

'Walking into a headwind' – what it feels like for women building science careers

September 20 2018, by Robyn Moore And Meredith Nash



Credit: Ono Kosuki from Pexels

Australia's parliament has a problem retaining experienced women. As a workplace, it's not alone.

Women make up half of all science, technology, engineering, maths and medicine (STEMM) Ph.D. candidates and early career researchers in Australia – but only [20% of senior leaders](#).

In other words, we have a problem not with women entering the STEMM pipeline, but rather what happens to them once they are there.

So why do women leave?

Our recent research suggests it's because working in STEMM puts women in an ideological dilemma that is exhausting to confront, and feels impossible to change.

Investigating the real problem

We [surveyed 61 women](#) and conducted follow-up interviews with 25. This was part of our broader sociological research on leadership in STEMM.

The women were from an international group working in STEMM fields across both academia and industry, and were at a range of career points.

Our [research](#) shows the conflicting experiences that women confront in the STEMM sector:

- women experience sexism and bias in their workplace
- but women also strive to see their workplace as gender-neutral
- when they do succeed, women use neoliberal "lean in" vocabulary to explain their own success
- so when women fail in leadership, they blame themselves and not the culture.

We suggest this mix contributes to the loss of women from senior roles

in STEMM.

Sexism and bias in the workplace

Women often have to deal with gender bias and sexism in [male-dominated organisational cultures](#) where they are made to feel as if they don't belong. In Western cultures, scientists are primarily seen as men, and the traits of a good scientist tend to be associated with stereotypical masculine characteristics such as independence and assertiveness.

Women in our study talked about having to constantly battle to be seen as competent at work, compared to men. For instance, Dori said: "It can also be really discouraging sometimes, on the wrong day (laughs), to feel like you don't belong or you don't have a real cohort, or that the group interests don't really represent what my interests are in the field ... and it's a constant battle to kind of feel like I deserve to be here and I have something to offer and this is the right place for me."

Natasha noted: "We all know that you have to do everything twice as well if you're female."

In addition, women are often subject to [inappropriate sexual behaviour](#), [harassment](#) and assault in the workplace.

One woman in our study described being sexually harassed by her Ph.D. supervisor for years but was too scared to discuss her experiences with others in her workplace.

This approach implies that women in STEMM need to adapt to the existing sexist culture, or else their careers may suffer.

Striving to see the workplace as gender-neutral

When white men have been the dominant figures historically, people who don't meet these norms (such as women and/or people of colour) must minimise their differences to fit in. This often means assimilating to the organisational culture rather than attempting to change it.

In the short term, it's easier for women to see their workplaces as gender-neutral rather than point out [gender bias](#).

As Marcia noted, recognising that the glass ceiling can be interpreted as "playing the gender card": "I would have to say ... until very recently ... I was completely oblivious to gender. I don't want to be seen as making excuses for my lack of progression."

Attributing success to 'lean in'

The notion of women "leaning in" – to welcome opportunities to be assertive and behave like a leader – was proposed by Facebook chief executive [Sheryl Sandberg](#) in 2013.

But this approach comes with risk. Our study suggests that when women in STEMM do lean in to leadership, they are challenged for "acting like men". One of our participants summed up this situation perfectly, asking: "How do you be a leader without being called bossy?"

These are things that by themselves might not seem like such a big deal, but over a career can add up to the "[glass ceiling](#)" – the routine policies and practices that hinder women's advancement.

Blaming themselves when they fail

Women also tend to look at their own individual characteristics to explain failure.

Esther and Miriam are both aged 50, and presented opposite sides of one argument: "That whole sense of agency, you being proactive, that self-reliance has been a huge boost in every aspect of my career."

Versus: "Women might not be quite so good at putting themselves forward when they should be."

Mia, aged 41, explained problems with career advancement being due to: "...women were perhaps not as geared up to deal with that at this point in time..."

Responsibility for success or failure rests with individual women rather than organisational cultures. Solutions then become focused on "fixing the women" rather than organisational change.

There's a headwind

Women leave science because the culture makes it difficult for them to be there. It's the difference between going through your career with a headwind or tailwind.

The headwind in science is even stronger for women if they identify as part of multiple marginalised groups (such as [women of colour](#) and [LBTIQ women](#)).

However, the culture of science is premised on the idea that there are no barriers – that everybody is treated equally as long as they put in the effort. There's a myth that if you work hard, you can achieve anything.

The factors we discussed severely limit women's options. Leaving science is often a pragmatic choice. Indeed, recent [research](#) from Professionals Australia shows that almost one third of women employed in STEMM in Australia expect to leave their job within the next five

years. This is an enormous loss of talent and expertise.

This is not a problem of women or girls not being smart or capable or ambitious. In recognition of this, the Australian Academy of Sciences has launched a community consultation process linked with the [Women in Science, Technology, Engineering and Mathematics \(STEM\) Decadal Plan](#).

Applying a sociological lens shows us that the solution is to focus our attention on fixing the system, not the [women](#) and girls.

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