Where Do We Go From Here? Perspectives on Providing Inclusive Environments for LGBTQ Trainees

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In June 2018, The POSTDOCket reviewed a study (http://advances.sciencemag.org/content/4/3/eaao6373) from UCLA’s Higher Education Research Institute that revealed sexual minority students suffer lowered retention rates in the STEM disciplines compared to their heterosexual classmates. It is no secret that many STEM fields struggle to attract and retain a diverse workforce, and additional results from this study strongly hint at important social factors contributing to these challenges. Recognizing the source of contributing issues allows creation of a roadmap towards a more equitable future for the STEM world.
Study Reveals Masculine Traits Lead to Advancement in STEM

Since Lesbian-Gay-Bisexual-Transgender-Questioning (LGBTQ) students are historically underrepresented in science, it is not surprising to see them exiting at an important stage in STEM training. However, disaggregating their success rates by gender reveals a trend unexpected by most: sexual minority women in STEM were retained at higher rates than heterosexual women, while the opposite is true for LGBTQ men. Noting that women in general are underrepresented in STEM fields, a significant pattern emerges: stereotypically masculine behavioral attributes seem to lead to elevated chances for success in STEM.

Quincy Brown, Ph.D., program director of STEM education research for the American Association for the Advancement of Science, offers her reaction: “At first glance I was surprised by the gender asymmetry, but when I reflected on the research of women in STEM the differences in persistence was less surprising. Masculine-dominated stereotypes of scientists and the gendering of STEM fields can be a strong deterrent for individuals without these traits.” The unfortunate truth is that every postdoc has seen examples of this in the lab: the loudest, most boisterous voice is commonly accepted and promoted over more reserved and soft-spoken speakers, regardless of technical accuracy.

For that naturally more quiet person, it is no wonder they’re likely to choose training in an alternate field where their personality and identity is more accepted and valued. Having identified an unfair cultural issue in STEM, what can be done? The Out in STEM (oSTEM (http://www.ostem.org/)) nonprofit society was created in 2005 to address exactly these kinds of imbalances through connecting both global and local support networks for the STEM LGBTQ community. Besides providing a platform for communal support to students influenced by the biased heteronormative climate in STEM, oSTEM spreads awareness of these equity challenges and distributes advocacy tools at over 75 chapters at institutions worldwide.

oSTEM President Offers Insight

As the workhorses of science, postdoctoral scholars are often in important oversight positions empowered with the ability to directly influence the culture of their corner of the STEM world. Cortland Russell (https://www.linkedin.com/in/cortlandrussell), president of oSTEM, offers tips for small, everyday strategies postdocs can use to ensure their environment values diversity and inclusion: “Be very intentional with your words and actions. Demonstrate that you value the presence and contributions of people who don’t look or act like the stereotypical scientist.”

He shared the microcosm of a common practice in biology for rejecting flies from studies whose non-binary gender made their classification inconvenient. “When we focus on the majority, we focus on continuous exclusion.” Russell continued, “if you have underrepresented minorities in your research group, make it a priority to find extra time to mentor them and make sure they’re supported.”

Even subtle nonverbal cues can make a big difference. As an LGBTQ member in STEM, Russell shared an anecdote from his undergraduate days when he was initially hesitant to share his experiences with a professor due to some icons in their office historically associated with conservatism and general rejection of sexual minorities. The professor ultimately proved to be a strong ally and mentor, but not every LGBTQ member would have taken the risk to open up in this potentially hostile environment.
Make Acceptance Obvious

“Have a rainbow flag on your desk, pin a message of acceptance on your backpack, maybe a sticker or two on your laptop,” Russell suggests to explicitly indicate your values to the community. Actions we can take to build longer-term cultural momentum include incorporating habits into our daily behavior from trainings provided by oSTEM, the Safe Zone Project (http://thesafezoneproject.com/), and other advocacy groups. Self-reflection towards understanding our own biases and honest experience-sharing with the community are also expected parts of a productive path forward. Brown recognizes this is not an easy task: “being inclusive and having important, and sometimes difficult, conversations will be an important part of positive communal change.”

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