

Science, Religion, and Politics

From Eve to Evolution:

Darwin, Science, and Women's Rights in Gilded Age America

By Kimberly A. Hamlin

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Reviewed by Emily R. Grosholz

It took almost 150 years after the American revolution for women to gain the right to vote; the basis for other legal rights and social opportunities required separate and equally difficult political work throughout the nineteenth century. In *From Eve to Evolution*, Kimberly Hamlin re-examines the slow progressive struggle for women's rights in the last decades of the nineteenth century in terms of its interaction with both religion and science. The reader might suppose that this is a tale of how the myths of Christianity at first impeded improvements in the status of women, but were then driven back by the rational truths of science, which propelled women forward toward full citizenship.

But the story is much more complicated than that, and those complications are what make this book so fascinating. Hamlin describes the role of important individuals (Elizabeth Cady Stanton, Helen Hamilton Gardner, Charlotte Perkins Gilman, Antoinette Brown Blackwell, Eliza Burt Gamble, Margaret Sanger) and institutions (political organizations, newspapers and publishing houses, clubs) in the generally successful trend toward equal rights for women. Within this development, religious institutions played both positive and negative roles, and science was as often used to defend male privilege as to question it. There are also important insights to be gleaned about the roles of myths and personages in human culture, and the difficulty of injecting scientific discourse into political deliberation. Of course, science, religion, and politics must work together to address the oppression of women, but what their interactions can or should look like is far from obvious.

Thus in Chapter One, "Eve's Curse," we read of the endless reiteration by clergy of the divinely instituted inequality between men and women, because Eve was created second (and from a rib!) and was personally responsible for the Fall due to that unfortunate apple incident, which moreover doomed her and her daughters to suffer and die in childbirth. But we also see both former President John Quincy Adams in 1842 and the abolitionist Richard Henry Dana in 1849 arguing the same point on the same grounds. Meanwhile, pioneering feminists such as Stanton, Judith Sargent Murray and Sarah Grimké did what they could either to dismiss the historical significance of Eve or to reinterpret her meaning as a personage. Darwin's theory of evolution clearly offered an alternative to the Garden of Eden story, and feminists were quick to appeal to it, in order to discredit the myth of Eve. American clergy at first dismissed Darwin's ideas,

hoping they would simply go away as earlier evolutionary theories had; but once his books started to sell like hotcakes in the United States, their tactics shifted. Viewing Darwinism and feminism as allied, toward the end of the century, writes Hamlin, "[B]usiness and political leaders [including Grover Cleveland] joined evangelicals in invoking Eve to remind women of their sacred, timeless duties."

The attendant ironies were many, as Hamlin makes clear. First, Darwin himself used "scientific evidence" to justify the inequality of men and women, and even suggested that sexual differentiation contributed to the advancement of the species. In 1873, Harvard Professor Edward Clarke published *Sex in Education, or a Fair Chance for Girls*, in which he argued against the education and employment of women on Darwinian grounds, claiming that women's health would never be able to stand up against the strains of education.

Second, the 1890 merger of the National Woman Suffrage Association and the American Woman Suffrage Association into the National American Woman Suffrage Association (NAWSA), which made them in combination much more politically effective than either had been on its own, was based on a kind of soft evolutionary theory (which owed as much to the philosopher-scientists Auguste Comte, Herbert Spencer, and Jean-Baptiste Lamarck as to Darwin) and a mildly progressive Christian affiliation. Allied with the Women's Christian Temperance Union (led by Frances Willard), NAWSA drew away from the notions of Elizabeth Cady Stanton, with her critique of the Bible and associations with Freethinkers.

Third, white upper-class feminists of any stripe around 1900 were not always scrupulous about the racist assumptions made by many who espoused evolutionary theories nor about the welfare of working-class women.

In the next three chapters, Hamlin traces various strategies that women employed to integrate progressive feminism with Darwinian science, in the process promoting, criticizing, and modifying scientific practice. In 1886, Smith College erected the Lilly Hall of Science, the nation's first building dedicated to scientific study and experimentation by women. The students there were especially interested in evolutionary science, and the study of botany and zoology. At the same time, the women's club movement sought to engage with science, which precipitated the founding of the Association for the Advancement of Women, a national organization for professional



women, in 1875. The astronomer Maria Mitchell was its first president: she viewed science not only as a forum in which the inherent natures of women and men could be impartially investigated (on the basis of bodies as well as souls) but also as a profession in which women could excel.

Parrying Edward Clarke's dismal tome, other feminists argued on Darwinian grounds that women's well-being (and that of their children) would improve if they could pursue intellectual and professional tasks outside the home. In *The Sexes Throughout Nature* (1876), Antoinette Brown Blackwell argued that pregnancy should be treated as a natural, healthy process and not as a sickness. She called for greater athletic fitness in women, and



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more equitable distribution between men and women of domestic labor inside the home and gainful employment outside it. Gilman’s *Women and Economics: A Study of the Economic Relation between Men and Women as a Factor in Social Evolution* (1898) was a landmark study, which made her internationally famous.

The deployment of science in the service of feminism also ultimately led to serious study of women’s reproductive anatomy, in order to guard against maternal and infant death in childbirth as well as to create better means of contraception, so that women might control the number of children they bore. The midwestern suffragist and socialist Gamble published *The Sexes in Science and History: An Inquiry into the Dogma of Woman’s Inferiority to Man* in 1916, finding in the notion of “female choice” a way to link her objections to capitalism with her concerns about patriarchy. The works of Gilman and Blackwell inspired Sanger, who was also driven by personal experience: her mother died at the age of 43 after enduring eighteen pregnancies (and losing seven children) during her thirty-year marriage. Sanger was further inspired by Havelock Ellis’s studies of human sexuality, as well as, apparently, by Ellis himself. In 1920, she published *Woman and the New Race*, which, writes Hamlin, envisions an era when women “select their mates, free from economic necessity, and control their own reproductive lives.” Ultimately, Sanger’s birth-control advocacy was linked to the medical profession, which accounted for its growing political success at the time and also explains why today women must go to a doctor to get a prescription for birth control pills and devices.

Hamlin’s book raises a number of important issues about the interactions among science, politics, and religion. First of all, what is the role of idealism in politics? Though we can see various upward trends (upward at least from a feminist point of view), the flights of

optimism recorded in the speeches and writings of Hamlin’s central characters seem, in retrospect, naïve and superficial. Socialism, science, feminism, and the end of legal slavery didn’t actually lead to a social utopia; it is even hard to say today that they have led to a better world, in the sense of a general reduction in human suffering and environmental degradation. We are still searching for new ways to counter excesses of wealth and power, and the tendency of human beings to kill each other for reasons that look, a few years later, stupid and despicable. The optimism of reform politics in America around 1900 was followed by World War I and World War II (which decimated the human population of our planet) as well as the genocidal social reconstructions of Stalin and Mao (at the cost of 60 million people each, according to some estimates).

Second, the insertion of science into politics was at once (increasingly) necessary, and at the same time very difficult. Darwin’s books, as scientific works go, were accessible, compared to the important texts of physics and chemistry. But even nineteenth century botanic and zoological taxonomy, and problems concerning the relation of the fossil record to the science of geology, were quite technical. Moreover, biology was soon to be annexed to Gregor Mendel’s genetics and then to molecular biology. Hamlin notes how easy it was for both staunch feminists and determined antifeminists to enlist Darwin’s writings on behalf of their political agendas.

The communication of mathematical and scientific ideas to the general public is so difficult that it is often not clear what exactly is being communicated. As Margery Arent Safir remarks, in the Introduction to her edited volume *Storytelling in Science and Literature* (forthcoming), “Specialized material is made accessible to nonspecialists only on condition of altering the language used.” She calls the scientists who turn to popularization “storytellers,” writing,

When we read them, we are reading science that is partial in more than one way: we are reading what *can* be popularized, that portion of the whole that can be successfully transported and “translated.” Perhaps more importantly, we are reading those people who can communicate in the lingua franca, and who wish to do so.

A survey in the *Economist* (May 9, 1998), Safir recalls, reported that very little is retained by those who read scientific popularizations. Even from James Gleick’s bestseller *Chaos* (1987),

a majority of readers retained from the book only that a butterfly flapping its wings in Miami can cause a storm months later in New York... and this “retention,” or lack thereof, held true for scientist-readers [from other fields] and non-scientist-readers alike.

These days, science sometimes seems to supplant religion and metaphysics; we look to science for answers to the Big Questions, and like Hamlin’s protagonists, for solutions to social problems. *From Eve to Evolution* teaches us that sometimes the empirical facts of science can be used to falsify certain rash claims, for example, the belief that skull size measures intelligence. But it also shows that science cannot replace practical deliberation and human wisdom, necessary for solving the problems that emblazon the headlines of our newspapers every day. ☹

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