James McKeen Cattell
(1932)

Psychology, Anthropology, and Philosophy Department Head, Columbia University
Cofounder and Coeditor, Psychological Review, 1894–1903
Editor and Publisher, Journal of Science, 1894–1944
Founder, Psychological Corporation
Founder, Science Press

Chronicles of American educational history struggle with the importance of James McKeen Cattell. He did not found a school of thought. He did not publish works of seminal importance. His name is rarely found in the reference lists of educational research. In fact, he often is portrayed as a supporting cast member to more famous educators and psychologists. He was G. Stanley Hall’s graduate student, John Dewey’s friend and fellow student, and E. L. Thorndike’s professor and tennis partner (Lagemann 2000; Sokal 1971). Nevertheless, Cattell left his mark on American educational history and psychology as an organizer, an executive, and an administrator of psychological science and practice. Few, if any, individuals were more influential in establishing American psychology as a legitimate academic discipline.

Cattell (25 May 1860–20 January 1944) was born in Easton, Pennsylvania to a prominent Presbyterian clergyman and educator, William Cassady Cattell. Cattell’s father was president of Lafayette College, from which Cattell earned his bachelor’s degree in 1880. After he graduated from Lafayette, Cattell traveled to Western Europe to broaden his perspectives before settling down to a yet-to-be-determined career. He headed for Göttingen, Germany, where he met Rudolph Lotze. In Lotze, Cattell found a philosopher with similar interests—one who studied ethics, aesthetics, and particularly the bridging of science and
After traveling to Paris and Geneva, Cattell decided to return to Göttingen to study philosophy under Lotze. To his surprise, however, Lotze had died. Ready to resume formal studies, Cattell turned to his second choice, Wilhelm Wundt, another prominent German whom he heard lecture in Leipzig. Wundt granted Cattell a position working as a laboratory assistant; the first American to hold such a position under him. Still interested in the work of Lotze, Cattell wrote an essay in which he articulated the psychological principles of Lotze's Medicinische Psychologie oder Physiologie der Seele (1852), which earned him a fellowship at Johns Hopkins University. Because there weren't any philosophy professors at the University at that time, he was bestowed this honor by a professor of Latin, who, according to Cattell, "presumably knew even less about philosophy than I did; otherwise he would have named John Dewey" (Sokal 1971, 631).

At Johns Hopkins, Cattell studied under G. Stanley Hall who lectured on philosophy, psychology, and pedagogy (Sokal 1971). Hall's philosophy, though somewhat different from what Cattell had studied in Germany, allowed him to follow his interest in individual behavioral differences. By the end of his first year, Cattell had engaged in a set of experiments that measured mental processes. A competition emerged between Cattell and Hall, which led to the nonrenewal of Cattell's fellowship. Thus, in 1883, he returned to Leipzig to complete his studies with Wundt in an environment more conducive to psychometric investigations. In 1886, he became the first American to publish a dissertation in the field of psychology and completed his Ph.D. under Wundt.

When he returned from Germany, Cattell worked as a lecturer until he was appointed Professor of Psychology at the University of Pennsylvania. His appointment marked the first professorship in psychology in the United States, separate from philosophy (Woodworth 1944). Immediately, Cattell established a laboratory, where he not only conducted research, but also introduced undergraduate students to the methods of experimental psychology. He clearly stated his belief that psychology should align itself with science and divorce itself from its philosophical roots. During this time, he traveled extensively back and forth to England where he was in postdoctoral study with Francis Galton, who, in many respects, created mental testing. While studying with Galton, Cattell solidified
his interest in individual differences (O'Donnell 1985).

While at the University of Pennsylvania, Cattell started an enterprise in which he designed, improved, and simplified forms of psychological apparatus. He manufactured these psychological tools in his shop and distributed them to other experimental laboratories. He continued this production for almost 20 years. He considered it one way to advocate teaching and research in experimental psychology (Woodworth 1944). In 1891, he accepted a new position as Head of the Psychology Department at Columbia University. He established a laboratory at Columbia and eventually developed a premier program for study and research in American psychology.

Cattell was active in the American Association for the Advancement of Science and was part of a small group that started the American Psychological Association (APA). He became a member of the New York Academy of Sciences and, soon thereafter, established a division for Anthropology and Psychology. In 1901, Cattell became the first psychologist to be admitted to the National Academy of Sciences, and was elected President in 1902 of the New York Academy of Sciences. Later in his career, he was elected President of the American Association for the Advancement of Sciences. Shortly after the turn of the 20th century, Cattell began to focus on publishing. In his early years as a research psychologist, he wanted and needed to publish papers, but found no American journals interested in psychological measurement research. Therefore, he published several of his early papers in Wundt's German Journal. This frustration and his commitment to spread the literature of the sciences led him into an active publishing and editing career. He purchased the journal Science from Alexander Graham Bell, which eventually became the official publication of the American Association for the Advancement of Sciences. He founded the Psychological Review, and purchased and began publishing Popular Science Monthly. In 1915, he started a weekly publication called School and Society. With this journal, he worked in applied psychology as it related specifically to the growing educational system in America. He founded the Psychological Corporation in 1921 as a publisher/producer of content and materials for psychological measurement. It continues today as one of the leading publishers of testing materials. In 1906, he began to publish a set of reference works called American Men of Science & Leaders in Education. This publication continued until late in his career as a tribute.
From the beginning of his career in psychology, one of Cattell's goals was to have psychology viewed on the same level as the physical and life sciences. In 1890, he wrote, "Psychology cannot attain the certainty and exactness of the physical sciences, unless it rests on a foundation of experiment and measurement" (Cattell 1890, 373). He later stated in his presidential address to the American Psychological Association, "In the struggle for existence that obtains among the sciences psychology is continually gaining ground" (Cattell 1896, 1). His use of statistical methods and quantification developed American psychology into the realm of experimental science. Through his organizational advocacy, his research methods, and his career as a publisher and editor of numerous publications in the field, Cattell left his mark upon American education in general and the practice of educational psychology in particular.

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References


