it. Deductive reasoning has been largely sterile in the past, but the principle of identity has been fecundity itself, and is the vastest principle that we can formulate. It follows that phenomena can never be completely explainable. Kant shows us the true position that agreement between reality and understanding is only partial, scientific knowledge being an admixture of *a priori* and *a posteriori* elements. The admixture is served by the criterion of plausibility —we have a right to speak of things as "explained" in proportion as the mind's predetermination for rationality is satisfied. Mechanism can thus continue to be a guiding principle, for science has never accomplished finite progress except in the direction of mechanistic explanation, and will always remain separated by an infinite distance from the logical conception towards which it tends (annihilation).

Finally, the author returns to examine the two principles of causality and of "lawfulness." Each must be considered as functioning separately, although their action is complexly intermingled.

In the above sentences we have scantily reviewed Meyerson's work. The book has to be read for the depths of its learning and the lucidity of its style to be appreciated. It is not possible to attempt an apportioning of what psychology itself has to say of Meyerson's theory of knowledge. In some respects the best of modern psychology has rather clarified Meyerson's theory in its general aspects; but there is a very important lesson to be learned by inference from Meyerson, namely, that our qualitative principles of cognition are themselves based upon the principle of identity, for is not the infallibility of knowing logically reducible to such a principle? So far as Meyerson's treatment of sensation is concerned, the stark facts are found to be those accepted by psychology; we see sensation many times barred from being reality just as it is. Again, as in physics, so in psychology, the causal untruth in respect of reality does not interfere with rationality—causal relation has been taken to come to awareness eductively.

W. STEPHENSON.

The Nature of Knowing. By R. I. AARON. London: Williams & Norgate, Ltd. Demy 8vo. Pp. 154. Price 7*s.* 6*d.* net.

This work is a shortened thesis which embodies results of six years' epistemological research.

The criterion of knowing of a real world is taken to be infallibility. A search is made for a pure sample of "knowing." First, in the sensory experiences, naïvism, realism, phenomenalism, idealism are reviewed; in one sentence Aaron doubts that sensation is even one amongst many outlets to reality; in another he finds infallible knowing in even the lowest sensory experiences,

namely, in the conviction of "awareness." This latter conclusion, however, "throws little light upon the character of knowing," and the search is continued in the fields of discursive reasoning. Here are raised the problems of (1) prior knowledge of logical principles subserving the reasoning, and (2) prior knowledge of the "stuff," the experiences, with which the reasoning functions. The three laws of thought (non-contradiction, identity, and principle of excluded middle) comprise (1), and these principles are *immediately* apprehended; they are "known" spontaneously. Concerning (2), nominalism, scientific thinking, conceptualizing and pragmatism are discussed; the conclusion that scientific thinking cannot generate new knowledge is dismissed, and "knowing" is exemplified in conceptualizing. The line of argument is *viâ* consideration of the nature of mediate knowledge; there is observed a core of *immediacy* in the syllogism, in inductive reasoning, etc. The outcome is that conceptualizing is shown to be based on knowledge of the real world that is first known in sensation (we find ourselves a little puzzled by the author's previous mention of sensation as *no* outlet to reality!); and that discursive reasoning is the systematization of concepts. Now the latter leads at best only to probability, not to infallibility; but the face of infallibility is saved by the theory that the probable is "part of a vast mediate process towards full and complete knowledge of the real."

Dr. Aaron has now a clear result—the "knowing act," characterized by immediacy, known without question. (The reader will perhaps conclude that the infallibility criterion has had to receive an apologia, but, in very truth, the infallibility must be admitted, for otherwise we are concerned with no real world.) The *immediacy* has been shown in the awareness of sensory experience, in the three logical laws, in reasoning.

But, Aaron continues, what of transcendent knowing, that of the poet, artist, mystic, saint, or genius? The knowing act found in the mundane fields is considered to be essentially the same as that in the transcendental.

The main facts described are valuable, but Aaron fails to abstract the essential laws from his facts. How near a finding is his *immediacy* to Spearman's first great law of cognition—"that every lived experience tends to evoke immediately a knowing of its character and experiencer"! This qualitative law gives the "stuff" for Aaron to buttress his logical laws of thought. "Awareness," however, would not generate new knowledge as considered in reasoning. Here should function the three so-called laws of thought. The reader cannot but observe how little is the contact made with these laws and the items of reasoning considered; it seems that they could be altogether omitted from consideration without affecting Aaron's treatment of reasoning. We would suggest that the further Spearman laws of eduction of relations and correlates would add a new breath of life to Aaron's description of knowing. Finally, it is noteworthy that Aaron sees that memory (reproduction in general) is the source of fallible knowledge.

For the psychiatrist interested in the qualitative laws of

psychology Aaron's work will repay study, especially as an exercise in scientific law formulation, if it is studied together with Spearman's work on the principles of cognition. W. STEPHENSON.

The Nature of Consciousness. By E. R. ROST. London: Williams & Norgate, Ltd. Demy 8vo. Pp. 158. Price 12*s.* 6*d.*

It is a disadvantage that scientific psychology is being conceived at a time when other sciences are well developed. For, by some novice or amateur, the findings of the physical sciences are projected upon psychology, and analogies and speculations are mistaken for scientific theory and facts.

This work on the nature of consciousness, said by the author to be an attempt to "bring the study of psychology within the range of science," is perhaps best described as a mistaken act of devotion. The author is convinced that Buddhism is in absolute agreement with modern science. The first 30 pages give a synopsis of quite irrelevant scientific findings in physics, mathematics and biology, and thereafter (when the physical sciences are outplayed, and the "cyto-architectonics of the human cerebral cortex" are redrawn to a subjective scale) the book becomes largely an introduction to Buddhism. Of scientific treatment of the nature of consciousness there is not one iota.

The author mirrors the vastnesses of astronomy in the Buddhist "Thirty-one Stages of Existence," ranging from Purgatory to the Arupaloka "state of neither perception nor yet non-perception." A two-page table is given, showing "range of variance of the continuity of energy in space-time." Here, at about 10^{-18} metres, following X-rays and γ-rays, are found consciousness-rays. We should be grateful indeed to the author for information concerning the "physical proof" of this enticing speculation, especially the proof "by means of a metallic substance that is influenced in a similar way to the influence of selenium by light," and for details of the photographic experiment hinted at, in which the wave-length of consciousness is measured "by means of rock crystal lenses."

W. STEPHENSON.

The Meaning of Sacrifice. By R. MONEY-KYRLE, M.A., Ph.D. The Hogarth Press. (The International Psycho-Analytical Library, No. 16.) Medium 8vo. Pp. 273. Price 18*s.*

In *Totem and Taboo* Freud takes the sacrifice of the totem animal to be the unconscious repetition of a primeval crime, the killing of the father by his sons. The totem is killed, eaten, and mourned for, as a "repetition and commemoration" of the primeval crime. Money-Kyrle holds this view to be a neglect of the hedonic principle: it postulates a racial memory which blindly repeats the past, whereas