

An Unconscious Bias Holds Women Back in Science

Laura Thilgen

Department of Biology
Lake Forest College
Lake Forest, Illinois 60045



Lake Forest College women biology majors with Dr. Joan Steitz from Yale University

Throughout history, women around the world have sought to achieve social and political equality with men. Today, some believe that women have achieved equality, and others argue that there is still a long way to go in accomplishing this goal. Gender-based discrimination can be seen in many aspects of society today. One heated debate that continues to divide the sexes is the issue of women working in the scientific field. When many people think of scientists, they automatically think of men. Dr. Joan Steitz, who many would call a role model for women in science, would argue that this “unconscious bias impedes women’s desire to move forward in science...[these biases] hold women back.” Dr. Steitz, as well as former Harvard University President Larry Summers, has much to say about the reasons why women holding high level positions in the sciences is very rare.

Dr. Steitz held a discussion forum on women in science with the students of Lake Forest College in October, 2007. She recollected that as she was growing up it was very uncommon for women to hold positions in the sciences: while the presence of women in science was tolerated, it was certainly not encouraged. As the years went on, it became much more acceptable for women to become scientists; however, there are still major biases holding women back today. Dr. Steitz shared information from her 2006 National Academy of Sciences report with us entitled, “Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering.” This data supported the fact that women do indeed have the drive to be high-level scientists, but are being held back by numerous social and cultural biases that prevent them from attaining high positions in the scientific world.

Larry Summers demonstrated the continued existence of these biases at a 2005 conference discussing the reason why more men than women tend to rise to the top in science. Dr. Steitz repeated his reasons to the audience during her forum discussion: “[Women’s] brains aren’t very good at math, they don’t want to work hard enough to be scientists, and maybe a small bit of adverse cultural influence plays a role.” Dr.

Steitz, as well as the rest of the female population, was astounded by these remarks. Needless to say, these statements led to President Summer’s resignation at the end of the 2005-2006 academic year.

Women face discrimination in every field of science and engineering. Many studies and bodies of evidence support that both men and women alike hold these implicit biases. Dr. Steitz described a study presented in her report in which people writing letters of recommendation described their subjects’ various qualities of based on gender. For women, the letters emphasized personal life and training; for men, the letters looked more closely at their resume and their interactions with other people. Dr. Steitz also emphasized another study. In this study, an article was taken and duplicated, the names were scratched off, and females’ names were placed on one copy, and males’ names were placed on another. Both male and female faculty and student’s community reviewed the copies. The majority of the copies that were chosen as better were the ones with the male names on them. This simple study shows the persisting bias placed on women scientists not only by men, but by of all society.

Dr. Steitz was Jim Watson’s first female graduate student that worked in his lab. As we all know, Watson discovered the structure of DNA as the double helix. Dr. Steitz described some of Watson’s “Rules of Thumb” that anyone, male or female, must follow in order to succeed in science. One suggestion was to avoid dumb people and to surround yourself with smarter individuals who challenge your abilities and ultimately make you better. Other suggestions included being prepared to take risks and having a mentor available to you. Being social and interactive with your peers was also another key point made by Watson. According to Dr. Steitz, it is important for women not to get discouraged by comments like those made by former President Summer. Women also need to overcome their *own* biases that they cannot match up to men in their career in order to achieve their goals.

“The most important thing that all of us can do,” Dr. Steitz claims, “is to recognize such unconscious biases and help bring them into the light of day...unless people do this, we can’t begin to fix the problem.” In his conference, Summer claimed that cultural influences may play a “little” role in unconscious biases, but I am inclined to believe that it plays a more major role than he led on. As we all know, it is difficult to change cultural biases; however, female scientists need to stay positive, move forward, and continue to contest the unconscious biases constantly imposed upon them by society.

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