

Christopher Badcock

Eugenics

Book section

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Author's note: The following text was submitted by me in response to an invitation to contribute to K. Christensen and D. Levinson (eds) *Encyclopedia of Community: From the Village to the Virtual World*, (Great Barrington, MA: Berkshire Publishing, 2003) and appeared in Volume 2 on pages 469-70. However, the published text was amended and added to without my knowledge or permission and to that extent should not rightly be attributed to me, but to the editors. The text that appears here, however, accurately reflects my contribution.

Eugenics

The word *eugenics* was coined in 1883 by the British writer and pioneer of statistics, Sir Francis Galton (1820-1911), and defined as the improvement or repair of the qualities of future generations, either physically or mentally. For Galton, the chief criterion of improvement was 'civic worthiness', or the value of a person to the community. Galton understood worthiness to include 'physique' (including good health), 'ability' and 'character,' and in his *Hereditary Genius* of 1869 argued that 'eminence' in lawyers, statesmen, scientists, writers, musicians, scholars – and even wrestlers – was hereditary.

Eugenics (coined from the Greek for 'well bred') implied the antonym *dysgenics* ('ill bred'). According to Galton, who was a cousin of Charles Darwin (1809-1883), civilization diminishes the rigor of natural selection or 'survival of the fittest' and preserves the unfit who otherwise would have perished. The leading biologist, Sir Julian Huxley (1887-1975) president of the British Eugenics Society 1959-62, held that 'the elimination of natural selection is largely... rendered inoperative by medicine, charity, and the social services'. According to the philosopher, Bertrand Russell (1872-1970) speaking in 1930, 'There can be no doubt that the civilization produced by the white races has this singular characteristic, that in proportion as men and women absorb it, they become sterile... At the present, the most intelligent sections of the Western nations are dying out' (Lynn 2001, 21, 23).

Such views were widely held in the first half of the twentieth century on both sides of the Atlantic and of the political divide. The British Fabian Socialists Beatrice & Sidney Webb carried out research in the 1890s confirming the high fertility of the 'improvident': the 'degenerate hordes ... unfit for social life'. In the USA, Margaret Sanger (1883-1966) advocated birth control for eugenic reasons, and a British follower declared, 'more children from the fit, less from the unfit – that is the chief issue of birth control' (Lynn 2001, 33).

A distinction is often made between *positive* and *negative* eugenics. Negative eugenics describes the attempt to prevent the birth, growth and development of individuals with undesirable traits. According to Galton, 'stern compulsion ought to be exerted to prevent the free propagation of the stock of those who are seriously afflicted by lunacy, feeble-mindedness, habitual criminality, and pauperism.' (Lynn 2001, 12). In the twentieth century, the most notorious examples of this were the programs of compulsory sterilization seen in many countries such as the USA (60,000 sterilizations up to 1970: half mentally-retarded, half criminals and insane), Sweden (60,000 1934-76, or 1 per cent of the total population), Japan (16,500 women 1949-95) and Nazi Germany (300-400 sterilized up to 1939).

Positive eugenics describes programs designed to encourage the birth, growth and development of the most desirable individuals. According to Galton, it would be as easy to produce 'a gifted race of men' through 'judicious marriages' as it had been to produce dogs, race horses or any other type of domesticated animal through selective breeding. However, Galton's comments were made before the true basis of genetics was known and, with the benefit of twenty-first century hindsight, started from a number of false assumptions.

Most importantly, Galton and all other eugenicists prior to the 1970s made the fundamental error of believing that heredity is a means by which nature reproduces organisms. Today we know that fundamentally the truth of heredity is the exact opposite of this apparently obvious situation: organisms evolve to reproduce their DNA (the organic polymer that is the biochemical basis of heredity), not DNA to reproduce the organism. The consequence is that human males, for example, die more readily than females at all ages thanks mainly to the effects of testosterone: a sex hormone which reduces 'fitness' in the sense of shortening life expectancy by suppressing the immune system and increasing risky and aggressive behavior but which is also a key element in promoting true Darwinian fitness: the reproductive success of the individual's genes. Males without testes live longer, but cannot reproduce, and so are of no use to evolution!

Again, Galton's eugenics was based on the false assumption that natural selection operates to improve and perfect the species, so that genetic traits can be readily classified as good for the species or bad for it. In reality natural selection is simply the survival of some genes at the expense of others, and sometimes a gene can be harmful to one carrier, but beneficial to another. Here the classic example is sickle cell anemia, which is fatal if inherited from both parents but which confers resistance to malaria if inherited from only one. Once the true facts of such patterns of inheritance began to become appreciated in the mid-twentieth century, much of the scientific enthusiasm for eugenics began to ebb away. At the same time, a much more individualistic and pluralistic view of human rights began to make authoritarian state intervention in individuals' reproductive lives much less acceptable than it had been earlier.

Fundamentally, eugenics highlighted the inevitable clash of interests which comes about when the community as a whole seeks to over-ride the rights of its individual members in the alleged best interests of all. From the point of view of biology and genetics, modern insights have revealed that no such best collective interests exist, and present-day attitudes to the individual's rights make it controversial to enforce them even if they did.

Nevertheless, in a more individualistic and voluntary manner, what is essentially eugenics continues to be practiced in the form of termination of pregnancies involving early-diagnosed fetal abnormalities such as spina bifida or Down syndrome. Another example might be screening for Tay-Sachs Disease, the best-known Jewish genetic disorder, of which one in thirty American Jews is a carrier. Although incurable, a simple blood test can establish who are carriers, and thus the likelihood of having an affected child if a couple marry. By 2002, 38,000 carriers had been confidentially screened and an unknown but probably significant number of Tay-Sachs fatalities avoided in a voluntary program which epitomizes the modern, humane alternative to classical eugenics.

Christopher Badcock Ph.D.

Further Reading

- Burley, J. (Ed.). (1999). *The Genetic Revolution and Human Rights*. New York: Oxford University Press.
- Carlson, E. A. (2001). *The Unfit: a history of a bad idea*. Cold Spring Harbor, N.Y.: Cold Spring Harbor Laboratory Press.
- Dawkins, R. (1989). *The Selfish Gene* (Second ed.). Oxford: Oxford University Press.
- Galton, F., Sir. (1869). *Hereditary Genius: an inquiry into its laws and consequences*. London.
- Hamilton, W. D. (1996, 2001). *Narrow Roads of Gene Land* (Vols. 1 & 2). Oxford: W. H. Freeman/Spektrum.
- Keynes, W. M. (Ed.). (1993). *Sir Francis Galton, FRS: the legacy of his ideas* (Proceedings of the twenty-eighth annual symposium of the Galton Institute, London, 1991). Basingstoke: Macmillan (in association with the Galton Institute).
- Kevles, D. J. (1986). *In the Name of Eugenics: genetics and the uses of human heredity*. Harmondsworth: Penguin.
- Lynn, R. (1996). *Dysgenics: genetic deterioration in modern populations*. Westport CT: Praeger.
- Lynn, R. (2001). *Eugenics: a reassessment*. Westport, Connecticut: Praeger.
- Peel, R. A. (Ed.). (1998). *Essays in the History of Eugenics* (Proceedings of a conference organised by the Galton Institute, London, 1997). London: Galton Institute.