological model is an explanation, but he still think that every explanation is some sort of deduction from laws. In fact, Psillos favors a unification approach to explanation such as Kitcher's, which he views as a further development of the traditional deductive-nomological model. His reason is that the unification account of causation fits with the Mill-Ramsey-Lewis approach to laws.

In the last chapter, the relationship between causation and explanation is addressed. Psillos's views are along the lines of Hempel and Kitcher. Explanation is the primary philosophical issue that can be explicated (backed by the prior theory of laws, which a deductivist/nomological approach needs). The account of explanation can in turn be used to explain (and demystify) the notion of causation. Unlike Salmon, Psillos maintains that the ontic notion of causation is best explicated by the epistemic notion of explanation (rather than the other way round). But how can we be sure that any causal fact is actually picked out by the ideal unified deductive system that defines what an explanation is? Psillos is dissatisfied with Kitcher's neo-Kantian move postulating a limit to the rational development of science, so that the causal order is imposed on the world by our ideal theory. Instead of endorsing transcendental idealism, Psillos thinks that one can solve the problem by appealing to realism—the metaphysical claim that world has a mind-independent structure, in which regularities stand in definite relations to each other. The problem is that Psillos proposes this position on the last two pages without offering an argument for it. In general, even though the Mill-Ramsey-Lewis approach to laws and the unification approach to explanation are crucial for Psillos's position, these

accounts are not presented in enough detail that would allow for an assessment of whether they offer a viable theory of laws and explanation. Similarly, no adequate basis for an argument concerning the relationship of explanation and causation is given.

The fact that Psillos's discussion is not detailed enough to provide the basis for a justification of his opinion is not problematic if one keeps in mind that *Causation and Explanation* is intended as a textbook. More important is the fact that the overall treatment is methodologically weak—like many other philosophical accounts on these matters. Psillos does not reflect upon the question of what the point of a philosophical account of causation, laws, or explanations is—explicating the intuitions of philosophers, analyzing the language use of scientists, or giving an account of a concept that is not really used by scientists but that sheds philosophical light on scientific rationality? There may be different answers to this question; but the important point is that a particular answer sets constraints on what counts as an acceptable counterexample or what counts as an adequate account of causation, laws, or explanation, or the causation-explanation relationship. In addition, Psillos does not make reference to scientific practice or the scientific literature. For instance, there might be no satisfactory account of explanation that unequivocally applies both to physics and biology—such a question needs to be settled by a close look at how explanation works in scientific disciplines.

In sum, *Causation and Explanation* gives a relatively detailed overview over a vast body of philosophical literature on the three topics of causation, laws, and explanation. The most fruitful aspect is that Psillos manages to present them in a unified manner that highlights many interesting interrelation between these issues.

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John R. Searle, *Consciousness and Language*. New York: Cambridge University Press (2002), vii + 269 pp., \$65.00 (cloth), \$23.00 (paper).

This collection of papers offers a useful survey of John Searle's views on the two themes that have made him one of the most influential philosopher of the last three decades: how to reconcile our common sense intuitions about consciousness with a scientific view of the world and how to unpack the relationships between intentionality and linguistic behavior. Although designed to display the flow and coherence of a book, *Consciousness and Language* still has the flavor of an anthology, whose primary virtue is to make available to the reader a set of papers that would otherwise be difficult to hunt down.

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