

Addressing Equity and Inclusion

Activity #3: Diversity Study Results for Discussion

Read the description of the study results and discuss your reaction and the implications for your mentoring practice. See the “Benefits and Challenges of Diversity” article in the guidebook for more details about these and other studies.

Study 1: Studies of hiring involve assigning a man’s name or woman’s name to the same application and randomly distributing the applications to a group of reviewers. The reviewers are more likely to hire the person if there is a man’s name on the application. The sex of the reviewer has no effect on the outcome. The result has not changed much over 40 years of doing the study (Steinpreis, Anders et al. 1999; Dovidio and Gaertner 2000; Moss-Racusin, Dovidio, et al. 2013).

Study 2: Many studies show that when reviewers are asked to review job performance based on a written description of the person’s accomplishments, they rate the performance higher if they told that they are reviewing a man. In one study the difference between ratings for men and women candidates was greater when the evaluator was busy or distracted. The sex of the reviewer was not significant (Martell and Leavitt 2002).

Study 3: A linguistic analysis of 300 letters of recommendation for successful candidates applying for (and ultimately being offered) faculty positions at a major medical school showed differences in language and content. Male candidates were referred to more often as “researchers” and “colleagues,” whereas women were referred to as “teachers” and “students.” There were 4X more references to women’s personal lives than to men’s and there were more “doubt raisers” in letters about women (Trix and Psenka 2003).

Study 4: An ecology journal initiated double blind review (authors’ names not revealed to reviewers, reviewers’ names not revealed to authors). During the 6-month period of the trial, the acceptance rate for papers first-authored by women increased significantly. There was no change in the frequency of acceptance of papers first-authored by women in a similar ecology journal during same period (Budden, Tregenza et al. 2008).

Study 5: Evaluators expressed less prejudice against African American candidates if they were instructed to avoid prejudice (Lowery, Hardin et al. 2001).

Study 6: When participants were shown images of admired black figures they associated negative words with black people less than those who were shown pictures of disliked black figures or not shown pictures at all (Blair, Ma et al. 2001; Dasgupta and Greenwald 2001).

Study 7: Subjects were told to select one of two rooms in which to watch a movie. In each situation there is a handicapped person sitting in one of the rooms. If both rooms are showing the same movie, the subjects were more likely to choose the room where the handicapped person is sitting. If the rooms are showing different movies, the subjects are more likely to choose the room where the handicapped person is not sitting. The result is the same independent of which movie is showing in the room with the handicapped person (Snyder 1979).

Study 8: One study examined differences over a ten-year period of whites' self-reported racial prejudice and their bias in selection decisions involving black and white candidates for employment. They report that self-reported prejudice was lower in 1998-9 than it was in 1988-9. At both time points, white participants did not discriminate against black candidates when their qualifications were clearly strong or weak, but they did discriminate when the qualifications were mixed or the decision ambiguous (Dovidio and Gaertner 2000).

Study 9: Stereotype threat is the anxiety people feel about confirming stereotypes of a group to which they belong. When stereotype threat is activated, usually by reminding a person of their race or sex, a person may identify with a negative stereotype and perform less well than without activation. MRI examination of the human brain shows that activating stereotype threat makes blood move from the cognitive centers to the affective centers of the brain (Krendl, Richeson et al. 2008).

Study 10: A wide range of studies show that racial and ethnic minorities tend to receive lower quality healthcare and are less likely to receive routine medical procedures than non-minorities patients, even when the issue of access to health-care is controlled (Smedley, Stith and Nelson, 2003).

Study References:

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- Budden, A. E., T. Tregenza, et al. (2008). "Double-blind review favours increased representation of female authors." *Trends in ecology & evolution (Personal edition)* **23**(1): 4-6.
- Dasgupta, N. and A. G. Greenwald (2001). "On the malleability of automatic attitudes: combating automatic prejudice with images of admired and disliked individuals." *J Pers Soc Psychol* **81**(5): 800-814.
- Dovidio, J. F. and S. L. Gaertner (2000). "Aversive racism and selection decisions: 1989 and 1999." 319.
- Krendl, A. C., J. A. Richeson, et al. (2008). "The negative consequences of threat - A functional magnetic resonance imaging investigation of the neural mechanisms underlying women's underperformance in math." *Psychological Science* **19**(2): 168-175.
- Lowery, B. S., C. D. Hardin, et al. (2001). "Social influence effects on automatic racial prejudice." *J Pers Soc Psychol* **81**(5): 842-855.
- Martell, R. F. and K. N. Leavitt (2002). "Reducing the performance-cue bias in work behavior ratings: can groups help?" *J Appl Psychol* **87**(6): 1032-1041.
- Moss-Racusin, C. A., J. F. Dovidio, et al. (2013). "Science faculty's subtle gender biases favor male students." *Proceedings of the National Academy of Sciences* **109**(41): 16474-16479.
- Smedley, B.D., Stith, A.Y. and Nelson, A.R. (2003). *Unequal Treatment: Confronting Racial and Ethnic Disparities* Washington D.C. National Academies Press.
- Snyder, M. L. (1979). "Avoidance of the handicapped - Attributional ambiguity analysis." *J Pers Soc Psychol* **37**(12): 2297-2306.
- Steinpreis, R. E., K. A. Anders, et al. (1999). "The impact of gender on the review of the curricula vitae of job applicants and tenure candidates: A national empirical study." *Sex Roles* **41**(7/8): 509-528.
- Trix, F. and C. Psenka (2003). "Exploring the Color of Glass: Letters of recommendation for female and male medical faculty." *Discourse & Society* **14**(2): 191-220.

Many of these studies and others are summarized in: Fine and Handelsman (2005). "The Benefits and Challenges of Diversity" in *Entering Mentoring: A Seminar to Train a New Generation of Scientists*. Madison, WI: University of Wisconsin Press and Handelsman, Miller and Pfund (2005). "Diversity" in *Scientific Teaching*. New York: W.H. Freeman and Co. This activity was taken from the National Academies Summer Institute on Undergraduate Education in Biology (<http://www.academiessummerinstitute.org>, access June 2010)

Addressing Equity and Inclusion

Case #1: *Is it Okay to Ask???*

Last year I worked with a postdoc who has since left to take a faculty position. We all valued her input and I think that she had a positive experience working with our research team, but there are a few questions that still linger in my mind. This particular postdoc was an African-American woman. I wondered how she felt about being the only African-American woman in our research group. In fact, she was the only African American woman in our entire department. I wanted to ask her how she felt, but I worried it might be insensitive or politically incorrect to do so. I never asked. I still wonder how she felt and how those feelings may have impacted her experience, but I could never figure out how to broach the subject.

Guiding Questions for Discussion:

1. What are the main themes raised in this case study?
2. What might the mentor's intent have been in asking the question, and what might the impact be on the mentee?
3. How might you react to this case differently if the mentee was the only openly gay postdoc in the department? How do you engage in such conversations based on interest without feeling or expressing a sense of judgment about differences? How do you ask without raising issues of tokenism?

Adapted from Handelsman, J., Pfund, C., Miller Lauffer, S., and Pribbenow, C.M. 2005. *Entering Mentoring: A Seminar to Train a New Generation of Scientists*. University of Wisconsin Press: Madison, WI.

Case #2: *Language Barriers*

I am a researcher in a very crowded lab. This fall, two new post-docs started in the lab, both are Chinese. The post-docs were great—they worked hard, got interesting results, were fun to be around, and fit into the group really well. The problem was that they spoke Chinese to each other all day long. And I mean ALL DAY. For eight or nine hours every day, I listened to this rapid talking that I couldn't understand. Finally, one day I blew. I said in a not very friendly tone of voice that I'd really appreciate it if they would stop talking because I couldn't get any work done. Afterwards, I felt really bad and apologized to them. I brought the issue to my peers and was surprised by the length of the discussion that resulted. People were really torn about whether it is okay to require everyone to speak in English and whether asking people not to talk in the lab is a violation of their rights. Our class happened to be visited that day by a Norwegian faculty member and we asked her what her lab policy is. She said everyone in her lab is required to speak in Norwegian. That made us all quiet because we could imagine how hard it would be for us to only speak Norwegian all day long.

Guiding Questions for Discussion:

1. What are the main themes raised in this case study?
2. What is the intent of any English-only policy? What might the impact on lab members be and on the 'lab community' as a whole?
3. How is race a factor in this case? What are the implications of the connections between race, language, and ethnicity?

From Handelsman, J., Pfund, C., Miller Lauffer, S., and Pribbenow, C.M. 2005. *Entering Mentoring: A Seminar to Train a New Generation of Scientists*. University of Wisconsin Press: Madison, WI.

Case #3: *Ethnicity, Disease and Ethics*

You are a senior researcher in lab that is sequencing genes as part of a larger effort to find a genetic marker for susceptibility to a particular disease. A graduate student who has just started in your lab and whom you have been asked to mentor, comes to you and complains that she has decided the project itself is discriminatory because the disease you are examining is much more prevalent among members of her ethnic group. She has even found a paper that confirms this statistical link. She is worried that the research could be used to deny or limit access to health care for this disease, and that this would disproportionately affect her ethnic group.

Guiding Questions for Discussion:

1. What are the main themes raised in this case study?
2. How should the mentor respond?
3. How can you acknowledge a mentee's concerns, respect their value and still move forward on the project?