

HERMANN EBBINGHAUS. *Memory, a Contribution to Experimental Psychology*. Tr. by Henry A. Ruger and Clara E. Bussenius. 1913. New York, Dover Publications, Inc., 1964. xvi, 123 pp. \$1.50.

Reviewed by LAURA KIRCHMAN, *Medical Student, Yale University School of Medicine.*

SOME of the most incisive questions of contemporary psychology may be examined in this Dover reprint of Hermann Ebbinghaus' contribution to memory. The German text was first published in 1885. Here is a reprint of the original American edition that appeared in 1913 and was translated by Henry A. Ruger and Clara E. Bussenius. The organization and texture of Ebbinghaus' argument derive from philosophical issues encountered at the end of the nineteenth century. However, he is not content merely with a philosophical approach to memory, nor does he indulge in literary expeditions to convince one of his points. Instead, he uses his subjective knowledge of memory as a source of general principles to be tested. He asks, is what we presume about memory true? Can these events be re-described in simple experiments? Ebbinghaus shows how the functions of time, repetition, and "succession" affect a person's ability to memorize nonsense syllables. Through the use of nonsense syllables he controls the distraction of previous associations. As well, he seeks to limit gross vagaries of attention and prejudice in the subject, which is himself.

Ebbinghaus was influenced by the methods of physics, and several of his most provocative passages deal with the theory of error as applied to psychological events. Here he emphasizes the dependence of physics on ideal projections and states that in the experiments of physics one is taught to disregard the few extreme values that may be due to conditions which cannot be controlled. In like manner, the infrequent deviations in Dr. Ebbinghaus' experiments might be ignored. Ebbinghaus also discusses how one might be deceived by statistics, since the numerical coincidence of two factors does not necessarily demonstrate a causal relationship between them.

In these experiments, memories are "caused" by external syllabic events. Ebbinghaus was a monist; he assumed a physical continuity between the world, the brain, and the mind. Yet nowhere in this book is there a suggestion of a physiological mechanism or even passing mention of the brain.

WILLIAM W. FORD. *Bacteriology*. 1939. New York, Hafner Publishing Co., 1964. xv, 207 pp., illus. \$2.45.

Reviewed by BRUCE SCHOENBERG, *Medical Student, Yale University School of Medicine.*

THIS volume of the Clio Medica Series fulfills the general stated purpose of these "primers on the history of medicine" to present "in a concise and readable form a number of special phases of the long and complex history that underlies the great edifice of modern medical science." The book discusses the theoretical problems (spontaneous generation, putrefaction, origin of disease, etc.) and technical difficulties (development of optical instruments and adequate staining procedures), the resolution of which was necessary for the further advancement of bacteriology as a science. The life and work of Pasteur, Lister, Tyndall, and Koch, together with the contributions of other well-known investigators whose work had relevance