

the notion; define your terms strictly and stick to the definitions, is a two-century old piece of advice, which represents the most profitable line of action.

Prof. Levy's contribution to the study of these problems merits careful attention. It is well fitted, in its clarity of style and in the elementary nature of its exposition, to the needs of the amateur in these matters. Mayhap he may be a trifle bewildered at first, for Prof. Levy's attitude is distinctly not that of the indeterminist school. Indeed, he roundly says that "the interpreters of the new knowledge and understanding, Sir James Jeans, Sir Arthur Eddington, Professor Millikan, General Smuts . . . have almost without exception approached their problems against a background of outworn Idealist Philosophy, none the less significant in its colouring because it has been unobtrusively though tacitly present. The pendulum has swung in the opposite direction. It is a reaction against the confident materialism of a past generation, as dogmatic and as uncritical as was its religious counterpart."

Which is very well; but we could wish that writers of all shades of opinion would furnish themselves with accurate critical and historical knowledge ere they attempt to see the present against the background of the past. What is this "confident materialism" against which an already "outworn Idealist Philosophy" has reacted? If the allusion is to the *Kraft-und-Stoff* movement of the mid-nineteenth century, it must be remembered that its vogue was short, and while sciolists might and did continue to rail against the 'dead mechanism' of the universe described by science, Buchner's book read oddly enough even to a young inquirer of the later eighteen-nineties. Mach and Pearson had already pointed the way to a saner synthesis which is certainly not outworn in the nineteen-thirties.

Scientific methodology—and with this attitude Prof. Levy is, we think, in agreement—is as deterministic, in the philosophic sense, as ever it was. Even the uncertainty principle is envisaged in terms of the mechanical pushes and pulls to which our macroscopic world has accustomed us, and the uncertainty is an uncertainty of the *where* and *when* rather than an uncertainty produced by a breakdown of the law of causality itself.

Such topics, and the deductions therefrom, are of great interest to the present-day world, and the author handles them in vigorous and stimulating fashion. His writing abounds in apt allusion and

illustration, and the chapter on mathematics, which is written in an endeavour to show to those unfamiliar with the science "how mathematical methods are used as an instrument in scientific discovery", is an admirable piece of elementary exposition. His second chapter will be read with considerable interest. It passes the compass of any one man's mind to see as a whole the moving shadow-shapes that constitute his perceptual universe, and, in the nature of the case, whenever he studies a portion of that universe, he must make what the author terms an 'isolate' of it. Such a necessary isolation bears with it philosophical consequences which are discussed in some detail.

One or two minor omissions require notice; it is curious, in such a work, to find no detailed treatment of the terms 'cause' and 'causality'; Heisenberg's name is not indexed, and there is no reference to the uncertainty principle; Mach receives no mention, and Pearson is referred to twice, on topics quite incidental to the major issues.

There is no finality in these matters, and Prof. Levy has contributed but one more term to an unending series; his contribution is, however, both scholarly and important, and will compel the interest alike of the layman and the expert.

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Short Reviews

The Heart of England. By Edward Thomas. (Open-Air Library.) Pp. xvi + 228. (London and Toronto: J. M. Dent and Sons, Ltd., 1932.) 3s. 6d. net.

It would be difficult to conceive of a more apt title to this collection of exquisite open-air essays than that chosen by the author, whose little volume is by its very simplicity and fragrance bound to appeal to many readers, especially of natural history, as being something that will live. The author must indeed have been inspired when he took up his pen to describe with such vivid directness his impressions of the country he loved so well. To use his own words: "You exult because you are alive and your spirit possesses this broad, domed earth."

The book is divided into five parts: "Leaving Town", "The Lowland", "The Upland", "The Mountains", and "The Sea". After reading such a volume as this it is with a feeling akin to consternation to realise that though the first publication was in 1906 it was not reprinted until 1932. English literature indeed lost one whom it could ill afford to spare when Edward Thomas was killed in Flanders during the War.