



AUGUST 15<sup>th</sup> - 17<sup>th</sup>, 2013  
LoveLand, Colorado  
FOR MORE INFO VISIT:  
[www.AriseFestival.com](http://www.AriseFestival.com)

search articles...

**LOTUS MEDICAL** **OUNCES \$125 + TAX MIX & MATCH APRIL SPECIAL** [CLICK HERE!](#)

Home / Articles / BoulderGANIC / BoulderGANIC / *An unbalanced equation*



Print Send Share Comment Font Font Size

Like 7 Tweet 6 Pin it Give

Thursday, April 4, 2013

## An unbalanced equation

Conference on World Affairs panelists discuss biases and the struggle for equal opportunity and equal confidence

By Abby Faires

Shortly after Ben Barres, a professor of neurobiology at Stanford University, gave a speech about his discoveries regarding nerve cells at the Massachusetts Institute of Technology in 1998, an MIT faculty member was overheard saying, "Ben Barres gave a great seminar today, but then again, his work is much better than his sister's."

Barres, however, did not have a sister. He had recently undergone a sex change operation.

"There is a perspective and perception of how good a woman is, which reflects on an unconscious bias in gender," says Vivian Siegel, director of scientific education and public communications at the Broad Institute of MIT and Harvard. "That bias comes from our own kind of personal experiences as well as remembering ones."

Siegel, who knew Ben Barres when he was a



### YOUR SAY

- I. Eggers:** That "wild" asparagus was probably planted decades...
- maus:** To me Head Down was the peak of the show and on Ru...
- LuAnne:** Please recheck your statement in the Pisces horosc...
- Joan Brummer:** For the record the Naropa University MFA in Contem...
- cray:** excellent review
- Adam Perry:** Badass review, buddy!



**The Coupon Page! BOGO deals**

sign up for boulder weekly's **insider NEWSLETTER**

post-graduate student named Barbara, will participate in a 2013 Conference on World Affairs panel titled "Women in Science: Outnumbered and Outearned" on April 11 that is expected to explore stories like Barres'. According to a report issued by the United States Census Bureau in 2008, fewer women than men are entering science and technology professions, and the ones who do are being paid far less than men. Many 21st-century scientists, such as Siegel, say gender bias is at the heart of both sides of that equation.



Photo courtesy of Ben Barres  
Ben Barres

Siegel calls Barres a "striking example" of the role that gender bias plays in science.

"As a transgendered person, no one understands more deeply than I do that there are innate differences between men and women," Barres wrote in a 2006 article featured in *Nature*, an international science journal.

Researchers agree that nearly all humans have unconscious biases about gender that aid them in making sense of the gender stereotypes they see starting in early childhood. Males are expected to be independent, assertive and competitive; females are expected to be more passive, sensitive and supportive. But can innate characteristics be used to support the idea that men are naturally better at science than women?

For Barres, the answer is, absolutely not. He writes that there is no evidence that sexually dimorphic brain wiring is at all relevant to the abilities needed to be successful in science.

"The simplest conclusion is that the dearth of women scientists is caused largely by bias and social factors," Barres said in speech at Harvard University in 2008.

"By far, the main difference that I have noticed 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," Barres wrote in the *Nature* article.

For Siegel, the societal roles of being a wife and a mother conflicted with her role as a scientist. Now, she looks back on her previous marriage, realizing that there were a lot of expectations for her as a wife and a mother, which she and her husband had failed to discuss before getting married.



Vivian Siegel | Photo by Maria Nemchuk, Broad Communications

"Of course I had a career and always planned to go forward and not stay at home, but he may not have known that," Siegel says. "Still, there is a sense that it is really abnormal for a man to stay at home."

Siegel came to the Broad Institute as a single mother. And despite a study published in 2007 by Cornell University, which showed that mothers are 79 percent less likely to be hired and are offered an average of \$11,000 less per year, Siegel decided to put her role as a mother out on the table.

"I explained to them that they needed to understand that I was a single mom, and if there was a battle between needing to do something for work and my child, my child is always gonna win," Siegel says. "I can't be wedded to this job."

## Find us on Facebook



Boulder Weekly



Boulder Weekly

Congrats to Nicole L., our second ARISE Music

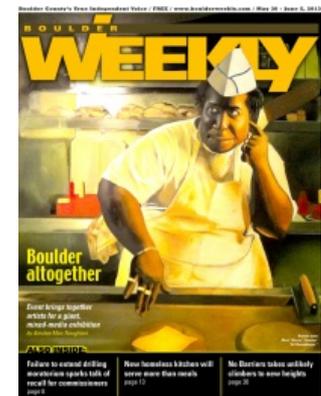


3,286 people like Boulder Weekly.



Facebook social plugin

## Read our digital edition!



Browse Boulder real estate by neighborhood, school and zip code along with other homes for sale in Colorado on COhomefinder.com.



Although she does not have children of her own, Michelle Thaller, assistant director for science communication and higher education at NASA, says she can relate to Siegel's experiences.

"When both people are trying to get the family going, more often, it falls on women," she says. "It's hard to get over that."

Thaller was expected to speak on the "Women in Science" panel this year, but won't be able to make the trip due to federal sequestration funding cuts.

She isn't sure whether these biases come from cultural pressures or psychology, she says, but we can't deny the importance they play in modern society. Still, she says gender biases aren't scientific, so they can't be used to justify the idea that women are innately bad at science.

"People say that women are innately better at navigating relationships," Thaller says. "So wouldn't that mean they should make better presidents, or CEOs, or leaders than men? Or what about in terms of cooking? Why are all of the top chefs men? ... We are always less. That's the pattern."

It's easy to blame men for a gender bias, like women being innately less capable in science. But women are nearly just as biased as men, according to Jennifer Raymond, a neurobiologist at Stanford University and colleague of Barres.

"The socialization process of understanding typical roles is very powerful. Once we internalize those roles, it results in biases of whether people are good at certain things," Raymond says. "Because we internalize these, we tend to rate ourselves lower and are less confident to put ourselves out there."

What makes gender bias so insidious, especially for women, is that the bias is unconscious, according to Raymond. She says she believes that most people want to be fair and don't want to have a gender bias. So they work to rationalize their biases in different ways.

"Bias can put our rational systems to work for us," Raymond says. "People are so good at rationalizing their opinions — creating a story to fit their value systems — that it's really hard to see what's driving the decision."

Raymond says Stanford University has some of the best graduate students in the world, and a majority of them are women.

"It's alarming to see the rate at which these women say, 'Well, I don't know if I'm really cut out for this,'" Raymond says. "There is a lot of self-doubt and a lot of push-back."

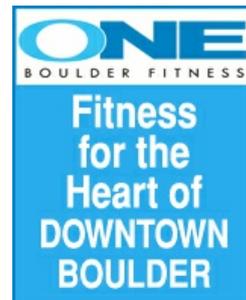
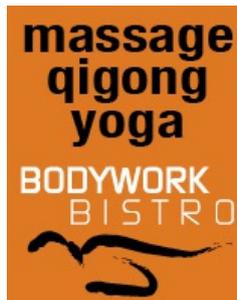
For Raymond, this self-doubt and push-back are signs that unconscious gender bias isn't going anywhere anytime soon unless institutions work to recognize and overcome bias.

"Because we have gotten rid of explicit bias, people have gotten very complacent," Raymond says. "They think, 'Oh, the problem will work itself out.' But if we don't take active steps to change processes, to reduce biases, then my 8-year-old daughter is going to be facing the same situation." It's important for people to accept that bias exists in order to overcome it, she says.

"By enabling more women to succeed, despite the existence of unconscious bias, we can gradually eliminate the stereotype of the successful male scientist, which is the root of gender bias," Raymond says.

*The "Women in Science: Outnumbered and Outearned" panel will take place at the 2013 CWA at 12:30 p.m. April 11. It will be held in ATLAS Black Box on the CU campus. Panelists are Leah Buechley, Charles Love and Vivian Siegel. Mindy Pantiel will moderate.*

Respond: [letters@boulderweekly.com](mailto:letters@boulderweekly.com)



## Related content

- Tidbites | Week of April 4, 2013
- Roger Ebert leaves CWA for good
- CU to examine future of
- If it ain't broke, don't tinker with
- The crusade against contraception
- Briefs | Legislative forum

### Related to:

[gender](#) [women](#) [equality](#) [sciences](#) [gender bias](#) [barres](#) [siegel](#) [bias](#) [world affairs](#) [equal](#) [CWA](#)

## RATING

Average Reader Rating



## POST A COMMENT

No Registration Required

## Also in BoulderGanic:

- Diesel program cutting emissions, but funding to be slashed
- Home, home on the grange
- The other oil import
- A batty battle
- Beetle-mania
- Putting your money where your meal is

- ▶ Smart fashion: Clothing ethics under the microscope
- ▶ Forest Service says when trees die, people die
- ▶ Is water Colorado's earthship-limiting factor?
- ▶ Lingerin problems from a banned pesticide

### Also from Abby Faires:

- ▶ Reflections from road royalty
- ▶ The gut as a second brain
- ▶ Beetle-mania
- ▶ Boulder's Best Mixologist competition takes local one sip further
- ▶ Forest Service says when trees die, people die
- ▶ Searching for a road home
- ▶ Educational: Life after high school
- ▶ Maca mania
- ▶ Quinoa conundrum
- ▶ BIFF 2013: A final watery frontier

[HOME](#) | [NEWS](#) | [VIEWS](#) | [ENTERTAINMENT](#) | [ADVENTURE](#) | [CUISINE](#) | [BOULDERGANIC](#) | [ADVERTISING INFO](#) | [ARCHIVES](#) | [ABOUT US](#) | [CONTACT US](#) |

© 2013 Boulderweekly.com  
690 South Lashley Lane, Boulder, CO, 80305  
Phone: (303) 494-5511 / Fax: (303) 494-2585

Powered by  
