

## Race, Gender, and Genetic Technologies: A New Reproductive Dystopia?

In the 1980s, Margaret Atwood, Gena Corea, and other feminists imagined dystopias in which white women's reproduction was valued and privileged and the reproduction of women of color was devalued and exploited. In *The Handmaid's Tale*, published in 1985, Atwood envisioned the repressive Republic of Gilead, where handmaids were forced to serve as breeders for elite men and their infertile wives in order to perpetuate the white race, while blacks, as well as handmaids who failed to bear children, were exiled to toxic colonies (Atwood 1985). That same year, in *The Mother Machine*, Corea predicted that white women would hire surrogates of color in reproductive brothels to be implanted with their eggs and gestate their babies at low cost (Corea 1985).

Two decades later, feminist scholars have continued to critique the hierarchy that anthropologist Rayna Rapp aptly calls "stratified reproduction" by contrasting the opposing relationships of white women and women of color to reproduction-assisting technologies (1999, 310). At the turn of the twenty-first century, even more advanced reproductive technologies that combine assisted conception with genetic selection, or reprogenetics, threaten to intensify this opposition (Roberts 2005; Parens and Knowles 2007). With preimplantation genetic diagnosis (PGD), clinicians can biopsy a single cell from early embryos, diagnose it for the chance of having hundreds of genetic conditions, and select for implantation only those embryos at low risk of having these conditions (Robertson 2003; Spar 2006; Singer 2007). As Reprogenetics, a New Jersey genetics laboratory that specializes in PGD, puts it, this technique allows

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for the “replacement to the patient of those embryos classified by genetic diagnosis as normal.”<sup>1</sup>

At a time when wealthy white women have access to technologies that assist them in having children who not only are genetically related to them or their partners but have also been genetically screened, various laws and policies discourage women of color from having children at all (Roberts 1998; Smith 2007). As Rapp stated at a Radcliffe Institute conference, *Reproductive Health in the Twenty-first Century*, in October 2004, “Some women struggle for basic reproductive technologies, like a clinic where sterile conditions might be available to perform C-sections, while others turn to cutting-edge genetic techniques” (quoted in Drexler 2005). African American studies scholar Marsha Darling similarly writes, “This stunning array of biotechnology is being directed at developing eugenical population control strategies especially for low-income and poor women of color globally,” while “reproduction enhancement options under the rubric of ‘choice’” are reserved “for economically and racially privileged women in the global North” (2004b).

While welfare reform laws aim to deter women receiving public assistance from having even one additional healthy baby (Mink 2002; Smith 2007), largely unregulated fertility clinics (Arons 2007, 1; Parens and Knowles 2007) regularly implant privileged women with multiple embryos, knowing the high risk multiple births pose for premature delivery and low birth weight (Helmerhorst et al. 2004; Mundy 2007; Reddy et al. 2007). The public begrudges poor mothers a meager increase in benefits for one more child, but it celebrates the birth of high-tech septuplets that require a fortune in publicly supported hospital care (Andrews 1999, 55–61). The multibillion-dollar apparatus devoted to technologically facilitating affluent couples’ procreative decisions stands in glaring contrast to the high rate of infant death among black people, which remains more than twice the rate for whites (Mathews and MacDorman 2007). Indeed, the infant mortality rate is climbing in Mississippi and other southern states (Eckholm 2007).

My prior writing on this reproductive caste system also contrasted policies that penalize poor black women’s childbearing with the high-tech fertility industry that promotes childbearing by more affluent white women (Roberts 1998, 246–93). I recently reconsidered the positioning of white women and women of color in the reproductive hierarchy, however (Roberts 2005). Rather than place these women in opposition, I tied them together in relation to the neoliberal trend toward privatization and

<sup>1</sup> See the Reprogenetics Web site at <http://www.reprogenetics.com/default.html>.

punitive governance. Both population control programs and genetic selection technologies reinforce biological explanations for social problems and place reproductive responsibility on women, thus privatizing remedies for illness and social inequity.

Population control ideology attributes social inequities to childbearing by poor women of color, thereby legitimizing punitive regulation of these women's reproductive decisions (Roberts 1998). Stereotypes of black female sexual and reproductive irresponsibility support welfare reform and law enforcement policies that severely regulate poor black women's sexual and childbearing decisions (Neubeck 2001). By identifying procreation as the cause of deplorable social conditions, reproductive punishments divert attention away from state responsibility and the need for social change. Black mothers' crack use, for example, became a primary explanation for high rates of black infant mortality, although this disparity long predated the crack epidemic (Roberts 1998, 154–59; Zerai and Banks 2002; McCaughey 2005).

Like punishments for poor women's childbearing, reprogenetics also shifts responsibility for promoting well-being from the government to the individual by making women responsible for ensuring the genetic fitness of their children. The individual woman becomes the site of governance through self-regulation of genetic risk (Mykitiuk 2000). The medical model of disability that promotes eugenic elimination of genetic risk instead of ending discrimination against disabled people supports state reliance on individuals to secure their own well-being through the use of genetic technologies. This diversion of attention away from social causes and solutions reinforces privatization, the hallmark of a neoliberal state that seeks to reduce social welfare programs while promoting the free market conditions conducive to capital accumulation. Thus, reproductive health policies involving women at opposite ends of the reproductive hierarchy play an important role in the neoliberal state's transfer of services from the welfare state to the private realm of family and market.

In the last several years, while working on a book project exploring the growth of biotechnologies that incorporate race as a genetic category, I have come to reconsider once again the opposition of white women and women of color in the reproductive caste system in relation to reproductive technologies. The position I just described, like the 1980s reproductive dystopias, still casts white women as the only consumers of reproductive technologies and women of color only as victims of population control policies. It assumes that white women are the only ones with access to these technologies and that women of color play no part in the politics of reprogenetics, except by their exclusion or exploitation.

The recent expansion of both reproductive genetic screening and race-based biomedicine, however, signals a dramatic change in the racial politics of reproductive technologies. First, the important role of genetic screening, which makes individual citizens responsible for ensuring good health by reducing genetic risk, may support the wider incorporation of repro-genetic technologies into the neoliberal health care system. Second, companies that market race-based biotechnologies now promise to extend the benefits of genetic research to people of color (Bloche 2004; Kahn 2007). Media promoting genetic technologies prominently feature people of color in images representing the new genetic age, in contrast to prior portrayals that emphasized whiteness as the exclusive standard of genetic fitness.<sup>2</sup> Moreover, some clinics that offer high-tech reproductive services, including PGD, explicitly appeal to clients of color.<sup>3</sup> Women of color are now part of the market and cultural imaginary of the new reprogenetics. We need a new reproductive dystopia that accounts for the changing racial politics of genetics and reproduction.

In this article, I critically explore the role of race and racism in the emergence of reproductive technologies that incorporate advances in genetic science. What are the implications of including women of color in the market for reprogenetic technologies, particularly when this is done with the expectation that women will use these technologies to manage genetic risk? In investigating this question, I hope to shed light on the critical relationship between racism, neoliberalism, and reproduction.

### **Expanding the market for reproductive technologies**

In *Killing the Black Body*, I discussed the role of race in images promoting the fertility industry (Roberts 1998, 251). I pointed out that pictures showing the success of reproduction-assisting technologies were always of white babies, usually with blond hair and blue eyes, as if to highlight their racial purity. When the *New York Times* launched a prominent four-article series called “The Fertility Market” in January 1996, for example, the front page displayed a photograph of the director of a fertility clinic surrounded by seven white children conceived there (Gabriel 1996, A1).

<sup>2</sup> See the Web sites of DNA Tribes (<http://www.dnatribes.com>), GeneTree (<http://www.genetree.com>), and National Geographic’s Genographic Project (<https://www3.nationalgeographic.com/genographic/index.html>).

<sup>3</sup> See the Pacific Fertility Center’s appeal to prospective donors at <http://www.donateyoureggs.com> and information about egg donation at [http://www.pacificfertilitycenter.com/treat/agency\\_donation.php](http://www.pacificfertilitycenter.com/treat/agency_donation.php).

The continuing page contained a picture of a set of beaming in vitro fertilization (IVF) triplets, also white (Gabriel 1996, A18).

In the 1990s, the only time black babies figured in media coverage of these technologies was in stories intended to evoke revulsion precisely because of their race. One instance was a highly publicized lawsuit brought by a white woman against a fertility clinic she claimed had mistakenly inseminated her with a black man's sperm, resulting in the birth of a mixed-race child (Schatz 1990; Sullivan 1990). Two reporters covering the story speculated that "if the suit goes to trial, a jury could be faced with the difficult task of deciding damages involved in raising an interracial child" (Kantrowitz and Kaplan 1990). The perceived harm to the mother of receiving the wrong sperm was intensified by the clinic's failure to deliver a white baby.

Other notorious news stories from the 1990s included the case of twin boys born to a white Dutch couple who discovered when the babies were two months old that one was white and one was black (Elliot and Endt 1995). The fertility clinic had fertilized the mother's eggs with sperm from both her white husband and a black man. A landmark California dispute from 1993, *Johnson v. Calvert*, involved a black gestational "surrogate," Anna Johnson, who was denied any rights to the child she bore for the genetic parents, a white man and his Filipina wife, Mark and Crispina Calvert.<sup>4</sup> The press paid far more attention to Anna Johnson's race than to that of Crispina Calvert. It also portrayed the baby as white. By relying on the Calverts' genetic tie to the child to determine legal parenthood, the California courts ensured that a black woman would not be considered the natural mother of a white child (Roberts 1998, 280–81). While the stories involving whites portrayed the positive potential of new reproductive technologies, the stories involving women and children of color revealed their potential horror.

Today, however, the high-tech fertility business, including genetic-screening services, no longer appeals to an exclusively white clientele. Although fertility clinics perform sex selection for a range of clients, the controversy surrounding this service has centered on Chinese and Indian women (Darnovsky 2004; Bumgarner 2007). Images on fertility clinic Web sites routinely show people of color alongside claims advertising clinic services and their benefits. To be sure, pictures of white babies continue to dominate some Web sites. The home page of the Rinehart Center for Reproductive Medicine in Illinois displays the head of a blond-haired baby

<sup>4</sup> *Johnson v. Calvert*, 5 Cal. 4th 84, 19 Cal. Rptr. 494 (1993), *cert. denied*, 114 S. Ct. 206 (1993).

emerging like the sun from billowing white clouds to illustrate its promise of “turning your dreams of starting a family into reality.”<sup>5</sup> Sher Institutes for Reproductive Medicine, with nationwide locations, streams photo strips of its “success stories,” showing dozens of children, all of whom appear to be white.<sup>6</sup>

Similarly, a full-page advertisement for the Virginia-based Genetics and IVF Institute, which recently appeared in the *New York Times Magazine*, features a giant photo (taking up about half the space) of a white baby with blonde hair, blue eyes, and rosy cheeks.<sup>7</sup> The headline asks, “Over 40 and thinking of having a baby?” followed by the solution: “DONOR EGG Immediate Availability.” In the text below, the company boasts of offering “Doctoral Donors with advanced degrees and numerous other donors with special accomplishments and talents.” The assumption that whiteness, intelligence, and talent are connected and hereditary remains robust in the reprogenetic marketplace.

Nevertheless, the images associated with reproductive technologies have dramatically diversified in recent years. Reproductive Health Specialists in Illinois displays a photograph of a large group of white couples holding white babies, captioned “Baby Picnic.”<sup>8</sup> But its Web site also contains a photograph of a smiling black man and woman and a drawing of a pregnant black woman attended to by a black male partner and female physician. Likewise, Houston IVF’s Web site shows a beaming black couple holding a black baby.<sup>9</sup> The Illinois-based Karande and Associates takes a very multicultural approach, using a photo of a pregnant East Asian woman for scheduling an appointment, a black woman and child for its link to donor egg information, and a South Asian man and child for the insurance information link.<sup>10</sup>

There are numerous advertisements on craigslist.com explicitly solic-

<sup>5</sup> See the Rinehart Center for Reproductive Medicine Web site at <http://www.illinoisivf.com>.

<sup>6</sup> See the Sher Institutes for Reproductive Medicine Web site at [http://www.haveababy.com/ss/index\\_ss.cfm?&city=local&site=ss2](http://www.haveababy.com/ss/index_ss.cfm?&city=local&site=ss2).

<sup>7</sup> See Genetics and IVF Institute, advertisement, *New York Times Magazine*, July 29, 2007, 21.

<sup>8</sup> See images of the “baby picnic” at [http://www.reproductivespecialist.com/baby\\_parties.htm](http://www.reproductivespecialist.com/baby_parties.htm).

<sup>9</sup> See the Houston IVF Web site at <http://www.houstonivf.net/houstonivf/OurServices/OurServices.asp>.

<sup>10</sup> For images from the Karande and Associates Web site, see <http://www.karandeivf.com/appointment.html>, <http://www.karandeivf.com/eggdonorprogram.html>, and <http://www.karandeivf.com/insurance.html>.

iting egg donors of color. For example, a posting by Beverly Hills Egg Donation notes, "ALL ETHNICITIES WELCOME!"<sup>11</sup> F. Williams Donor Services' listing states, "Ethnic Diverse Egg Donors Needed" and includes a photo of an Asian, a white, and a black woman.<sup>12</sup> Happy Beginnings, LLC, advertises, "EGG DONORS WANTED ALL ETHNIC BACKGROUNDS," specifying, "WE HAVE A VERY HIGH DEMAND FOR JEWISH, EAST INDIAN, MIDDLE EASTERN, ASIAN, ITALIAN, AND BLONDE DONORS."<sup>13</sup> Similarly, Pacific Fertility Center boasts that it "maintains a diverse egg donor database including Jewish egg donors, Asian egg donors, and a variety of backgrounds and ethnicities."<sup>14</sup>

Some fertility clinic Web sites not only market their reprogenetic services to people of color, but they also perform race-based genetic testing as part of those services. Pacific Fertility Center's Web site includes the statement, "Genetic screening is also recommended, based on ethnic background."<sup>15</sup>

Reproductive Genetics Institute in Chicago similarly includes race in the factors it takes into account in its genetic testing: "Screening Results and Accuracy: By combining the results of the ultrasound and blood test along with the age, race and weight of the mother, a number can be generated by computer which represents the risk of the pregnancy being affected by Down syndrome or another chromosome problem. Experience has shown that, together, the ultrasound and blood screen will identify approximately 90% of babies with chromosome abnormalities."<sup>16</sup>

Fertility clinics' use of race in genetic selection procedures may help to reinforce the erroneous belief that race is a biological classification that can be determined genetically or that genetic traits occur in human beings according to their race. Social scientists' demonstration that race is an invented social grouping was confirmed by genomic studies of human variation, including the Human Genome Project, showing high levels of

<sup>11</sup> See Beverly Hills Egg Donation, advertisement, Los Angeles craigslist.com, SF Valley, etcetera jobs, November 22, 2008.

<sup>12</sup> See F. Williams Donor Services, advertisement, Inland Empire craigslist.com, etcetera jobs, November 24, 2008.

<sup>13</sup> See Happy Beginnings, LLC, advertisement, Reno craigslist.com, etcetera jobs, November 13, 2008.

<sup>14</sup> See the Pacific Fertility Center's appeal to prospective donors at <http://www.donateyoureggs.com>.

<sup>15</sup> See the Pacific Fertility Center's Web site at [http://www.pacificfertilitycenter.com/treat/agency\\_donation.php](http://www.pacificfertilitycenter.com/treat/agency_donation.php).

<sup>16</sup> See the Reproductive Genetics Institute's Web page on first trimester screening at [http://www.reproductivegenetics.com/first\\_trimester.html](http://www.reproductivegenetics.com/first_trimester.html).

genetic similarity among people of all races (Graves 2001; Cooper, Kaufman, and Ward 2003). At the onset of the Human Genome Project, some scholars believed that the science of human genetic diversity would replace race as the preeminent means of grouping people for scientific purposes (Lewontin 1995; Reardon 2005). Yet the use of race as a biological category in genetic research and biotechnology is intensifying (Burchard et al. 2003; Bonham, Warshauer-Baker, and Collins 2005; Duster 2005).

The marketing of high-tech reproductive services to women of color is part of a broader inclusion of minority groups in the testing and production of cutting-edge biotechnologies. In June 2005, the Food and Drug Administration (FDA) approved the first race-based pharmaceutical, BiDil, to treat heart failure specifically in African American patients (Saul 2005). BiDil is the combination of two generic drugs that doctors were already prescribing regardless of race. Yet the FDA permitted its maker, Nitromed, to market BiDil as a drug for black people. Making BiDil race specific also allowed Nitromed to extend its patent to the year 2020, giving the company market exclusivity and the potential to reap huge profits on drug sales (Kahn 2004). The manufacturer's unproven theory supporting the need for a race-specific therapy is that the reason for higher mortality rates among black heart patients lies in genetic differences among "races," in either the reason for getting heart disease or the reason for responding differently to medications for it (Kahn 2004; Sankar and Kahn 2005).

BiDil is only one example of the growing trend toward "the strategic use of race as a genetic category to obtain patent protection and drug approval" (Kahn 2006, 1349). In his survey of gene-related patent applications, legal scholar Jonathan Kahn discovered that the use of race has increased fivefold in the past twenty years (2006). Claims about justice in scientific research have shifted away from protecting socially disadvantaged subjects from unethical practices and toward promoting access to clinical trials and biotech products (Epstein 2007). There is strong support for racial therapeutics among some black advocates, researchers, and physicians precisely to redress past discrimination and fulfill long-standing demands for science to attend to the health needs of African Americans (Puckrein 2006; see Roberts 2008). This increased commercial and popular demand for race-specific pharmaceuticals threatens to reinforce a false belief in the biological origin of race.

Advanced reproductive technologies similarly constitute a form of race-based medicine. Rather than serve an exclusively white clientele, fertility clinics are marketing genetic technologies to women of color on the basis of race and ethnicity and incorporating race in genetic-screening proce-



dures. Contemporary reproductive dystopias, then, should not categorically exclude women of color from their imagined users of genetic selection technologies. As I explain below, the expansion of race-based biotechnology, including genetic selection, fits within the neoliberal trend toward privatization and punitive governance and requires adjusting feminist reproductive dystopias.

### **Neoliberalism and reproductive dystopia**

The marketing of reprognetics to women of color is taking place in the context of neoliberal shifts in governance that may encourage the expansion of genetic-screening technologies to a broader clientele. Widespread prenatal testing has already generated greater surveillance of pregnant women and assigned them primary responsibility for making the “right” genetic decisions. It is increasingly routine for pregnant women to get prenatal diagnoses for certain genetic conditions such as Down syndrome or dwarfism (Powell 2007; Saxton 2007). It is also often expected that they will opt for abortion to select against any disabling traits identified by genetic testing. Many obstetricians provide these tests without much explanation or deliberation because they consider such screenings to be a normal part of treating their pregnant patients. The director of reproductive genetics at a large Detroit hospital reported that at least half of the women referred there with an abnormal amniocentesis result were “uncertain about why they even had the test” (Consumers Union 1990, 486). Moreover, current tort case law creates incentives in favor of genetic testing by imposing legal duties on obstetricians to offer it (Weil 2006, 52; Ossorio 2007, 330). While there are virtually no legal consequences for doctors who encourage genetic tests, doctors who fail to use them may be liable for damages in “wrongful birth” lawsuits.<sup>17</sup>

Although genetic counseling should be nondirective, many counselors show disapproval when patients decide against selective abortion. A genetic counselor asked a woman who decided to bear a child with Down syndrome, “What are you going to say to people when they ask you how you could bring a child like this into the world?” (quoted in Helm, Mir-

<sup>17</sup> For example, the Supreme Court of Ohio recently held that parents of an unhealthy child born following negligent failure to diagnose a fetal defect or disease may bring suit under traditional medical malpractice principles for the costs arising from the pregnancy and birth of the child: *Schirmer v. Mt. Auburn Obstetrics and Gynecologic Associates, Inc.*, 108 Ohio St. 3d 494, 2006-Ohio-942 (Ohio S. Ct. 2006). For an argument in favor of using tort law to compensate for “procreative injury” caused by reproduction assisting technologies, see Kleinfeld (2005).

anda, and Chedd 1998, 59). Brian Skotko's survey of 985 mothers who received postnatal diagnoses of Down syndrome for their children similarly discovered that many of the mothers were chastised by health care professionals for not undergoing prenatal testing:

“Right after [my child] was born, the doctor flat out told my husband that this could have been prevented or discontinued at an earlier stage of the pregnancy,” wrote one mother who had a child with DS in 2000. A mother who had a child in 1993 recalled, “I had a resident in the recovery room when I learned that my daughter had DS. When I started to cry, I overheard him say, ‘What did she expect? She refused prenatal testing.’” . . . Another mother reported, from her experience in 1997, “The attending neonatologist, rather than extending some form of compassion, lambasted us for our ignorance in not doing prior testing and for bringing this burden to society—noting the economical, educational, and social hardships he would bring.” Regarding a postnatal visit, a mother who had a child in 1992 wrote, “[My doctor] stressed ‘next time’ the need for amniocentesis so that I could ‘choose to terminate.’” (2005, 70–71)

As a result of such pressure, many pregnant women now view genetic testing as a requirement of responsible mothering (Harmon 2007).

Poor women, especially women of color, currently face financial and other barriers to receiving high-tech infertility services (Elster 2005). Because genetic screening is now considered an essential part of preventive medicine, however, these technologies are becoming integrated into social welfare systems and private insurance schemes and are likely to become increasingly available to poor and low-income women (Van den Daele 2006; Bumiller 2009).<sup>18</sup> Unlike IVF, whose primary purpose is to increase fertility, PGD functions to help women avoid starting a pregnancy that entails disfavored genetic traits (Franklin and Roberts 2006, xx, 97).<sup>19</sup> The aim of IVF is to produce the birth of a live baby; the aim of PGD and fetal diagnosis is to prevent the birth of certain children. While government welfare systems have disdained facilitating childbearing by poor women of color by declining to fund fertility treatments, they may therefore treat genetic testing differently.

<sup>18</sup> For an extensive review of insurance coverage of infertility treatments, see Arons (2007, 8–13): “Fourteen states currently require some types of health insurance plans to include coverage of certain infertility services or to make such coverage available” (8).

<sup>19</sup> PGD also serves to increase fertility when it is undertaken to improve IVF success rates (Franklin and Roberts 2006, 97).

The current ban on federal funding of abortion places a significant limit on state genetic selection programs (Powell 2007, 49–50). In states that do not provide Medicaid funding for abortion, poor women can receive state-sponsored genetic testing but have to pay for the cost of selective abortions themselves. Yet it is not hard to foresee future federal and state legislation that exempts “therapeutic” abortions based on genetic testing from the ban on abortion funding. Prior to the 1973 passage of *Roe v. Wade*, upholding the constitutional right to abortion, many states permitted therapeutic abortions recommended by physicians while criminalizing elective abortions sought by women with unwanted pregnancies (Schoen 2005, 153–86).

Indeed, some clients of reprogenetics have claimed moral superiority over women who have had abortions for nonselective reasons. In a July 22, 2004, op-ed piece in the *New York Times*, Barbara Ehrenreich calls on women who had aborted fetuses based on prenatal diagnosis to support the general right to abortion (2004). She notes that these women sometimes distinguish themselves from women who have “ordinary” abortions. One woman who aborted a fetus with Down syndrome states, “I don’t look at it as though I had an abortion, even though that is technically what it is. There’s a difference. I wanted this baby” (quoted in Ehrenreich 2004, A21). On a Web site for a support group called “A Heart breaking Choice” a mother who went to an abortion clinic complains, “I resented the fact that I had to be there with all these girls that did not want their babies” (quoted in Ehrenreich 2004, A21). The incorporation of eugenic values in arguments for women’s reproductive freedom neglects the history of abortion regulation, which limited women’s reproductive freedom by distinguishing between approved therapeutic and disapproved elective abortions. An attempt to solicit supporters of selective abortion to join the cause of abortion rights misunderstands the nature of reproductive politics in the neoliberal age.

The expansion of genetic research and technologies has helped to create a new biological citizenship that enlists patients to take unprecedented authority over their health at the molecular level (Rose 2007). According to British sociologist Nikolas Rose, “our very biological life itself has entered the domain of decision and choice” (2007, 40). Some scholars have highlighted the enhancement of human agency, as “patients are increasingly urged to become active and responsible consumers of medical services and products ranging from pharmaceuticals to reproductive technologies and genetic tests” (2007, 4) and to form alliances with physicians, scientists, and clinicians to advocate for their interests (Franklin and Roberts 2006, xvii).

Biological citizenship also reflects the shift of responsibility for public welfare from the state to the private realms of market and family. As Rose observes, responsibility for the management of health and reproduction has devolved from the “formal apparatus of the government” to “quasi-autonomous regulatory bodies” such as bioethics commissions, professional groups, and private corporations (2007, 3). Selling genetic testing products directly to consumers is big business for private fertility clinics and biotechnology companies. Biomedical research and technology have correspondingly become major sources of capital accumulation, aided by federal patents on genetic information, FDA approval of pharmaceuticals, and public funding of lucrative private research ventures, such as California’s stem cell research initiative.

In this neoliberal context, genetic testing serves as a form of privatization that makes the individual the site of governance through the self-regulation of genetic risk (Mykitiuk 2000). Reproductive genetic technologies, in particular, introduce a new gendered division of labor and surveillance as women bear the brunt of reproductives’ contribution to the neoliberal restructuring of health care (Mykitiuk 2000). Canadian legal scholar Roxanne Mykitiuk points out that, contrary to the deregulation that typically occurs in the service of big business, the new duties imposed on women constitute a reregulation that supports capital investment in market-based approaches to health care and other social needs while state investment in public resources shrinks (2000).

In addition, reproductives incorporates a seemingly benign form of eugenic thinking in its reliance on reproductive strategies to eliminate genetic risk rather than social strategies to eliminate systemic inequities. Some disability rights advocates oppose prenatal genetic diagnosis that leads to discarding embryos and fetuses predicted to have disabilities because these procedures devalue people who have disabilities, sending the message that they should never have been born (Wendell 1996, 151–56; Parens and Asch 2007; Saxton 2007). They argue that although disabilities cause various degrees of impairment, the main difficulty in having a disability stems from pervasive discrimination. “Rather than improving the medical or social situation of today’s and tomorrow’s disabled citizens,” write bioethicists Erik Parens and Adrienne Asch, “prenatal diagnosis reinforces the medical model that disability itself, not societal discrimination against people with disabilities, is the problem to be solved” (2007, 13).

The reasons why some parents do not want a disabled child are varied. While some women may use genetic selection in an upwardly mobile quest for the “perfect child,” others want to prevent their children from suffering the pain, illness, and physical limitations that accompany disabilities or

worry that they are not capable of dealing with disability's social consequences (Wendell 1996, 82–83; Franklin and Roberts 2006, 132–62; Baily 2007). Yet given medical professionals' implicit directive favoring genetic selection and powerful stereotypes that negatively depict disabled people, many women are left with a false impression of the nature of parenting a disabled child and the quality of disabled people's lives (which genetic testing cannot predict; Bumiller 2009). Pregnant women are rarely able to make truly informed decisions about what to do with test results because they, obstetricians, and counselors typically have little information about the lives of disabled people and their families (Wendell 1996, 81–84; Parens and Asch 2007, 33–37).<sup>20</sup>

Moreover, some of the undesirable events likely to happen to a child with a serious disability that parents may reasonably wish to prevent, such as limited educational and employment opportunities, are caused by social as much as physical impediments (Steinbock 2007, 119). Unable to count on societal acceptance or support, many women feel compelled to turn to genetic testing to ensure their children's welfare (Lippman 1991, 39; Kittay 2007, 181). Without judging the morality of individual women's decisions, we must critically evaluate the social, political, and legal incentives for genetic testing as well as consequences of genetic testing for people with disabilities. Building on the disability critique, we must also question the role that the eugenic approach to disability plays in neoliberal governance.

Rose, the British sociologist discussed above, rejects critical intellectuals' use of eugenics rhetoric to contest PGD and other aspects of contemporary biological politics (2007, 54–68). He argues that the eugenics practiced in the first half of the twentieth century was a particular biopolitical strategy that sought to improve the population as a whole through deliberate state action. This effort “to control the biological makeup of the population” as a whole, he claims, distinguishes eugenics from the new biopolitics' concern with the genetic health of individuals (2007, 56). “What we have here, then, is not eugenics but is shaped by forms of self-government imposed by obligations of choice, the desire for self-fulfillment, and the wish of parents for the best lives for their children,” Rose concludes (2007, 69).

Rose dismisses the relevance of eugenics to contemporary biopolitics

<sup>20</sup> A recent survey of research on the experience of disability in families concluded, “There is an increasingly dominant body of research that finds aggregate patterns of overall adjustment and well-being to be similar across groups of families with and without children with disabilities” (Ferguson, Gartner, and Lipsky 2007, 85).

too categorically. He downplays critical aspects of the past eugenics regime that characterize both contemporary population control policies and genetic-screening technologies such as PGD. By eugenic thinking or values, I refer to the belief that reproductive strategies can improve society by reducing the births of socially marginalized people. The eugenic approach to social problems locates them in reproduction rather than social structure and therefore seeks to solve them by eliminating disfavored people instead of social inequities. Its chief epistemological device is to make the social order seem natural by casting its features as biological facts. As Donald MacKenzie observes, eugenic theory is “a way of reading the structure of social classes onto nature” (1981, 18). Programs based on such a belief set up standards for reproduction that subsume childbearing under prevailing hierarchies of power.

Eugenics did not function only “in the service of a biological struggle between nation-states” (Rose 2007, 66); it functioned to maintain the racial, gender, and class order within the nation. (Moreover, alliances between American and Nazi eugenicists in the 1930s show a willingness to cross national boundaries in the interest of white supremacy.)<sup>21</sup> Thus, contemporary proposals to solve social problems by curbing black reproduction, such as the *Philadelphia Inquirer's* suggestion to distribute the long-acting contraceptive Norplant as a remedy for black poverty, are similar to past eugenic policies in that they make racial inequality appear to be the product of nature rather than power (Kimelman 1990). By identifying procreation as the cause of black people's condition, they divert attention away from the political, social, and economic forces that maintain the U.S. racial order. I therefore believe it is accurate and helpful to identify the ways in which contemporary reproductive health policies incorporate essential features of eugenic ideology, despite the important differences that Rose highlights.

Furthermore, the distinction between past state-imposed and current voluntary programs is not as clear-cut as Rose suggests. On the one hand, Rose ignores the system of punitive governance that accompanies the neoliberal shift to individual self-governance. Welfare is no longer a system of aid but rather a system of behavior modification that attempts to regulate the sexual, marital, and childbearing decisions of poor unmarried mothers by placing conditions on the receipt of state assistance (Roberts

<sup>21</sup> When the leading American eugenicist, Harry Laughlin, received an honorary degree from the University of Heidelberg in 1936, he wrote to German officials that the award represented “evidence of a common understanding of German and American scientists of the nature of eugenics” (quoted in Kevles 1985, 118).

1998; Mink 2002; Smith 2007). Meanwhile, federal and state governments aggressively intervene in marginalized communities to manage their social deprivation with especially punitive measures. The U.S. prison population has grown to proportions unprecedented in the history of Western democracies, as an astounding number of young black men are locked up (Garland 2001; the Sentencing Project 2005). The racial disparity in the foster care population mirrors that of the prison system, as child protection authorities remove grossly disproportionate numbers of black children from their homes (Roberts 2002). Population control policies that attribute social inequities to the childbearing of poor minority women are a critical component of this punitive trend away from state support for families and communities (Roberts 1998; Smith 2007). Rose's reference to "the enabling state, the facilitating state, the state as animator" (2007, 63) does not apply to policies designed to penalize childbearing by poor women and women of color.

On the other hand, Rose's focus on state direction of twentieth-century eugenic programs obscures the crucial role of private enterprises in disseminating and implementing eugenics. Just as influential as the mandatory sterilization laws passed in most states were the campaigns waged by private groups such as the American Eugenics Society, the Human Betterment Association, and the American Genetics Association to educate the American public about the benefits of eugenics, as well as the American Birth Control League's programs to distribute birth control to the unfit (Kevles 1985). As Rose acknowledges, "Eugenics was not disreputable or marginal: it defined one dimension of mainstream thinking about the responsibilities of politicians, professionals, scientists, and individuals in the modern world" (2007, 59).

Some feminists who use eugenics rhetoric to critique modern genetic selection technologies explicitly acknowledge the distinction between state-imposed programs and private decisions made by individuals. For example, U.S. sociologist Barbara Katz Rothman calls the marketing of prenatal diagnostic technologies a form of microeugenics, focused on the individual, in contrast to macroeugenics, focused on populations (2001). I also explicitly distinguish between population control policies and those that promote reproductives while drawing attention to their common support of neoliberal approaches to social inequities (Roberts 2005). This distinction, however, should not eclipse the coercive nature and social function of contemporary reproductives (Wendell 1996, 156; Ward 2002). As I discuss above, genetic selection procedures are increasingly treated as social responsibilities reinforced not only by cultural expectations but also by legal penalties and incentives. Does the state-supported repro-

ductive genetics industry exist only to give individual citizens more reproductive choices, or, as Laura Hershey asks, is it “primarily for the benefit of a society unwilling to support disability-related needs?” (1994, 31; see also Wendell 1996, 154).

Rose’s analysis of contemporary biopolitics helps to illuminate the radical change from state management of the population’s health to individual management of genetic risk, aided by new genetic technologies. These technologies facilitate the shift from state responsibility for ensuring health and welfare to private responsibility, all within the context of persistent race, gender, and class inequities; devastating reductions in social programs; and intense state surveillance of marginalized communities. Genetic screening is increasingly recommended not only to avoid having children with serious early onset disabilities or diseases with a high likelihood of occurring but to eliminate the risk of developing certain diseases as an adult (Obasogie 2006). A recent article in the *Journal of the American Medical Association*, for example, encouraged families affected by hereditary cancer syndromes, including breast, ovarian, and colon cancer, to use PGD to screen out embryos genetically predisposed to develop cancer (Offit, Sagi, and Hurley 2006). In the neoliberal future, the state may rely on the expectation that all pregnant women will undergo genetic testing to legitimize not only its refusal to support the care of disabled children but also its denial of broader claims for public provision of health care.

### **Extending choice to women of color**

The role reprogenetics plays in neoliberalism’s integrated system of privatization and punitive governance is obscured by liberal notions of reproductive choice. Despite the potential for reprogenetics to diminish public health care and intensify regulation of women’s reproductive decisions, its sponsors often defend the industry’s immunity from state regulation in the name of women’s reproductive freedom (Rothman 1989, 116; Darling 2004a). Extending the availability of genetic selection technologies to women of color does not correct the role played by reprogenetics in advancing a neoliberal agenda. The depletion of public resources for general health care and for supporting people with disabilities would exacerbate economic inequities along racial lines, hitting poor minority communities the hardest. In addition, the expectation of genetic self-regulation may fall especially harshly on black and Latina women, who are stereotypically defined as lacking the capacity for self-control. The use of high-tech, expensive technologies by a privileged slice of women of



color suggests that those who do not use them for financial, social, or ethical reasons may be blamed for the social consequences.

There may always be certain reproductive technologies that are reserved for the wealthiest people and are outside the reach of most women of color. The market will privilege a tiny elite among people of color who can afford high-tech reproductive innovations while relegating the vast majority to the state's most intense reproductive surveillance. Indeed, the neoliberal reification of market logic is likely to expand the hiring of poor and low-income women of color for their reproductive services. The incidence of payments to these women to gestate fetuses or to produce eggs for genetic research could intensify (Haworth 2007) even as they are encouraged to use genetic technologies to screen their own children.

In addition, marketing race-based biotechnologies to consumers of color can reinforce the biological meaning of race. By incorporating invented racial categories into genetic research, scientists and entrepreneurs are producing biotechnologies that validate people's belief that race is a natural classification. A renewed trust in inherent racial differences provides an alternative explanation for persistent gross inequities in blacks' health and welfare despite the end of *de jure* discrimination. These technologies promote the view that deepening racial inequities that result from neoliberal policies are actually caused by genetic differences between whites and other racialized groups. The biological explanation for racial disparities provides a ready logic for the staggering disenfranchisement of people of color through mass incarceration and other punitive policies, as well as the perfect complement to color-blind policies implementing the claim that racism has ceased to be the cause of their predicament. Including women of color in the market for reprogenetic technologies does not eradicate the racial caste system underlying reproductive stratification.

A reproductive dystopia for the twenty-first century could no longer exclude women of color from the market for high-tech reprogenetics. Rather, it would take place in a society in which racial and economic divisions are reinforced by the genetic testing extended to them. In this new dystopia, the biological definition of race is stronger than ever, validated by genetic science and cemented in popular culture by race-based biotechnologies. The state has disclaimed all responsibility for supporting its citizens, placing the duty of ensuring public welfare in all women's self-regulation of genetic risk. The medical model of disability is embedded in a neoliberal health policy that relies on widespread use of genetic technologies to disqualify citizens from claiming public support and to avoid the need for social change. The new biologization of race may seem to

unite blacks, and other nonwhite “races,” by confirming the genetic uniformity of people belonging to the same race and their genetic difference from others. In the new dystopia, however, genetic selection technologies that incorporate race as a biological category reinforce class divisions between elite people of color who can afford the full array of high-tech procedures and the masses who suffer most from neoliberal policies bolstered by these very biological explanations of racial inequities. But I can also imagine a new utopia arising from feminists’ radical resistance to enlisting women as genetic screeners in service of a neoliberal agenda, a resistance that is emboldened by new alliances—joining reproductive justice with antiracist, disability rights, and economic justice movements that recognize their common interest in contesting a race-based reprobogenic future.

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