

# Denmark: Getting Equity Back on the Agenda

Cathrine Fox Maule<sup>1</sup>, Winnie Svendsen<sup>2</sup>, and Anja C. Andersen<sup>3</sup>

<sup>1</sup>Niels Bohr Institute, University of Copenhagen; <sup>2</sup>Department of Micro and Nanotechnology, Technical University of Denmark; <sup>3</sup>Nordic Institute for Theoretical Physics (NORDITA), Copenhagen

Compared with many countries, the Scandinavian countries including Denmark are known for their high level of equity. Women comprise roughly 50% of the workforce, inexpensive day care is readily available, and laws regarding maternity leave ensure that women can have children without losing their jobs. But although the general situation in Denmark is good, the situation in academia lags behind. Here the glass ceiling still lies low.

On a national level for all sciences, 80% of the scientific staff and 90% of the full professors at the universities are male. This should be compared to the fact that more than half of the university students are female [1]. In physics 97% of the full professors are men, whereas about 20% of PhDs and postdocs are women.

Recent studies show that the lack of women in academia is not just an inheritance from the past: among the newly hired university staff, women are still greatly underrepresented [2]. Although it is hard to find concrete evidence of discrimination in individual cases, the overall picture is clear: Women in science are not included in academia in the proportion they should be. If the selection process for permanent positions were unbiased, the gender distribution of the staff with permanent positions would to some extent reflect the gender distribution of the PhDs and postdocs. The Network for Women in Physics in Denmark works toward removing gender barriers in the career paths within physics in Denmark, and to get women fully included in the academic power structure.

Equity has come a long way in Denmark. Young women of today have much better career possibilities than their mothers and grandmothers. But full equity has not yet been reached. Women still lag behind at the top—be it in politics, business, industry, or academia. The biggest problem currently in Denmark is probably the reluctance to discuss equity issues. Most (primarily male but also female) Danes are so sure that we have full equity, that they refuse to see gender bias where and when it occurs. Again and again statistics show that women still get less pay than men for the same work on a general level, and that in academia fully qualified women are not hired to the same extent as men. Studies that show bias is most often dismissed by explanations other than gender discrimination. Commonly used excuses for the lack of women in academia are that women do not apply for the available positions, or that women are not interested in working in academia. However, this is not true. So one of the greatest challenges that we, the Network of Women in Physics in Denmark, face is to raise the awareness of equity in a manner that the men in power become interested in and willing to listen to issues concerning gender bias.

Not much has changed in the past few years in Denmark since the First IUPAP International Conference on Women in Physics was held, but no major revolution could be expected in such a short time. The percentage of women among the permanent staff in the physics departments at Danish universities is roughly 5%, and the women are unevenly distributed. At the physics department at the second largest university in Denmark (University of Aarhus), there still are no women among the permanent staff. There have, however, been some improvements on a national level in the last couple of years. Two of the larger Danish universities have set concrete goals for the percentage of women among the permanent staff, and one of these has outlined a concrete recruitment policy—and even used it. So it does seem that there is some raised awareness on equity in recent years, but much more can still be done.

To work for increasing the number of women in academia and to get women fully included in the academic power structure, the Network of Women in Physics in Denmark is in the process of forming a Nordic Network for Women in Physics, in cooperation with the Women in Physics in Sweden and the Women in Physics in Norway. The number of female physicists with permanent positions at the Nordic universities is so low that it is very difficult for young women to find female role models within their own discipline in their own country. By widening the local networks of female physicists to a Nordic network, the pool of potential role models is increased. An important goal of the Nordic Network will be to create better contacts across the Nordic countries by maintaining a database of female physicists from or working in the Nordic countries.

The objectives of the Nordic Network for Women in Physics are to:

- Exchange information and knowledge among female physicists.
- Establish contacts between female physicists working in or originating from the Nordic countries.
- Facilitate international networking by developing contacts with women-in-physics organizations around the world.
- Increase the visibility of women working in various fields of physics in the Nordic countries.
- Identify gender barriers in the career paths of women in physics and to work toward removing such barriers.
- Exchange information on teaching methods that enhance young women's interest in and benefits from physics.

The Nordic Network for Women in Physics will operate through meetings and an active web forum. The website will contain a web database of female physicists from the Nordic countries at PhD level or above. The database will contain brief biographical information about the scientists and can be used by men and women to find female scientists within specific disciplines of physics for collaboration. The database can also be used by committees and councils that wish to find female referees and reviewers, or women to sit on advisory committees or the like. The website will also have a notice board of available positions and stipends, and links to conferences regarding women in science (gender-related conferences). The network will be founded in Bergen in August 2005 at the First Nordic Workshop for Women in Physics.

An interesting fact is that the general public in Denmark widely consider physics a topic for men. Physics is believed to be unfeminine, and not something that women should do or even have an interest in. It is even more interesting that many consider the obvious difference between the genders' interest in physics to be genetic/biological. However, as the percentage of women studying physics in many other countries is significantly higher than in Denmark, this is obviously not the case.

A recent study among Danish school children [3] has shown that there are very significant differences in the interest in physics between boys and girls at age 15. So already at a very young age children in Denmark are given the impression that physics is for boys. Thus, it is very important for the Nordic Network to look into which teaching methods can enhance girls interest in physics.

The tendency for girls to lose interest in physics at a young age is very unfortunate considered from a societal point of view. As a nation, Denmark is dependent on innovation, research, and knowledge, and it is recognized that physics is the basis of some of the most important sources of income in the future. We simply cannot afford to continue to lose the girls. However, to change the situation would require quite comprehensive changes in the public perception of physics and physicists.

## REFERENCES

1. Ministry for Gender Equality, 2005 [<http://www.dst.dk/ligestilling.aspx>].
2. I. Henningsen, *Arbejdsrapport til Køn i den Akademiske Organisation* (in Danish), University of Copenhagen, 2003.
3. H. Busch, *15-Year-Olds' Interest in Science and Technology in School: The First Results of the Danish ROSE (Relevance of Science Education) Investigation* (in Danish), 2005 [<http://www.ils.uio.no/forskning/rose/>].