

Male Scientist Writes of Life as Female Scientist

Biologist Who Underwent Sex Change Describes Biases Against Women

*By Shankar Vedantam
Washington Post Staff Writer
Thursday, July 13, 2006; Page A10*

Neurobiologist Ben Barres has a unique perspective on former Harvard president Lawrence Summers's assertion that innate differences between the sexes might explain why many fewer women than men reach the highest echelons of science.

That's because Barres used to be a woman himself.

In a highly unusual critique published yesterday, the Stanford University biologist -- who used to be Barbara -- said his experience as both a man and a woman had given him an intensely personal insight into the biases that make it harder for women to succeed in science.

After he underwent a sex change nine years ago at the age of 42, Barres recalled, another scientist who was unaware of it was heard to say, "Ben Barres gave a great seminar today, but then his work is much better than his sister's."

And as a female undergraduate at MIT, Barres once solved a difficult math problem that stumped many male classmates, only to be told by a professor: "Your boyfriend must have solved it for you."

"By far," Barres wrote, "the main difference I have noticed is that people who don't know I am transgendered treat me with much more respect" than when he was a woman. "I can even complete a whole sentence without being interrupted by a man."

Barres said the switch had given him access to conversations that would have excluded him previously: "I had a conversation with a male surgeon and he told me he had never met a woman surgeon who was as good as a man."

Barres's salvo, bolstered with scientific studies, marks a dramatic twist in a controversy that began with Summers's suggestion last year that "intrinsic aptitude" may explain why there are relatively few tenured female scientists at Harvard. After a lengthy feud with the Faculty of Arts and Sciences, Summers resigned earlier this year.

The episode triggered a fierce fight between those who say talk of intrinsic differences reflects sexism that has held women back and those who argue that political correctness is keeping scientists from frankly discussing the issue.

While there are men and women on both sides of the argument, the debate has exposed fissures along gender lines, which is what makes Barres so unusual. Barres said he has realized from personal experience that many men are unconscious of the privileges that come with being male, which leaves them unable to countenance talk of glass ceilings and discrimination.

Barres's commentary was published yesterday in the journal *Nature*. The scientist has also recently taken his argument to the highest reaches of American science, crusading to make access to prestigious awards more equitable.

In an interview, Nancy Andreasen, a well-known psychiatrist at the University of Iowa, agreed with Barres. She said it took her a long time to convince her husband that he got more respect when he approached an airline ticket counter than she did. When she stopped sending out research articles under her full name and used the initials N.C. Andreasen instead, she said, the acceptance rate of her publications soared.

Andreasen, one of the comparatively few women who have won the National Medal of Science, said she is still regularly reminded she is female. "Often, I will be standing in a group of men, and another person will come up and say hello to all the men and just will not see me, because in a professional setting, men are not programmed to see women," she said. "Finally, one of the men will say, 'I guess you haven't met Nancy Andreasen,' and then the person will turn bright red and say, 'Oh Nancy, nice to see you!' "

Summers did not respond to a request for an interview. But two scientists Barres lambasted along with Summers said the Stanford neurobiologist had misrepresented their views and unfairly tarred those who disagree with crude assertions of racism and sexism. Harvard cognitive scientist Steven Pinker and Peter Lawrence, a biologist at Britain's Laboratory of Molecular Biology in Cambridge, said convincing data show there are differences between men and women in a host of mental abilities.

While bias could be a factor in why there were fewer women at the pinnacles of science, both argued that this was not a primary factor.

Pinker, who said he is a feminist, said experiments have shown, on average, that women are better than men at mathematical calculation and verbal fluency, and that men are better at spatial visualization and mathematical reasoning. It is hardly surprising, he said, that in his own field of language development, the number of women outstrips men, while in mechanical engineering, there are far more men.

"Is it essential to women's progress that women be indistinguishable from men?" he asked. "It confuses the issue of fairness with sameness. Let's say the data shows sex differences. Does it become okay to discriminate against women? The moral issue of treating individuals fairly should be kept separate from the empirical issues."

Lawrence said it is a "utopian" idea that "one fine day, there will be an equal number of men and women in all jobs, including those in scientific research."

He said a range of cognitive differences could partly account for stark disparities, such as at his own institute, which has 56 male and six female scientists. But even as he played down the role of sexism, Lawrence said the "rat race" in science is skewed in favor of pushy, aggressive people -- most of whom, he said, happen to be men.

"We should try and look for the qualities we actually need," he said. "I believe if we did, that we would choose more women and more gentle men. It is gentle people of all sorts who are discriminated against in our struggle to survive."

Barres and Elizabeth Spelke, a Harvard psychologist who has publicly debated Pinker on the issue, say they have little trouble with the idea that there are differences between the sexes, although some differences, especially among children, involve biases among adults in interpreting the same behavior in boys and girls.

And both argue it is difficult to tease apart nature from nurture. "Does anyone doubt if you study harder you will do better on a test?" Barres asked. "The mere existence of an IQ difference does not say it is innate. . . . Why do Asian girls do better on math tests than American boys? No one thinks they are innately better."

In her debate with Pinker last year, Spelke said arguments about innate differences as explanations for disparities become absurd if applied to previous eras. "You won't see a Chinese face or an Indian face in 19th-century science," she said. "It would have been tempting to apply this same pattern of statistical reasoning and say, there must be something about European genes that give rise to greater mathematical talent than Asian genes."

"I think we want to step back and ask, why is it that almost all Nobel Prize winners are men today?" she concluded. "The answer to that question may be the same reason why all the great scientists in Florence were Christian."