A remaining point is still to be considered. Professor James suggests that not only do we find the foundations of religious experience within the nature of the individual, but also it may be that the object of that experience may differ for each individual; in other words, every man may have his own God, the complement, as it were, of his own religious nature (pp. 525–6). Such a conception would destroy that fundamental unity which is as essential to a science of religion as it is to physical and chemical science. It must be said, however, that Professor James does not subscribe unreservedly to any such doctrine, but suggests it merely as a possibility which at least merits some consideration.

In conclusion, it is a pleasant duty to emphasize the fact that while this volume contains much that may possibly provoke differences of opinion, nevertheless it must be acknowledged that the thought throughout is so fresh, vigorous, stimulating and suggestive, that it will no doubt prove a valuable and permanent contribution to a profounder understanding of religious experience and of human nature.

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The Principles of Logic. HERBERT AUSTIN AIKINS. New York, Holt. 1902. Pp. 489.

Professor Aikins has undertaken a rather difficult task in this little volume. It appears to be a double task. First to write a treatise on logic which shall serve for elementary study in colleges and at the same time to discuss subjects which more properly belong to advanced thought on the subject, and second to deviate somewhat from the traditional conception of logic and its functions. In regard to the former task I do not think that he has improved the subject for college curricula. It is hard enough in any case to get logic respected by colleges, and in the writer's opinion the reason lies in the fact that the science has been made too formal for usefulness, and postponed too late in the course. It ought to follow mathematics immediately to correct the confidence in reasoning which that science inculcates consciously or unconsciously. In that case the simplest formal rules are all that are necessary and the student can then be put to practical examples and made to test his reasoning processes. No discussion of the larger questions of logic and philosophy is necessary. For advanced students of the subject it is different. Professor Aikins hesitates between the two needs and does too much for one and too little for the other.

I do not see that his treatment of conversion and related processes and his view of deduction in any way contributes to a better understanding of logic. It only makes the subject less exact than it really is and serves but to confuse the mind as to the real nature and merits of the traditional logic. The more we discuss about its principles and rules the less likely is the student to accept them for the regulation of practice. All attempts to be original in this science only result in confusion. If the category of quantity is not satisfactory in determining formal logic I am confident that we shall have no definite rules at all by which to measure or determine an agreed standard of correct proof and communication of conviction. Let me take one example to illustrate. On page 194 Professor Aikins gives the following syllogisms with his remarks:

"Five francs are a dollar;
Four shillings are a dollar;
∴ Five francs are four shillings.

The inference is perfectly valid: but if we say in precisely similar form:

"Blades of grass are green:
Frogs are green:
∴ Blades of grass are frogs,

the inference is not valid. The reason, of course, is that the copula 'are' is used in different senses in the two syllogisms."

Now I must contend that in the first instance, according to all intelligible rules of logic the first syllogism is not valid in its inference. You have to supply a special meaning for the terms even to make it appear valid. The formal rule requires us to interpret 'are' according to the simple meaning of that term in all other propositions and not to suppose mathematical equality which it may suggest in such propositions as those in this instance. It is only in formal logic that we can get any general rules whatever. If we are dealing with material logic we have no general principles, except as we can classify them under those of material fallacies, but none whatever would exist for valid reasoning. In fact the difficulty in both Professor Aikins' examples is the same. It is not the truth of the proposition in the conclusion that is concerned, but the validity of the process of getting it, and that must be subjected to the quantitative test, or there is none. It would be merely a matter of individual opinion whether it were true or not and there would be no way to apply *ad hominem* argument.

I would agree that scientific method needs to be considered in the philosophic curriculum, but it ought to be discussed without complicating it with the questions of elementary logic.

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The Elements of Experimental Phonetics. EDWARD WHEELER SCRIPTURE. Yale Bicentennial Publications. New York, Charles Scribner's Sons. 1902. With three hundred and forty-eight illustrations and twenty-six plates. Pp. xvi + 627.

The matter represented in this volume is of a much greater variety than one expects in a book on phonetics. However, the author is certainly right in expressing his opinion that the science of phonetics cannot be confined to a study of the physics and physiology of speech sounds, and that the problems of speech perception, of the psychology of language, of rhythm and verse, etc., can all be treated by experimental methods and must be included. The book, indeed, includes an enormous amount of details, even the most elementary, of every science in any respect related to the problems of speech production and speech perception. And being written in a rather popular style, without entering into any deeper discussion of contradictory theories of these auxiliary sciences, it seems to be written for any one who possesses as much as a high school education. This fact does not, of course, exclude the book from being used also by more specially trained readers. Indeed the extraordinary number of titles of books and scientific articles quoted by the author seems to prove that he had also such readers in mind. He certainly deserves praise for collecting such an amount of material. If, however, the first class of readers will be much benefited by this material in its present form of representation, seems doubtful to the reviewer. Yet this judgment is entirely subjective, and others may disagree with it.

The reviewer, while reading the book, wondered if the author could actually have read all the books and articles quoted. He feels sure that the author has not mentally digested all of them. To the naïve reader the text gives the impression to be the critical decoction of the numerous articles quoted at the bottom of nearly every page. A critical comparison of the text with the notes, however, and the enormous size of the volume too, make one rather believe that the author wrote the text partly from memory, quoting now and then the sources of his information as he remembered them, and mostly by compiling rather uncritical abstracts made by himself and others; and that, hav-