

Women in Science - After the Pioneers

By Sierra McCall

One hundred years ago, women working as paid professionals in a scientific field would have been nigh inconceivable. Their place was in the home - caring for children, cooking, cleaning, and general homemaking. These tasks simply weren't compatible with the demanding education and long hours that came with a scientific career. Also, of course, women were thought not to be intelligent enough for mathematics, physics, chemistry, and the like. Through many years of hard work by countless intelligent and brave women, attitudes have changed and women are taking serious leadership roles in many fields of science.

Today, in some labs and fields, females are commonly working alongside and even managing their male counterparts in increasing numbers. There are of course remaining issues to address, such as sexual harassment and discrimination, and we cannot deny that there is still work to be done to equalize gender opportunities. Blatant discrimination is beginning to see an end thanks to the equality revolution that has been taking place over the last few years. However, subtle discrimination still seems to infect our society deep within its foundation - and many of those types of discrimination are harder to shake. An example of subtle discrimination was related to me by Dr. Renellys Perez; she described an experiment she had seen wherein children of both genders were asked to draw a scientist without any reference to their gender. The study found that children (regardless of gender) will most likely draw an older man, often with some Albert Einstein - inspired hair. On the other hand, if you ask the same children to draw a teacher, they almost always draw a female figure.

Though we don't typically realize it, these types of generalizations follow most of us all the way through life. Regardless of whether or not someone is actually prejudiced, they tend to have some kind of preconceived idea, possibly only subconsciously, of what a scientist looks like, what a teacher looks like, and what careers are and aren't appropriate for men or for women. These prejudices alone aren't necessarily harmful and will likely dissipate over time as various fields become more equally balanced between male and female workers. However, if the person harboring these subconscious biases happens to be in a position such as a college advisor, an

interviewer, or a supervisor in a potential place of employment, they have the capacity to do a great deal of damage.

I had the privilege of sitting down with several female scientists at AOML, including Dr. Perez, who is an Oceanographer in the Physical Oceanography Division. She told me that her outlook was mostly positive, and that for the most part people were very encouraging and accepting of her as a scientist. She did tell me that she feels it is very important for women in science to stand up for their ideas and to make their voices heard. She indicated that over her career, there had been times when women's voices were a bit stifled in meetings and scientific conferences. Dr. Perez and her fellow female scientists were able to move beyond these challenges by taking the initiative to speak up about the problem and by working to find good solutions. She explained that when women's voices are not considered, they often are also not getting as many opportunities to share their research, and they were more likely to be passed up for collaborations, promotions, and other career advancement opportunities. In my opinion, this is a perfect example of subliminal discrimination. Chances are the people who weren't giving these women the chance to speak were not misogynistic. However, no matter how good their intentions, their subconscious prejudices can affect the careers of these women in a very negative way – especially if scientists do not point out gender imbalances when they arise.

I also spoke with Dr. Marion Kersalé who is a post-doctoral fellow hailing from Marseilles, France. She had an interesting perspective as well, saying that though she didn't experience direct discouragement from the scientific community, she did feel that society as a whole was not entirely supportive of her aspirations. Marion also said that she felt she had to work harder to prove herself, and that many of her female peers warned her of how difficult the journey ahead would be. Once she got her Ph.D., she felt she had more respect, and that she was taken more seriously after having completed her degree.

Though we do still have issues such as these in the scientific community, progress must be acknowledged. We are now moving past the time of the trail blazers: the women who were the very first to take the sciences by storm. They paved the way for people like Renellys and Marion, so that they didn't have to face a community that believed women simply couldn't do science. We are far from a perfectly just and equal world, but we are arguably closer than we have ever

been. If we can become more aware of our subtle prejudices and begin to work towards overpowering them, we may someday achieve true equality in the sciences.