The Case of Sir Cyril Burt

Cyril Burt was considered one of the most important psychologists in England. Until his retirement in 1951 at the age of 68, he held a Chair of Psychology at University College, London. He was the first psychologist to be knighted, and in 1971, shortly before his death, he was awarded the Thorndike Prize by the American Psychological Society.

Best known for his study of intelligence with twins separated at birth, he argued that intelligence was highly heritable. Burt collected most of his data between 1913-32 when he was a research psychologist for the London educational system. According to his work, intelligence is more than 75% fixed by inherited capacities.

Burt’s work was influential in England and the United States. In England he served as a consultant on several blue-ribbon committees that restructured the English educational system after World War II. The crux of the system was a test, called the 11-plus exam, given to children at age eleven. The results determined whether children were assigned to a higher- or lower-quality education. After his retirement from University College, London in the 1950’s, the selective educational system of education came under heavy criticism. In defense of his hereditarian view of intelligence Burt produced a series of articles with striking new evidence not hitherto reported from earlier work when he was the psychologist for the London school system. He claimed it had been updated by his co-workers, Miss Margaret Howard and Miss J. Conway. Nevertheless, in 1969 the 11-plus exam was abolished in England and replaced with a comprehensive system. Not to be outdone, Burt published an article purporting to show a decline in educational standards since the 1969 change.

Meanwhile, the Burt’s new twin data attracted the attention of hereditarian psychologists in the United States. In a much debated paper published in 1969, in the Harvard Educational Review, Arthur Jensen of the University of California argued that since genetic factors determine 80% of intelligence, as Burt had shown, educational programs that addressed the lack of success in lower-class black and white children were useless and should be discontinued. Another psychologist, Richard Herrnstein of Harvard, in a 1971 article in The Atlantic relied heavily on Burt’s twin studies when he proclaimed “The measurement of intelligence is psychology’s most telling accomplishment to date.” When Burt died in October 1971, at the age of eighty-eight, his theories were at the peak of their influence in the United States even though educational policy in England had turned away from them.

All in all Burt was a well-respected and influential psychologist, but after his death in 1971 his research came under increased scrutiny, suggesting that he manufactured much of his data and mislead others about his research. In 1972 Burt’s papers came to the attention of Leon Kamin, a Princeton University psychologist. Kamin noticed a number of irregularities in Burt’s published papers. His papers lacked methodological data such as the sex of the children tested, the types of tests used, and a lack of substantive results. In addition, Kamin noted that the number of pairs of twins used in Burt’s studies was curious: Burt first reported using IQ tests performed on 21 pairs in 1955, 30 pairs in
published data from 1958, and 53 pairs in his final paper of 1966. Besides a curious increase in subjects from tests performed thirty years earlier, the correlation coefficients for the different number of twins were exactly the same, to three decimal points: 0.771 for separated twins and 0.994 for twins reared together; an amazing coincidence in numbers not easily explainable by chance. Thus, Kamin concluded that Burt had “cooked” his data in order to arrive at the conclusion he wanted.

Further evidence came to light by 1976, when his two collaborators, Miss Margaret Howard and Miss J. Conway, who Burt claimed helped him update the twin data, could never be traced. However, the names Howard and Conway did appear in the pages of the *Journal of Statistical Psychology* as authors of book reviews praising Burt’s work. At the time Burt was the editor of the journal, and no additional reviews under the name Howard or Conway appeared after he stepped down as editor. Those familiar with Burt’s writing style claim that the reviews by Howard and Conway bear the unmistakable style of Burt himself.

In 1978 a close analysis of Burt’s work by Dorfman of the University of Iowa concluded that Burt’s data “were fabricated from a theoretical normal curve, from a genetic regression equation and from figures published more than 30 years before Burt completed his surveys.” What is amazing is that Burt’s findings were never seriously challenged during his lifetime. It wasn’t until after his death that charges of fraud were raised and substantiated. Esling (1982) concludes, “Burt’s crime is the very plausibility of his fiction which was manufactured to feed his, and our prejudices… for heritability.”

**Discussion Questions**

1. The case of Cyril Burt has been a controversial one, but given the description in this case study do you think Burt is guilty of research misconduct (as defined by ORI)? Why or why not?
2. Burt’s research had obvious applications to public policy in education. Assuming that Burt was not intentionally trying to mislead the public on these matters, what aspects of his research do you think should have come under close scrutiny? Was it simply politics or persuasive science that resulted in the adoption of Burt’s findings on IQ for education policy? How does this bear on contemporary debates?
3. Does the fact that Burt’s findings were never seriously challenged during his lifetime suggest that closer scrutiny of his work, during his lifetime, should have been undertaken? How might this apply to contemporary circumstances?
4. What features of the Cyril Burt case give you cause to be concerned about ethical research practices? For example, during his lifetime there was no internet, and thus no immediate and global way to respond/discuss his research. Does the presence of the world wide web pose problems or promise for conducting responsible research?
Sources or Further Reading