

## A SURVEY OF TECHNOLOGY AND SOCIETY

## Sexist Science?

A "She Said, He Said" About Discrimination in the Lab

lthough Larry Summers resigned the presidency of .Harvard on June 30, 2006, the controversy sparked by his 2005 comments about men and women performing differently in science and engineering continues to blaze. The latest development came two weeks after Summers's resignation, when Nature magazine published an opinion article by Dr. Ben A. Barres. The journal apparently believed that Barres, a Stanford neuroscientist, had an unusually valuable perspective on the differences between men and women in professional science: Ben Barres used to be Barbara Barres, until sexreassignment surgery a decade ago.

Barres criticizes not just Summers, but also scientists Steven Pinker and Peter Lawrence, who have made similar arguments, and Harvey Mansfield, the Harvard professor whose most recent book is Manliness. (By contrast, Nancy Hopkins, the M.I.T. professor who infamously took umbrage at Summers's politically incorrect remarks, is described by Barres as an "admirable role model.") Barres argues that the view that women are not advancing in science because of their innate capacities is incorrect; women, he says, are not advancing because they are discriminated against. As evi-

dence, he cites the similar performance of boys and girls on math tests, and describes how the selection process for a prestigious National Institutes of Health award was apparently tilted in favor of male recipients. He also mentions, without giving much detail, the "many studies" that "have demonstrated a substantial degree of bias against women—more than is sufficient to block women's advancement in many professions." And he mentions a study that "found that women applying for a research grant needed to be 2.5 times more productive than men in order to be considered equally competent."

doesn't Unsurprisingly, Barres inform his readers that the study only involves Swedish medical researchers, and only for the year 1995. Many of Barres's other claims are not backed with citations, like his assertion that "there is no scientific support for the contention that women are innately less competitive"—a statement that flies in the face of a body of literature from both the social and biological sciences. His claim, in a subsequent New *York Times* interview, that "the bulk of my commentary discusses the actual peer-reviewed data" is simply false.

The main attraction of Barres's article for *Nature*'s editors was surely not in its data but its personal anecdotes. As

a woman undergrad at M.I.T., Barres writes, "I was the only person in a large class of nearly all men to solve a hard math problem, only to be told by the professor that my boyfriend must have solved it for me. I was not given any credit." By far, he says, "the main difference that I have noticed [since the sex-change operation] is that people who don't know I am transgendered treat me with much more respect: I can even complete a whole sentence without being interrupted by a man."

Despite the warm reception Barres's article received in the press-all the nation's leading newspapers ran stories about it-there has been almost no discussion of its many flaws and contradictions. For instance, while several media accounts highlighted Barres's testimonial about losing "the ability to cry easily...upon starting hormone treatment," only one article that we found noted that Barres says his "spatial abilities have increased as a consequence of taking testosterone"—a personal admission that would seem to undercut his argument about the significance of innate differences for scientific careers. Barres-a neuroscientist, mind you-admits that men's and women's brains are different, but then cavalierly denies that the differences have an effect on academic careers.

Also, in relaying his personal anecdotes—like the hard-to-believe story in which, shortly after his sex-change, "a faculty member was heard to say 'Ben Barres gave a great seminar today, but then his work is much better than his

sister's"—Barres seems too inclined to see discrimination where more benign factors might be at work. And Barres seems to have a blind spot for the basic sociology of the scientific community: In some cases, Barres's colleagues and supervisors may not have offered Barres much respect and recognition, not because Barres was a woman, but because Barres was a junior scientist with much still to prove.

Throughout the article, Barres engages in broadly sweeping generalizations. "Disadvantaged people are wondering why privileged people are brushing the truth under the carpet," he complains. "The progress of science increasingly depends on the global community, but only 10 percent of the world's population is male and Caucasian....Diversity provides a substantially broader point of view, with more sensitivity and respect for different perspectives, which is invaluable to any organization." Larry Summers has committed "verbal violence," which "should not be tolerated at Harvard or anywhere else." This sort of over-thetop rhetoric is perhaps to be expected in an opinion piece, though we wonder why such a piece has any place at all in the pages of a scientific journal like Nature. But what cannot be justified is the repeated distortion of what fellow academics actually said. Barres claims that Summers suggested "that a whole group of people is innately wired to fail" and that "women are innately inferior"; he claims that Mansfield says "that women are more emotional than men." This is a gross misrepresentation of what Summers and Mansfield have so circumspectly and tentatively suggested. If Barres and other critics of Summers and Mansfield really want to promote "the progress of science," they should start with basic honesty.

Finally, what is most striking about Barres's opinion piece, the many news articles written about it, and this entire controversy, is how out-of-date it seems. The autobiographical anecdotes Barres relates about facing discrimination go back many years—in some cases, back to the mid-1970s—and there is little recognition of how very different the academic world is today. Nowadays, women outnumber men so greatly on

college campuses that, as the New York Times reported in July, some admissions offices feel the need to give men "a slight boost." College men are now less likely than women to get bachelor's degrees, they study less than women, and they get worse grades. Men admittedly continue to dominate math and the physical sciences, and some women in those fields undoubtedly have been unfairly discriminated against. But if we really want to understand why more men seem drawn to science and math than women, we need at least to be open to the possibility that innate differences play a part. Good science demands no less.