# What Was Wrong with Eugenics? Conflicting Narratives and Disputed Interpretations

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Published online: 3 November 2012 © Springer Science+Business Media Dordrecht 2012

Abstract Although it is often taken for granted that eugenics is odious, exactly what makes it so is far from obvious. The existence of considerable interpretative flexibility is evident in the disparate policy lessons for contemporary reproductive genetics (or "reprogenetics") that have been derived from essentially the same set of historical facts. In this paper, I will show how different—indeed, diametrically-opposed—morals have been drawn from the history of eugenics and link these contrasting messages both to different underlying conceptions of what constitutes the central wrong of eugenics and differing degrees of enthusiasm for reprogenetic technologies. I will then argue that, for several reasons, the history of eugenics simply cannot provide the kind of direct guidance that many participants in current debates would like. Although the history does have implications for policy, the insights to be gleaned are both subtle and indirect.

## 1 The Long Shadow

Advocacy of eugenics—the control of breeding in the service of improving the human race—extends back at least to Plato and Aristotle. But the idea remained largely theoretical until the nineteenth century, when it was first popularized by phrenologists and physiog-nomists fascinated with the hereditary character of disease and mental traits and its implications for the choice of marriage partners, and later by Charles Darwin's half-cousin Francis Galton.<sup>1</sup> Although critical of phrenology, Galton was convinced that every mental, moral, and personality trait was transmitted in the hereditary material from parents to children and that the inheritance of such traits explained social success and failure. He also feared that the process of natural selection had been largely halted in modern societies, with hereditary paupers, imbeciles, and criminals reproducing at an alarmingly rapid rate

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<sup>&</sup>lt;sup>1</sup> Both thought that character and temperament could be read from the body, but phrenologists were concerned with conformations of the skull and physiognomists with bodily and especially facial characteristics more generally.

while society's most capable members married late and had few children. In his view, only a program of artificial selection could reverse the otherwise inevitable degeneration. In 1883 he named this breeding program *eugenics*, from the Greek word for "well-born," and described its two facets: "negative eugenics" would aim at discouraging inferior members of society from having children, and "positive eugenics" would encourage the most capable to reproduce early and often.

After the turn of the twentieth century, the idea caught on, with eugenics becoming a worldwide movement. But eugenics was a very broad church, one that could impose no doctrinal authority. The movement took quite different forms in different times and places, was promoted by groups with disparate social and political orientations, and became attached to a wide range of social and political causes. Thus eugenics was invoked to justify such diametrically opposed policies as war and pacifism, an end to marriage ("free love") and traditional family roles, social reform and the status quo, increased access and also opposition to the dissemination of birth control information and devices. Nor did eugenicists agree on methods. Some favored compulsory sterilization while others fervently opposed it, and the same is true for every eugenic policy and practice. Some eugenics was certainly coercive. In the U.S., the Virginia statute authorizing sterilization of the "feebleminded" was upheld by the by the Supreme Court in the 1927 case of *Buck v Bell*; in its aftermath, new laws were passed and the number of procedures climbed. However Britain, where the modern movement was founded, never adopted a mandatory sterilization law, and even the campaigns to legalize *voluntary* sterilization were defeated.<sup>2</sup>

Galton himself thought the best way to achieve eugenic goals was to induce gifted men to marry equally gifted women and have many children. His proposals included celebrating marriages in Westminster Abbey, providing subsidized housing settlements where gifted couples could raise large families, and monetary awards to Cambridge University women of superior health and intellect if they married before age 26 and on the birth of each child. Had eugenics only amounted to such "positive" eugenic schemes, it likely would little interest us today. But it took other, more sinister turns. When people hear the word "eugenics," the images provoked are not wedding ceremonies but compulsory sterilization of the feebleminded, immigration restriction and other racialist legislation, the murder of mental patients and other "useless eaters" in Nazi Germany, and above all, the Holocaust. *That* history, especially of Nazi breeding and extermination programs, casts a very long shadow indeed over contemporary discussions of medical genetics and reprogenetics.<sup>3</sup> As geneticist Charles Epstein (2003) noted: "The worst accusation that can be leveled against modern human genetics and medical genetics is that they are eugenic—if not a literal return to the eugenics of the past, at least a reincarnation of that eugenics in a new guise."

Recently, several philosophers have tried to remove the sting from the term, arguing that eugenics *per se* is not repugnant (e.g. Kitcher 1997; Wikler 1999; Caplan 2000; Glover 2006). With Nicholas Agar (2004, p. vii), they insist that, although eugenics may be unpopular, "being unpopular is not the same as being wrong," and that everything depends

<sup>&</sup>lt;sup>2</sup> Readers who would like an overview of Anglo-American eugenics might consult Kevles (1995) or Paul (1995). For an excellent introduction to the recent international historiography of eugenics, see Levine and Bashford (2010).

<sup>&</sup>lt;sup>3</sup> Lee M. Silver, a biophysicist who teaches in the Department of Molecular Biology at Princeton University, originally coined the term "reprogenetics" to denote the convergence of genetic and reproductive technologies such as in vitro fertilization. It is typically employed broadly to include research and interventions involving both gametes and embryos (Knowles and Kaebnick 2007, p. ix).

on the specific form that eugenics takes. Indeed, it has been argued that, in *some* form, its practice is inescapable (e.g. Kitcher 1997, pp. 193–204; Glover 2006, 28). Even more controversially, several philosophers have proposed that there are circumstances in which practicing eugenics may be morally obligatory, although there is no consensus about what those circumstances are (see Buchanan et al. 2000, pp. 333–345; Savulescu 2005; Glover 2006, pp. 50–63; Harris 2007; Savulescu & Kahane 2009). But wherever they fall out on these subsidiary issues, all agree that there is a moral gulf between the values that inform current and prospective genetic interventions and those that gave past eugenics its bad reputation. Thus Oxford philosopher Julian Savulescu, asked by an interviewer for the Guardian newspaper "whether eugenics can ever throw off the legacy of the Third Reich?" responds: "It depends what you mean by eugenics. In point of fact, we practise eugenics when we screen for Down's syndrome, and other chromosomal or genetic abnormalities. The reason we don't define that sort of thing as 'eugenics', as the Nazis did, is because it's based on choice. It's about enhancing people's freedom rather than reducing it" (quoted in Sutherland 2005). Similarly, referring to a recent announcement that a simple saliva test that would identify whether prospective parents carry mutations for 109 inherited disorders would soon be marketed to British consumers, Alexandre Erler (2010) comments that.

it is unfortunate that the term "eugenics" has become a dirty word due to its association with some of the darkest pages of Western history in the past two centuries, and particularly Nazi Germany. The eugenics charge only appears to carry weight because it implicitly understands the term as referring to the horrendous ways in which eugenics have been practiced in the past, i.e. to the compulsory sterilization of thousands of people considered "unfit" in America and Nazi Germany. But this shows that the charge relies on equivocation. Indeed, the genetic test that we are discussing doesn't involve sterilizing anyone. Its aim is to avoid that children be born with one of a number of handicapping and dangerous diseases. This clearly isn't Nazi eugenics. If it is eugenics, then it is so in another sense, i.e. it allows us to diminish the likelihood that children will be born with cretain features we judge undesirable; and we judge them undesirable because they are likely to be seriously harmful to their well-being. If the word is used in this sense, the claim that using the test in our reproductive decisions would be eugenics does not constitute an objection at all.

However, efforts to distinguish an acceptable from an unacceptable eugenics have had little impact on the wider academic and popular discourse, and the identification of a policy or practice as eugenic remains highly stigmatizing. As a result, enthusiasts for contemporary genetic technologies generally reject the label. For example, in *Heredity and Hope:* The Case for Genetic Screening, the historian Ruth Schwartz Cowan (2008, pp. 113–114) argues that there is nothing either morally or politically suspect in these technologies' development or use, and that contemporary medical genetics, motivated by the desire to reduce suffering and increase freedom is detached historically, technologically, and ideologically from the enterprise of eugenics. She notes that: "Opponents of prenatal diagnosis have frequently raised the specter of eugenics in their effort to gain adherents to their cause. [...] Even supporters of prenatal diagnosis bring up its historical connections with Nazi eugenics, if only to caution opponents that nothing like that will happen again." But in Cowan's view, both supporters and opponents "are all wrong. Prenatal diagnosis has almost nothing in common with eugenics, neither historically nor technologically." The crucial point is that irrespective of whether they accept or repudiate the eugenics label, those with a positive attitude towards prenatal testing (PND), preimplantation genetic diagnosis (PGD), carrier testing and other reproductive interventions almost always argue that they share none of the qualities that made past eugenics offensive.

Of course critics of these technologies vehemently disagree. In their view, the central features that made past eugenics repugnant continue to inform contemporary reprogenetics. While generally acknowledging that current interventions differ from the crude efforts to control breeding that characterized pre-World War II eugenics, they contest the claim that the values guiding parents to use genetic testing to avoid the birth of a child with a serious disorder "could hardly be more different from those of the Nazis" (Glover 2006, p. 28). Although scholars writing from a critical perspective (in contrast to activists blogging on the internet) rarely claim that the developers and advocates of these technologies are Nazis, and sometimes explicitly disavow this, they do perceive a continuity of assumptions and goals. From their standpoint, both old and new eugenics share the aim of eliminating unfavorable traits and promoting favorable ones, involve judgments about which of these traits are desirable that reflect socially prejudicial assumptions, and rest on an unwarranted genetic determinism that attributes far too much power to genes in explaining social ills and achievements and too little to class and other environmental factors. (For versions of this argument from varied religious and political perspectives, see ICTA 2011; Neumayr 2005; Schmalz 2006; Young 2005).

Whether one perceives essential continuity or discontinuity depends crucially on assumptions about what characteristics were central to the eugenics movement of the first half of the twentieth century and what exactly made those characteristics abhorrent. (Only rarely are the assumptions made explicit). It is notable that both those who celebrate and those who deplore contemporary practices tend to agree on the historical facts. In their accounts of the history, eugenics is typically equated with, in the words of one commentator, "government oppression, perverted science, and social snobbery" (Green 2007, p. 161). Above all, it is associated with the coercive use of state power. The exemplar is compulsory sterilization. Yet enthusiasts and critics draw opposite morals from what is essentially the same account of the history, with the former typically interpreting the past as a warning against greater state oversight of reproductive genetics and critics invoking that history to support their rejection of a laissez-faire approach. In the next section, we will see how these disparate lessons link both to different conceptions of what was fundamentally wrong with eugenics and to different attitudes towards the development and use of reprogenetic technologies.<sup>4</sup>

## 2 Enthusiasts and the Arguments for Laissez-Faire

It may already be obvious from the discussion of the debate over what current practices should be labeled "eugenic" that enthusiasts for reprogenetics almost invariably identify coercion as eugenics' worst evil. At the center of their historical account are state actors and public policies: Officials who legislated restrictive immigration and coercive sterilization, and especially Nazis who imposed not only sterilization but the "euthanasia" of mental patients and ultimately genocide. Because enthusiasts believe that a commitment to individual reproductive freedom informs current practices, they see PND, PGD, and other reproductive interventions as not just different in spirit from but the very antithesis of past eugenics.<sup>5</sup> Thus, Lee Silver, who coined the term "reprogenetics," insists that it is

<sup>&</sup>lt;sup>4</sup> In his insightful essay on sterilization in Sweden, Torbjörn Tännsjö (1998, pp. 240) notes that there are at least three quite different and indeed inconsistent objections to sterilization policy, and that depending on which one is accepted, we will condemn different agents in the past and also favor different policy recommendations for the future.

<sup>&</sup>lt;sup>5</sup> Michael Sandel (2004) also remarks on the underlying assumption that voluntary choices "are not really eugenic–at least not in the pejorative sense. To remove the coercion [...] is to remove the very thing that makes eugenic policies repugnant."

fundamentally different from eugenics both in terms of aims and methods. In his view, while eugenics limited reproductive freedom through policies like coercive sterilization and immigration restriction, "reprogenetics will do exactly the opposite" (Silver 2000, p. 376; see also Pence 2000, p. 113; Agar 2004). Savulescu (2005, p. 38) speaks for many

p. 376; see also Pence 2000, p. 113; Agar 2004). Savulescu (2005, p. 38) speaks for many enthusiasts when he remarks: "What was objectionable about the eugenics movement, besides its shoddy scientific basis, was that it involved the imposition of a state vision for a healthy population and aimed to achieve this through coercion. [...] Modern eugenics in the form of testing for disorders, such as Down's syndrome, occurs very commonly but is considered acceptable because it is voluntary, gives couples a choice over what kind of child to have and enables them to have a child with the greatest opportunity for a good life."

From this understanding of the central wrong of eugenics, a common inference is that everyone should have the right to seek to achieve their reproductive goals, and that how they do so is no business of the state. Thus, after admonishing us not to forget the Nazi concentration camps, biophysicist Gregory Stock (2002, pp. 198–199) asserts that the lesson to be derived from the history of the first half of the 20th century is: "Governmental abuse is what we must fear, not germinal choice technology," while James Watson, co-discoverer of the structure of DNA and first director of the U.S. human genome project suggests that as a result of eugenics: "Genetics, in many people's eyes, has a bad connotation of the State or others determining people's lives. Which is why [...] the state should stay out of it" (quoted in Stock and Campbell 2000, p. 90). Discussing the Swedish sterilization laws, philosopher Torbjörn Tännsjö concludes:

The important thing to learn from history is that society should not meddle with our reproductive decisions. This does not only imply that no one should be compelled to have an abortion or become sterilised. It implies too that no one should be stopped from becoming a parent in the way he or she sees fit. The use of techniques for assisted reproduction should not be regulated by political authorities (nor by doctors). The decisions about prenatal diagnosis, in vitro fertilization, egg donation, preimplanatory diagnosis, and so forth, should be placed in the hands of prospective parents. The doctors should serve the needs of those prospective parents. The politicians should allow the doctors to do so (Tännsjö, 1998, pp. 247–248).

Recently, a group known as "transhumanists," although small in size, has attracted considerable media attention and a degree of academic respectability.<sup>6</sup> (Transhumanism is the convergence of genetic engineering, cryonics, nanotechnology, and robotics; its adherents aim to bring an end to aging and to vastly enhance human capacities).<sup>7</sup> Transhumanists have been particularly vocal in denying any connection between reprogenetics and past eugenics, and in drawing a libertarian moral from the latter. Thus, the question "Do transhumanists advocate eugenics?" is answered as follows on the WTA website:

Eugenics in the narrow sense refers to the pre-WWII movement in Europe and the United States to involuntarily sterilize the "genetically unfit" and encourage breeding of the genetically advantaged. These ideas are entirely contrary to the tolerant humanistic and scientific tenets of transhumanism. In addition to condemning the coercion involved in such policies, transhumanists strongly reject the racialist and classist assumptions on which they were based, along with the notion that eugenic improvements could be accomplished in a practically meaningful timeframe through selective human

 $<sup>^{6}</sup>$  They seem to have established a beachhead of sorts at the University of Oxford, where philosopher Nick Bostrom, who co-founded the World Transhumanist Association or WTA (renamed Humanity + in 2008), directs The Future of Humanity Institute. (Bostrom is also affiliated with the Oxford Uehiro Centre for Practical Ethics, directed by fellow reprogenetic enthusisast Julian Savulescu).

<sup>&</sup>lt;sup>7</sup> The distinction between "transhumanism" and "posthumanism" is not always clear, but typically transhumans are considered to have capacities somewhere between those of unaugmented humans and greatly enhanced posthumans.

breeding. [...] Transhumanists uphold the principles of bodily autonomy and procreative liberty. Parents must be allowed to choose for themselves whether to reproduce, how to reproduce, and what technological methods they use in their reproduction (Hughes 2004).

But not everyone agrees that eugenics' worst offense was the use of coercion or with the correlative anti-regulatory moral. In the next section, we see that both opponents of abortion and politically left and pro-choice critics of reproductive technologies (including many feminists and disability-rights advocates) have a different view of what was most offensive in eugenics' past and hence of the lessons for policy.

## 3 The Critics: Why More Oversight is Needed

## 3.1 Catholic and Conservative Perspectives

Opponents of abortion, who are often but certainly not exclusively Catholic, interpret the history quite differently. In their perspective, the worst wrong of eugenics was the callous attitude it expressed toward people with disabilities. Dr. Marie Hilliard, Chair of the Committee on Ethics and Public Policy of the National Catholic Partnership, recently commented on the results of a survey indicating that 90 % of members of the American Congress of Obstetricians and Gynecologists believe abortion justified for fetal anomalies that are fatal and 63 % when the anomalies are not fatal. In "The New Eugenics: Eliminating the 'Undesirable' by Prenatal Diagnosis" (Hilliard 2010) she comments: "Thus, nearly two-thirds of the physicians responding, physicians entrusted with the care of mother and unborn child, embrace eugenics. The very persons who are the guardians of the health of the unborn baby, the mother and the only professionals upon whom that baby can rely, have become its judge, jury, and executioner for conviction of the 'crime' of being less than perfect." Similarly, anti-abortion activist Mary Meehan (2009, p. 29), referring to the killing of handicapped babies in ancient Greece and Rome, and the support of this practice by both Plato and Aristotle, writes that, "bigotry against people with disabilities is its deepest bias at all, and possibly its oldest." (For other examples, see Will 2005; Smith 2008).

Like the enthusiasts for reprogenetic technologies, anti-abortion activists, irrespective of their religion or politics, tend to focus on the horrors of Nazism.<sup>8</sup> But although their historical slant is similar to that of the enthusiasts, it serves to associate eugenics not with coercion but with prejudicial attitudes toward the disabled. That association is evident in the treatment of Margaret Sanger, the founder of the American Birth Control League (later Planned Parenthood Foundation). In the anti-abortion literature and numerous blogs and websites, Sanger is accused of class and racial prejudice and a "deep and unrelenting" prejudice against people with disabilities, whom she would ostensibly rid from the world by selective breeding (Meehan 2009, p. 32). In these venues, abortion is typically equated with genocide, and Sanger herself often linked to Nazism.<sup>9</sup> According to the website of the Margaret Sanger Papers Project (2002–2003): "Search for Margaret Sanger's name on the

<sup>&</sup>lt;sup>8</sup> Tom Shakespeare (2006, pp. 85–88), who is himself a disability-rights activist, provides an excellent critique of a tendency among activists to equate contemporary reproductive practices with Nazi programs.

<sup>&</sup>lt;sup>9</sup> Typical of this genre is "Margaret Sanger, Sterilization, and the Swastika" (Richmond 1997), where the link between Sanger and Nazism is made by identifying institutions for eugenical segregation as concentration camps and Sanger's views with those of contributors to her journal, even after she had resigned as its editor.

Internet and you will quickly be bombarded by claims that she supported Hitler and the Nazi's human elimination programs, or at the very least inspired the Nazi architects of race improvement."<sup>10</sup> Even a cursory search of the Internet confirms that claim is right.

After World War I, Sanger did begin to invoke eugenic arguments in favor of birth control (as did her British counterpart, Marie Stopes, whose views were far more extreme). Thus, Sanger argued that since educated women already had access to reliable contraceptive information and devices, their wider availability would result in a reduction in births among paupers, criminals, and other undesirables. According to the "Principles and Aims" of Sanger's American Birth Control League: "Funds that should be used to raise the standard of our civilization are diverted to the maintenance of those who should never have been born," and the motto of the *Birth Control Review*, the magazine she founded in 1917, was "To create a race of thoroughbreds." But any balanced portrait of Sanger would also note her condemnation of Nazism and aid to anti-Fascist organizations, her support not just of selective breeding but social reforms, and her opposition to abortion, as well as the fact that her eugenical views were mainstream in her time.

In any case, the crucial point is that highlighting Sanger's role in their accounts of the history of eugenics coheres well with the message that eugenics' worst wrong was the attitudes it expressed about the relative value of different lives, and that the lesson to be learned is that the state should not allow abortion for fetal defects. That including her movement would *not* be congruent with the view that the central evil was coercion and with its associated libertarian moral doubtless explains why, in contrast, one could search in vain for any reference to Sanger at all in the scholarship or journalism of reprogenetic enthusiasts.

### 3.2 Views from the Left

Accusations that prenatal or preimplantation genetic diagnosis constitutes eugenics are also leveled by pro-choice feminists, disability-rights activists, and other left critics of reproductive technologies, who tend to share the view that a central wrong of eugenics was an unhealthy preoccupation with perfection. For example, in The Dream of the Perfect Child, a feminist critique of reproductive technologies, Joan Rothschild (2005, pp. 3–4) argues that underlying this dream is the nightmare of imperfect children. In a passage that could easily have been penned by Marie Hilliard or Mary Meehan, she writes: "Science and technology, medical professionals, and parents meet in the doctor's office. This privatized setting is the site for individual decisions whether to keep a pregnancy or terminate it, and for which diagnosed 'defect.' Each decision becomes another judgment as to which conditions, and which children, are acceptable or not. As they aggregate over time, individual decisions add up to a selection process, marking the imperfect, those who may be dispensed with, while certifying those worthy to be born." Similarly, Australian activist Joan Hume (1996) writes: "With the emphasis on 'perfect babies' the message of the new technologies is that disabilities can and must be weeded out by eliminating foetuses with certain defective traits. This is clearly a modern version of the earlier eugenics perception that disability is inherently bad. Given the continuing widespread discrimination against people with disabilities, for a woman to give birth to anything less than a perfect baby is not only socially and economically undesirable but irresponsible."

However, except when it comes to abortion (where the commitment to women's right to control their own bodies usually trumps concerns about the ways in which abortion for

<sup>&</sup>lt;sup>10</sup> Sanger is also featured on creationist websites, where she is identified not only with eugenics but Darwinism. For example, see Bergman 2008.

fetal defect reinforces attitudes they find objectionable), these critics do not pursue an antiregulatory agenda. Indeed, they are more apt to worry about what happens when there is *no* regulation. That is, their concern is not that the state will compel people to use genetic tools to select or engineer their progeny but almost exactly the reverse: that individuals responding to social norms of health, attractiveness, intelligence, and so forth will want to alter the characteristics of their offspring, and even demand the right to do so—a kind of eugenics variously labelled "back-door," "laissez-faire," "liberal," or "user-friendly." In this kind of eugenics, decisions are more likely to be driven by the market than mandated by the state. Journalist-critic Bryan Appleyard (1999, p. 86) articulately expresses this viewpoint when he writes: "This is the eugenics that happens when the state is specifically excluded from reproductive decisions. It is the eugenics of the free market, and results inevitably from a combination of the current quasireligious faith in the absolute virtues of unfettered markets and the rapid growth of genetic knowledge. The whole point is that we are about to be deluged with offers of choice." Such critics often note that reproductive choices are not made in a vacuum, but rather in a social, cultural, and economic context that favors some choices over others. Thus, for these critics, as for Catholics and social conservatives, eugenics that is consumer-oriented is not thereby benign. Indeed, it is sometimes considered especially insidious on the grounds that privatized eugenics is far more difficult to effectively oppose than is eugenics in its state-sanctioned forms.

## 4 The Limitations of Lesson-Drawing

We have seen that very different lessons for contemporary policy can be and have been drawn from the history of eugenics, with enthusiasts for reprogenetics typically identifying the central wrong as coercion and interpreting the past as a warning against greater state oversight, and critics of these technologies typically identifying the wrong as an ideal of a life without frailty or disability and invoking history in support of the opposite conclusion that more oversight is needed. Who is right, if anyone?

I think that the critics, both of the left and right, are correct in identifying the central wrong as a misconceived ideal of perfection—but not that its logical correlate is a need to regulate the development and use of reprogenetic technologies. Although I do in fact advocate greater oversight of these technologies, it is not because I read such a lesson out of the history of eugenics. Indeed, I doubt that history can ever provide that kind of direct policy guidance. There are at least two reasons why.

First, the present always differs from the past in multiple ways. Whether you agree with Ruth Schwartz Cowan's claim that: "Prenatal diagnosis has almost nothing in common with eugenics, neither historically nor technologically" or with Julian Savulescu's opposite claim that "in fact, we practise eugenics when we screen for Down's syndrome, and other chromosomal or genetic abnormalities," few scholars would deny the existence of very significant differences between the technologies and practices of PND or PGD and those of forced sterilization or race-based immigration restriction or in Germany, the murder of children with disabilities, the killing of mental patients, or even the Lebensborn program. Apart from the overheated discourse on anti-abortion and creationist websites, even harsh critics of reproductive technologies (and not only defenders such as Cowan and Savulescu) generally acknowledge that what they would call the new eugenics differs in at least several important ways from the old. And the extent to which these differences limit the relevance of the history and in what exact ways will inevitably be matters of dispute. Second and relatedly, historical evidence does not speak for itself–it has to be interpreted. As we have seen, the eugenics movement (like all broad social movements) was diverse, with many strands. Many eugenicists, and not just in Britain, would have agreed with Havelock Ellis that "the only compulsion we can apply in eugenics is the compulsion that comes from within" (quoted in Kevles 1995, p. 90). Moreover, the proponents of eugenics were not necessarily racist; indeed, in the Scandinavian countries, as Torbjörn Tännsjö (1998, p. 238) has rightly noted, they were typically "outspoken critics of racism and nazism." Nor did eugenicists all hate the working-class. The history of such a broad and multifaceted movement is obviously capable of very diverse interpretations depending on which individuals, events, policies and practices are judged to be central. Hence there can be no self-evident lessons for policy.<sup>11</sup> However, it does not follow that historical inquiry has no value for current and future policy. In the last section of this paper, we ask in what ways an understanding of the history of eugenics that takes its complexities into account might contribute to contemporary debates around reprogenetics, including teaching about such debates in schools.

## 5 What Can Be Learned?

First, history teaches us a certain humility. There were plenty of racists and reactionaries in the eugenics movements, but even in Germany, that is not the whole story. Before the Nazi seizure of power, eugenics in Germany also found support amongst anti-racists and progressives, even prominent Jews. And if we look to other countries, we find many supporters who were intelligent and socially and politically progressive. Eugenic aims were applauded by some Marxist scientists as well as Fabian and other non-Marxian socialists and by social democrats, by prominent pacifists, and by many feminists. That its adherents included not just Nazis but such progressives as Gunnar and Alva Myrdal, Richard Titmuss, Helen Keller, and W.E.B. DuBois, should give one pause. Oliver Wendell Holmes, who spoke for the court in upholding the Virginia sterilization law, was a progressive jurist best known for his dissent in a 1905 case striking down a law limiting the work week of bakers to 60 hours. His decision in *Buck v Bell*, which was widely applauded at the time, was approved by seven other members of the Supreme Court, including his distinguished colleague Louis D. Brandeis, famous for his defense of a right to privacy.

Moreover, even self-declared critics of eugenics, such as Franz Boas or Herbert Spencer Jennings, took for granted that the "feebleminded" should not be allowed to breed. In his recent book on *Buck v Bell*, historian and lawyer Paul Lombardo (2008, p. 231) notes that psychiatrist Abraham Myerson, one of the most influential critics of existing sterilization laws, believed there was no reason for hesitation in operating on the feebleminded. And the view that there were social responsibilities in reproduction that, if necessary, should be enforced by the state, remained widespread through the 1950s and '60s, especially among scientists. Thus, even such prominent critics of racism and biological determinism as Peter Medawar, Ashley Montagu, and Theodosius Dobzhansky believed that any rational person would agree that individuals likely to transmit serious diseases should not be allowed to reproduce.

If many people who were smart and generally well-intentioned held beliefs that we now find shocking, that surely tells us not to be too smug about our own taken-for-granted

<sup>&</sup>lt;sup>11</sup> Allan Brandt (2006) provides a thoughtful analysis of both the strengths and limitations of policyrelevant history.

views. I suggest that one thing we can predict is that, 50 years from now, we will look just as benighted to those looking back as the eugenicists now look to us. Perhaps our descendants will be horrified that we eat and experiment on other living creatures, and they will be amazed at the number of otherwise sensitive-seeming people who did so. Or perhaps they will be appalled at practices and attitudes that we can not now even identify. In his recent book analyzing moral transformations in respect to dueling, foot-binding, and slavery, the philosopher Kwame Anthony Appiah (2010, p. xi-xii) comments that, "at the end of a moral revolution, as at the end of a scientific revolution, things look new. Looking back, even over a single generation, people ask, 'What were we thinking? How did we do *that* for all those years?' [...] 'What were they thinking?' we ask about our ancestors, but we know that, a century hence, our descendents will ask the same thing about us. Who knows what will strike them as strangest?" Whatever it is they find most puzzling and distasteful, we can predict that they will be shocked at *some* practices and ideas we find unproblematic.

Inculcating humility about our assumptions is an important role for the history of science in the classroom. In schools, the history of science, when taught at all, is generally deployed in ways that are intended to reinforce the rightness of current thinking. Past scientists are valorized when their views seem to prefigure our own, or treated with condescension or even contempt when they do not. If past theories diverge too far from present ones, they may even be characterized as "pseudoscience" (a term most historians of science would banish if they could)! Thus, in biology textbooks, Lamarckism tends to appear only as a foil to Darwinism (despite the fact that Darwin accepted the Lamarckian thesis of the inheritance of acquired characters, and indeed, tried to provide a mechanism for such inheritance with his theory of pangenesis). Similarly, phrenologists and physiognomists almost always appear, at best, as figures of fun, and eugenicists as both obtuse and morally repellent. There is rarely, if ever, an effort to get students to ask why their ideas seemed right to so many people at the time. Were students to reflect on why intelligent and serious people held views now considered erroneous or even absurd, it might prompt the realization that some views they now taken to be self-evident may well meet the same fate.

We can also learn from the history of eugenics that some cultural values are pervasive and highly persistent. What united eugenicists was not agreement on any particular policy or method, but rather a perfectionist ideal, which led them to despise dependency on the care and protection of others. The critics are much closer to the mark than the enthusiasts in their historical focus on cultural attitudes rather than coercive means. Eugenicists of all stripes also shared a disposition to think of genes as determinant of behavior, attributing pauperism, feeblemindedness, sexual promiscuity, alcoholism, criminality, and many other undesirable traits to bad heredity—sometimes to a single gene—and to look to science in general and genetics in particular for the solution to intractable social problems.

Hereditarianism has, for a long time-predating any organized eugenics movementprovided a persistent and powerful framework for thinking about human difference. In a recent article on the Adverse Childhood Experience study, the author describes Nadine Burke's important work on the impact of early childhood stress and trauma on adult health (Tough 2011). Burke is quoted as saying that "in many cases, what looks like a social situation is actually a neurochemical situation"-despite the fact that her patients almost invariably experienced terrible home and community situations, and, as a letter-to-theeditor noted, the neurochemical responses were a symptom, not the cause. But we still reach for genetic explanations whenever we experience disappointing policy results in the domains of education, the economy, and so forth. That is why we keep reprising the same debates, such that the arguments surrounding the *Bell Curve* in mid-1990s were virtually identical to the arguments of the IQ controversy 20 years before. Thus one lesson that might be gleaned from the history of eugenics is the need to examine critically current genetic explanations for complex human behaviors, to ask: what is "alcoholism" or "criminality"? Are all alcoholics or criminals the same? How are phenotypes constructed and employed by different observers in different times and places?

History can also help us to understand why reprogenetics prompts such strong concerns, even when the quality of the science is not at issue. The ability to diagnose conditions prenatally is increasing at an exponential rate. For most of these, no effective treatment is available. As more and more genetically-influenced conditions are recognized, the number of cases in which prospective parents must decide whether to abort a fetus will also increase. This is certainly not Nazi eugenics, but history can help us appreciate why the need to make such decisions elicits so much individual and societal discomfort.

Finally, an historical perspective suggests that, in times of fiscal crisis, these culturallypervasive attitudes are likely to converge with resentment at the economically unproductive to produce ruthless policies. When people express revulsion at eugenics, it is rarely the movement for "free love" that they have in mind, although that would also be part of a complete history of eugenics, but rather compulsory sterilization, the killing of mental patients and other "useless eaters," and above all, the Holocaust. These were largely policies and practices of the 1930s and later, not the 1910s and '20s, when it is often said that eugenics reached its peak. Although the first sterilization law was passed in 1907, most were enacted in the 1930s, when those laws already on the books were also much more aggressively enforced. In the 1920s, many eugenicists had favored segregation over sterilization. That changed with the Depression, when segregation came to seem too heavy an expense and budgets for custodial institutions shrank. Policies that seemed unthinkable when times were flush came to seem simply commonsensical when times turned tough. History suggests that they could become thinkable again given a similar level of economic stress.

Historian Charles Rosenberg (2007, p. 203) has noted that, "the work of academic historians is inevitably a source of decontextualized data for real world actors who deploy it in the context of their particular visions of policy." The history of eugenics is certainly a case in point, illustrating that the lessons of history are not self-evident, that historical like other kinds of evidence needs to be interpreted, and that lessons and counter-lessons can be derived from the same set of facts. But if the history of eugenics cannot provide straightforward lessons for policy, it does teach us that *neither* moralism nor complacency is justified.

**Acknowledgments** A small amount of material in this essay originally appeared in "On Drawing Lessons from the History of Eugenics," in Lori P. Knowles and Gregory E. Kaebnick, eds., *Reprogenetics: Law, Policy, and Ethical Issues*, copyright 2007 by The Johns Hopkins University Press, reprinted by permission of the publisher. The author would also like to thank two anonymous reviewers for very helpful comments.

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