Stereotypes and Gender Awareness

What
Gender role stereotyping occurs when a person is expected to enact a series of norms or behaviors based upon their sex. Gender is a social construction, and other social categories such as race, ethnicity, class, religion, and language also influence that construction.

Why? – Gender perspective
STEM disciplines are male dominated. Gender stereotyping maintains gendered cultures and gender inequality. Being aware of gender and creating awareness of stereotyping and unconscious bias within the work group can lead to more diversity and more inclusive environments for all.

Evidence / background - Gender perspective
Gender role stereotypes include the notion that girls are caring, nurturing, quiet, helpful, considerate of others, and place others' needs before their own. Boys are viewed as rational, logical, unemotional, and strong and are also expected to be outgoing, smart, and naturally academically talented. Thus in academia, gender role stereotypes attribute males' academic success to innate intelligence and girls' achievements to hard work. Unconscious gender-based assumptions and stereotypes are deeply embedded in the patterns of thinking of both men and women. Women and work performed by women consistently receives lower evaluations than men and work performed by men (by both men and women evaluators). Valian argues that each individual event in which a women does not get her due – is not listened to, is not invited to give a presentation, is not credited with an idea – is a mole hill. 'Mountains are molehills, piled one on top of the other' (Valian, 2005: 35). Valian (2005) also noted that the stereotype that women are nurturing, for example, can be recruited to rationalize a belief system that dictates that women's principal role should be childrearing and that maternity makes women problematic as researchers.

Implicit bias refers to the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner. These biases, which encompass both favorable and unfavorable assessments, are activated involuntarily and without an individual's awareness or intentional control (Blair, 2002). Because 'implicit bias is an automatic and unconscious process, people who engage in this unthinking discrimination are not aware of the fact that they do it' (Wilkerson, 2013, p. 134).

Blair, I. V. (2002). The Malleability of Automatic Stereotypes and Prejudice. *Personality and Social Psychology Review,* 6(3), 242-261.

Valian, V. (2005) Beyond Gender Schemas: Improving the Advancement of Women in Academia. *Hypatia* 20 (3): 198 – 213.

Wilkerson, I. (2013, September). No, You're Not Imagining It. *Essence*, 44, 132-137.

From contexts and experiences in the FESTA-project

One male student noted gender bias among (male) scientists: 'Top flight male scientists wouldn't see females as having the same credibility as their peers'. However, another male student remarked on the absence of females in the discipline and men's discomfort around women in the workgroup: 'We are not used to being around women'.

While women were very aware of gender and recounted that their male student colleagues are more confident, regardless of their ability, and present material in a very convincing way, particularly at conferences where they win prizes. It was also noted that male students and academics are hostile to female presenters at conferences 'men ask questions much more harshly to women than they do to other men'. One female student noted that 'a strong woman is intimidating, a strong man is a strong man' in the academic environment, while other female students provided anecdotal accounts of both men's and women's unconscious bias in lab group interactions.

Recommendations for good practice

Ensure all members of your research group /team complete the Implicit Association Tests.

Provide Unconscious bias training, which:

- Incorporates unconscious bias assessment tools
- Focuses on specific, real situations, such as reviewing CVs, conducting interviews
- Addresses the topic of in-group favouritism and how it operates in the organisation
- Uses proven successful simulations, role-plays, and other interactive exercises
- Provides de-biasing, counter-stereotyping activities

Training should be allocated sufficient time; ideally, several short sessions or one full day as a minimum; and training should be provided in person: This topic requires interaction, trust, and the opportunity for people to meet in a safe environment. E-learning or Webinars are not appropriate delivery methods for unconscious bias training, nor will they produce measurable change.

Ensure all members of your team/group participate in the unconscious bias training.

From literature and other sources

Stereotypical cultural beliefs do not simply define men and women as different; they implicitly define men as superior to women. Experimental studies of curriculum vitae evaluations showed that both men and women rated the male candidate as more competent where the only difference on the application materials was gender (Moss-Racusin et al 2012).

Sheltzer and Smith (2014) found that academic leaders in elite laboratories were significantly less likely to hire female postdoctoral trainees than their male counterparts, with consequences for such women's subsequent careers.

There is substantial evidence of the existence of gender bias in academic contexts (van den Brink and Benschop 2012; Wenneras and Wold 1997).

Moss-Racusin, C. A., J. F. Dovidio, V. L. Brescoll, M. J. Graham, and J. Handelsman. 2012. Science Faculty's Subtle Gender Biases Favor Male Students *PNAS* 109 (41): 16474–79.

Sheltzer, J. M. and Smith, J. C. (2014) Elite male faculty in life sciences employ fewer women, *PNAS* 111 (28): 10107-10112.

Van den Brink, M. and Benschop, Y. 2012. 'Gender Practices in the Construction of Academic Excellence: Sheep with Five Legs' *Organisation*, 19 (4): 507-524.

Wenneras, C. and Wold, A. 1997. Nepotism and Sexism in Peer Review. *Nature*, 387 (6631): 341–3. http://sciencethatmatters.com/wp,content/uploads/2007/04/wenneras97nepotism.pdf

Other useful resources

O'Connor, P. and O'Hagan, C. 2015. 'Excellence in university academic staff evaluation: a problematic reality?' *Studies in Higher Education* DOI:10.1080/03075079.2014.1000292

Implicit association tests: gender-science test and gender-career test:
https://implicit.harvard.edu/implicit/takeatest.html