Celebrating diversity, tolerance and inclusion in STEM

“There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.”

[Charles Darwin, The Origin of Species]

Diversity is beautiful and powerful. It’s also intricately connected to evolution, to which we owe our existence. Considering that we all descend from a very small group of people it is shocking that racial discrimination is so pervasive. Unfortunately, discrimination in all its forms and degrees is as common as it is irrational, and a major obstacle to sustainable development.

To fight discrimination, people around the world unite every March 1 to celebrate Zero Discrimination Day. The initiative was first celebrated by the UN following the launch of the Zero Discrimination Campaign on World AIDS Day in December, 2013, by UNAIDS.

In science, many inequalities persist. Last year, the Salk Institute for Biological Studies in La Jolla, California, was sued for gender discrimination by three female scientists. Each claimed that she received fewer promotions and funding opportunities than her male peers.

In light of these and other allegations, some universities have become more transparent about salaries and promotions. However, gender discrimination remains deeply ingrained in the culture of science, technology, engineering and mathematics (STEM) and is difficult to tackle.

There is also overwhelming evidence for underrepresentation of women and minority groups in peer-review and publishing. In the past couple of years, science and medical journals have raised awareness regarding conscious and unconscious bias in STEM and have taken steps to alleviate these factors.

Earlier this month, The Lancet launched an issue dedicated to promoting gender equality in science, medicine, and global health—The Lancet Women issue. As part of the series, this issue of EClinicalMedicine contains one Research article and one Comment on the topic. Results of a national survey of Canadian medical students’ experiences of sexual harassment conducted by Susan Phillips and colleagues at Queen’s University, Kingston, Canada, indicate that sexual harassment persists in the Canadian medical environment. Survey participants indicated their belief that education of medical students and faculty could change the culture of sexual harassment. In the linked Comment, Julie Silver and Michael Sinha at Harvard Medical School agree that education is essential, but it is not enough.

They evoke the recommendation of the National Academies of Engineering, Science and Medicine (NASEM) report to “make the entire academic community responsible for reducing and preventing sexual harassment.”

Together with The Lancet and other Lancet titles, EClinicalMedicine is committed to motivate action towards advancing women in science, medicine, and global health and will continue to build on the success and impact of The Lancet Women issue.

These are no doubt important steps, but if we are ever to achieve a world free of discrimination we should address the root causes of all types of discrimination.

Discrimination and implicit biases can arise very early during the maturation of an individual. They can have tremendous consequences later on, if they are not properly challenged. Is education the key to a world without discrimination? The answer is not a straightforward one.

Earlier this year, Nobel Laureate James Watson had his reputation once again tarnished because of his recurring offensive comments on gender, race, and sexual orientation. Watson can hardly be accused of lacking an academic education. But in his suggestions that evolution may have acted differently upon cognitive traits in African populations versus the populations that left Africa, he strongly promoted non-evidence-based ideologies. His comments perhaps have less to do with education and more to do with the presence of implicit bias.

An education system capable of joining academic instruction and exposure to diversity seems a powerful instrument to shape a better world. An appreciation of diversity can become one of the leading forces of humanity but such an imperative, while strongly desired, will require time to fully implement.

By studying gender and ethnic disparities in science, medicine, and global health, we can observe the effect of the early steps already taken towards equality. Women often outnumber men in academia and medicine, and this increased representation is a good sign that a change is already happening. However, this is only true at the junior level, as senior leadership positions still exhibit strong biases and inequalities.

We still have a long way to go if we are to achieve equality in science and medicine at all levels. Celebrating the Zero Discrimination Day is an opportunity to enhance our awareness that diversity is one of humanity’s greatest strengths. Diversity can only flourish if equality is protected and pursued. This cannot happen without universal recognition of its value.

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