

Decision or discrimination; the female deficit in the life sciences

There is a well-known Country song that starts with the simple line 'Sometimes it's hard to be a woman'. The song's refrain 'Stand by your man' is from a pre-feminist era, but it recurred to me during the recent meeting on the career prospects of women in the life sciences (see this issue of *EMBO reports*, page 651). In fact, the problems that women often encounter in their careers are by no means unique to science, and many aspects of these difficulties are shared by young men. But there is a combination of events that makes it necessary to pay particular attention to the plight of women. Data from many sources show that the overall gender distribution in the life sciences starts with equal numbers at the level of the first degree, but that the percentage of women at each of the subsequent rungs in the career ladder diminishes. Eventually, it ends with a situation where only 10% or even less of the most senior positions in the life sciences are held by women. Nobody would argue that women scientists are less capable than men, so there is a challenge to understand how this situation arises and—more importantly—how to correct it.

The core question that must be asked in this context is, is the diminution of the presence of women in a particular career path due to decisions that they make or is it due to discrimination?

An obvious difference is that men do not have to consider the possibility of childbearing. Indeed, men can scan the future horizon and intuitively plot a career reasonably secure in the knowledge that they will be available for work almost without interruption. But women have neither this certainty, nor perhaps the opportunity to have a family at a point in their career other than when their scientific productivity is crucial. But the biological clock ticks on regardless. So, despite a balanced representation of

women at the first degree level, at each subsequent step, there is a drop in the expected number of female applicants and often, a drop in the success of these applications. The former is mainly down to personal choice, but one should not assume that all decisions are made with enthusiasm. If the circumstances are right to start a family then the consequences may be that this decision is concomitant with interrupting a career. The sociological reasons behind that choice are complex and individual.

Some women, however, choose to leave science for reasons that are unrelated to family. Some of them find that the world of research is too dominated by 'male' values; aggressiveness, competitiveness, self-promotion and an excessive focus on work are terms that become common in discussions on that aspect. It is obvious that such traits are neither completely negative nor confined to the Y chromosome, but some women leave because they cannot envisage themselves as happy in such an environment. They are not wrong to do so and many find rewarding and very useful positions in non-research jobs linked to science.

Those who decide not to step off the carousel have then found themselves in a domain where some subtle forms of discrimination appear. The reality is that most of their colleagues are male, most leaders in the field are males, meetings are predominantly populated by males and high-profile speakers generally are male. For some this is not a problem but for others it is either an irritant or even a challenge as the life style of a predominantly male environment is very different to that of a balanced or predominantly female one. The aspects in colleagues that are appreciated may be different and indeed the criteria for selecting candidates for positions may also reflect such subtle differences. Do PhD students need

a 'mothering' type of support or a stern father figure to guide them? I have never heard during a job interview that a candidate should be rejected because he/she lacked the sympathetic spirit. I have often heard a candidate being talked up because he/she had a strong personality, which is often linked with leadership. Are not both types needed and is it not true that both can become successful leaders?

Apart from the fact that all should have equal opportunities, a further reason for us to reflect on these questions is because we are moving from a time when the supply of scientists was not a problem to one where it is. The needs, possibilities and benefits of research in the life sciences are expanding rapidly at a time when there is a trend among young people to choose not to start their careers in this area. Again, this is not restricted to women, but the subsequent fall-off in the number of women in science adds an extra dimension to the problem. We have to ensure that more women see research as an attractive choice. The list of actions that we, who are in the system, can take is potentially long but is best drawn up by each of us in our own specific context. We should inform ourselves about the situation in our working environments and assess why there are too few women around the table when we meet. We should look at how to facilitate those with families by practical actions. We should be gender-blind as we are colour-blind. And we should not delay or delegate this task if we want to ensure that we really get the best minds engaged into the research that must be done in order to advance knowledge and society.

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