

## Book Reviews

Searle. Marion Louisa Piddington was a “strong” eugenicist and a pioneer in sex education. John Charles Eldridge was a “weak” eugenicist with radical political views who promoted positive and environmental eugenics. Lillian Elizabeth Goodisson, a “medical” eugenicist (with a syphilitic husband), was the stalwart secretary of the Racial Hygiene Association of New South Wales, which became the modern Family Planning Association. Henry Twitchen was a wealthy landowner in Western Australia, whom she classifies as a “career” eugenicist. Wyndham reveals, citing the Aboriginal author Sally Morgan’s best selling book, *My place* (1987), that Twitchen had a close relationship with Morgan’s destitute grandmother, Alison Drake-Brockman, who petitioned unsuccessfully to the executor of his will for an allowance. His fortune went to the Eugenics Education Society in London.

The discussion of organized eugenics which follows is comprehensive and based on extensive research using primary sources. Wyndham is prepared to be more interpretative here than elsewhere in the book. She shows how Australian eugenicists were few in number, isolated from each other, the international movement and to some extent other scientists. This led to at best a lack of co-operation, and at worst destructive in-fighting, as occurred between the Racial Hygiene Association of New South Wales and the Eugenics Society of Victoria.

This fact-packed book then returns to describing how themes common to eugenics around the world played out in Australia. A chapter on boosting the population shows there was concern about relying on immigration for population growth. In Australia, as in the home country, there was concern about degeneracy; however, Wyndham suggests that in Australia fear of an underclass was much less a factor than in Britain. She also makes the point that in Australia negative eugenics was much less developed than internationally. Although there were some practices in some government services aimed at eliminating the unfit, no laws were passed.

In terms of her stated aims this book provides a convincing account of how the desire to populate

the new country was influential in the acceptance of eugenics. Wyndham shows that eugenics in Australia was derivative, but distinctive.

However, this idea could have been developed more conclusively. With regard to her important proposition that eugenics was influential in the development of the Australian health services, Wyndham relies heavily on the field of family planning, the subject of her previous book, and neglects the history of eugenics in public health.

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**Elof Axel Carlson, *Mendel’s legacy: the origin of classical genetics*, Cold Spring Harbor, Cold Spring Harbor Laboratory Press, 2004, pp. xix, 332, illus., US\$45.00 (hardback 0-87969-675-3).**

According to many commentators the twenty-first century will be the age of genetic medicine. This is often regarded as the spill-over of genetics to the life sciences and into medical and public domains. It is therefore of special interest that the American geneticist and historian of science Elof Axel Carlson presents us with a detailed history of classical genetics from the rediscovery of Mendelism in 1900 to the genesis of molecular biology and the DNA-model in the 1950s.

In this study, the author brings along his own background as a former pupil and biographer of one of the protagonists of the story, Nobel prize winner Hermann J Muller. Carlson starts out with the development of evolution theories, cytology, embryology, chromosome theories, plant and animal breeding, and Mendelism in the nineteenth century. He resolutely opposes any attempt to explain science in sociological, political, or historical contexts. In his presentation, the history of classical genetics is a history of “winning the facts” by the use of scientific experiments. This perspective enables him to give us a straightforward story, beginning with Thomas Hunt Morgan’s classical fruit fly experiments at Columbia University. Carlson spices his story with biographical detail and

offers a look behind the scenes of the practices and politics of science. He does emphasize the importance of an institutional context: the twentieth-century American university system with its strict division between the life sciences and medicine. In Carlson's view this enabled American biology, unencumbered by older traditions, to develop reductionist experimental approaches and become top in the field internationally. A deeper exploration of this thesis might have been profitable. As Evelyn Fox Keller has suggested, in classical genetics the gene became *the*, and not *a* basis for life. In this sense we could view classical genetics more profitably as the winning of *some*, and not *the* facts.

By erecting strict boundaries between science and the public sphere, the author limits the significance of his exercise. This is particularly evident in the last part of the volume, where he briefly discusses some of the ways in which geneticists took up positions in public arenas: the eugenics movement, Lysenkoism, the Cold War radiation controversy. He laments how science became unscientifically applied to public controversies. However, this argument fails to address rather important historical questions about the genesis and dynamics of these seminal public movements and controversies, and limits our understanding of the participants in these controversies. For instance, to the participants in the eugenics movement the boundaries between science and public affairs were obviously not as clear-cut as is presented in the author's perspective.

Carlson justifiably writes that classical genetics has had a profound effect in shaping our understanding of life (p. 2). But the reductionist perspective of classical genetics has from its beginning been in competition with other, more flexible concepts of heredity, as well as with environmental ideologies. This competition has never had a final outcome. What exactly the effect of classical genetics on our understanding of life has been, not only in the life sciences but also in medicine and the public domain, is an important new area of historical research, but falls outside the scope of Carlson's perspective.

Despite these limitations Carlson's volume presents a welcome addition to the still small body of historical literature dealing with genetics and its implications for the life sciences.

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**Milo Keynes, A W F Edwards, and Robert Peel** (eds), *A century of Mendelism in human genetics: proceedings of a symposium organised by the Galton Institute and held at the Royal Society of Medicine, London, 2001*, Boca Raton and London, CRC Press, 2004, pp. ix, 161, US\$84.95 (hardback 0-415-32960-4).

This book has an attractive title for anyone interested in historical aspects of human genetics, but when I saw from the subtitle that it represented the proceedings of a symposium held three years earlier, I began to have doubts, which close reading unfortunately confirmed.

Most of the chapters in the later section (genetics after 1950) are short and may have been good lectures, but are not historical in approach or content, and add little new or relevant for a published volume. The earlier part though, is more consistently interesting. The chapters by Michael Bulmer on Galton's law of ancestral inheritance and that on the biometricians and Mendelians by Eileen Magnello contain material that will certainly interest historians and are fully referenced. Newton Morton's chapter on linkage and allelic association, placed in the post-1950 section, gives a valuable account from the perspective of someone involved throughout the past fifty years, and dovetails well with the chapter by Anthony Edwards, entitled 'Mendelism and man', covering the period up to the Second World War. While informally structured, this chapter contains a number of valuable insights on the beginnings of genetic linkage studies in man, which were new to me at least, and which could form the starting point for further study. The same is true for the comments on the Medical Research Council Human Genetics committee, another unexplored area historically.