

## **Editorial**

### **The Tip of the Spear**

It's an old warrior's adage: the tip of the spear marks the first encounter with the enemy; the soldier holding that spear is the first to engage the aggressor. In the battle to win a more equitable share of power than they ever enjoyed before, women have not only wrested the spear from men, it's fair to say they've even changed the rules of engagement. Women's struggle to win educational and vocational opportunities has been a spectacular success. Over the past 30 years, they have won places for themselves and their daughters in previously all-male enclaves, from the elite boarding schools of the Northeast to the world's most prestigious universities, including Oxford, Harvard, and West Point. Women have achieved top positions in government (a woman is now Speaker of the House and third in line for the presidency of the United States), in the corporate world, and in the professions, albeit not as frequently as have men.

Much of that success is due to the tremendous power of the technologic revolution, which has made physical strength more and more irrelevant. The greater size, muscle mass, and bone weight of men, and the ability of testosterone to mute physical pain and accept life-threatening risks, aren't particularly relevant to a society in which complex businesses are successfully run from desktops without the need for speed, strength, and endurance. Information is accessible to everyone via the Internet; anyone who can operate a computer can sample a virtually infinite sea of data on any subject. Communication is instantaneous and no longer requires the physical presence of people in the same space. As my lawyer son put it, the days of resting one's white bucks on the desk and waiting 10 days for the answer to an air-mailed question are over. The technologic explosion gave everyone, women included, the ability and the freedom to develop their own intellectual abilities, essentially without restraint. The result has been a profound change in the roles society assigns to each of the sexes, shifting the central importance of procreation. Women postpone pregnancies until their education and careers are on solid ground—often to a degree that makes conception impossible without advanced technologies, some of which involve utilizing eggs from other women or sperm from anonymous donors as well as tweaking a flagging reproductive system with huge doses of hormones.

Men are no longer the exclusive providers of protection and sustenance for their families; indeed, they are expected to share the responsibilities of maintaining the home and rearing their children. An invitation to bed delivered in the workplace can now be interpreted as a form of unacceptable pressure. Even a compliment has to be carefully considered before it's delivered. Author Maureen Dowd asks if men are even necessary anymore.<sup>1</sup> To add fuel to the fire, some pundits predict the death of the Y chromosome within the next 125,000 years<sup>2</sup> and believe it won't be such a devastating loss—because we'll be able to continue the human race through technology quite satisfactorily, perhaps even manufacturing people to precise and carefully determined specifications.

Two things trouble me about all of this. For many people, the conviction that men and women should have equal opportunities and privileges (but not necessarily equal risks and responsibilities) means that men and women are essentially the same, and that to talk about differences is to talk about value. The great challenge of science, though, is to look at reality as objectively as possible and not surrender to the temptation of bending the data to suit our goals, politics, or personal agendas. In fact, men and women are profoundly different from the earliest stages of their development: scientists at UCLA found that literally thousands of the same genes operate differently in the brain, liver, and muscle of males and females; as a result, the cells making up those tissues operate in significantly different ways.<sup>3</sup> Such distinctions are already influencing, among other practices, how we prescribe medications for men and women, because many drugs are metabolized very differently as a function of sex.

Although scholars of both sexes trounced Lawrence Summers mercilessly for his assertion that there are differences in the cognitive function of men and women, he should have been given an opportunity to expound on his comment. Standard testing of huge numbers of men and women show that women have greater facility with language, and men are better at problem solving that involves spatial challenges.<sup>4</sup> There's no question, for example, that men and women use different methods to solve the same problems. Investigators studying the success with which men and women manipulated a Java computer program to alter some of its code found that the 2 sexes used different strategies to complete the assigned task.<sup>5</sup> Men constructed an overview of the whole program and made educated guesses about what changes to make—a more risky strategy that jibes with the willingness of men to tolerate uncertainty. Women used landmarks they already knew to decide what to change. By the way, both sexes performed equally well.

Some differences in structure and function make one sex preferable for performing some of the most essential tasks required to preserve our societies. The generally greater physical strength and height of men is still important in physical combat; West Point admits women and trains them almost identically to their male students but forbids them to engage in hand-to-hand combat. Yet, one commanding officer who oversaw the integration of women and men at the Point told me he used the leadership qualities of both sexes to form an entirely new and more successful concept of the competent leader than had existed before.

Blurring the myriad differences between the sexes (which are present in every system of the body including the brain) in an effort to assert that men and women are interchangeable ignores the strengths and talents unique to each. Although technology has greatly accelerated the rise of women to positions of power, we have, in the process, denied our variability and even more dramatically changed the roles of men and women. Successful adaptation to an ever-changing environment, as Darwin and his colleagues observed so brilliantly a century ago, is essential to survival. Others believe that our ever-increasing tendency to manipulate the environment, and the stunning success we have had and are continuing to have in achieving enormous changes, is creating vulnerabilities that will lead to our self-destruction. Insisting on minimizing either the potential for adaptive change or the singularity of the roles of men and women can only increase that vulnerability...and saying we are identical and completely indistinguishable from one another, if only society would treat us the same way, is simply untenable.

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## REFERENCES

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