

Sir Cyril Lodowic Burt

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Sir Cyril Burt

(1883–1971)

Sir Cyril Lodowic Burt, M.A., D.Sc., D.Litt., LL.D., was one of the world's great psychologists. In his 89th year, he died suddenly and unexpectedly of natural causes, in London, on October 10, 1971. He was Professor of Psychology, University College, London, from 1931 to 1950 and since then Professor Emeritus. For over 50 years he was the leading figure in Britain in the applications of psychology to education and the development of children and to the assessment of mental qualities.

Burt was born on March 3, 1883 in Westminster, London. His father was a medical doctor and physician to the Galton family. Auspiciously, Burt as a young man came under Sir Francis Galton's personal influence, which inspired Burt's lifelong interests in the study of heredity and mental measurement.

Though he came from a family of modest means, the young Burt found a series of excellent educational opportunities opened to him by the winning of scholarships. He was a classical scholar at Jesus College, Oxford, where he also majored in mathematics and studied other subjects relevant to his later career: psychology under William McDougall, biology and genetics under J. S. Haldane, and statistics with Karl Pearson. While at Oxford he was elected John Locke Scholar in Mental Philosophy. Then, after a period of psychological research and study with Külpe at the University of Würzburg, he returned to England to become Robert S. Woodworth's successor as an assistant to Sir Charles Sherrington, the famous neurophysiologist, at Liverpool University, where Burt also served as a lecturer in experimental psychology. After four years in that position, at the age of 29, he became a lecturer in experimental psychology at Cambridge. (One of his students there was the late Sir Frederick Bartlett, also one of England's most eminent psychologists, who, incidentally, authored Burt's biography for the *Encyclopedia Britannica.*) Little more than a year later Burt was summoned to London as research psychologist to the London County Council, a position he held from 1913 to 1932. In this he was the first psychologist appointed to an education authority anywhere in the world. His duties were explicitly to serve the schools of London through psychological and educational research and services. His 19 years in this position (during the last 12 of which he was also Professor of Educational Psychology in the University of London)

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were highly productive, resulting in a number of now classic large-scale pioneer studies summarized in books by Burt such as *The Distribution and Relations of Educational Abilities* [1917], *Mental and Scholastic Tests* [1921], *Handbook of Tests for Use in Schools* [1923], *The Young Delinquent* [1925], *The Subnormal Mind* [1935], and *The Backward Child* [1937]. Some of these works (especially 1937) have a Rolls-Royce quality and durability as research monographs which make them still very worthy of careful reading by students of psychology and education. Also during this period Burt was the originator of group tests of intelligence and objective tests of scholastic aptitudes and attainments. He created the English version and standardization of the Binet scale and did the first factor analyses of the Binet. His work in this field thus slightly precedes and parallels that of Lewis M. Terman in America. Burt was the father of the National Child Guidance Clinics established throughout England in the 1920's. He introduced vocational selection and guidance practices in the National Institute of Industrial Psychology, under whose commission he wrote his *Study in Vocational Guidance* [1926]. During the war Burt pioneered the applications of psychology to military problems in Britain's armed forces. It was mainly for these activities during Burt's association with the London County Council that he received the honor of knighthood in 1946, the first British psychologist to be accorded such recognition. In 1950 he was elected a Fellow of the British Academy and since received many other honors and awards.

In 1931 Burt succeeded Charles Spearman in the Chair of Psychology at University of London, where he remained until his formal retirement in 1950. Among the better known of his students are Peter Broadhurst, Raymond B. Cattell, Hans J. Eysenck, Ardie Lubin, William Stephenson, and Charles Wrigley.

At University College Burt carried on and developed the psychometric traditions of the London school begun by Spearman. Burt went beyond Spearman's two-factor theory of mental abilities, which proved much too simple to comprehend the growing data concerning the structure of mental abilities; Burt developed a hierarchical model of abilities, in which each ability subdivides into a number of subabilities each of lesser generality. In this work he, along with L. L. Thurstone and Sir Godfrey Thomson, was in the forefront in the development of multiple factor methods. He summarized his major theoretical and methodological contributions to factor analysis in *The Factors of the Mind* [1940]. With a strong background of training in mathematics and statistics, and through close association with Karl Pearson and Sir Ronald Fisher, Burt was always in the vanguard of the development and application of quantitative methods in psychology. He was probably the first to introduce psychologists to the analysis of variance and to note its applications to the theory of mental tests and the estimation of reliability. In 1947, with Sir Godfrey Thomson, Burt founded the *British*

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Journal of Statistical Psychology, of which he remained chief editor (and to which he was a prolific contributor) until shortly before his death.

Burt was a prodigious researcher and writer—the British counterpart to America's E. L. Thorndike (who, incidentally, befriended Burt early in his career). Burt's score of books and more than 300 scientific publications span 63 years, with hardly any slackening of his productivity throughout the 21 years since he retired. Some of his most important contributions were published in his later years. At the time of his death he was engaged in several projects, including a book on the nature and genetics of mental abilities.

This is the work that will most probably secure Burt's place in the history of science: his pioneer research on the inheritance of mental ability. He brought to this study the then new concepts and methods of quantitative genetics developed by Fisher. Nowhere in the literature of human genetics are Fisher's formulations of polygenic analysis more clearly explicated or more impressively applied than in Burt's many important papers in this field. Through studies of twins and other kinships, consisting of larger, more representative samples than any other investigator in this field has ever assembled, Burt analyzed the variance in a variety of mental test scores into a number of genetic and environmental components and their interactions and obtained quantitative estimates of the relative importance of each of these sources of variance in mental ability. These studies, since corroborated by more recent investigations, scientifically established that genetic factors are the predominant cause of individual differences in mental ability.

What sort of man was Burt personally? Undoubtedly he had strong views and opinions, and at times he could be quite combative intellectually in defending them. He was devastating in debate. One would be rather hard put to characterize Sir Cyril, even in his late eighties, as "mild" or as a "grand old man." Nor would he have liked such an image. He had a keenly critical disposition and was quick to point out one's intellectual lapses and to relentlessly pursue an argument. Those who disagreed with him were not let off easily. I was priviledged to have become quite well acquainted with Sir Cyril in his later years and to have had many visits and conversations with him. He was most generous. (The photograph in this journal, which is the very last picture of Sir Cyril, was taken by the writer on September 6, 1971.) The overall picture that Sir Cyril leaves in one's memory, after corresponding with him, seeing him, and conversing with him, is very clear indeed. Everything about the man—his fine, sturdy appearance; his aura of vitality; his urbane manner; his unflagging enthusiasm for research, analysis, and criticism; even such a small detail as his firm, meticulous handwriting; and, of course, especially his notably sharp intellect and vast erudition—all together leave a total impression of immense quality, of a born nobleman.

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