Elderton, Ethel Mary

(1878–1954)

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Elderton, Ethel Mary (1878–1954), statistician and eugenicist, was born at Rectory House, Parsons Green, Fulham, London, on 31 December 1878, the eldest of four daughters and third of eight children of William Alexander Elderton (1839–1890), a Cambridge graduate who became a private tutor in Bayswater preparing pupils for army entrance and the civil service exams, and his wife, Sarah Isabella, *née* Lapidge (1852–1931), who, after her husband's death, took charge of a local school to support the family. Ethel's three sisters all became schoolmistresses. Her elder brother Sir William Palin Elderton (1877–1962) became an actuary, was president of the Equitable Life Assurance Society, and wrote a number of works on statistical problems. Another brother, Sir Thomas Howard Elderton (1886–1970), took a first in the Cambridge mathematical tripos and became chairman of the Calcutta Port Trust.

Ethel Elderton attended Streatham High School before, in 1895, enrolling at Bedford College, London, where she was taught by Alice Lee, a student and employee of the biostatistician Karl Pearson. Although she passed the London University matriculation examination in 1897, she did not take a degree, and became a schoolmistress, living with her widowed mother and siblings in Streatham. In 1905 Lee, convinced that Elderton had great potential as a mathematician and impressed by her interest in eugenics, recommended her to Pearson for a clerkship in the recently established Eugenics Record Office at London University.

Interest in eugenics had grown in Britain during the first decade of the twentieth century, thanks in large part to a public outcry about the poor physical condition of many working-class volunteers for the army during the Boer War. The eugenics movement was diverse, with conservatives and radicals alike seeing biology as a source of support. This intellectual heterogeneity helped create opportunities for women who wanted a career in science. Pearson, a eugenic feminist, believed that women played an essential role in evolution and supported causes like female suffrage. Five out of the fourteen workers in Pearson's Galton Eugenics Laboratory—formed out of the merger of the Galton Laboratory, the Eugenics Record Office's successor, and Pearson's own Biometric Laboratory at University College, London (UCL)—were women, though more cynical observers suggest that the low wages—£100 per annum—that it was acceptable to pay women, who were not thought to have dependants to support, made it easier to employ such a recruitment policy.

Elderton became one of Pearson's 'insider' students (MacKenzie, 109–10), spending the rest of her career in the institutions that existed to promote his biometrical view of evolution and eugenics. She worked on what Galton had called the 'Golden Book of Thriving Families', a eugenic history of distinguished British families, and a project on fingerprints, which Galton believed might identify talent and ability. In 1906, when the Eugenics Record Office became the Galton Laboratory, she was promoted to be assistant to Edgar Schuster, the first Galton fellow in national eugenics. After much prompting from Pearson, who considered her one of

the best statisticians in his pay, she was made a Galton scholar in 1907. She was later a Galton fellow. She was distinguished among her colleagues for being appointed to a permanent post, assistant professor of eugenics at UCL, in 1909.

At each step, Elderton was able to conduct her own original research. Her most important work was done during the ten years after she joined the Eugenics Record Office. *A First Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring* (1910), on which she collaborated with Pearson, was important but controversial. It was widely believed that parents' alcohol consumption, particularly by mothers when pregnant, had a negative impact on their children's physical and intellectual prospects. Elderton argued that there was no statistical evidence to support the claim that the children of heavy drinkers were of lower intelligence, for example, than those of parents who were not, though she and Pearson were persuaded that alcoholism itself was inherited. Many critics, including leading members of the Eugenics Education Society, such as Montague Crackenthorpe, refused to accept these conclusions, believing they were contradicted by common sense observation and highlighted the limitations of statistics. *A Second Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring* (1910) followed in response.

Declining fertility, specifically evidence suggesting working-class reproduction was outstripping that of the middle classes, was an issue that grew in importance for eugenicists during the early twentieth century. Elderton's *Report on the English Birthrate, Part I: England North of the Humber* (1914) was based on statistical analysis of fertility trends and apparently direct testimony from hyphenate people about their knowledge and experience of contraception. The study was deeply influential, helping to establish a theory about the importance of contraception in lowering the birth-rate, with the 1870s seen as the key decade for the dissemination of information. The study was widely cited, including by the National Birth-Rate Commission, which reported during the First World War, but it has been suggested (Szreter, 399–402), that the study was flawed, with evidence actually derived from hyphenate hearsay and gossip.

Elderton wrote or co-wrote a number of other widely read but now lesser-known of the era's works on eugenics, including *Primer of Statistics* (1909), co-written with her brother William Palin Elderton, who had also worked for Pearson and was on the Eugenics Laboratory's advisory board, and *The Relative Strength of Nurture and Nature* (1909). She was highly regarded, not least by Pearson himself, who considered her central to the work done in his laboratory, and was awarded the Weldon memorial prize in 1919 for contributions to biometric science. As one of Pearson's most trusted associates, Elderton also helped edit *Annals of Eugenics*, when it was founded by Pearson in 1925. In 1931 she was promoted to a readership in the University of London. She retired in 1933. She never married, and died on 5 May 1954 at the Stanboroughs Hydro nursing home, Stanborough Park, near Watford, Hertfordshire.

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- b. cert.
- d. cert.

Wealth at Death

£13,152 4*s.* 9*d*: probate, 6 Aug 1954, *CGPLA Eng. & Wales*