

THE PLACE OF DARWIN AND HIS THEORY WITHIN HISTORY STUDIES

J. N. Burry,* PO Box 7177, Hutt Street Post Office, Adelaide 5000, South Australia

Attempts to set up a course in human biology at the University of Western Australia which would have been offered to all students ... provoked resistance and reaction.¹ The innovator had a passionate conviction that knowledge of human biology should form part of the intellectual equipment of all educated members of the community and be put to use in their professional and personal lives. He was concerned about the divisions between the Sciences and the Humanities in our universities. I am also concerned about such divisions and in particular with the misuse of Darwin's theory of natural selection in history studies where in the form of Social Darwinism, a heuristically deceptive oxymoron, it is associated with robber barons in the United States of America and Nazi eugenists accompanied by death camps in Europe. Once I have dealt with this I go on to argue how there might be co-operation between history and biology studies.

MISCONCEPTIONS AND ORIGINS OF SOCIAL DARWINISM

The biography of Darwin written by two historians Desmond and Moore and published in 1991 has received wide acclaim.² While giving a full account of how Darwin collected the immense quantity of biological data that he used when writing the *Origin of Species*, it also describes the society in which he lived and worked and the background of his family on whose support, both cultural and economic, he was dependent throughout the productive part of his life. The biography is both a scientific and an historical tale which many have found compulsive reading. The authors end an introductory chapter with this conclusion

'Social Darwinism' is often taken to be something extraneous, an ugly concretion, added to the pure Darwinian corpus, after the event tarnishing Darwin's image. But his notebooks make clear that competition, free trade imperialism, racial extermination and sexual inequality were written into the equation from the start—'Darwinism' was always intended to explain human society.²

Social Darwinism has been defined as 'simply the politics of discrimination and violence', working through the identification of superior from inferior, racial, social and economic classes and rationalised by Galtonian eugenics.³ This contrasts with scientific Darwinism in which 'very little evolutionary change fits the concept of nature red in tooth and claw. One fuchsia plant with flowers a little brighter than those of its neighbour and so better able to catch the attention of a passing honeybird is a more pertinent model of the struggle for survival'.⁴

Darwin started from the fact that all organisms, plants and animals have a potential for great population increase. Yet given food and space constraints this potential can never be fully realised. There will consequently be a 'struggle for existence'. As Darwin made very clear, this phrase, which he took from the conservative clergyman and social theorist Thomas Robert Malthus, should not be understood in a literal sense.⁵

*Retired dermatologist.

Malthus and Spencer

In 1798 Malthus wrote his famous essay on the *Principles of Population as it affects the future improvement of Society* in which he maintained two essential '... postulates'. First that food is necessary to the existence of man. Secondly that the passion between the sexes is necessary and will remain nearly in its present state'.⁶

By the time of his death in 1834, five further editions of his work had been published elaborating upon his principle of population, which he considered a law of nature. Population, if unchecked, would always outstrip the ability of agriculture to maintain an adequate level of subsistence. Malthus's remedy was to abolish the Poor Law since feeding the poor only encouraged them to propagate and not to seek work, which ensured that they could not support a family. The idea that it would not be economically, morally or scientifically correct to help people in misery and want, still has its adherents.^{7, 8}

In 1866 Darwin gave way to criticism of the phrase 'natural selection', which he had used in *The Origin of Species* and accepted Alfred Russel Wallace's suggestion that it be replaced by 'survival of the fittest'. The phrase 'survival of the fittest' first appeared in Herbert Spencer's *Social Statics* in 1852. Spencer (1820-1903) believed in the inevitability of progress according to natural laws, which should not be impeded lest the course of evolutionary history be held up. He did not believe in the provision of public services of any sort.

He opposed state ownership of the post office and the mint. He was opposed to public education for it interfered with parental choice between different schools and indeed with the choice between wisdom and ignorance for their children. Public aid to the needy and even public sanitation tended to perpetuate the more vulnerable members of the race.⁹

Spencer's social evolution is now only of historical interest and apart from a need to be aware of its effects upon modern thought and politics is of minor importance. Darwin's evolutionary theory in contrast is based on a 'hard core of facts' which are beyond the 'surrounding pulp of disputable (historical) interpretation'.¹⁰

Malthusian thought led to the incorporation of the heading 'Struggle for Existence' into the *Origin of Species* published in 1859.¹¹ The Spencerian heading, 'Survival of the Fittest' was placed alongside 'Natural Selection' not until the fourth edition in 1866.¹²

The social and economic pseudo-scientific 'laws of nature' proposed by Malthus and Spencer are symbolised by the expressions 'struggle for existence' and 'survival of the fittest' and as described above 'Social Darwinism entered the most important book of biology of all time'. Darwin's theory was concerned with the history of all living matter for as long as it had existed. To highlight the private 'facts' of his nineteenth century politics in preference to the universal 'facts' of his evolutionary theory, as Desmond and Moore have done in the introduction to their otherwise excellent biography, through the suggestion that Darwin himself was the first 'Social Darwinist', heading a list which was later to contain Adolf Hitler and Heinrich Himmler, is to ignore the crucial 'facts' and to carry the 'pulp of disputable interpretation' to an absurd historical perspective. This essay continues with an attempt to alter and correct that perspective.

Social Darwinism is better called Galtonism

Historians of National Socialism maintain that Social Darwinism had a profound effect on Hitler's mind.^{13, 14} They find that racial science and racial hygiene

emanated from Social Darwinism which was related to the racist theories of Gobineau. In his 'political testament', shortly before his death, Hitler boasted that his greatest historical achievement was the extermination of the Jews.¹⁵ Hitler (1889–1945) had embraced anti-semitism during his stay in Vienna (1907–1913), when he became aware of the mass appeal of anti-semitism in the political platforms of Karl Lueger's Christian Social Party and Georg von Schoenerer's Pan-Germanic Party.¹⁶ A combination of racism and ultra-nationalism underlay National Socialist ideology, which was put together from ideas that had been current for centuries.¹⁷

Hitler's formative years were spent in Austria, where there may have been a smattering of Darwinian ideas but the *Zeitgeist* was determined by the social problems of the masses, which was what concerned his astute political mind. Throughout *Mein Kampf* Hitler shows an awareness of the ideas of Joseph Arthur Gobineau as set down in his major work *Essai sur l'inégalité des races humaines* (1853–5). Gobineau dabbled in the literature of science and philosophy and justified a society in which the existence of aristocracy was threatened by a rising tide of democracy. He looked back to an era free of liberalism, democracy, capitalism, industrialisation and all things modern and explained 'scientifically' why the lower classes could never achieve high levels of civilization but would for ever remain in their naturally inferior state.

Gobineau contributed to Nazi ideology, which lost power but not importance in 1945. Malthus and Spencer contributed to an ideology, which had lost most of its impact towards the end of the nineteenth century. In Hofstadter's book *Social Darwinism in American Thought* their channels of thought, along with others of similar ilk, are 'pigeonholed' under the catchphrase 'Social Darwinism' which in 1944 took off as a retrospective historical entity.¹⁸ Other authors confirm Hofstadter's place in the revival of 'Social Darwinism' in the writing of history.^{19–21} If historical ideas are to be 'pigeonholed' the 'pigeonholes' should be accurate and not mislead students.

Francis Galton (1822–1911), Darwin's cousin, founded the eugenics movement with the avowed purpose of improving the physical and mental level of a race, claiming that eugenics was practical Darwinism. Those already in the privileged positions of society should be there because of their innate socially proven superiority, which could be used to improve human stock. Eugenists, who accepted Galton's theories, especially in the United States, believed that 'poverty, infectious diseases and illiteracy were caused by inherited unit characters for these genetic traits—and not by low wages and insanitary environments'.²²

The Nazis were followers of Galton in their programmes of racial hygiene and racial science in which university chairs were established. The ideas of Malthus and Spencer flowed through Darwin to Galton. Galton's pseudo-science perpetuated within National Socialism, racism and social prejudice, highlights him as the fulcrum of the process that created the term 'Social Darwinism'. If it were replaced by 'Galtonism', the writing and study of history would benefit. Darwin's science has nothing to do with the Galtonism of history and his name should no longer be taken in vain. What follows is my suggestion as to how Darwin's science might be better applied in history studies.

DARWINIAN POST-MODERN HISTORY: A POINT OF VIEW

Hegel's pupil, Marx, and his historical system which followed Hegel's universal

history, have had their day and it is time that Darwin's scientific commonsense played a part in the writing of history. In 1989 Fukuyama replied to the critics of his pronouncement of the triumphant end of Hegelian history as follows (he could as well have pronounced the dismal end of Marxian history)—

History for Hegel, can be understood in the narrower sense of the 'history of ideology', or the history of thought about first principles, including those governing political and social organization. The end of history means not the end of worldly events but the end of human thought about such first principles.²³

He is otherwise declaring the end of ideology and is exhorting his readers not to look further than liberal democracy and capitalism which have proven themselves, after the demise of communism, to be the most effective and fairest forms of political and social organisation. By declaring that historical thinking about first principles has come to an end, since there are no alternatives to democratic capitalism, Fukuyama has done with all other political and religious concepts of history. There will never be a post-modern but only a modern.

In spite of Fukuyama's declaration of the end of theoretical thinking about history, history goes on and theoreticians continue to think about the course that 'progress' might take.²⁴ Post-modern historians claim that 'modernity' evolved from 18th century Enlightenment thought and the science that accompanied it. They suggest that historical thought since then has been directed by the hope that matters ethical, social and historical would be finally resolved in the fashion of Newtonian science and Cartesian mathematics. The realisation that faith in science and its ability to solve the problems of human relationships played a part in the historical events at Auschwitz and Hiroshima has led to post-modern history which no longer accepts that science is the beginning and end-all of rationality. The application of science to human affairs can be as irrational as any other sphere of knowledge—if indeed there is any such thing as knowledge or truth.

I believe post-modernists, who accept that modernity and the birth of 'progress' began with the 18th century Enlightenment and the science that followed have misjudged events. According to Nisbet 'progress' began as early as ancient Greek and Roman civilizations and included the concept of *thymos* or 'spirit';²⁵ this figures prominently in Fukuyama's philosophy where it becomes 'struggle for recognition', the driving force within individuals and communities towards 'progress'.

The beginnings of 'progress' and modern existence are to be seen 10,000 years ago in the first human community to give up hunting and gathering, to settle in limited space in the natural environment, to plant crops and to raise animals. Once humankind realised that nature could be controlled to suit human purposes and thereby humans might escape the forces of natural selection, all things social were possible and this is how we have come to where we are today. Artificial, cultural, social selection, driven by individual and communal 'struggle for recognition', has so benefited human 'progress' that world population is threatening world resources and the natural environment which originally was the source of human survival is fast disappearing.

In a discussion of *The Objectivity of History* J. A. Passmore states he can understand²⁶

why each generation rewrites its history books; a point sometimes urged in proof of history's incurable subjectivity. The explanation often enough is that men come to be interested in quite new aspects of past events.... In that sense all history is contemporary

history; our contemporary interest determines what we select for consideration from the past.

Our contemporary ecological and environmental interest determine that we see the history of humankind in the overall effect it has had upon the planet earth. The 'natural laws' of Darwinian evolutionary theory supply the framework of that understanding.

Post-modern history for me rests on a philosophy of history, which dependent on an understanding of Darwinian first principles, records the destruction of the natural environment by processes of artificial selection inherent in the social, cultural organisation which has led to our present democratic capitalist condition. History might reveal that the 'moral philosophy' aligned with human 'reason', used to justify human actions as recorded in our history books, was and is used to soothe consciences while humankind strives towards the 'rational' goal of perpetuating its own survival and the survival of its offspring.

Fitness as measured by population geneticists, is determined solely by the relative number of descendants of an individual in a future population.²⁷

The total (of the global human) population is now about 1,000 times greater than it was at the time our ancestors first took up farming and most of the increase had been in the last fifty years.²⁸

By partial avoidance of natural selection through artificial, cultural and social selection, we have been too clever by far. Evidence of this is readily seen in Australia.

ENVIRONMENTAL DEGRADATION IN AUSTRALIA

I am writing this in a beach house in South Australia and this morning collected about 30 Portuguese millipedes which entered the house overnight. Yesterday my wife and I swept up a bucketful of the creatures which had accumulated on the brick walkway at the back of the house during a week of our absence. Rabbits are active on the fields sloping over the hills at the back of the house and we remain concerned about the possible cause of the massive death of pilchards which threatens the fishing industry along the Australian and New Zealand coasts. This may be a herpes virus imported along with frozen fish used to feed tuna on lucrative tuna farms at Port Lincoln 400 km from Adelaide. My wife and I have hats placed by every door so that we never go out without one. There are feral olive trees and South African 'apple of Sodom' bushes in the fields behind and on the public land that separates the street of houses from the sandy beach and blue sea.

There are no natural predators to check the spread of millipedes, rabbits, cane toads, donkeys, camels, sheep, cattle, goats and European carp among other feral invaders of Australia. There is no natural immunity to battle the fish herpes virus should this be the cause of the massive death of young fish along our coast lines. European farming methods have defiled the bush, forests and land and spread imported weeds far and wide to the detriment of the natural environment and Australian flora and fauna.²⁹ Black people exist in Australia because of their fitness to do so, an important part of which is their skin, which is why my wife and I are never without hats, when we are outside, to lessen the risk of solar skin cancer from which black people do not suffer. Through education many Australians understand these circumstances but not many would connect them with the Darwinian first principle of natural selection which can be used to explain

what happened biologically in Australia after the invasion by European civilization in 1788.

The arrogance of human artificial selection, represented by the feral life which exists in Australia, bothers me greatly. This irreversible situation may be capable of improvement and the chances of this might increase, if the destruction of natural selection were highlighted in education, where a Darwinian post-modern history, which relates tales of struggles between the forces of artificial selection and natural selection, cultural identity and biological identity and human economies and natural environments, would be truly universal.

In the Australian Bulletin Magazine (11/2/92) a review of Desmond and Moore's biography *Darwin* concludes

(Darwin) also thought that Maoris and Aborigines were lesser races destined to disappear before white supremacy. That Social Darwinist judgment grew from a visit to these parts in 1835-36 commemorated by a plaque at Sydney's Circular Quay. It would not surprise me if that plaque were one day defaced now that this capacious biography has revealed the dark political underside of Darwinism.

I believe, on the contrary, that Australian Aborigines should use Darwin's plaque as a rallying point because the bright biological topside of Darwinism shows the efficiency of their stewardship of the land over 40,000 years in contrast to the degradation during 200 years by European civilization.

Passionate reason

Two angry scientists³⁰ complain that post-modern deconstructionists from the humanities apply cultural paradigms derived from history to science, as if scientific paradigms were dependent on the cultural *Zeitgeist* at the time of their creation. Scientists, who are university teachers and well versed in the humanities, argue that their critics from the academic left should show some effort towards mastering the sciences, if their judgments and deconstructions of the sciences are to be taken seriously.

The large textbooks of biology in university book shops and libraries are Darwin's footnotes in the margins of history. What he wrote in the margins of his notebooks during the conception of his theory, now studied by historians within the Darwin Industry,³¹ is of little importance compared with the scientific paradigm inspired by his investigations, observations and thought which brought forth those tomes of biology.

Scientists maintain passionately that human existence is threatened by excess human population, by a hole in the ozone layer, by the accumulation of greenhouse gases which threaten to raise the temperature of the biosphere, by the destruction of forests, by the pollution of air and water, by the degradation of soil and land and by the reduction of biodiversity. The pathology of this irrational condition requires diagnosis. The pathology of this irrational condition requires diagnosis. Historians would be better employed attempting to explain existing rather than past problems.

David Hume (1711-76), the Scottish Enlightenment philosopher, taught in the eighteenth century that reason should be the slave of the passions.³² Historians in analysing the part that Hume's 'reason', the 'reason' of the French Enlightenment and Revolution, played in the environmental errors of the past, might confirm that the reverse applies and passions should now be the slaves of the 'reason' of the Darwinian Enlightenment.

CONCLUSION

At the beginning of time there were no predictions as to chance and opportunity that lay waiting. Chance and opportunity awakened humankind and over the last 10,000 years has so directed its destiny and written its history that evolutionary chance lies concealed within technological certainty. As civilization and its inhabitants continue the 'progress' which has led to the burgeoning of human population and the destruction of habitat essential for the survival of species, the common sense of Darwin's theory of natural selection, explain much of what has happened over the last 10,000 years and therefore biological studies should be an integral part of history courses in our universities.

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THE ROYAL MEDICAL SOCIETY AND MEDICAL WOMEN

Margaret Ross*, 12 Wrenscroft, Ridings Mead, Salisbury SP2 8ET

In the second half of the nineteenth century Edinburgh was the scene of the first major attempt by British women to break into the exclusive male world of medicine. Edinburgh University was the chosen target because of its enlightened admission policy and the high reputation of its medical school, the first in the English-speaking world to provide a complete range of medical education. It was also known that Professor Sir James Young Simpson, the most eminent obstetrician of his time, believed that women could very successfully become doctors and should be helped to do so. In 1854 Simpson had caused a stir among his Edinburgh colleagues when he employed Emily Blackwell as his assistant in his practice. She was a young lady who had obtained her medical degree in Cleveland, Ohio, and she was the younger sister of Elizabeth Blackwell, the first woman to qualify in medicine in the United States and to gain medical registration in Britain. In writing a testimonial letter for Emily, Simpson observed

I have rarely met with a young physician better acquainted with the ancient and modern languages, or more learned in the literature, science, and practical details of his profession.¹

Simpson supported Elizabeth Garrett (later Mrs Garrett Anderson), the first woman to try to gain admission to Edinburgh University as a matriculated medical student in 1862. Although a motion to consider admitting her was 'negated by 18 votes to 16', this result was encouraging.² Garrett had previously made unsuccessful attempts to enrol as a medical student in London but had managed to obtain some clinical instruction on a grace and favour basis at the Middlesex Hospital after working there for a period as an unpaid nurse. Her instruction was terminated after she alone had provided the answer to a difficult question posed by a visiting physician, thereby provoking the enmity of her male fellow students.³ Garrett was forced to purchase private medical tuition which she pursued with marked determination. Further obstacles were encountered when she applied to sit the examination of the Society of Apothecaries of London.⁴ After these had been overcome by the discovery of a loophole in the wording of the Society's charter, and a threat of legal action, she passed the examination with credit in 1865 and thus became eligible to practice under the provisions of the Medical Registration Act of 1858. Measures were soon taken by the Apothecaries to close off this route of entry into the medical profession by women.⁵

This was the position when Sophia Jex-Blake (Fig 1) made her first attempt in March 1869 to persuade the University of Edinburgh to admit her as a student of medicine. She had been taking medical classes in New York organised by Drs Elizabeth and Emily Blackwell when family responsibilities arising from the sudden death of her father required her to stay in Britain.⁶ The Dean of the Medical Faculty objected that among other things women would never be strong-stomached enough to dissect, and was discomfited when she revealed that she had been carrying out dissections for months! Her great persistence bore

*Retired Assistant Archivist, Royal Medical Society.