VI.—CRITICAL NOTICES.

Descartes. By S. V. Keeling. (Leaders of Philosophy Series). London: Ernest Benn, Ltd., 1934. Pp. xi, 282. 12s. 6d.

It is not often that a reviewer can truthfully say of a book that it "supplies a long-felt want". This can honestly be said of Mr. Keeling's book on Descartes. Anyone who has had to lecture on Descartes to English students knows that, whilst there are many excellent books in French on the Cartesian philosophy, there were hardly any in English. So there is no doubt of the existence of the "want". Mr. Keeling is thoroughly well acquainted with the French work on the subject, and he has made a careful study of Descartes' writings for himself. The result is that he has written a book which can safely be recommended to undergraduates and should stimulate lecturers in philosophy to undertake a fresh study of Descartes'

system.

The book is divided into three Parts. Part I., consisting of two chapters, gives an account of Descartes' character and education and of the intellectual background which influenced him and against which he reacted. Part II. expounds his philosophy clearly and sympathetically, with the minimum of criticism. It is divided into six chapters: The Art of Research in Science and Philosophy; Reconstruction in Metaphysics; The Natural World and Our Knowledge of Nature; Body and Mind; Knowing, Knowledge and the Self; and The Self and its Freedom. After reading Part II. it is advisable to pass on at once to chapters x. and xi. in Part III.; for there Mr. Keeling considers the main criticisms which may be made on Cartesianism, tries to answer some of them, and states the defects which he thinks must be admitted. The remaining chapter of Part III., The Cartesian School, deals briefly with Le Roy, Régis, Cordemoy, Geulincx, Malebranche, Arnauld, Spinoza, and Leibniz.

The only criticisms which I have to make on Part I. are the following: (1) On page 40, line 6, it is said that Kepler's laws presupposed that the planets move round the earth. Presumably "the earth" is a slip for "the sun". (2) I am not satisfied with the account given on page 41 of the history of the law of refraction. Mr. Keeling says that Kepler had concluded that "the angle of incidence is proportional to the angle of refraction", and that Snell formulated the true law, which Descartes "seems to have . . . rediscovered ndependently". The facts are as follows. Ptolemy discovered that the angle of refraction is always less than the angle of incidence,

and thought that the two were proportional. The Arabian scientist Alhazen showed that the two are not proportional; but this was forgotten, and, by Kepler's time, most physicists still believed that the two angles are proportional. Kepler showed that this is not the case. He tried to find the true law, but failed, though he formulated a rather complicated approximate rule. Snell discovered the true law about 1621, but expressed it in a geometrical, and not in a trigonometrical, form. Huyghens says that he had heard that Descartes had seen Snell's papers, and he expresses the opinion that Descartes may have got his sine-law from them. So it seems doubtful whether Descartes did anything more in the matter than to express Snell's geometrical law in trigonometrical terms. (The account given above is taken from Whewell's History of the Inductive Sciences, vol. ii.).

Passing to Mr. Keeling's account of Descartes' philosophy in Part II., I would mention the following as important points:

(1) The Method. Mr. Keeling insists that the Regulae throw much more light on the Method than the Discourse does. He points out how important for the whole of Descartes' philosophy is the doctrine of Simple Natures, which is explicitly mentioned only in the Regulae. He shows that the Method presupposes that some knowledge has already been gained and recognised as such without explicit use of the Method, and that it assumes certain propositions about the mind and nature which are established, if at all, only in the metaphysical part of Descartes' system. To justify the Method Descartes must show that there is some genuine existential knowledge, that clearness and distinctness constitute an adequate test of truth, and that the doubt which the fallibility of memory casts on all deductions can be removed. This is the object of his Methodical Doubt. Mr. Keeling gives an excellent account of Methodical Doubt. He points out that it is a deliberately adopted mental attitude, wholly distinct from the passive experience of "feeling doubtful", and that it is quite different from Scepticism, though it might happen to lead to Scepticism.

There are just two comments that I would make on these topics.

(i) On page 64 Mr. Keeling remarks that Descartes regards "probable knowledge" as a contradiction in terms. No doubt it is. But that is no excuse for Descartes' neglect to consider probable belief or opinion in order to see whether there may not be knowledge of the conditions under which beliefs or opinions are more or less probable. (ii) On page 65 Mr. Keeling says that, if two disputants continue to disagree about a proposition after all attempts to persuade each other, this shows that neither of them has knowledge of the proposition. I cannot see that it does. One of the two might be too stupid or biassed to follow the arguments which the other was trying to make him see. And yet every step in the argument might be necessary, and the premises might be necessary, and the other disputant might be seeing this quite clearly himself.

(2) The Cogito. The Cogito is an instance of a proposition which each of us finds it impossible to doubt whenever he considers it. On comparing it with any of the other propositions which have been provisionally rejected we find that it "provides its own evidence of clearness and distinctness, but the others do not". By an act of intuitive induction we pass to the generalisation that clearness and distinctness are an adequate test for truth. Next, the Cogito provides an indubitable existential proposition. Again, it discloses several simple natures, such as consciousness, existence, substance, etc. Finally, it provides certain general principles of connection, which Descartes needs in order to pass beyond the existence of himself.

There are several remarks to be made about this. (i) On page 92, in discussing a criticism made by Gassendi, Mr. Keeling rightly says that the Cogito is not a syllogistic argument of the form: "Whatever thinks exists; I think; therefore I exist". He says that the Cogito itself is the proposition that the singular proposition "I am now thinking" entails the singular proposition "I am now existing". Still, Descartes does assume that he has established the categorical proposition "I am now existing". For this he needs, in addition to the Cogito, the categorical premise "I am now thinking". Thus, it seems to me, there is an inference from the Cogito, though the Cogito is not itself an inference, viz., "I am now thinking would entail I am now existing; I am now thinking (since I am now doubting whether I exist, and doubting is a determinate form of thinking); therefore I am now.existing". I do not know whether Mr. Keeling would disagree with this; for I do not find his own statements altogether clear.

(ii) It is admitted that many highly intelligent people, such as Hume, on contemplating the kind of situation which they record by the phrase "I am now thinking", do not see clearly that it involves as a constituent a certain substance which uses "I" as a proper name of itself. Descartes thought that he could see this clearly. If we accept the general position that such disagreements show that neither party has genuine knowledge of the point at issue, we shall have to conclude that Descartes did not know what he claimed

to know.

(iii) I do not in the least understand how the Cogito justifies by intuitive induction the general proposition that clearness and distinctness are an adequate criterion of truth. Mr. Keeling's phrase "provides its own evidence of clearness and distinctness" is to me unintelligible. The situation seems to be as follows. Before the Cogito step we are supposed to have set aside as doubtful, e.g., the proposition that equilateral triangles are equiangular, although it is perfectly clear and distinct, because we are not yet sure that clearness and distinctness are an adequate criterion of truth. After the Cogito step we are supposed to be justified in accepting this clear and distinct proposition about equilateral triangles. The assumption seems to be that, in the case of "I am thinking entails I am

existing", and in that case only, I can see both (a) that it is trueand (b) that it is clear and distinct. I then make the intuitive in, duction that being clear and distinct entails being true. In the case of "All equilateral triangles are equilateral" (it seems to be assumed) I can see only that it is clear and distinct but not that it is true. The first assumption is needed to explain how we get the criterion, the second is needed to explain why we want it. If this is what Descartes held, it seems to me quite fantastic. I can see that the proposition about equilateral triangles is true just as directly as I can see that the Cogito is true and just as directly as I can see that either of them is clear and distinct.

(iv) I wish that Mr. Keeling could have explained more fully what precisely Descartes meant by the Cogito, for this is far from clear to me. Presumably Descartes did not mean by "I exist" simply that I am an existent, as contrasted, e.g., with numbers, qualities, facts, etc., which fall under a different category. No doubt existence, in this sense, is a simple nature. And no doubt anything that thought (or performed any other action) would necessarily be an existent, in this sense. But it seems certain that Descartes meant more than this by the Cogito. When he said; "I am now thinking entails I am now existing" did he mean: "The fact that this thought of mine is now occurring entails that there is now something answering to the description The Thinker of this thought of mine and that this something uses I as a proper name for itself"? If so, the Cogito is an intelligible and important, but highly doubtful, proposition. In his footnote on page 191, where he refers to McTaggart's treatment of the subject, Mr. Keeling seems to recognise that Descartes'

conclusion, if true, is far from obvious at first sight. (3) God's Existence and Veracity. Mr. Keeling brings out very clearly why it was so important for Descartes to prove the existence of an all-powerful and veracious God. It was not in order to guarantee the criterion of clearness and distinctness, but to guarantee the trustworthiness of our ostensible memory-judgments. Without this we might still know isolated self-evident propositions, while we were actually contemplating them. But we should have no right to accept the conclusions of long chains of reasoning. Nor could we use the conclusions of former deductions as premises in extending our knowledge by further deduction. We could not even be sure of our own existence except at moments when we were actually going through the Cogito process. Lastly, our only ultimate guarantee for believing in the existence of matter is that we have a natural instinct to ascribe our sensations to material causes, and that it would be incompatible with the truthfulness of God to give us this instinct The proofs of God's if in fact he were the cause of our sensations. existence, as distinct from the preliminary explanations of the terms. are short enough to be grasped in a single intuition; so Descartes is not open to the charge of circularity.

Whilst acquitting Descartes of this oft-repeated accusation, Mr.

Keeling does not accept his position. He holds that the arguments for God's existence are invalid. And he points out that, even if they were valid, they would not solve the problem of justifying our ostensible memory-beliefs. For, if they justified any such beliefs, they would presumably justify them all. Yet the actual position is that some such beliefs are found to be false, and we want a criterion for distinguishing those which are true from the rest.

There are two remarks which I will make at this point. (i) In connection with the Method it has always seemed strange to me that Descartes never recommends the expedient which most people do in fact use in order to minimise the risk of slips in long chains of argument. We generally ask other experts to read and criticise our arguments, on the reasonable supposition that their memories and attention are not likely to fail at exactly the same points, if any, at which ours have done so. Descartes' advice that we should go over our own arguments again and again, until we can take in the whole chain at one glance, is of very doubtful benefit. It is like advising a man always to do his own proof-reading, which would be very dangerous counsel.

(ii) I have never been able to see how or why Descartes thinks that he has eliminated the possibility that the sensations which we ascribe to the action of matter on ourselves may really be due to the telepathic action of other *finite minds*. This would acquit God of any direct deception. We know that we can produce images by our own action; images are very much like sensa; and so it is not fantastic to suppose that my sensa are produced in my mind by other minds acting somewhat as I act when I produce images in my own mind.

- (4) Natural Philosophy. Mr. Keeling shows how very different Descartes' view of the nature and evidence of physical propositions is from that of contemporary scientists. Descartes was certain that the only simple natures involved in any physical phenomenon are geometrical and kinematical. The laws of geometry are intuitively evident; the fundamental laws of mechanics are deducible from the existence and perfection of God. Sense-perception sets us certain physical problems, viz., to discover a geometrical-kinematic configuration which will behave as the observed phenomenon behaves. Often we can think of more than one geometrical-kinematic configuration which will answer all the observed conditions. then make more extensive or minute observations, thus further specifying the conditions to be fulfilled, until we have cut out all the hypothetical explanations but one. At this stage we know, in the strictest sense, that the survivor is the right explanation. Senseperception has no other function in physics than to set problems and to eliminate alternative geometrical-kinematic explanations. Keeling recognises that Descartes did not allow himself enough simple natures even for purely mechanical phenomena, and that the laws of mechanics cannot be deduced from the perfection of God.
 - (5) Body and Mind and Secondary Qualities. Mr. Keeling brings

out clearly the hopeless inadequacy of Descartes' system on these two closely connected points. If we start from one side of the system, we shall have to regard a living human being as a pennyin-the-slot machine unaccountably haunted by a ghost. On the other hand, the occurrence of organic and other sensations, with their characteristic sensible qualities, has to be explained. These qualities belong neither to mind nor to matter, and the question arises why one's own and other bodies seem to one's mind to have qualities which in fact belong to nothing. All that Descartes can say on this point is that these appearances are due to the very intimate union of each mind with a certain body. But, if minds and bodies are what Descartes alleges, it is impossible to have any clear idea of this union, and impossible to see how it explains the appearance of sensible qualities. Thus all the complications and obscurities which have been filtered out of the rest of nature by Descartes' sharp distinction between mind and matter, and by his purely geometrical-kinematic view of all matter whether organic or inorganic, accumulate at this point.

One lesson which we seem to learn from studying Mr. Keeling's book and reflecting again on Descartes is the following. At certain stages in the history of human thought a theory which is sharp and clear, but ultimately quite ridiculous from a philosophic point of view, may be useful and even indispensable for the progress of science. This seems to have been the case with the changes in scientific outlook introduced by Descartes and others in the seventeenth century. It should encourage philosophers to look with a charitable eye on the newer nonsense which psychologists, physicists, and other scientists now find useful in their own spheres. But it should not for a moment induce them to forget that it is nonsense; that it is their business as philosophers to point this out to anyone who attempts to make philosophical use of it; and that, by keeping their heads and trying to separate the wheat from the chaff, they are in the long run benefiting both science and philosophy.

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Hobbes. By John Laird. (Leaders of Philosophy Series.) London: Ernest Benn, 1934. Pp. xii + 324 12s. 6d.

PROF. LAIRD'S volume on Hobbes forms a notable addition to the series of studies which Benn's are publishing. The author's intention has been "to enliven an interest in Hobbes that seems less active to-day than it should among British philosophers"; and he may rest assured that it will not be his fault if he does not succeed in doing so. The book is essentially a companion to the study of Hobbes, and Prof. Laird's erudition and scholarship make him exactly the sort of companion one wants in journeying through the vast continent