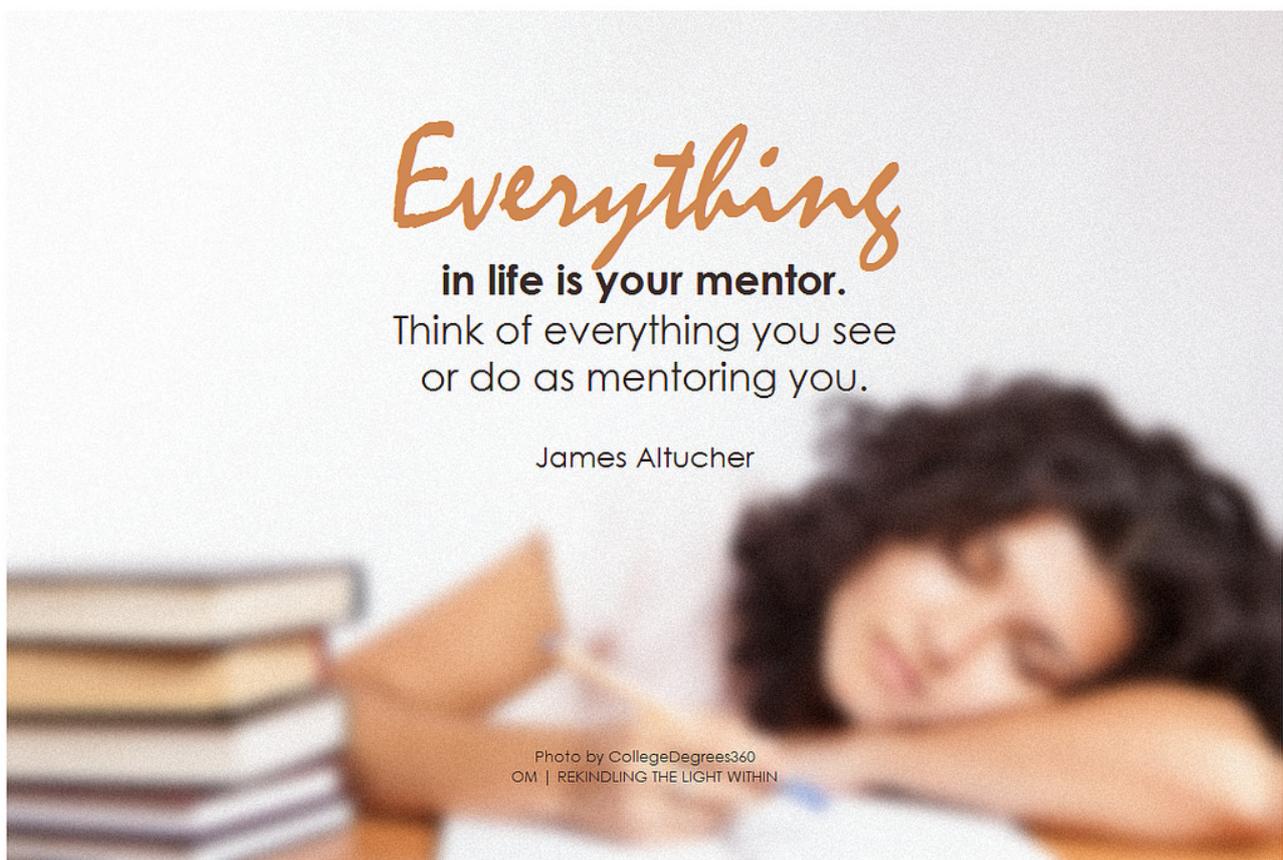




The title of this article may sound like a self-help book. Yet, mentoring takes place spontaneously as part of the scientific process. Indeed, the concept of mentoring is as old as science itself as mentoring plays a very important role in the hierarchic scientific system. There, scientists are recommended by reputation. Yet evaluation procedures designed to be neutral are sometimes still overshadowed by the influence of the so-called "old boys' networks". So what needs to happen?

Why do self-made women rely on mentors?



Mentoring is key to the career path of women scientists

The title of this article may sound like a self-help book. Yet, mentoring takes place spontaneously as part of the scientific process. Indeed, the concept of mentoring is as old as science itself as mentoring plays a very important role in the hierarchic scientific system. There, scientists are recommended by reputation. Yet evaluation procedures designed to be neutral are sometimes still overshadowed by the influence of the so-called "old boys' networks". So what needs to happen?

It is sometimes necessarily need to introduce mentoring in an institutionalised way to break old habits. "When decision makers look for people they might promote, they look for those who are similar to themselves. And as many of them are men for example, they tend to have a look on men rather than women", says Dagmar Höppel, vice-president of the [European Network of Mentoring Programmes](#) and leader of the Baden-Württemberg conference of Equality Commissioner at universities in Stuttgart, Germany.

Today, many universities now offer mentoring programs for female academics, especially in natural science and technical fields. Here, *EuroScientist* looks at why women tend to rely on such schemes and what remains to be done.

Instilling confidence

So why do women rely on mentoring? Mentoring is largely about instilling confidence in less experienced scientists. "The mentees benefit in terms of improved confidence and ability to negotiate their way through the system," explains Julia Smith, professor of Medieval History at University of Glasgow in Glasgow, UK, who designed and implemented the women-only scheme at her university. She has also mentored female early career researchers to teach them line management requirements.

Mentoring programmes reserved to women have clear advantages, concurs Heike Ettischer, who leads the Ada-Lovelace mentoring project for female scientists at the Johannes Gutenberg University in Mainz, Germany. "In scientific life, women are often in a minority position. Many of them feel more confident and they dare to be more open-minded when there are only women present. By offering a pure female mentoring programme we want to encourage these women, to show them their potencies so that in future they will be more confident in the normal scientific contexts."

However, mentoring across gender can be difficult: "For a male professor, it is normal to spend an evening in a bar with your male mentee. But if he is seen in a bar with a female colleague, rumours might start circulating," Höppel says.

Career boost

Mentoring does not happen in a vacuum. Formal mentoring programmes are often accompanied by a seminar or an exchange programme that focusses on qualification and networking. "The seminars should help the mentees to reflect their talents and competences to find out how they want to develop and shape their personality", says Ettischer. This way, they learn how to present their competences in a better way and meet role models.

Mentoring can therefore play the role of teaching women to position themselves for career advancement. Hence, organisations of female scientists, institutions of the public sector and big companies offer mentoring programs in order to be more attractive for new female employees. The idea is to better integrate them into the team, make them more visible and thereby help them to get executive positions.

However, their aim should not be to prepare women to progress in a male-dominated domain and adjust their behaviour to this environment, believes Judit Tanczos, a policy adviser at the Foundation for [European Progressive Studies](#) in Brussels, Belgium. "There are many reasons for the limited success of these schemes, but one of them is definitely the fact that mentoring schemes start from the foregone conclusion that simply having more women will induce structural change as well."

She suggests that the solution lies in a change of attitude. "These programs should be part of a larger reflection on the changing gender roles within society and its consequences for people's work and careers as well as fighting structural discrimination," Tanczos notes.

Engaging to defy status quo

There is no directory of mentoring programs in Europe. Such programs are typically offered by university and research institutes, partly in faculties and individual study fields. Experience shows, however, that a growing number of initiatives target specifically women. For instance, the European mentoring programme [WoMentor](#) addresses Girls and Women, not focusing specifically on science. According to Tanczos, the European Commission's Horizon 2020 program also gave a boost to mentorship programs in science.

At national level, some institutions in different European countries have introduced formal mentoring programs, which aim on empowering women. Some also target immigrants or members of ethnic minorities. "Institutionalised mentoring is taking place when an institution recognises that a top down intervention is needed in order to implement change in [this kind of] segregation," explains Andrea Pető, Professor at the Department of Gender Studies at the Central European University in Budapest, Hungary.

These programs address students, doctoral candidates and graduates who plan a scientific career, some of them also try to build bridges into economy, public sector or self-employment. "In science it is difficult to convince decision makers that the absence of women from science for example is not 'natural' and they are expected to change that because of fairness and democracy," explains Pető.

To solve the issue, it is extremely important to engage with the men in institutions, according to [Jennifer de Vries](#), an Australian mentoring consultant who has worked with European mentoring programmes. "They are often the ones who uphold current gendered norms and values. Engaging men as senior mentors to women provides the opportunity for them to learn more about the experiences of junior women in science and has the potential to engage them in the need for organisational cultural and structural change," de Vries says. Providing formal sessions for mentors where gender research can be presented and where mentors are encouraged to listen and learn from their mentees is critical, she believes.

Cultural influence

There has been a European effort to define [quality standards](#) for mentoring programmes through the [eument.net](#) project. The project promoters have also been trying since 2007 to build a European network of mentoring programmes for women in academia and research. BUT that's not always enough.

Due to cultural differences, mentoring programmes for women do not seem to be successful in all European countries. “Mentoring programmes in Eastern and Western Europe have similar goals, because they want to increase the percentage of women in executive positions in science and economy, where they are still under-represented,” says Christina Haubrich, associate professor of Neurology at RWTH Aachen University, Germany.

But according to Höppel, in Eastern European countries it is very difficult to evolve an understanding of the concept of mentoring that is used in Western European countries: “The scientific system in the Eastern European countries works differently. Protection is much more important there and it difficult to explain that mentoring aims on reflecting talents and competences rather than only pushing someone or giving financial grants.”

There is not much of a tradition of institutionalised mentoring programs in Southern European countries either. However, it seems to be much more self-evident for women in Italy or France to study natural or technical sciences, for example, and to work as an executive.

Still, cultural differences seem to be only one reason for international variations. Others range from differences in personal leadership styles to financial reasons, says Tanczos. Yet, if mentoring programs for women do not exist in a certain countries, this does not necessarily equate to an equal treatment of men and women in science.

Janna Degener

Mentoring experiences in European scientists' own words

“I was lucky enough to meet wonderful mentors (men only) during my professional life who supported me and showed me the way. In 2013, I decided to join [the mentoring programme](#) of the Foundation for Polish Science (FNP) as I was about to start my own lab. It was helpful but not groundbreaking. It has not changed my way of thinking about my next professional moves.”

Dominika Nowis, researcher in Genomic Medicine at the Medical University of Warsaw, Poland.

“Mentoring programmes show to people in the whole university context that female academics are a precious resource for teaching and research. If the mentees are chosen by academic criteria this award helps them also to get the necessary support by superiors and colleagues on their way to postdoctoral qualification.”

Christina Haubrich, Associate professor of Neurology at RWTH Aachen University, Germany, and mentor in the [TandemMed programme](#).

“Mentoring is among the most significant forces that shape a budding scientist's experience and future career trajectory. Both men and women can benefit greatly from good mentorship from both male as well as female mentors. However, there are many topics for which a female scientist may benefit more from a female as opposed to male mentor.”

Jean Fan, doctoral student in Bioinformatics and Integrative Genomics at Harvard University in Cambridge, Massachusetts, USA, and co-chair of the mentoring programme [Harvard Graduate Women in Science and Engineering](#).

Illustration credit: [BK Flickr](#) (CC BY-SA 2.0)

EuroScientist is now available on a pay-it-forward basis.

This means that the content currently available on our web site has been paid for by some generous supporters before you. Now that you have enjoyed reading our articles, you are kindly invited to share the enjoyment by [paying for the next readers](#).