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Eugenics in British Economics

from Marshall to Meade

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Abstract

From the late nineteenth century until well into the twentieth the inherited quality of the population was a consideration for British social reformers, including economists. This paper describes the economists' involvement focussing on six individuals, Edgeworth, Marshall, Pigou, Keynes, Harrod and Meade, two anxieties, the increasing weight of the "unfit" in the population at home and the declining weight of the British in the world, and two policy areas, the treatment of the "feeble-minded" and the "endowment of motherhood."

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1 Introduction

In 1911 Alfred Marshall was “hugely delighted” at the formation of the University of Cambridge Eugenics Society, audiences of two or three hundred attended the Society’s public lectures while the Mental Deficiency Act of 1913 seemed to be turning eugenic thinking into law. Eugenics was not confined to a moment before the Great War, however: half a century on a later occupant of the Cambridge chair, James Meade, declared himself “a radical in politics but a believer in Eugenics.” In Meade’s time, however, after the Second World War and the Nazi exterminations, eugenics was more likely to be consigned to the “lunatic fringe of biology” (Hogben (1963: 68)).

The qualities humans inherit, physical or intellectual, were never of such central importance for economists as for biologists, demographers or psychologists, the students of propagation and the qualities propagated, but some economists took an interest in those qualities and in improving them. That interest has been noted in general works on the history of eugenics while historians of economics have recorded the eugenic concerns of individual economists. There is a growing literature on eugenics in American economics—see e.g. Leonard (2016)—with Peart and Levy (2005) ranging across anglophonia. Yet a connected account of eugenic thought in British economics seems to be lacking and I attempt to provide one by considering six “believers”—Edgeworth, Marshall, Pigou, Keynes, Harrod and Meade—two concerns—the relative decline of the fit in the home population and the relative decline of the British in the world at large—and two policy areas, the treatment of the feeble-minded and the provision of family allowances. This, I think, covers the main ground. The believers are familiar as contributors to the canon of economic theory but I discuss them because they were the

academic economists of their time and place most concerned with eugenics. While other economists appear, I have not looked beyond the academy to a broader British economic opinion as expressed in the press and by popular writers.

2 Before the beginning

The organisation Marshall joined in 1911 was dedicated to the principle that society should act to improve the inherited qualities of the population and, though the principle had recently acquired momentum, it had a past—indeed Marshall’s own concerns went back more than 30 years. This section looks even further back to some of the ideas in circulation when Marshall took up the topic at the end of the 1870s.

There had long been a personal folk-eugenics illustrated by George II’s reaction to his son’s marriage plans, “I did not think that ingrafting my half-witted coxcomb upon a mad woman would improve the breed” (Miles (2005: 14)). Waller (2001) documents a literature founded on the principle that in choosing marriage partners account be taken of inherited propensities to disease. The societal interest rarely found expression before the middle of the nineteenth century though Schumpeter’s (1954: 257) eye for eugenics found Joseph Townsend (1786: 46) lamenting, “The farmer breeds only from the best of all his cattle; but our [poor] laws choose rather to preserve the worst”—the implication was that abolishing those laws would be an effective form of negative eugenics, as eugenicists would call measures that act by eliminating the worse types.

In the early decades of the nineteenth century the notion that society had an interest in the *size* of the population became a leading theme in political economy with Malthus a major influence. He has some sceptical remarks on the prospects for raising *quality* in the

Principle of Population: having dismissed Condorcet's particular hopes for the "organic perfectibility" of mankind, Malthus (1798: 129-30) continued:

Whether intellect could be communicated may be a matter of doubt; but size, strength, beauty, complexion are in a degree transmissible. [...] As the human race, could not be improved in this way, without condemning all the bad specimens to celibacy, it is not probable that an attention to breed should ever become general; [...]

To the eugenists of a century later these estimates both of what can be transmitted and of the limits of social action would appear very conservative—see Section 6 below.

Economists were ready to support societal intervention to control the *size* of the population: thus John Stuart Mill (1806-1873) wrote in *On Liberty* (1859: 304), "The laws which, in many countries on the Continent, forbid marriage unless the parties can show that they have the means of supporting a family, do not exceed the legitimate powers of the State." Eugenics was coming into view in Mill's life-time but he appears not to have discussed it though his general beliefs—see Varouxakis (1993)—would seem to have predisposed him against it: in a recent review of Mill's thought Paul and Day (2008: 230) write that he "attributed virtually all human mental and moral differences to education and training." A tart put-down in the *Principles* (1848: II 9.9) supports the point: "Of all vulgar modes of escaping from the consideration of the effect of social and moral influences on the human mind, the most vulgar is that of attributing the diversities of conduct and character to inherent natural differences." The immediate issue was the backwardness of Irish industry and Mill saw the Irish as "a pleasure-loving and sensitively organized people" but without incentive to exert themselves and thus unlike

the English on two counts. Mill evidently recognised differences between races, whether due to nature or nurture, but considered their effects on behaviour small compared to differences induced by social arrangements. (The terminology of “nature” and “nurture”—like “eugenics”—was introduced by Galton in 1883 and only entered general circulation much later.)

Some of Mill’s contemporaries took inherited qualities more seriously. In the 1850s the hygienist and statistician William Farr (1807-1883) speculated about means for repressing—“without cruelty”—the increase of bad specimens and in the 60s Francis Galton (1822-1911) began his researches into the inheritance of talent and character with the improvement of the race in mind; Waller (2001: 473ff) describes Farr’s views while Galton’s are treated in all the standard works on eugenics.

Ideas on inherited qualities fed off and into Charles Darwin’s thought on the origin of species and Herbert Spencer’s thought on progress and the survival of the fittest. Darwin’s discussion of “natural selection as affecting civilised nations” in the *Descent of Man* (1871: 205-224) reflected the views of Galton, Wallace and W. R. Greg; for these see Peart and Levy (2005: passim). In the *Study of Sociology* Spencer (1873: 343) had observed that “social arrangements which retard the multiplication of the mentally-best, and facilitate the multiplication of the mentally-worst, must be extremely injurious.” Among those who read Darwin and Spencer were Marshall and Edgeworth. Alfred Marshall (1848-1924) first expressed concerns over the quality of the population in the late 1870s and, with an evolutionary gloss, re-expressed them in the *Principles of Economics*. In 1879, when he was still writing philosophy, Francis Ysidro Edgeworth (1845-1926) published a striking eugenic essay.

3 Edgeworth and utilitarian eugenics

Edgeworth distanced himself from Mill, “the great utilitarian,” in his assumptions about what makes human beings the way they are and in his conclusions about the need for social reform. Edgeworth also stands apart from Harrod and Meade, utilitarians and eugenicists, as a eugenic utilitarian, or a utilitarian eugenicist, who argued explicitly that in order to maximise total happiness, it is necessary to produce efficient happiness machines.

“The Hedonical Calculus” (1879) published in *Mind*, the journal of philosophy and psychology, was a reconstruction of utilitarianism “in the light of modern biology”—to use a later phrase. The piece begins (1879: 394) by setting a problem:

To find (α) the distribution of means and (β) of labour, (γ) the quality and (δ) number of population so there may be the greatest possible happiness.

A string of mathematical investigations and remarks follow. Edgeworth had already published on the α and β dimensions but the dimensions of population number and quality, were new. His imagination was not fed by political economy of which he knew little but by philosophy, psychology, physics, physiology and statistics while his biological inspiration came from Spencer, Galton and Quetelet. Edgeworth’s guide to some of this literature was his friend the philosopher and psychologist James Sully; see Barbé (2010: 79ff). Sully’s book on the philosophy of pessimism, to which Edgeworth refers for a couple of points, has a discussion of artificial selection: Sully (1878: 392fn) writes how man “may seek by social sanction to discourage the multiplication of

confessedly inefficient, if not to encourage, by inducements the multiplication of the most efficient.” This was a future possibility rather than an actuality.

Edgeworth approaches the full $\alpha\beta\gamma\delta$ problem by solving sub-problems and discussing possible conflicts between the solutions. The earlier α analysis had yielded the conclusion “the distribution of means as between the equally capable of pleasure is equality; and generally is such that the more capable of pleasure shall have more means and more pleasure.” (1879: 388) Edgeworth held that individuals differ in their capacity for pleasure and efficiency in work, characteristics he took to be inherited. The $\gamma\delta$ problem (401) is “not assuming that all sections multiply equally to find the average issue for each section so that the happiness of the next generation may be the greatest possible.” The law of reproduction (inspired by Galton and Quetelet) is that the capacity of the issue—for pleasure and for work—is normally distributed around the capacity of the parent. As it is beneficial to replace individuals by ones superior in capacity, “it is deduced that the average issue shall be as large as possible for all sections above a determinate level of capacity but zero for all sections below that degree.” He indicates that “mitigations might be provided for the classes not selected” instancing “celibate monasteries” and “emigration from Utopia to Atopia—some unprogressive country where the prospect of happiness might be comparatively zero.” The workhouses of Edgeworth’s Britain had some resemblance to celibate monasteries and emigration was on a large scale.

Edgeworth’s paragraph (404-5) on the total $\alpha\beta\gamma\delta$ problem has no further analysis and reaches no real conclusion:

The final shape of the great organism, whether its bounding line of possibility shall be ultimately perpendicular, whether the graduation of (in a Greek sense)

aristocracy, or the level of modern revolution, is the ideal of the future, is still perhaps a subject more for prejudice than judgment. Utilitarianism, indifferent about the means, with eye undistorted by prepossessions, looks only to the supreme end.

“The Hedonical Calculus” was neither a Swiftian satire nor a guide for a utilitarian dictator but a collection of partial results useful for judging existing social arrangements. Edgeworth (408) concluded, “while we calculate the utility of pre-utilitarian institutions, we are impressed with a view of Nature, not, as in the picture left by Mill, all bad, but a first approximation to the best. We are biassed to a more conservative caution in reform.” The eugenics movement of the twentieth century had an altogether different tone: it was a reforming movement propelled by a desperate sense that under existing arrangements the race was deteriorating.

“The Hedonical Calculus” became the “utilitarian calculus” of *Mathematical Psychics*. A new “economical calculus” focussing on transactions with no biological dimension would be remembered by economists while the earlier calculus would await excavation by historians. The first readers, however, were as struck by the hedonical calculus. Jevons (1881: 582) described the kind of problem which Edgeworth “has the courage to attack” and commented on the solution to the $\alpha\beta\gamma\delta$ problem:

[This] has been carried into effect in poorhouses since 1834, but it is to be feared that outside of the poorhouse the returns of the Registrar-General would show great divergence from Mr. Edgeworth’s megisthedonic curves.

The hedonical/utilitarian calculus belonged to moral and political philosophy but Edgeworth applied it in his later work on international trade and on taxation. He did not

return to utilitarian eugenics though he followed developments in the study of inheritance and was in a position to update the reproduction mechanism of 1879. He appears to have taken no part in the twentieth century movement. For more on Edgeworth see Newman (1987) and Peart and Levy (2005).

4 Marshall and the possibility of great harm

When Marshall reviewed *Mathematical Psychics* his (1881: 268) only comment on the $\alpha\beta\gamma\delta$ problem was that, “Perhaps the problem which [the author] attacks is incapable of a complete solution; but it may safely be said that no one can read his discussion without profit.” Marshall was sceptical about utilitarianism, as he explained to Edgeworth in two letters in 1880 (see Whitaker, 1996, vol. 1: 124-5). In the second he wrote:

I think there is room for question whether the Utilitarians are right in assuming that the end of action is the sum of the happiness of individuals rather than the vigorous life of the whole.

Marshall does not seem to have been influenced by Edgeworth’s eugenics but he found his own way to eugenics—from the population analysis of Malthus and Mill.

In 1873, the year of Mill’s death, Marshall took up the question posed in the famous chapter “On the Probable Futurity of the Labouring Classes.” Mill (1849: 763) held that “The prospect of the future depends on the degree in which they [the labouring classes] can be made rational beings” and judged, “There is no reason to believe that prospect other than hopeful.” Marshall (1873: 114) concurred, dismissing the “danger most to be dreaded”—viz., population growth:

An educated man would not only have a high conception of his duty to his children; he would be deeply sensitive to the social degradation which he and they would incur if he failed in it.

Marshall would retain his fundamentally optimistic outlook and education—indeed nurture generally—would always have first place in his thinking about the possibilities of working class improvement: eugenic concerns would be qualifications or reservations.

Concerns about quality first appear in *The Economics of Industry* (1879) which Alfred wrote with his wife Mary. The chapter on “Growth of Population. Malthus. Poor Laws” showed how the pressure of population at home had been eased by inventions and discoveries which, among other consequences, had taken the English race all over the world—“a benefit to the world.” However the Marshalls (1879: 31) could not relax completely:

A check to the growth of population would do great harm if it affected only the more intelligent races, and particularly the more intelligent classes of these races. There does indeed appear some danger of this evil. For instance, if the lower classes of Englishmen multiply more rapidly than those which are morally and physically superior, not only will the population of England deteriorate, but also that part of the population that descends from Englishmen will be less intelligent than it otherwise would be.

The Marshalls’ anxieties had a racial dimension, arising perhaps from Alfred’s visit to the US west coast in 1875, for they add:

Again if Englishmen multiply less rapidly than the Chinese, the spiritless race will overrun portions of the earth that would otherwise have been peopled by English vigour.

In the 1930s Harrod would amplify these anxieties about quality at home and in the world at large—see Section 10 below—but in 1879 there was no crisis and no suggestions on how the “evil” linked to differential fertility might be averted.

Having contemplated the possible dysgenic—another later term—effects of a fall in the English birth-rate, Alfred set the pattern for future discussion of the dysgenics of specific policies when he considered outdoor relief, i.e. relief outside the work-house. In his lecture on Henry George’s *Progress and Poverty* Marshall did not emphasise the effect on total numbers—like Malthus or Mill—but the effect on the composition of the population. Echoing Townsend, Marshall (1883: 189) observed how the practice effectively discriminated “against the industrious and in favour of the dissolute.” Thus

Mischief was done, not by the amount of relief given, but by its being given in the wrong way and to the wrong persons, so as to cause the survival of the worst in place of the best; and probably half of all the lives of extreme misery and want in the country are due to this cause.

How Marshall fixed on this estimate of the present effect of a practice that had ended 50 years before is unknown but the scale of the mischief became part of the economists’ collective memory; e.g. Pigou (1907) and Robertson (1921) quoted in Sections 6 and 11 below.

Marshall (1883: 188-9) also noted the Continental practice of restricting marriage—“If in travelling about the Continent you come across any place in which the working classes

are exceptionally well off, you find that some such custom prevails.” He put an evolutionary gloss on a practice endorsed by Mill:

For those who are physically or mentally infirm are not allowed to marry, and children brought into the world find places ready made for them. Thus when civilization is settled and simple in form, custom quietly does the work that is done by cruel struggle for existence among wild animals and among savage nations

Marshall returned to the composition of world population in his lecture “The pressure of population on the means of subsistence” (1885a). While he was very concerned about population pressure in London and the obstacles to a decent life there, he (1885a: 393) saw no case for wishing to reduce the population of the country:

Since the whole of the English people, except the residuum, is a long way above the average of the world, it is scarcely possible to suppose any curtailment of English population which would not lower the average quality of the inhabitants of the world, their average wealth and well being.

Marshall mentioned—without resolving—the conundrum for the utilitarian in dealing with population issues, whether to maximise total utility or average utility.

Marshall worked these themes into his *Principles of Economics* (1890) which offered, besides a new technical apparatus, a new conception of economics as a historical and evolutionary science. Marshall (1890: xi) acknowledged the influence of “biology, as represented by the writings of Herbert Spencer; or of history and philosophy, as represented by Hegel’s *Philosophy of History*, and by more recent ethico-historical studies on the Continent.” These influences are picked out by Groenewegen (1995, 2001) and Cook (2009).

The architecture of the *Principles* reflected the new conception: the preliminary survey of Book I includes short histories of the world and of economic science. Marshall (1890: 10) identified the fundamentals of human history:

Although the proximate causes of the chief events in history are to be found in the action of individuals, yet most of the conditions which made those events possible are traceable to the influence of inherited institutions and race qualities and of physical nature.

“Climate” was the most important factor in physical nature and the “race quality” he emphasised most was “vigour.”

Marshall (1890: 248) took biological analogies seriously enough to warn how they might mislead, “Unfortunately however not all the qualities which enable one race to prevail over another benefit mankind as a whole.” Instances exist of a race which is not capable of “independent greatness” succeeding by being a parasite on another:

The fact that there is an economic demand for the services of Jewish and Armenian money-dealers in Eastern Europe and Asia, or for Chinese labour in California, is not by itself a proof, nor even a very strong ground for believing, that such arrangements would tend to raise the quality of human life as a whole.

Marshall treats the possibility of a decline of the fit in the home population in the chapter on “The Supply of Labour continued. Health and Strength.” Marshall (1890: 256) worried that “the upper part of the nation including the more intelligent and capable artisans, but not the lowest classes” would adopt the doctrine “that large families are injurious to the world and that they can do better for a small than for a large family” and “would cause the race to decay.” He did not discuss the position of the English in the

world but in a footnote he (256-7fn) remarked that the danger of a Chinese take-over of the Pacific Slope was past—but had it happened, “Chinese lives would have been substituted for American, and the average quality of the human race would have been lowered.”

Marshall originally saw nature and nurture, heredity and environment, as reinforcing each other with the results of this generation’s nurture becoming part of the next generation’s nature but he later developed doubts; see Groenewegen (1995: 484). Marshall owed some of his biological re-education to William Bateson (1861-1926) the biologist fellow at Marshall’s college who became the leader of British genetics a few years later. Some of the re-education took place when Bateson and Marshall met on holiday; Cock and Forsdyke (2008: 177) report Bateson’s reaction to Marshall: “For so novel a mind he has an astounding power of boring one.” In the third edition of the *Principles* Marshall (1895: 329) observed, “It is no doubt true that physical peculiarities acquired by the parents during their life-time are seldom if ever transmitted to their offspring.” Marshall’s changed understanding of heredity did *not* lead him to change his views about the importance of improving nurture and thereby averting the deterioration of nature—thus he (1895: 329) wrote:

But there seems no good reason for doubting that the children of those who have led healthy lives, physically and morally, will not be born with a firmer fibre than they would have been had the same parents grown up under unwholesome influences which had enfeebled the fibre of their minds and their bodies. And it is certain that in the former case the children are likely after birth to be better nourished, and better trained; to acquire more wholesome instincts; and to have more of that regard

for others and that self-respect, which are the mainsprings of human progress, than in the latter case.

Marshall's *evolutionary economics* is now widely discussed and Raffaelli's book (2003) traces a line from the early writings to modern evolutionary economics. The ideas we have been examining were not significant for that line: Raffaelli (2003: 58) dismisses them as a "mixture of nineteenth century commonplaces on evolution and progress." However Marshall took them seriously and his determination to incorporate them into economics was anything but commonplace. His British contemporaries usually ignored the attempt: an exception was J. S. Nicholson who (1893: 12) commented, "although man is an animal and as such falls under the sphere of the biological sciences, biology has as much to do with political economy as with constitutional history. No manipulation of biological ideas and phrases can bring us in sight of economic problems." Marshall's other early pupils appear to have inherited neither his biological perspective nor his eugenic anxieties but two of his later pupils, Pigou and Keynes, though unimpressed by evolutionary economics, concerned themselves with eugenics.

5 Pigou and problems at the heart of empire

Arthur Cecil Pigou (1877-1959) who succeeded to Marshall's chair in 1908 wrote more about eugenics than any other British economist and his views have been examined by students of eugenics in economics from Schumpeter (1954) to Peart and Levy (2005). Eugenics was bound up with social improvement, the leitmotiv of Pigou's early career, to which he brought a variety of ideal utilitarianism as distinct from Edgeworth's hedonistic

utilitarianism: Yamazaki (2014) examines Pigou's views on eugenics in relation to his ethics, Aldrich (2017) considers his ethics in relation to the economics of welfare while Collard (1981) is a useful short biography.

The first years of Pigou's career coincided with a turbulent period in the history of social policy in Britain: studies by Booth and Rowntree had made the extent of poverty evident while the unfitness of volunteers for the South African War had generated a physical deterioration scare and a New Liberalism envisaged a greater role for state intervention than had the old liberalism of Gladstone —see the accounts in Freedman (1978), J. Harris (1993) and B. Harris (2004). Pigou's first substantial essay on improvement, "Some aspects of the problem of charity" (1901), appeared in a volume edited by Charles Masterman, an advocate of the New Liberalism. It preceded his publications on ethics and the launching of the eugenics movement.

Pigou (1901: 245-6) judged it desirable that "the State or private agency" should keep and train the children of the lowest class but worried that such intervention would encourage "improvidence among their parents" by giving them "an opportunity of indulging their passions, while at the same time guaranteeing to them immunity from the costs and responsibility naturally attaching thereto." Pigou mused over what to do:

Indeed there is little prospect that a final solution to the problem will ever be achieved if public opinion cannot be brought to sanction, either the forcible detention of the wreckage of society, or the adoption of some other means to check them from propagating their species. [...] In view, however, of the violent interference with individual liberty, which they necessarily involve, the present

writer is unwilling to do more than suggest the propriety of examining them impartially and is certainly not prepared to recommend their immediate adoption.

Later and after due impartial examination Pigou had more definite proposals for the “wreckage of society”—see Sections 6 and 8 below.

6 The eugenics movement

Galton’s 1901 lecture on “The Possible Improvement of the Human Breed under the existing Conditions of Law and Sentiment” is usually taken as marking the start of the eugenics movement; see Kevles (1985: ch. 1, 2, 4), Soloway (1990: ch. 2-6) and Mazumdar (1992: ch. 1). Two organisations furthered the cause: the Eugenics Record Office, a research body established by Galton in 1904 and reconstituted in 1907 as the Francis Galton Laboratory of National Eugenics under Karl Pearson; the Eugenics Education Society, an organisation for mobilising opinion formed by enthusiasts in 1907 with a journal, the *Eugenics Review*, from 1909. From 1911 to 1928 the Society’s President and the chief spokesman for eugenics in Britain was Leonard Darwin (1850-1943), youngest son of Charles and a former career soldier. On leaving the army Major Darwin entered public life involving himself in economic causes and then in eugenics. Professor Pearson, an applied mathematician, had been working in biometry since the early 90s and was Britain’s leading mathematical statistician. The Society and the Laboratory were independent bodies and sometimes in conflict: Pearson (1914) roasted Darwin for not having “adequately studied” technical aspects of the subject. Mazumdar (1992) relates the history of the Society and Magnello (1999) that of the Laboratory; for

Leonard Darwin see Bennett (1983) and Edwards (2004); for Pearson generally see Aldrich (2001/18).

Among the promoters of eugenics was the Sociological Society and the papers presented in its 1905-6 session included ones by William McDougall (1871-1938), an already prominent psychologist, and William Beveridge (1879-1963) the future social administrator and Director of the London School of Economics but then involved in journalism and with the Oxford settlement movement. McDougall proposed a measure in positive eugenics—a family allowance scheme—and Beveridge a coercive measure in negative eugenics—segregation (of would-be parents from each other). For Beveridge (1906: 324) the problem of the unemployed was in part “a problem of industry” but it was also a problem of persons and he (327) identified a class of “unemployables”:

They must become the acknowledged dependents of the State, removed from free industry and maintained adequately in public institutions, but with complete and permanent loss of all citizen rights—including not only the franchise but civil freedom and fatherhood.

Beveridge’s standard work *Unemployment: A Problem of Industry* (1908: 215) says of the unemployables only that “These men would be left for disciplinary or hospital treatment under the Poor Law.”

For students of heredity these were heady days—in Cambridge Bateson and Reginald Punnett were transforming the recently rediscovered work of Mendel into genetics, while in London Pearson’s rival biometric school was going full blast; see the survey by Bowler (1989). The Mendelians and the biometricians had bitter disagreements but the merits of eugenics was not one of them. The texts for Pigou’s first engagement with

eugenics—“Social improvement in the light of modern biology” (1907)—came from Cambridge Mendelians: Punnett (1905) and Lock (1906).

Pigou’s “modern biology” owed nothing to Marshall’s social Darwinism and Pigou did not look to biology for a model for economics to follow or for a super-science to which economics was subordinate, rather for what it could contribute to the total situation the “student of society” has to consider. Pigou (1907: 358) found the biologists maintaining that *only* biology could contribute:

Hygiene and education, the panacea of the popular politician, are, suggests Mr. Punnett, “fleeting palliatives at best which, in postponing, but augment the difficulties they profess to solve. ... Permanent progress is a question of breeding rather than of pedagogics; a matter of gametes, not of training.”

A challenge indeed to those for whom “pedagogics” had always held out great prospects.

According to Pigou, the social reformer forms a conception of the good society and then consults biology on three points:

can the qualities of future generations be improved by changes in the environment of the present generation, unaccompanied by any other change; secondly can they be improved by changes in respect of parentage, unaccompanied by any other change; thirdly in actual practice, when these two classes of change cannot be really separated, what course ought a statesman to pursue?

On the first point Pigou (358-62) demonstrates how “Progress—not merely permanent but growing—can be brought about by methods of social reform with which breeding and gametes have nothing whatever to do.” His discussion (362-3) of the second point marked a change from his 1901 position: there *are* situations in which the qualities of

future generations can be improved by changes in parentage—“Has not the time come when, with due safeguards and under proper restrictions, this method of social improvement could be recognised and employed?” Pigou (363) envisaged the sterilisation of persons tainted “on account of crime or of dementia.”

On the third point Pigou considered two proposals of a positive eugenic nature. McDougall (1906) had proposed that, in the classes of established “civic worth” such as university professors and the more important civil servants, salaries should increase on marriage and the birth of children. Pigou (368) found in the proposal “much to recommend it” but not so in the much more ambitious proposal of the Fabian socialist Sidney Webb (1859-1947). Webb (1907: 17) was alarmed by the situation in Britain

when half, or perhaps two-thirds, of all the married people are regulating their families: children are being freely born to the Irish Roman Catholics and the Polish, Russian and German Jews, on the one hand, and to the thriftless and irresponsible [...] on the other. [...] This can hardly result in anything but national deterioration; or, as an alternative, in this country falling to the Irish and the Jews. Finally there are signs that even these races are becoming influenced. The ultimate future of these islands may be to the Chinese!

There was recent legislation on immigration—the Aliens’ Act of 1905—and Webb did not press for more. The remedy (1907: 19) was to “alter the economic incidence of child-bearing” by “encouraging the more prudent, foreseeing and self-restrained” sections of the community to have more children. To this end Webb proposed the provision of universal benefits including subsidies for education and the “endowment of motherhood.” Pigou did not comment on the diagnosis but objected (369) to the proposed remedy:

Could not Mr. Webb's end be obtained more thoroughly and with less risk by negative measures in restriction of the families of the submerged tenth rather than by positive measures in stimulation of those of the working classes in general? In the light of Poor Law history, it is difficult to contemplate without misgiving any large movement in the direction that he recommends.

The Cambridge "light" on Poor Law history showed the consequences of good intentions.

Pigou's early days as a social improver saw two important Royal Commissions. For that on the Poor Laws he wrote a Memorandum which mentioned (1910: 981) the evil due to "unrestricted propagation among the unfit members of the community" without saying more; the Memorandum was important in the development of Pigou's thought on welfare—see Aldrich (2017: Section 4). The other Royal Commission, on the Care and Control of the Feeble-Minded, has been studied by historians of eugenics for it has been portrayed as "the one instance in which eugenic thinking was the primary force behind British social policy" (Thomson (1993: 10)). The make-up of the Commission, the report of 1908 and the legislation, the Mental Deficiency Act of 1913, are described by Thomson though he plays down the importance of eugenic thinking in getting the legislation through, concluding that it went through *despite* the Eugenics Society's support.

Pigou helped publicise the report and its recommendation that the feeble minded be segregated. Cambridge notables from the Eugenics Education Society and the Association for the Care of the Feeble Minded sponsored the publication of a digest of the report with additional essays; see Mazumdar (1992: 22-3). One of the sponsors was Florence Ada Keynes, mother of Maynard. The original plan was to have Marshall write

a chapter on the economic aspect but in the event Florence asked her son to approach Pigou. Toye (2000: 142-4) relates these events but not the denouement—Pigou's contribution to the volume edited by Slater (1909).

Pigou (1909: 97) described the scale of the problem: some half per cent of the population “who, not being certified lunatics, are in greater or less degree mentally defective.” He considered the financial aspects and concluded (101) with the appeal:

We are trustees for the inherent quality as well as for the material welfare of future generations. A cause that makes strongly for race deterioration is operating and is known. It is within our power, with but little severity to any living person, to remove that cause. [...] The time has arrived for legislation.

Pigou had come to a conclusion on the wreckage of society.

Marshall, meanwhile, was catching up with modern biology by attending Bateson's inaugural lecture. *The Methods and Scope of Genetics* (1908) took the audience into the “new world” opened up by Mendel's discovery: Bateson expounded basic genetic principles, described the work of Cambridge geneticists and contemplated (35) some social implications of the new knowledge, “The blundering cruelty we call criminal justice will stand forth divested of natural sanction, a relic of the ferocious inventions of the savage.” Afterwards Marshall wrote to Bateson but his letters—in Whitaker (1996: 201-3) and discussed by Groenewegen (1995: 482-3)—do not engage with anything Bateson had said but rather reflected his own crotchets.

In 1910 the 6th edition of the *Principles* appeared. It did not register any advances in biological knowledge but it (1910: 248) refers to eugenics by name:

Thus progress may be hastened by thought and work; by the application of the principles of Eugenics to the replenishment of the race from its higher rather than its lower strains, and by the appropriate education of the faculties of either sex:

What application of those principles would involve Marshall never said.

7 Keynes and the least good elements

In 1911 Marshall joined the new local branch of the Eugenics Education Society but only after a controversy with Pearson over the consequences of parental intemperance. Elderton's (1910) report from the Galton Laboratory, had found *no* evidence of any marked influence of parental alcoholism on the quality of the offspring, a conclusion that left incredulous the social reformers and doctors for whom inebriety was a major ill. It made such a stir that Stigler (1995: 472-5) takes 3 pages to *list* the contributions to newspapers and medical periodicals between May 1910 and February 1911. Marshall sent two letters to *The Times*, explaining in the second what was at stake (Whitaker, 1996, vol. 3: 256):

If [Professor Pearson] had really shown [that parental intemperance has no causal relation to filial degeneration], economists must have readjusted some of their views as to the conditions of social progress, but if, as I believe, it is wholly untrue, anyone who acquiesces in its being taught to the people incurs a very heavy responsibility.

Like Marshall, many of the report's critics were supporters of eugenics—indeed the first to write to *The Times* was a founder of the Eugenics Education Society. When it was all over Keynes (1911) felt that Pearson had produced no evidence while Pearson (1910) felt

his low opinion of the scientific standards of social reformers had been confirmed. The controversy is reviewed by Stigler (1995), by Marshall's biographer—Groenewegen (1995: 479-82)—and by Keynes's—Harrod (1951: 179-80), Skidelsky (1983: 223-6) and Moggridge (1992: 205-7).

Most of the talking for Cambridge economics was done by a new lecturer, John Maynard Keynes (1883-1946). Keynes's fame would extend beyond economics and he is the economist most often encountered in the general history of eugenics literature; the early work of Freeden (1979) and Fishburn (1983) gained frisson from outing famous progressives as eugenicists. Keynes had many diverse interests and a standing challenge has been to coordinate them with his eugenics; Singerman (2016) is a recent attempt.

We know what Marshall and Pigou thought when they entered the controversy—biology mattered but it was not all that mattered—but Keynes's many words do not reveal what he thought, indeed nothing he *published* before the First World War does. Skidelsky (1983: 226) read into this void a fundamental hostility to the “Galton-Pearson ideal of a fecund intellectual class.” While it is true that Keynes—like Marshall, Pigou and Edgeworth—had no children, eugenicists were agreed that more of the next generation should come from people like them. (Anticipating, Harrod had two children and Meade four.)

In Keynes's student years, 1902-6, there was no eugenics movement although the Social Discussion Society debated such topics as “Heredity and social progress.” Laurent (2001: 66) describes this activity and notes that Keynes later recalled how he had possessed all Galton's books as an undergraduate. Toye (2000: 142-4) reports the correspondence between Keynes and his mother about feeble-mindedness though

Maynard's own attitude does not really come out; see Section 6 above. Keynes's main intellectual pursuit between being a student and being a lecturer was writing—and rewriting—his fellowship dissertation, *The Principles of Probability*. The 1908 version has a chapter on “Ethics and expectation” which discusses an argument in Galton's “Probability, the Foundation of Eugenics” (1907). Keynes discussed this variant of expected utility maximisation without commenting on its use to justify measures against the propagation of the unfit; the published version is in the *Treatise on Probability* (1921: 354). While working on probability Keynes became interested in the logic of statistics—see Aldrich (2008) for details—and this provided his most obvious motive and qualification for speaking on the Galton Laboratory study. Keynes was not only a critic of Pearson, the statistician, he also did some work in 1909 with Bateson, Pearson's geneticist foe; see Singerman (2016: 542-9). Keynes was one of the Cambridge mathematicians who became involved with the new genetics—his friend Harry Norton, who contributed to Punnett (1915), was another—yet, while Keynes's understanding of genetics was better than Marshall's, this appears to have made no practical difference to his views on eugenics.

Keynes became Treasurer of the Cambridge University Eugenics Society on its formation in May 1911. “I am hugely delighted that it has been formed” wrote Marshall as he sent in his life subscription (Whitaker (1996: 284)). The Society was founded on the initiative of undergraduates—chiefly Ronald Fisher—but prominent participants included senior members of the University—among them Punnett and two sponsors of the feeble-mindedness tract, W. D. Inge the divine and W. C. D. Whetham the physicist. Although the Society is well documented—see Box (1978: 26-7), Mazumdar (1992: 97-

104) and di Mambro (2003)—nothing is known about what the economists did in it: neither Keynes nor Marshall addressed the Society though it may be supposed that they were at some of the very well attended public meetings. Pigou did *not* join but it is not clear why.

Some of Keynes's thoughts emerge in unpublished material. Notes from his 1912 lectures on economic principles survive and the section on the supply of labour, material corresponding to ch. 4 and 5 of Book IV of Marshall's *Principles*, is reproduced by Toye (2000: 29-43). Keynes spoke of Darwin and Malthus and the problem of altered selection (Toye (41)):

There is a marked process of selection at work in favour of the elements which we regard as least good. In a given country it is the poorest and least intelligent part of the population which reproduces itself most rapidly; and it is in the most civilized countries that the birth-rate is falling off fastest.

[...]

We are faced by a dilemma.

The Malthusian Law of Population, when it is in operation, maintains the lower classes of the population in a condition of perpetual misery. But it is an engine of evolutionary progress, and those classes of society or portions of the world for which its operation is suspended are liable to be overwhelmed by the rest.

[...]

We seem to be in this matter in the hands of forces which we cannot control. We can only observe and describe them.

The problem within a civilized country may possibly be solved in time by the growth of prosperity and education.

The problem “within” went no further but Keynes elaborated his view of the problem “between”: in an over-populated world “overwhelmed” meant defeat in war, not out-breeding. To the ideas of the 1870s and 80s—see above Section 4—Keynes added a note of alarm. The alarm was not impartially distributed—the prospect of over-population was more alarming than the prospect of degeneration.

In an address of May 1914 Keynes asked, “Is the problem of Population a pressing and important one now?” and answered with an emphatic yes! (The text is reproduced with commentary in Toye (44-113)). The “problem” was one of quantity and Keynes did not mention quality. When he returned to the population problem after the War and directed his considerable energies at it—see Section 9 below—the would still be on numbers; composition was secondary.

8 Pigou and the quality of the people

Pigou’s welfare treatises have a chapter, “The national dividend and the quality of the people,” which became the most prominent and enduring statement on eugenics in British economics. Originally chapter iv of *Wealth and Welfare* (1912), it became chapter vi (and then ix) of *The Economics of Welfare* (1920, -24, -29, -32, -52), giving it a life of more than forty years. The quality chapter considered whether the conclusions reached in earlier chapters stand when experts “are insisting upon the fundamental importance for our science of a proper understanding of the laws of heredity.” Those conclusions—cf. Pigou (1912: 66)—were that “an increase in the size of national dividend will probably

increase economic welfare,” “an increase in the absolute share of the national dividend accruing to the poor will probably increase economic welfare,” and “a diminution in the variability of the national dividend, especially of the part accruing to the poor, will probably increase economic welfare.”

There was no change of substance from 1907 but Pigou (1912: 52) laid things out differently:

I shall distinguish, first, certain results of that [biological] knowledge, which are of general importance, but are not strictly relevant to economics; secondly, the general claim that the method of economic study indicated in the preceding chapters is rendered by the new knowledge trivial and unimportant; and, thirdly, certain points, in respect of which the new knowledge comes directly into contact with the problems I have undertaken to investigate, and makes it necessary to qualify the conclusions that have been reached.

Under the first heading Pigou (55-56) reviews expert opinion on the inheritance of defects and concludes:

Occasions frequently arise when tainted persons, whether on account of crime or of dementia, are compulsorily passed into governmental institutions. When this happens, propagation might be prevented, after careful inquiry had been made, either by permanent segregation, or possibly, as is authorised by law in certain American States, by surgical means. [...] The conclusion, however, is outside the sphere of economics, and does not in any way disturb the results that were attained in our second chapter.

The scope, both of “taintedness” and of possible interventions, had broadened considerably. But the matter, however, was of no concern to economists.

After lengthy consideration of the connection between wealth and genetic endowment Pigou (65) reached a familiar conclusion about efficiency:

it is probably true that causes affecting the comparative rate of child-bearing among the relatively rich and the relatively poor respectively affect the comparative rate among those with “better” and “worse” original properties (from the point of view of efficiency) in the same direction.

However, Pigou (65) disarmed the old fears—entertained by Marshall for one—about the inferior outbreeding the superior by arguing:

Professor Brentano’s investigations [...] have, however, suggested that increased prosperity in a class tends, on the whole, to diminish rather than to increase the reproduction rate of that class. Hence, an improvement in the distribution of the dividend may be expected actually to diminish the proportion of children born from inferior stocks.

Thus biological considerations did not reverse the conclusion that improved distribution would raise welfare.

While Pigou’s main concern was with productivity, he (1912: 26) recognised the possibility that people may vary in their capacity for obtaining enjoyment from economic resources but added a qualification:

though it must be remembered [...] that, since capacity for enjoyment depends largely upon education in it, groups or races of little capacity under present conditions are not thereby proved to be inherently of little capacity.

Here was a reply of sorts to Edgeworth on the inheritability of “capacity.”

In the *Eugenics Review* the book was commended to “be read with profit by all who profess a serious interest in eugenics” and the chapter was summarised without criticism. The reviewer, Alexander Carr-Saunders (1886-1966), was new to the Society but became one of its most prominent academic supporters. After studying zoology and then biometry with Karl Pearson, Carr-Saunders established himself as Britain’s leading demographer and he succeeded Beveridge as Director of the London School of Economics in 1937; he reappears in Sections 9 and 10 below.

Marshall made many critical annotations in his copy of *Wealth and Welfare*; see Bharadawaj (1972). However the quality chapter passed unscathed and was praised in the next edition of the *Principles* (1917: 248n):

[T]he marvellous arithmetical results which have been established [...] in regard to heredity in such cases [vegetables and mere animals], have very little bearing on the full problems of inheritance with which students of social science are concerned: and some negative utterances on this subject by eminent Mendelians seem to lack due reserve. Excellent remarks on the subject will be found in Prof. Pigou’s *Wealth and Welfare*, Part I: ch. IV.

“Environments, in short, as well as people, have children” (1912: 59) was the best remembered line of Pigou’s chapter and, although the chapter advocated the application of eugenic policies to tainted individuals, it defended economics from biological imperialism.

9 The Edwardians after the Great War

The War brought changes to economics, to eugenics and to the region where the two met. The Eugenics Education Society (Eugenics Society from 1928) was no longer a movement but a recognised source of expert knowledge on a subject of public concern; research continued at the Galton Laboratory but published less noisily in a journal, the *Annals of Eugenics*. Ronald Fisher was an important new voice in genetics and statistics and a very visible contributor to the *Eugenics Review*; see Aldrich (2003/18). In economics Keynes replaced Pigou as the public voice of Cambridge. There was another campaign to sterilise the feeble-minded—see Larson (1991) and Thomson (1998: ch. 5)—but it did not succeed and the 1913 Act remained the main legislation until 1959. Eleanor Rathbone (1872-1946) and her Family Endowment Society made a great cause out of the endowment of motherhood and a system of family allowances was introduced at the end of the Second World War; the story is told by Macnicol (1980). Economists kept out of the sterilisation debate but a few wrote on family allowances, especially in the early days.

In the 1920s the *Economic Journal*, edited by Edgeworth and Keynes, published articles on the subject of family allowances—on systems in operation around the world as well as more analytical pieces. There was some eugenic input into the debate: thus Edgeworth wrote two papers on women's pay in the first of which he (1922: 454) stated the eugenic objection to family allowances:

[It] is to be apprehended that the least desirable classes [...] will be encouraged to increase and multiply. It is argued, indeed, that the better class of artisans will be encouraged to keep up their good stock; while the undesirable class are already so improvident that no stimulus could add to their recklessness. But these arguments, based on a calculation of motives, seem precarious in view of the enormous risk involved.

Richardson (1924: 378) of the ILO put Edgeworth's point so, "The system offers no security for the improvement of the race." However stock and race are not mentioned in another general treatment, by Macgregor (1926) or in the review of Rathbone (1924) by Phillips (1925). Alexander Gray (1882-1968), a professor and former civil servant specialising in social insurance, wrote a book, *Family Endowment: a Critical Analysis* which made no reference to eugenics.

In 1920 Pigou published *The Economics of Welfare*. The main statement on eugenics was reproduced from *Wealth and Welfare* but in addition Pigou (1920: 761) noted that "eugenic considerations" are involved with the endowment of motherhood, referring to Leonard Darwin's "The racial effects of public assistance" (1919). Eugenic considerations may be behind some of the book's treatment of immigration. In *Wealth and Welfare* Pigou had advocated a national minimum standard of living but now he (1920: 796) warned of the danger of welfare in one country and considered how to meet it:

idiots, feeble-minded persons, cripples, beggars and vagrants, and persons over or under a certain age may be excluded, unless they are either accompanied by

relatives able to support them, or themselves possess an adequate income derived from investments.

(The Aliens' Act already contained such safeguards.) Pigou says nothing about possible dysgenic effects but he believed that some of these conditions were inherited. The racial aspect of immigration appears not to have exercised Pigou as it had Webb—see above Section 6—or was exercising Pearson—see Levy and Peart's (2005: 93-9) account of Pearson and Moul (1925). Presumably Marshall had approved of American barriers to Chinese immigration—see Section 4 above—but British economists seldom discussed immigration into Britain before the 1960s when immigration from the Commonwealth was restricted; for many decades a 1905 article by the politician Herbert Samuel was the *Economic Journal's* only treatment of the subject.

In 1923 Pigou gave the Eugenics Education Society's Galton Lecture: he saw eugenicists as fellow social reformers who held that attention to breeding would produce a better society. Pigou had always believed that good/welfare involved more than the (hedonistic) utilitarian good of economic welfare and the lecture begins (1923: 305-7) with a careful discussion of the nature of the good society; see Aldrich (2017: Section 8). Pigou developed a line of thought from *The Economics of Welfare* (1920: 12) viz., that people may have qualities that are good in themselves and more instrumental qualities. "To secure the greatest sum of ultimate good, we need a balance: alongside of the qualities that directly contribute to that sum, we need also those that indirectly as means contribute to it and make it possible" he (1923: 306) now wrote—the ideal utilitarian's variation on Edgeworth's hedonistic utilitarian's problem. Pigou considers what realising this balance

would entail, finding so many difficulties for the eugenic planner that it is surprising that he found anything in eugenics. However he did and he (307) then asked:

Is there reason to expect that children born in the lower economic strata of society will, when account is taken both of goodness in itself and of capacity to fill an essential place in the economic organism, possess inherent qualities (1) less good in themselves and (2) less efficient as means to the good of the whole, than children born in the higher strata?

After some discussion and with some hesitancy Pigou (308) concludes provisionally that “the true welfare of society is likely to suffer [...] if the proportion of children born among the lower social strata exceeds substantially the proportion born among the higher.” He invites the eugenic technician, the specialist on differential birth-rates, to work out the consequences of two recent developments—“the relative rise in the wages of unskilled workers and the tendency to make wages among the poorer classes depend in part on family estate.”

After detailing the developments and making his appeal, Pigou (312) concluded:

Eugenists must often find themselves engaged in enquiries that have an economic aspect; and Economists with enquiries that have an Eugenic one. I have been happy to have been invited to deliver this lecture [...] because in our momentary contact this evening, there is a sort of symbol that we mutually recognise the need for one another's help.

The “symbol” was only that for nothing issued from Pigou or from other economists. On the other side Darwin thought that eugenists should attend to the work of economists: when Ronald Fisher was writing an article on family allowances, Darwin suggested he

read Keynes's "The question of high wages"—see Bennett (1983: 141)—but Fisher did not follow the advice. While there was no cooperation, there was more than respectful coexistence as the *Economic Journal* gave Darwin (1921) a platform and the main eugenics publications were reviewed in its pages, usually by eugenicists rather than economists—see e.g. Fisher (1926) and Carr-Saunders (1926).

The Galton lecture was Pigou's most sympathetic piece on eugenics but after 1923 he wrote no more on eugenics, nor did he change the text of *The Economics of Welfare*. However the other Edwardian eugenicist, Keynes, remained visibly attached to the cause until the end of his life; see Toye (2000: ch. 5-6). The new Keynes was unlike the old and very different from the now solid and stolid Pigou. Keynes had become a leader of opinion: Rathbone (1924: 233) noticed the "brilliant group of younger Liberals" around Keynes and their voice *The Nation*, "popularly supposed to have for its watchwords"—"Capitalism and Contraception."

The *Economic Consequences of the Peace* (1919) had made Keynes something of an oracle. Its chapter on "Europe before the War" (1919: 6) has an eloquent restatement of the old pre-war theme of the press of population:

Before the eighteenth century mankind entertained no false hopes. To lay the illusions which grew popular at that age's latter end, Malthus disclosed a devil. For half a century all serious economical writings held that devil in clear prospect. For the next half century he was chained up and out of sight. Now perhaps we have loosed him again.

Keynes's "phrases about population" did not persuade Beveridge, now Director of the London School of Economics, and a short, sharp controversy ensued; see Toye (2000:

chapter 5). Beveridge believed that population would *fall*, not that the prospect cheered him ((1923: 474):

The questions now facing us are how far the fall will go; whether it will bring about a stationary white population after or long before the white man's world is full; how the varying incidence of restriction among different social classes or creeds will affect the stock; how far the unequal adoption of birth control by different races will leave one race at the mercy of another's growing numbers, or drive it to armaments and perpetual aggression in self-defence.

The same questions would move Harrod to campaign in the 1930s—see below.

These excitements stimulated interest in population. The *Cambridge Economic Handbooks* series had a population volume from Harold Wright, a pre-war Tripos student and sub-editor of the *Nation*. Like Keynes, Wright was mainly concerned with population size. Keynes (1923b: ix), the general editor of the series, wrote in his preface of “the greatest of all social problems,—a question which will arouse some of the deepest instincts and emotions of men, and about which feeling may run as passionately as in earlier struggles between religions.” Wright's brief treatment of quality has echoes of Pigou but mostly demonstrates an impatience with the subject: Wright (1923: 167) sees the central choice as between the status quo and one where the working class have improved conditions and marginalises quality—“It would be absurd, however, to suggest that the alternatives are likely to be considered on their merits from a racial standpoint.”

The LSE was the other main centre for academic economics in Britain and its economists, Dalton, Cannan, Bowley and later Robbins, wrote about population but not about eugenics. Hugh Dalton (1887-1962), another pre-war Cambridge MA, became the

main reviewer of population books for the LSE's house-journal *Economica* and, with his sociologist colleague Morris Ginsberg, took on Carr-Saunders' magnum opus, *The Population Problem* (1923). Some of Dalton's (1923: 126) remarks suggest a lack of sympathy for the eugenic viewpoint:

I notice with pleasure that Mr. Carr-Saunders is not greatly terrified by the bogey of "differential fertility," and that those biological extremists, who deny the value, for the improvement of human life, of all studies but their own, will have no cause to love him.

Dalton became a Labour Member of Parliament in 1924 and thereafter his main energies went into his political career but in 1928 he published an article on the theory of population. Dalton approved of Rathbone's campaign and he (1928: 49-50) finished by insisting on the proposition that smaller family sizes lead to increased welfare.

Its truth depends on the increased quota of the means of economic welfare, or, in other words, on the increase of economic opportunities, which each child may hope to enjoy. This is a special case of improved environment. The resulting gain to economic welfare cannot be disproved by any biological arguments regarding the relative importance of environment and heredity.¹

The footnote refers to the "admirable discussion" in Pigou's chapter iv/ix.

Eugenics had a place in Keynes's vision of the future good society but he did not campaign for it *now*. His (1923a: 7) message to the American Birth Control Conference of 1923 included this prediction:

The coming generation of Americans will be forced by circumstances to consider the problem of what is the ideal population for their country, as well as the not less important problem of the quality of those who are bred up.

The “questions of today” in “Am I a Liberal?” (1925) include “sex questions” but these did not include eugenics though he did mention eugenics in the 1926 pamphlet *The End of Laissez-faire*. Looking to the future, Keynes (1926: 291) urged: “The important thing for government is not to do things which individuals are doing already, and to do them a little better or a little worse; but to do those things which at present are not done at all.” His examples were: control of the currency and credit, control of savings and investments and population. On the last Keynes (292) wrote:

The time has already come when each country needs a considered national policy about what size of population, whether larger or smaller than at present or the same, is most expedient. [...] The time may arrive a little later when the community as a whole must pay attention to the innate quality as well as to the mere numbers of its future members.

This last sentence illustrates how for Keynes quality was always subsidiary to quantity, less urgent, less certain and less demanding of thorough investigation.

Expert opinion on the quantitative problem of population did not move Keynes’s way and after a few years he lost interest: no Malthusian devil threatens the “Economic possibilities for our grandchildren” (1930a) and “The question of high wages” (1930b: 14) proposes children’s allowances without consideration of effects on population size or quality. In 1937 Keynes addressed the Eugenics Society on “Some economic

consequences of a declining population.” Going by the title, Leonard Darwin speculated (Bennett (1983: 174)):

Keynes’s Galton lecture will have no bearing on eugenics proper. I remember very vaguely a story about an official at the church in Cambridge where they had broad church sermons at intervals. I can paraphrase it by saying that I have heard or read every Galton lecture, but I thank heaven I am still a eugenicist ...

The lecture was essentially an appendix to Keynes’s new book, the *General Theory*.

From 1937 Keynes’s links to the Society multiplied—a Fellow and then a Director and Vice-president—yet these links were not reflected in the policies he promoted: he paid no attention to eugenic concerns when he advocated flat-rate family allowances to accompany the compulsory savings package of “How to pay for the war” (1940); see Toye (2000: 205-8). Extending Darwin’s analogy, the church in which he had been brought up had made Keynes a bishop though he had given up prayer. Keynes was not the only bishop of questionable faith: eugenic considerations were missing from Beveridge’s *Social Insurance and Allied Services* (1942) and Beveridge defended their absence in his Galton Lecture (1943).

Keynes took pleasure in commemorating the “best and noblest intelligences” of their time. When Leonard Darwin died Keynes (1943: 439) recalled his early interest in economics—bimetallism and municipal trading—and his turn to eugenics:

And here once again he combined that unsensational, conservative approach with the most alarming conclusions which was a part of his Darwinian endowment, proving that in one case at least heredity was not less strong than environment.

The *Economic Journal* also published a “very personal account” by Leonard’s niece Margaret Keynes with an endorsement from the editor, brother-in-law Maynard (439), “Leonard Darwin’s life covered so vast an epoch of change in men’s ideas, his own attitude towards the problems of his age were so characteristic of the best and noblest intelligences of his time, and he grew up in the environment of a family of so immortal a renown.”

In February 1946 the Eugenics Society awarded its first Galton Medal to Carr-Saunders. Keynes (1946: 40) spoke in praise of both dedicatee and recipient:

Galton’s eccentric, sceptical, observing, flashing, cavalry-leader type of mind led him eventually to become the founder of the most important, significant and, I would add, genuine branch of sociology which exists, namely eugenics.

The verdict on this branch of sociology was of a piece with Keynes’s assessment of Carr-Saunders as Britain’s leading sociologist. When Keynes (39) described how Carr-Saunders came to eugenics through Darwin while economists came through Malthus he seemed to be revisiting early thoughts of his own—see Section 6 above.

The eugenics Keynes believed in belonged to the past or to the remote future but in the present his own “flashing, cavalry-leader type of mind” led him in more immediately practical directions. The *Eugenics Review* (1946: 69) remembered him in these words:

Though never very active in our affairs, this great public servant was always ready with his help when called upon, and the mere fact of his membership of the Society and its Council did much to secure the support of many of his contemporaries and disciples for our principles and policies.

Among the “contemporaries and disciples” may be counted our final believers—Roy Harrod (member from 1946) and James Meade (member from 1938).

10 Harrod and the survival of the race

The 1930s saw changes in British eugenics. The Eugenics Society continued on its way from movement to think-tank and in 1931 Leonard Darwin was replaced as secretary general and public face of eugenics by a physician, Carlos Paton Blacker (1895-1975); Blacker’s changes to the Society are described by Soloway (1998). Pearson retired from the Galton Chair of Eugenics in 1933 and was replaced by R. A. Fisher who took the Laboratory and the *Annals of Eugenics* in a different direction, emphasising the fundamental disciplines of statistics and genetics. Fisher was, of course, a committed eugenicist and the final part of *The Genetical Theory of Natural Selection* (1930), his synthesis of Darwin and Mendel, is devoted to man and the possibility of making the present civilisation—unlike earlier ones—permanent. The LSE created a department of Social Biology though the new professor, Lancelot Hogben (1895-1975), was an early biologist critic of eugenics and contributed to its shift from the heart of biology to the lunatic fringe—cf. the Introduction above. In his inaugural lecture Hogben (1931b: 31) found the existing empirical basis for eugenics so defective that “the first task of the social biologist is not to advocate the sterilisation of the unfit, but to undertake the sterilisation of the instruments of research before operating upon the body politic.” In the *Genetic Principles in Medicine and Social Science* Hogben (1931a: 209) wrote that “eugenics has long since acquired associations which are repugnant to many thoughtful persons, whether biologically trained or not.” In particular—wrote Hogben (210)—

eugenics “became identified with a system of ingenious excuses for combating the amelioration of working-class conditions.” However, Hogben like Bateson wanted to save eugenics from its friends for he believed there could be a legitimate form of “genetic therapy.” See Renwick (2014) for Hogben at the LSE and Soloway (1991: ch. 9) and Mazumdar (1992: ch. 4) for the changing political position of eugenics.

In the 1930s the prospect of population decline exercised serious opinion, as deterioration had in the 1900s; see Soloway (1990: ch. 10-12). It seemed that the double evil of a check to population the Marshalls had contemplated in 1879 had at last materialised. Roy Forbes Harrod (1900-1978) thought action was needed and he took the issue to the public. Harrod was one of “Mr Keynes’s younger Liberals” and he gave much of his time to politics, standing for parliament in the general election of 1945. In his memoir Phelps Brown (1980: 23-4) discusses Harrod’s work on population and much relevant material is reprinted with notes in Besomi’s (2003) edition of Harrod’s *Papers and Correspondence*.

Harrod’s career in economics began in 1922, the year his Oxford mentor, Edgeworth, published on women’s wages and his Cambridge mentor, Keynes, was writing on Malthus. Harrod (1951: 385) recalls having doubts about Keynes’s over-population thesis from the beginning but his campaign against population decline began in 1934. In a letter to the *Oxford Magazine* Harrod warned that the university needed to plan for a smaller population but then in a seeming after-thought he (1934: 154) moved from accommodating decline to preventing it:

Is it permissible to make one further proposal? This tendency to declining numbers has a wider importance, affecting the balance of power in the world and the handing

on to future generations of the heritage not only of the British people but of the white races themselves. Should not the University and Colleges seek to give an example, and, departing still further from their age-long tradition, provide that the lives of their married staff be not less comfortable than those of the bachelors by a system of generous family allowances?

A week later Harrod was outlining a national scheme of child allowances to Marie Stopes; see Besomi (2003: 351-2).

Harrod's fears extended beyond the British, or even the white, race to mankind as he told the *Evening Standard* in 1936:

Even those who are broad-minded enough to entrust the torch of civilisation to the Indians and Chinese must not lull themselves into facile indifference to present tendencies.

If conditions in those sub-continent improve, there is every reason to suppose that the ideas and practices which have undermined the birth-rate here will permeate them also at a later date.

This means that no less a thing than the future of the human species itself is in jeopardy.

Harrod's press campaign continued: in 1938 he warned in the *Spectator* that inaction today could lead to panic in the future and a "reign of intolerance and persecution beside which the present Nazi treatment of Jews will seem polite and gentle." However there exists a "civilised method of meeting the situation":

I suggest that parents should be put in such a position that they are no worse off financially if they have children than if they do not. This requires an equalisation

fund. If £300 a year were taken from every male earner above a certain income, with no dependent children, a like amount approximately could be paid in respect of each dependent child in excess of one. Smaller sums would be appropriate for those with smaller incomes. Graduation is necessary. In this matter it is no use being too democratic. Inequality of income must be recognised as a fact so long as it is a fact.

While Harrod emphasised total numbers, behind the graduation scheme was a concern with quality.

As well as the newspaper campaign, there were journal articles with scholarly references. Harrod's 1938 and -39 articles demonstrate a familiarity with the methods used by the demographers for population projections but Harrod referred to only one eugenic piece, Fisher's *Genetical Theory of Natural Selection*. Harrod was a reflective utilitarian both in ethics (see his 1936 "revision") and in economic policy (see the 1938 "scope and method") but he did not tie his population concerns to utilitarianism.

In Cambridge the rising generation of economists, Austin Robinson (1897-1993), Joan Robinson (1903-1983) and Richard Kahn (1905-1989), did not share Harrod's interest in population and eugenics. Harrod was in contact with them and in January 1938 he tried to convert a sceptical Joan Robinson to his views on population; see Besomi (2003: 748-9).

She thought Harrod's campaign was setting back better causes:

There are still plenty of women who have children when they don't want to, and the campaign in which you are taking part is already hampering efforts to give birth control facilities to those who need them most, and I fear will help to put off all hope of legalising abortion (I am not of course accusing you of directly wishing for these results).

Robinson considered Harrod's tone hysterical and counterproductive: "all your talk about extinction of the British race etc. is merely feeding the jingoes & you'll have no means of getting the genie back into the bottle."

From 1938 Cambridge had an economist writing on population, Brian Reddaway (1913-2002). Reddaway alludes to eugenics in his 1938 paper advocating family allowances. Reddaway (1938:125) has a nod towards the *Economics of Welfare*—"as with all schemes of redistribution, we must consider the probable effects on the size of the national dividend, and the reaction on the economic system generally"—but he (127) dismissed all dysgenic fears:

As for the heredity of the next generation, there seems little reason to fear that this would suffer through a differential stimulus to parenthood in poor families. Child-rearing is not going to become a profitable pursuit (at least so far as immediate income is concerned); and the stimulus (if any) may act most strongly on the lower middle and artisan classes who approach the matter in a greater spirit of prudence than the labourer whose position is in any case so insecure that forethought is almost a mockery.

The conclusion must surely be that the effect on the size of the population will be comparatively unimportant and that the effect on its quality will be felt mainly in the change of environment. I repeat that this improved environment is important because such a high percentage of children come from large families whose income is inadequate.

The only authority Reddaway cites is *The Disinherited Family*.

After years of pressure a Royal Commission was set up in 1944 to examine “population trends, their causes and probable consequences” and to “consider what measures if any, should be taken in the national interest to influence the future trend of population.” Among the members were Carr-Saunders and H. D. Henderson who also chaired technical committees on statistics and economics respectively; Soloway (1990: ch. 13) describes the eugenicists’ participation and Winter (1990) the economists’. Hubert Henderson (1890-1952) was a Cambridge lecturer recruited by Keynes to edit the *Nation* in 1923. The *Nation* had been prominent in the Malthusian revival of the 20s but later Henderson had followed the tide on the “startling prospect” of population decline—cf. Henderson (1937: 84). Also on the economics committee were Alexander Gray, Reddaway and Joan Robinson—whom we have already met—and John Hicks (1904-1989). Robinson and Hicks both wrote on the population problem during the war: Hicks’s *Social Framework* (1942) has two chapters on population and Robinson wrote an essay on the consequences of a declining population which she published in 1951. Neither mentioned the quality of the population.

Harrod submitted written evidence to the Commission and appeared as a witness. The premise of “The Population Problem” (1944: paragraph 1) is that “the present situation is critical and gives cause for alarm.” At stake was the “survival of the race.” Harrod presented a detailed scheme for the “proportionate endowment” of children and in paras 32-41 defended such a scheme and answered objections. The point of proportionate endowment was to encourage better off families to have more children. Harrod (para 35) gave three reasons for encouraging the fertility of the better-to-do:

(i) It will lead to race decline if our better stocks are relatively infertile (argument from stock). (ii) It will lead to a general lowering of standards and efficiency if the parents who are best equipped in experience, knowledge and culture are relatively infertile (argument from environment). (iii) If members of the community doing relatively more responsible work [...] do not decide to have larger families, the other members of the community will not do so either (argument from social example).

Harrod (para 32) notes and dismisses a class of objections that “turn on the idea that proportionate endowment might offend the egalitarian spirit of the age” for in his experience the objection “seems to come from a minority whose interest in these questions is doctrinaire rather than practical.”

When Harrod elaborated the “argument from stock” (para 36) he tried to meet the objection that proportionate endowment was inconsistent with the idea of equal opportunity and would perpetuate the inequality of the social structure.

The idea of equal opportunity is that the individuals who, whatever their birth, have ability and valuable social qualities should be able to rise and occupy positions of responsibility [...] It is planned in each generation to comb out of all classes and sections of the nation the best endowed individuals and give them work commensurate with their capacities. If in each generation these same individuals are sterilised, it is obvious that very soon that all that is best in the nation will be lost. [...] Family endowment is a corollary of equal opportunity and if we neglect it we may expect a rapid decadence in the innate qualities of the race.

The description of what “is planned” reflects the spirit of 1944 and visions of a new post-war order.

The Royal Commission's report was published in 1949. Chapter 15 on "differential fertility" is the section which shows strongest eugenic influence: it considers the relationship between intelligence and fertility but closes (156) with the observation, "We are not in a position to evaluate the expert evidence that there is inherent in the differential birth rate a tendency towards lowering the average intelligence of the nation." and "there is an urgent need for further research into this and related problems." None of the report's proposals address this tendency.

Harrod included the memorandum—along with a companion written for the Royal Commission on Equal Pay—in his *Economic Essays* (1952): in the Preface he lamented the disappearance of population theory from modern treatises on economics. In the Preface to the second edition Harrod (1972: x-xii) answered those who "might hold that [the memorandum on population] would have better been suppressed." After recalling the background of the population scare, Harrod (xii) concluded:

I believed that the British had been able, owing to their innate qualities, to make greater contributions to the progress of the human race than had many other peoples; it was accordingly expedient for the sake of mankind that they should not eventually die out. In the more recent period [...] I have been in the habit, in order to safeguard myself against the charge of unthinking egoism and nationalism, to name the Japanese as, despite their faults, the greatest nation in the world. I am afraid this does me no good in the opinion of besotted egalitarians.

For Harrod, opposition to eugenics was associated with a doctrinaire egalitarianism. We now consider the eugenics of James Meade who (1975: 68) held that, "the intelligent radical [like himself] is at heart an incurable egalitarian."

11 Meade and equality

James Edward Meade (1907-1995) saw “the role of the economist as that of helping to design a better society and international order”—Atkinson and Weale (2000: 473)—and eugenics as a way to that better society. Meade joined the Eugenics Society in 1938 but became active in its affairs only much later, serving on the Council in 1962-68 and as Treasurer in 1963-67. No economist was ever so involved in the organisation at such a high level or engaged the subject so positively in such a serious way. All this went against the current for the cause of the “best and noblest intelligences” was out of favour: Meade styled himself a radical in politics *but* a believer in eugenics while Keynes had believed in eugenics *because* he was a radical in politics. Even the name was disappearing: in 1954 under L. S. Penrose (successor to Pearson and Fisher in the Galton chair) the *Annals of Eugenics* became the *Annals of Human Genetics*, in 1963 the chair became the Galton Professorship in Human Genetics and in 1968 the *Eugenics Review* ceased publication. In 1989 the Eugenics Society reconstituted itself as the Galton Institute with a less missionary mission, “to promote the public understanding of human heredity and to facilitate informed debate about the ethical issues raised by advances in reproductive technology.” Mazumdar (1992, *passim*) traces the changes to eugenics while Atkinson and Weale (2000), Howson (2000) and Greenaway (1989) review Meade’s life and work.

Meade, like Harrod, went from Oxford to Cambridge to learn economics and his official guide in 1930-1 was Dennis Robertson (1890-1963). Robertson had been on the fringes of the Keynes-Beveridge population debate—see Section 9 above—and his paper

“Economic incentive” (1921) has a brief discussion of fertility including a mention of the effects of the old Poor Law and the remark (241), “An increase in the earnings of babies does undoubtedly tend to elicit an increase in the output of babies.” However it was what Meade learnt from Keynes and the Circus of young economists that is reflected in the *Introduction to Economic Analysis and Policy* (1936). This brought the latest Cambridge economic theory, though on income distribution the latest was still Pigou. Meade, however, did not discuss the quality of the population and the optimum population was a matter of size only.

In the 30s Meade supported the Labour Party and wrote policy documents for Dalton. After war work Meade returned to the academy to write treatises and tracts. The first of the tracts, *Planning and the Price Mechanism: The Liberal-Socialist Solution* (1948), applied the ideas of the *Introduction* to the situation of post-war Britain. Its “Liberal-Socialist solution” was to remove wartime controls and reinstate the price mechanism but with safeguards to ensure, inter alia, a “tolerably equitable distribution of income and property.” How to combine efficiency and equity would be a leading theme of Meade’s work on policy and to this end he proposed the reorganisation of existing benefits, which now included family allowances, and taxes. Population considerations did not enter. After the First World War—see Section 9 above—economists had been exercised by proposed changes to the welfare system but they were less exercised by the actual changes after the Second World War.

In 1957 Meade moved to Cambridge to succeed Robertson who had followed Pigou in Marshall’s chair. In Cambridge he published four volumes of a *Principles of Political Economy*, three with a population element, and two tracts with a population element.

Quantity and quality were both considered: Meade (1961, -67) wrote about high rates of population growth, often with the case of Mauritius in mind and about differences between individuals and how they were passed on in societies like Britain. The situation had changed since the time of Harrod and Meade had different values: the extinction of the British race was not an issue but the perpetuation of inequality was.

It was in *Efficiency, Equality and the Ownership of Property* that Meade (1964: 63) described himself as “a radical in politics but a believer in Eugenics.” The work argued for reforms that would combine efficiency-in-use with equity-in-distribution formulating (76) a 6 point programme of which two—(5) and (6)—related to innate ability:

(5) the development of educational policies which would equalize the chances of promotion in life for boys and girls of equal innate ability; and

(6) the reduction of the relative fertility of those with low earning capacity (i) by giving easy and equal opportunity to all citizens for acquiring and using contraceptives and (ii) by increasing the tax burden of the childless relatively to those with children within the higher earned income brackets.

Thus (i) was a measure of negative eugenics and (ii) a measure of positive eugenics. In a later essay on poverty Meade (1972: 318) recognised that “If poverty is to be reduced one cannot avoid subsidizing large families to a smaller or greater degree.” He emphasised access to contraception but conceded, without elaboration, “Whether such measures would prove to be an adequate offset to the subsidization of procreation is another question. Perhaps in the end we shall need to adopt more authoritarian methods.” *The Intelligent Radical’s Guide to Economic Policy* (1975: 122) advises us to “wait and see.”

Eugenics, without the name, is a presence in volume 4 of the *Principles, The Just Economy*, which (1976a: 13-14) finds among seven “fundamental economic reasons” why market forces may not be left to operate unchecked without loss of economic welfare: “It may be desirable to take steps to influence the size and composition of future generations by influencing the levels of fertility of the present generation.” The book’s final chapter is a “catalogue of redistributive policies” and the book concludes with an appendix describing “A mathematical model of the dynamics of social welfare in second-best economy.” The catalogue is of a piece with the tracts, his 1964 book and the *Intelligent Radical’s Guide*, while the appendix brings to mind the $\alpha\beta\gamma\delta$ problem of Edgeworth’s hedonical calculus.

The intelligent radical was not only interested in reducing inequality as Meade (1975: 81fn) pointed out

To reduce inequalities of genetic factors for ability one would need to reduce the fertility of the very able and the very dull. [...] But the intelligent radical will be interested in raising the average as well as in reducing inequalities.

Meade also envisaged economists, sociologists, psychologists and eugenicists working together under the auspices of the Eugenics Society; the conference volume, Meade and Parkes (1966), pointed the way while the paper “The inheritance of inequalities: some biological, demographic and social factors” (1973a) provided a scheme for coordinating the empirical findings from diverse disciplines. It was as though Meade were assembling the forces needed for the task announced in Pigou’s Galton Lecture of 1923 or, going back even further, to provide the knowledge required to solve Edgeworth’s $\alpha\beta\gamma\delta$ problem. Although Meade laboured on the organisational infrastructure and provided for

a population dimension in his treatises, he never published in *The Eugenics Review* and his Galton Lecture was in the tradition of *not* being about eugenics. Meade was a neo-Malthusian but his “Economic policy and the threat of doom” (1973b) was largely a criticism of the mechanistic version presented by Meadows which revived the anxieties expressed by Keynes in the 1910s and 20s and by political economists before Marshall.

Meade defended his eugenics in a discussion of “The Genetic Basis of Inequality” a paper by the medical geneticist C. O. Carter. Meade (1976b: 110) begins by saying

The excesses of the early Social Darwinists, together with the crimes committed by Hitler, for some time made it almost indecent to suggest that genetic differences between different men and women could be of any significant importance in explaining social and economic phenomena.

and finishes (116) with a passage from Galton’s autobiography:

Man is gifted with pity and other kindly feelings; he has also the power of preventing many kinds of suffering. I conceive it to fall well within his province to replace Natural Selection by other processes that are more merciful and not less effective.

Meade’s eugenics did not carry: it was not developed, it was not noticed in reviews of his books and was usually passed over in appreciations of his work. Greenaway (1989: 136) attends to it though his comment—“Such explicit sympathy for social engineering is rare in the writings of any economist”—underlines how remote the attitudes of the eugenists from Marshall to Meade had become.

12 Conclusions

“Historically economists paid little attention to heredity.” These words from Beenstock’s (2012: 26) recent treatise on heredity, family and inequality testify to how the eugenic line in British economics has been forgotten. Eugenics in economics relied on knowledge—or assumptions—about fertility patterns and the inheritance of ability but today when economists investigate these subjects, e.g. Jones, Schoonbroodt and Tertilt (2010) and Black, Devereux and Salvanes (2009), it is without obvious links to their eugenic predecessors.

The eugenic line in British economics was a line of very influential economists whose ideas on eugenics seem to have had little influence, either in economics or in the eugenics movement. Marshall expressed the full range of eugenic anxieties but had nothing definite to say about policies. Keynes registered his support for the cause but did little to further it. Pigou supported some eugenic policies but his writing on eugenics and economic welfare most probably had the effect of immunising British economics against eugenics. Harrod and Meade had policies but not the attention of the public, either professional or general.

In gauging influence some yard-sticks might be useful. The quantitative problem of population—the Malthusian doctrine—from which Marshall began and to which Meade returned provides one (very high) standard of influence. That doctrine was not confined to a few masters but was taught in textbooks and was such an important doctrine that it generated one refutation after another. Like the principle of population, the eugenic principle had implications for the Poor Law and for emigration/immigration but the movement away from classical economics took these topics from the centre of British economics to the periphery. Studies of the influence of eugenic ideas in early twentieth

century American economics seem to suggest that eugenics was more influential there than in Britain.

The eugenics line was not only a line in time, it connected the leaders of Cambridge economics, Marshall, Pigou and Keynes, and three important ‘corresponding’ members, Edgeworth, Harrod and Meade. They knew each other and each other’s works. A contemporary of Pigou, D. H. Macgregor (1942: 314) recalled how in his time, “there was no other book you had to know but the Principles” and when Keynes lectured in 1912 he taught the book. In the 1940s and 50s the canon included *The Economics of Welfare* and Dennis Robertson’s *Lectures* have a chapter on the “supply of labour—population” with a few pages on inborn quality (1963: 302-5) based on Pigou’s ch. iv/ix. The later believers in eugenics, Harrod and Meade, did not refer to earlier writings or give any sense of writing in a tradition—and indeed there was no line comparable to that in the theory of markets or in the theory of employment where there was something to build on, re-assemble or destroy.

After this long review of eugenics in British economics it may seem an anti-climax to conclude that, while eugenics has a place in history of British economics, it is not an important place. Eugenics was an important presence in the history of genetics, of demography or of statistics in Britain—see e.g. Bowler (1989), Langford (1998), MacKenzie (1981) and Louçã (2009)—but not it seems in economics.

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