On the opening pages of the *Descent of Man*, Darwin applied the theory to human beings. “Man differs from woman in size, bodily strength, hairiness, etc., as well as in mind,” he observed, “in the same manner as do the two sexes of many mammals.” As always, the connection with animals was crucial to him. “There can be no doubt,” he continued, “that the greater size and strength of man, in comparison with woman... are due in chief part to inheritance from his half-human male ancestors. These characters would, however, have been preserved or even augmented,” he believed, “during the long ages of man’s savagery, by the success of the strongest and boldest men, both in the general struggle for life, and in their contests for wives.” The process was clear: the success of such bold men would have been measured in “their leaving a more numerous progeny than their less favoured brethren.”

Darwin was well aware that his contemporaries John Stuart Mill and his wife Harriet Taylor, among others, doubted that women differed in mental abilities from men. Yet he thought it quite “probable that sexual selection has played a highly important part” in creating those differences. One reason for his thinking so was an analogy with “the lower animals which present other secondary sexual characteristics.” No one disputes, he wrote, “that the bull differs in disposition from the cow, the wild-boar from the sow, the stallion from the mare.” Similar differences, he thought, can be observed in the human sexes. “Man is the rival of other men; he delights in competition, and this leads to ambition which passes too easily into selfishness.” Regrettably, he acknowledged, “these latter qualities seem to be his natural and unfortunate birthright. It is generally admitted,” on the other hand, “that with woman the power of intuition, of rapid perception, and perhaps of imitation, are more strongly marked than in man.” Some of their qualities, he added, as what today we can only designate as sexist and racist language, “are characteristics of the lower races, therefore of a past and lower state of civilization.”

As the foregoing implies, Darwin harbored a rather limited conception of the human female. “The chief distinction in the intellectual powers of the two sexes,” he believed, “is shewn by man’s attaining to a higher eminence, in whatever he takes up, than can woman—whether requiring deep thought, reason, or imagination, or merely the use of the senses and hands.” The evidence for his conclusion seemed obvious to him. “If two lists were made of the most eminent men and women in poetry, painting, sculpture, music (inclusive both of composition and performance), history, science, and philosophy, with half-a-dozen names under each subject, the two lists would not bear comparison.”

And apparently time would not change the situation, for in Darwin’s eyes the rivalry between men that in the course of evolution had made them superior in mind and body to women was still shaping their being. Darwin admitted that the purely physical contests between men over women no longer obtained. Yet even in the nineteenth century, he believed, men “generally undergo a severe struggle in order to maintain themselves and their families; and this will tend to keep up or even increase their mental powers, and, as a consequence the present inequality between the sexes.”

Darwin’s sexist conception of woman did not arise from his theory of sexual selection; rather sexual selection was his way of accounting for what he thought he saw all around him. Other social observers of woman’s place in society often arrived at similar conclusions, with or without the theory of sexual selection. In the United States the most frequent occasion when people were moved to draw upon biology to account for behavioral differences between the sexes was in regard to matters intellectual, such as education. Undoubtedly the best-known work in the middle years of nineteenth-century America to raise doubts about woman’s ability to profit from higher education was Dr. Edward H. Clarke’s book *Sex in Education*, published in 1873. Clarke was too modern a man to deny access to collegiate training to women out of hand. After all, by that time, several colleges had already opened their doors to women, including Vassar College, which had been founded over a decade earlier. Instead, Clarke raised questions about the long-range effects upon women of an education of the rigor that was provided for men at the leading colleges. His contention was that women’s physique was seriously injured in the long run, if not in the short, when they undertook such training. He admitted that many young women had by then shown themselves to be scholars of high competence, but within a very short time after completion of their studies, he wrote, they almost invariably succumbed to physical and mental breakdowns. Women’s nature, in short, was not suited for such high-powered mental activity.

Nor were all sexists men. Women such as M. A. Haraker, writing in the *Popular Science Monthly* in 1882, also drew upon Darwin. She concluded, for example, that women had less “reasoning power and creative imagination” than men, but they excelled men in intuition. And though not much study has been given to the nature and distribution of intuition between the sexes, “there is considerable evidence,” she insisted, “that it is acquired by heredity, that it is closely akin to instinct, that some modification of it is the common possession of women, children, and the lower animals.” Appealing to the ultimate authority, she noted that Darwin himself had identified observation, reason, imagination, and invention as male qualities, while he saw women as high in intuition, rapid perception, and, in his words, “perhaps of imitation.” She then went into an analysis of women’s physiology, from which she concluded that since
they are smaller, have less speed of digestion, as well as expend more energy on reproduction than men, "men will always think more than women." 42

Social scientists also called attention to the physiological differences between the sexes, sometimes adding that such differences ruled out certain activities by women. Writing in The Psychological Review in 1895, R. Meade Bache thought that it had been well established that women had faster reaction times than men, and that the difference was "in strict accordance with the fact that the brain development of men, as compared with that of women is greater, even when taking into account the relatively greater weight of normal individuals of the male sex as compared with that of normal individuals with the opposite one." 43 Bache did not draw any policy conclusions from this difference, but psychologist John Dewey writing in Popular Science Monthly in 1886 implied that the responses of women to higher education raised some serious questions that did not arise when one looked at men. In reviewing a study of college women, Dewey observed that such training seemed to place limits on woman's ability to properly fulfill the roles of wife and mother. Only 26 percent of the college women in the study had married, he noted, and of those merely 63 percent had borne children. Furthermore, a quarter of the 12 percent of women who had died did so in childbirth. Without offering general statistics that would have put these figures into some comparative perspective, Dewey tersely observed that "these figures speak for themselves." 44

Sociologist William I. Thomas, of the University of Chicago, took a different biological approach to the differences between the sexes. In a long article in the American Journal of Sociology of 1897, Thomas observed that natural scientists distinguished between "anabolic" and "katabolic" organisms. The former produced more energy than they needed; the latter consumed more energy than they created. Plants are anabolic, for they store energy; animals are generally katabolic, for they expend energy in movement; they make up for energy deficiencies by consuming the stored energy of plants. Women, Thomas contended, stand closer to plants, because women represent the constructive side of human nature. Following Darwin's lead, Thomas thought males were the disruptive or active sex. That women put on more fat than men, that is, stored more energy, had less lung capacity, produced less urine, and needed less sleep than the other sex, proved that women were anabolic in nature. The interpretation he gave to this finding clearly placed women beneath men. After noting that some lower animals could regenerate lost limbs or organs, he pointed out that "the lower human races, the lower classes of society, women and children, show something of the same quality in their superior tolerance of surgical disease." Women can tolerate pain and misery better than men, he asserted. And that helped to explain, he suggested, why "anthropologists regard women intermediate in development between the child and the man." 45

Thomas, though clearly a Darwinian, did not accept the idea of sexual selection, but he fully accepted the Darwinian assertion that human males were more variable than females. Like other students of the time who delineated the differences between the sexes, Thomas believed that women's brains were smaller than men's, a difference that he thought helped to explain the greater variability of males. Or as he put it, among males there were more geniuses and idiots.

Women's "sensibility, feeling, emotionality, or affectability" Thomas linked to the "larger development of her abdominal zone, and the activity of the physiological changes located there in connection with the process of reproduction." Darwin, too, not surprisingly, had ascribed women's nature to her reproductive role. Woman differs from man in disposition, Darwin wrote in the Descent of Man, "chiefly in her greater tenderness and less selfishness." Owing to "her maternal instincts," woman displays "those qualities towards her infants in an eminent degree; therefore, it is likely that she would often extend them toward her fellow creatures." And that was Thomas's thought as well.

The result, in Thomas's mind, was a symbiotic relation between men and women that reached its acme in the Victorian nuclear family. "Man's katabolism predisposed him to activity and violence; woman's anabolism predisposed her to a stationary life. The first division of labor was, therefore, an expression of the characteristic contrast of the sexes... This allotment of tasks," he argued, "is not made by the tyranny of men, but exists almost uniformly in primitive societies because it utilizes most advantageously the energies of both sexes." 46

Nationally prominent psychologist G. Stanley Hall also discerned the anabolic nature of women: that is, her reproductive function was the key to her social character. "Our modern knowledge of woman represents her as having characteristic differences from man in every organ and tissue," he wrote in his influential study Adolescence in 1904. Woman is "conservative in body and mind, fulfilling the function of seeing to it that no acquired good be lost to mankind, as anabolic rather than katabolic... Her whole soul, conscious and unconscious, is best conceived as a magnificent organ of heredity, and that to its laws all her psychic activities, if unperverted are true." 47

For Hall, who was not only the president of Clark University but also a nationally known psychologist, the practical implications to be drawn from these supposedly scientific differences were that they should be reflected in
social policy. Since nature seems to decree "that with advancing civilization the sexes shall not approximate but differentiate," Hall advised, "we shall probably be obliged to carry sex distinctions . . . into many if not most of the topics of higher education." This is so because boys and girls differ in their tastes and interests as shown by "history, anthropology, and sociology as well as home life . . . This is normal and biological." He wondered, therefore, if the coeducational high school, with its identical training for both sexes, and which the United States has carried forward farther than any other country, "has not brought certain grave dangers, and whether it does not interfere with the natural differentiation seen everywhere else." 47

Social scientists' doubts that women could profit from the higher education available to men continued to be heard through the first decade of the twentieth century. D. Collins Wells, of Dartmouth College, writing in The American Sociological Review in 1907, supposed that "we must submit to the higher education of women. It appears inevitable; but it seems to me not yet proved that this education should be the same in kind or amount as that afforded to men." James McKean Cattell of Columbia University's department of psychology also expressed serious reservations about higher education for women, and, as usual, those doubts stemmed from the biological differences between the sexes. "Girls are injured more than boys by school life," he wrote in 1909; "they take it more seriously, and at certain times at a certain age are far more subject to harm." He also worried about what he considered the high social price paid for allowing women to attend colleges and universities. Because college-educated women apparently bore fewer children, he calculated that "to the average cost of each girl's education must be added one unborn child." Furthermore, he warned, as women gain wider opportunities for employment outside the home, as was increasingly the case, the American family must suffer since women "can conveniently leave their husbands should it so suit their fancy." 48

Cattell's student, the Teachers College psychologist Edward Thorndike, writing in 1914, discerned an enduring line between the capabilities of boys and girls. Even if "we should keep the environment of boys and girls absolutely similar," he predicted, the sexually rooted "instincts would produce sure and important differences between the mental and moral activities of boys and girls." As late as 1919, sociologist David Snedden was echoing Thorndike's views in the American Journal of Sociology. The whole question of the nature of woman's mind, he was convinced, needed additional study. He had few doubts "that most women, by instinct and as a result of custom inheritance, are peculiarly qualified for 'homemaking' as that has evolved through the ages." 49

Race and sex as explanations for human differences and behavior were not the only ways in which biology captured the attention of American social scien-