What's up, Borinqueña? Walking the talk: creating a better climate for women in science

Submitted by Mónica Ivelisse Feliú-Mójer [2] on 10 December 2013 - 8:32pm



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Doctors Angela Ginorio and Sheila Edwards Lange lead their group's discussion during the event. Photo by Mónica I. Feliú-Mójer

Borinqueña emphasizes the contribution of Puerto Rican and Hispanic women in science and technology and provides a space to discuss topics of interest about the empowerment of women. In 'What's up Borinqueña?' we share a variety of experiences and perspectives from different women and men that are committed to advancing equality for women in science.

Read this blog in Español here [3].

"Don't worry. You will get in. You are a double minority."

The first time I heard this, I was flabbergasted. I was applying for doctoral programs in Neuroscience, and according to multiple people around me, I would get accepted anywhere because I am a Latina woman. I was told that programs and institutions had a quota of minority recruits they had to meet. My talent and ability were—apparently—not as important.

Being a woman in science can sometimes be isolating. Around the world, <u>women are outnumbered by men [4]</u> in Science, Technology, Engineering and Mathematics (STEM). In the United States women earn just <u>a quarter of all STEM degrees [5]</u> and represent <u>28% of the workforce [6]</u> in these fields. If you are a <u>woman of color [7]</u>, you are even more alone. In 2011, women of color (black, Hispanic/Latina, Asian American or Pacific Islander, and American Indian/Alaska Native) earned <u>12% of bachelor's</u>, 10% of master's and 9% of doctoral degrees [8] in STEM in the U.S. Currently we account for just 5% of the STEM workforce [6].

Recently, there has been a lot of talk about the lack of women in STEM. You have probably seen the <u>headlines</u> [9]. You have read the statistics (at least a few of them, above). You may have experienced it first hand.

There are <u>many factors</u> [10] that contribute to the underrepresentation of women in STEM. There are stereotypes and biases; lack of role models, <u>mentors and sponsors</u> [11]; institutional and structural policies that disfavor women; issues of culture and identity, among other factors, that contribute to the proportionally low numbers of women in science.

How do we begin to tackle these issues? What can we do as individuals, communities and institutions to help build a more supportive climate for women in science? How do we move towards action?

Recently at the University of Washington in Seattle, I co-organized an <u>open forum</u> [12] to discuss the challenges faced by women in science, particularly at the intersection of race, gender and culture. A group of women and, yes, a few men got together to talk about the numbers, the issues, but more importantly, about how we can—individually and collectively—take action towards change.

<u>Dr. Sheila Edwards Lange</u> [13],, offered her perspective on the challenges faced by women in science at the intersection of identity and culture. Edwards Lange spoke about coming of age during the height of the Women's Liberation and Civil Rights movements. As an African American

woman interested in both gender equality and African American community empowerment, she was challenged to choose between "the black cause [and]... those women, meaning white women."

After a <u>brief presentation</u> [14] on the statistics and the challenges faced by women in science, attendees broke out into small groups for a discussion. Each group came up with at least one actionable recommendation that could be individually or collectively implemented to promote the advancement of women in science. As our discussion progressed, common threads became apparent.

- We need awareness. Gender barriers and stereotypes manifest as early as middle school. Many women are victims of bias and stereotypes, yet they are unaware of their existence or don't know how to deal with them. We can counter these barriers, stereotypes and challenges by creating awareness through outreach and mentoring. DO: Send an email to your friends telling them what stereotype threat means. Go mentor a young woman studying to become an engineer, a scientist or mathematician. Acknowledge your own biases and work on correcting them.
- We need to create safe spaces. Being discriminated against sucks and talking about it is
 a difficult but very necessary step to combat discrimination. Women need safe spaces
 where they can come together to talk about their challenges, to denounce discrimination,
 and to receive support. DO: Organize a group lunch once a month. Help a friend battling
 the impostor syndrome. Encourage your workplace to host an open forum. DON'T: be
 afraid to reach out to women (and men) you admire and trust for advice.
- We need to empower. Both women and men need effective communication and leadership skills to advocate for gender equality, diversity and inclusion in STEM. We need to empower people (and be empowered) to speak up and provide them with the tools to do so. *DO*: Attend workshops. Promote conversations amongst your colleagues. *DON'T*: be afraid to be assertive.
- We need to create synergy and build community. There are many groups and resources in our communities and institutions whose goals of promoting equality, accessibility, and inclusion intersect with creating a more supportive climate for women in science. We all know at least one of these initiatives. DO: Be a connector! Cultivate your professional network. Help foster synergy between existing efforts so that they can work together and learn from each other. The whole is greater than the sum of its parts.
- We need to fix structural deficiencies. The mother of all challenges. There are institutional, hiring, promotion, and funding policies that disproportionately disfavor women (e.g. studies indicate that women have to publish more papers [15] to be judged as productive as their male counterparts). Yes, people in leadership positions need to be trained in diversity and gender dynamics. Yes, institutions need to be more intentional when hiring people from diverse backgrounds. Yes, tackling discrimination, stereotypes and institutional bureaucracies can certainly seem like an insurmountable task. But we must keep nudging for change. **DO**: Have conversations; become a role model. Start fostering awareness within your team, working group, or your department. Become the change you want to see.



As <u>Dr. Angela Ginorio</u> [16], Associate Professor of Gender, Women & Sexuality Studies at the University of Washington, Seattle, pointed out to conclude our discussion, the task of promoting equality for women in STEM may seem daunting. Although progress has been made, inequality remains. The underrepresentation of women, <u>particularly women of color</u> [17], in science remains an issue that needs to be addressed by **all of us**. Working towards solutions demands acknowledging the challenges and having difficult conversations about the challenges ahead. However, we must not just talk the talk. We must walk the walk and commit to action. Would you join us?

You can follow <u>Mónica</u> [18] on Twitter <u>@moefeliu</u> [19]. Use #borinqueña when you share this story.

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- gender equality [21]
- University of Washington [22]
- gender [23]
- race [24]
- culture [25]
- challenges [26]
- stereotype threat [27]

- implicit bias [28]
- mujeres en las ciencias [29]
- igualdad de género [30]
- minorías [31]
- mujer de color [32]
- women of color [33]
- Borinqueña [34]

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