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Born: February 16, 1822, in Birmingham, UK.
Died: January 17, 1911, in Surrey, UK.

Sir Francis Galton (knighted in 1909) and Charles Darwin were grandsons of Erasmus Darwin, Darwin by first wife, Mary, and Galton by second wife, Elizabeth [3]. After an unsuccessful stint in the medical school of Kings College, London, Galton enrolled at Trinity College, Cambridge, and studied mathematics. Instead of working for honors, a 'breakdown' that he attributed to 'overwork' justified taking a 'poll degree' [4]. Nevertheless, Galton's intellect (estimated IQ of 200; see [6]) and inherited financial independence enabled him to become so accomplished that in his obituary in *Nature* he was ranked among such leading nineteenth-century British scientists as Darwin, Kelvin, Huxley, and Clerk-Maxwell [1].

Galton had more than 300 publications including 17 books (see [4, Appendix III]) with *Hereditary Genius* [5] being one of the most important. He later regretted using the term 'genius', preferring instead a statistically defined 'eminence'. His honors, interests, and inventiveness ranged widely. He received a gold medal and fellowship in the Royal Society for his geographical explorations in Africa. Fundamental contributions in meteorology included weather mapping and establishing the existence of *anti-cyclones*, a term he coined. He constructed methods for physical and psychological measurement, including composite photography of faces, in anthropology. He developed ways to identify and compare fingerprints as used in identification/investigation today. He did pioneering studies of mental measurement in psychology. He studied the efficacy of prayer, and introspected his self-induced worship of idols and self-induced paranoia. His inventions included a supersonic whistle, diving spectacles, and a periscope for peering over crowds.

In genetics, although he erred in adopting Darwin's views of genetic blending, Galton anticipated Mendel's work on particulate inheritance, including the distinction between **genotype** and phenotype (which Galton termed *latent* and *patent*). He was the first to use twins in investigations of morphological and behavioral genetics. He coined the term *eugenic*, and most of his work in genetics was done to support programs to foster human eugenics. Although much tainted today, eugenics was widely popular in Great Britain, the United States, and elsewhere during Galton's time, and, of course, it persists in milder forms today (standardized testing for university admissions, scholarships, etc.).

Galton's contributions to statistical theory and methods were primarily in conjunction with genetics and psychology. He reversed the usual applications of the Gaussian Law of Errors to reduce variability and, instead, emphasized the importance of variability itself, which led to new directions for biological and psychological research [6]. In 1877, Galton published a numerical measure of 'reversion' or 'regression' to express relationships between certain parent–child physical characteristics. Plotting such data graphically led to his publication (1885) of the 'elliptic contour' (see graph in [5, p. 191]) and that led directly to his 1888 paper, 'Co-relations and their measurement, chiefly from anthropometric data' (see [5]). This paper provided the first means to calculate a coefficient of correlation.

Galton used the 'r' from his earlier work on 'regression' to symbolize the correlation coefficient, and he introduced the familiar way of expressing such coefficients as decimal fractions ranging from -1.0 to $+1.0$. However, he used the interquartile distance as his measure of variation, which would be replaced by the standard deviation in Karl **Pearson's product-moment correlation coefficient**.

Galton's legacy in genetics and statistics was carried forward by his friend Karl Pearson in the following ways: first, they combined Galton's Eugenics Record Office with Pearson's Biometric Laboratory to establish the Galton Laboratory at University College, London. Galton then provided funds to establish the journal *Biometrika*, and by his will following his death, he funded the Galton National Chair in Eugenics. He expressed his wish, which was honored, that Pearson be the first such professor [2]. As holder of the Galton chair, Pearson formed a department of genetics and statistics, a legacy that remains today as two separate departments in University College, London [7].

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