



Women in Science

Women in Science Today

PRESENTER

Just some of the stories of women scientists from our history. We asked these female scientists working at the Open University today, what part gender has played for them.

Monica Grady

One very telling aspect of Rosalind Franklin's story is being disadvantaged because she was female. It was very clear she was excluded from conversations. She wasn't regarded as a serious scientist because she was a woman and there are other examples of this throughout science. Most notably in recent times is that of Jocelyn Bell Burnell, the discoverer of pulsars. She was working on radio astronomy when she was at Cambridge and discovered a very regular signal in some of the things that she was recording and her results were discussed without her knowledge. It was felt she was a woman, she'd made a terrible mistake, she'd actually got engaged which meant that she was going to get married and she might even have babies and, therefore, could not be regarded as a serious scientist. I'm talking here about the 1960s. Things have got much, much better since then so actually Jocelyn's discovery of these signals which led to the recognition of pulsars, her male colleagues were awarded the Nobel Prize for this and Jocelyn wasn't and she was actually the discoverer. It's a terrible lesson that women had to learn at those times. Fortunately these things don't tend to happen anymore, at least not in the western world and there is much more equality and recognition in science for women.

Hilary MacQueen

It was certainly very difficult for women back then to make a go of it in science and there are a lot of examples where women were not given the credit for the work. I think in Barbara McClintock's case that wasn't so because she worked in such a solitary way and she was so far in advance of the rest of the field that I don't think anybody wanted to steal her data [laughter] because they didn't feel that it was creditable at the time. The idea that a woman can be a reputable academic scientist is now completely ingrained into our consciousness. The idea of the male camaraderie in the common room excluding the women now is well and truly behind us.

Monica Grady

As far as I am aware in my field, I can't really talk for other women in other fields but certainly in the field of astronomy, planetary sciences, chemistry, it seems to have gone away thank goodness.

Hilary MacQueen

Certainly in my field it doesn't make any difference what gender you are as to whether you get published or not or whether you get funded, it is purely on merit and the body of work that you have accumulated over the years, your track record and that's the one area where I think women today do have a bit of problem.

Clare Warren

At the age of 30 – 35 when we're looking for that permanent job, the lectureship position, that's when you need to go and have children 'cause if you're not going to have them then you're never going to have them and trying to balance an academic career with all the stresses involved with keeping up a big research career and having a young family is incredibly difficult. The men manage it. Most the women for some reason don't seem to manage it and I don't know what the answer is.

Hilary MacQueen

Because a number of women take time off obviously to have children, at a very important part of their career in terms of building up their publication record, many women end up in their 40s let's say with a significant gap in their publication record and when you're looking for promotion or for a new job or anything like that, that counts because you're competing against people who have not had that sort of career gap and in spite of the fact that equal opportunity legislation would suggest that account ought to be taken of that and you should only be as good as you could be expected to be with a career gap, nevertheless there is a residual amount of prejudice I think.

Monica Grady

The idea of recognised career breaks, more fellowships for women for coming back after career breaks, much, much better child care, it's absolutely necessary that it keeps getting better and better. It's still a drawback being a woman in science.

Hilary MacQueen

It's not impossible to get back into academic life after having taken time off to have a family but it's not as easy as if you had carried on all the way through. So we're a long way along the road but we're not 100% there yet. I'm not sure that we ever will be to be honest until we can fix the biology [laughter] and I don't think that's going to happen any time soon but I think life is a lot more easy for people of my age and younger than it was for our predecessors.

Liz Parvin

I think today while there are not the same obvious barriers to women in science, there are still some difficulties for us to face. A key factor obviously is to show that you can do the job as well as a man can do the job and you can make a contribution as well. I think the difficulties arise in a woman's career either when she has a child or secondly I think there's a difficulty that arises when you have a couple and both of them have good jobs in science and then they want to progress their careers. Well if one of them finds a good job somewhere else, does the wife or partner just tag along or does the wife find a good somewhere else and the husband tag along? I think that's a big difficulty for many partners that I'm aware of these days.

Lucy Greenwood

Being a geologist I have found that most of the time there is a fairly even gender balance in terms of the people I study with and my own age group. However, further up the academic ladder for more experienced scientists there's definitely very much a male dominance. I think more field based topics generally tend to be more male dominated and maybe that goes back to the fact that men never thought that women would be capable of going outside in the outdoors and climbing up mountains to find things whereas now that's what I actually do. I don't think gender has been an issue particularly for me. I think you just kind of learn to live with the fact that most of your lecturers tend to be male but actually the younger lecturers are more mixed in terms of gender. Here at the Open University I haven't come across any issues where I've been prevented from doing anything and especially seeing as I do quite a physically demanding PhD in terms of fieldwork up in the Himalayas and climbing mountains and things, actually it hasn't inhibited me at all and I think people these days are a lot more accepting of women and men being equal.

Hilary MacQueen

I think when you're working for a commercial company a great deal more is made of how good you are on the day, on the ground, in the lab so I think if you can demonstrate good evidence that you are a good practising scientist, the lack of publication may not count against you, particularly since if you are working for an industrial company, you're very often not able to publish because of copyright and patent issues. So it's not unusual for people who've been working in industry to have very patchy publication records indeed. So I don't think the same play is made in the wider world as it is in academia.