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EDITORIAL

Women in Science

In this issue of *Science* we take up chapter two of our report on the challenging subject of women in science. It is not the last chapter, but it does explore some new facets that could not be covered in our first issue on the subject (13 March 1992) and it still leaves some areas to be filled for our next installment. As John Benditt, our features editor and the coordinator of this issue, has commented, the new subjects in this issue are in part the result of the large reader response to our first issue, and we again invite your suggestions for the next installment.

This coverage makes no pretense at being a statistically accurate survey, but rather brings out many of the comments, anecdotal experiences, and personal reactions of women in science. It is a subject of great importance to men as well as to women because society, which has historically underplayed the role of women in science, must change. As society searches for solutions to the horrendous global problems in need of scientific input, we cannot afford to lose the potential of women's brainpower. And in simple fairness, the playing field must be leveled so that women are not inhibited by a less than helpful environment.

In spite of many obstacles, some (but too few) women have achieved tenured positions on faculties, membership in the highest honorary societies, received patents, and won Nobel Prizes—belated recognition for the talent and dedication which in the past was not easily acknowledged: think of the women novelists who had to publish under male pseudonyms. It is also clear that to achieve their success in science these women had to overcome a discouraging environment and archaic attitudes, which makes their achievements even more impressive. The added burden on a career path that requires extraordinary effort and ability under the best of cirumstances led many able women to give up science, a major loss to science and society. The climate has changed for the better, but there is a considerable way to go. This issue of *Science* presents some of the ideas and successful experiments that could lead to a fairer and more productive future.

There is no unanimity on a course of action and some bewilderment as to what data such as pool sizes and drop-out rates really mean, but there is a great need for all scientists to listen to ideas that may at first offend or to suggestions that may seem impractical. There is still a dispute over the existence of a gender difference in approaches and attitudes to science, but there is little doubt that many women succeeded by being even more imaginative than their male colleagues, by being willing to work longer hours or by giving up responsibilities to home and family. These are all disparities that could have been avoided in a different atmosphere. A biological clock that requires women to make decisions about a family in the same years that their commitment to research must be strongest makes pursuit of an academic career difficult and a good start in business perilous. Businesses, professional societies, and academia have a responsibility to ease the burden on women during this critical period. Ideas for policy changes could include better child care, different computations for tenure (for example, multiply publications by two for a half-time worker), extending years to tenure, and greater flexibility in moving from nontenure to tenure tracks. Better educational opportunities in early years are needed, and the role of encouraging spouses and of colleagues willing to share workloads should not be discounted. Most important of all is a removal of the stereotyping which can lead to vocational training options or social atmospheres with in-built gender bias. The greatest loss is of those who may never try their talents because of discouragement or discrimination. The anecdotal comments in this issue show that the goal of equal opportunity has not always been achieved, or even sought, but there are enough happy examples to show that it can be and should be reached. Our reporting indicates some of the attitudes that are generated and some of the possible solutions that may help solve these problems in the future.

Fortunately, there is a willingness to change old procedures, and innovative experiments are waiting to be tried. In the past women were commonly expected to stay in the home and participate only indirectly in business and science. Then it was often said, "Behind every successful man there is a surprised woman." In the future, the increasing numbers of women who wish to make a career in science will be stepping to the forefront as their talent deserves, and men should not be surprised but very delighted.

Daniel E. Koshland, Jr.