While the content of knowledge is what has happened, what is taken as finished, and hence settled and sure, the reference of knowledge is future or prospective. For knowledge furnishes the means of understanding or giving meaning to what is still going on and what is to be done. . . . When knowledge is cut off from use in giving meaning to what is blind and baffling it drops out of consciousness entirely or else becomes an object of esthetic contemplation."

Certain philosophic schools of method "regard knowledge as something complete in itself irrespective of its availability in dealing with what is yet to be. And it is this omission which vitiates them and which makes them stand as sponsors for educational methods which an adequate conception of knowledge condemns. . . . The doctrine of formal discipline in education is the natural counterpart of the scholastic method. . . . 'Reason' is just the ability to bring the subject-matter of prior experience to bear to perceive the significance of the subject-matter of a new experience. . . . The theory of the method of knowing which is advanced in these pages may be termed pragmatic. Its essential feature is to maintain the continuity of knowing with an activity which purposely modifies the environment. It holds that knowledge in its strict sense of something possessed consists of our intellectual resources-of all the habits that render our action intelligent. Only that which has been organized into our disposition so as to enable us to adapt the environment to our needs and to adapt our aims and desires to the situation in which we live is really knowledge."

This is a very different kind of discussion of the philosophy of education from that which the ordinary book on that subject contains. It is not an attempt to fasten time-honored philosophical terms and classifications here and there upon this or that peg of the subject-matter with which education deals. It is entirely free from the woodenness and empty formality of such a proceeding. Professor Dewey has not tried to make a theory of education to fit into a preconceived system of philosophy. He has tried to think out the problems of education. His style is as simple and direct as his method is fruitful. The book represents the reflection of a lifetime. I am convinced that nowhere in any modern literature is there so profound and vitalizing a discussion of the meaning of education as he offers here.

Ernest C. Moore.

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Fundamental Sources of Efficiency. Fletcher Durell. Philadelphia: J. B. Lippincott. 1914. Pp. 350.

The book is intended by the author to provide a few elemental principles upon which efficiency, now so energetically sought, may be

established. These principles are broad enough to serve as a basis both for the details of an individual's work, for teaching in the schools, and for a philosophy of life. Although the writer found his first inspiration in the philosophy of Herbert Spencer, he acknowledges aid from the writings of such students of efficiency as Taylor, Emerson, and Münsterberg.

A large portion of the book is given to the analysis of the concept of efficiency, and a careful definition of terms. An abundance of concrete illustrations is provided in the text to make each point clear, and every chapter is followed by a group of exercises ranging in number from 20 to 75, intended further to test the reader's understanding of principles. In a later chapter, the "efficients" derived from the preceding analysis are combined. Such combination is illustrated thus: "For instance, in the rotation of crops in agriculture we evidently have the use of the principles of diversity, direction, and rhythm. But these result in other efficiency principles, such as the retention and re-use of farm laborers the year round, the greater re-use of farm machinery, utilization of by-products, the prevention of waste, as by the destruction of insect pests, a uniformity of returns, and many other useful results and agencies" (p. 302).

In the last chapter the author offers a "systematic though brief application of the efficiency methods" to specimen departments of human thought and endeavor. The first application is made to the field of psychology, "since all applications to the world as it is must, in the ultimate analysis, be made by persons." This is followed by applications to the departments of education, sociology, business, art ethics, and religion.

Although the book is intended for general reading, as well as for text-book purposes, careful study is required to get its full value. It should furnish to its readers a much needed check upon the tendency toward the indiscriminate application of efficiency methods, and extravagant expectations of results.

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## JOURNALS AND NEW BOOK

JOURNAL OF EXPERIMENTAL PSYCHOLOGY. December, 1916. Reflex Secretion of the Human Parotid Gland (pp. 461-493): K. S. Lashley. – Experiments reported form a preliminary survey of the conditions affecting the secretion of the parotid gland. Direct reflexes of this gland are excited by mechanical, chemical, and