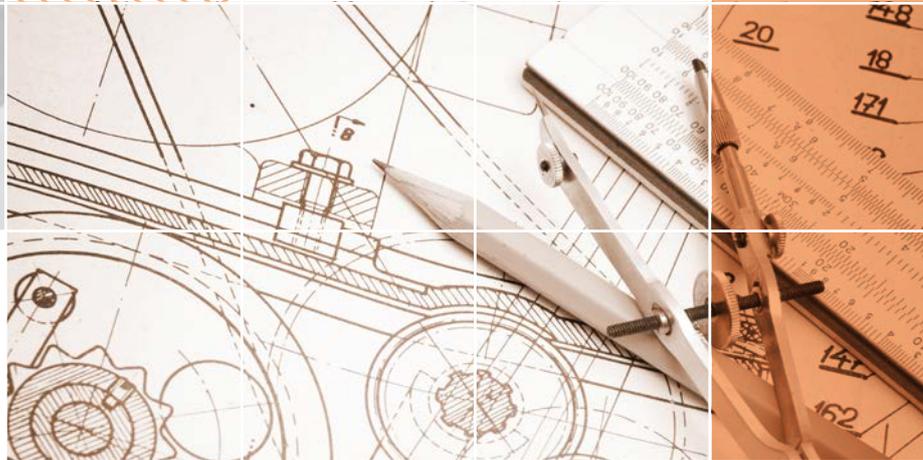




**Professionals  
Australia**  
Gender and Diversity



# UNCONSCIOUS BIAS

WHAT IS IT AND WHY IS IT IMPORTANT  
IN THE STEM CONTEXT?

By Mark Toner



# Whenever gender issues in the workplace are discussed, someone will invariably attribute the problems which arise to unconscious bias. So what is unconscious bias and how does it affect us?

Let's take a common situation: one female candidate and three to four male candidates being interviewed for recruitment by an organisation. Let's assume there are three interviewers, with one female amongst them, although in male-dominated businesses, the interviewers will often all be male. The interviewers will generally try to be fair and treat all applicants equally, but they will probably be unaware of the following biases which can affect their interviewing behaviour and subsequent decision-making about the suitability of each applicant:

- in-group bias, which causes us to be more comfortable with and favour people like us, i.e. of the same skin colour, gender, background, experience, interests or personality type
- the halo effect, which causes us to allow the physical characteristics of others to affect our judgement of their other qualities, e.g. physically attractive people are more trustworthy
- anchoring bias, which causes us to rely too much on an irrelevant piece of data or belief, e.g. one of the interviewers had previously hired a woman and it turned out badly
- confirmation bias, which causes us to notice data and information which conforms with our beliefs and to disregard any which doesn't
- availability bias, which causes us to grab readily available data to make decisions rather than use all available and relevant data which will take more effort and time to analyse
- bandwagon effect, which causes us to believe or do things because other people believe or do the same
- minority pool bias, which causes interviewers to evaluate more negatively applicants who comprise a minority of the applicant pool
- social comparison effect, which causes interviewers to favour candidates who don't compete with their own particular strengths.

So the single female applicant starts out with an initial disadvantage of having the minority gender amongst the applicants. When interviewed, the male interviewers may see the male applicants as members of their in-group and favour them consciously or unconsciously, and they may see the female applicant as a member of their out-group with characteristics similar to the other women in business they know, which could be negative. The other biases listed above can further confuse their judgement of the most appropriate applicant and there are many other types of cognitive bias which could also affect the interviewers' decisions.

The above factors can also be present in performance appraisals, promotions and other decisions about people. So organisations need to examine at a detailed level not just their written policies and procedures but their current practices in the hiring, performance review and promotion of staff, and provide appropriate training to mitigate bias and to explain the gender and other diversity issues involved.



### Some definitions may help:

- cognitive bias is a systematic deviation from rational thinking when we make judgements and decisions, and it has different causes. There are more than 150 known types of such bias
- unconscious (or implicit) bias is a bias which happens automatically, is not under our control and is triggered by our unconscious (hidden) mind making quick judgments and assessments of people and situations, influenced by our genetic make-up, background, past and present cultural environments and personal experiences
- gender bias is the general name given to any type of bias which occurs in a situation involving gender.

## Women in business

Almost every week in the national or business press there are articles about women in business, covering issues such as a lack of women in senior positions, pay gaps between men and women, the business case for gender diversity, and discussions about bullying, harassment and career discrimination. Given their importance, it is critical that these issues continue to be aired publicly. However, in many of these articles the cause of all the above problems is generally attributed by both women and men to unconscious gender bias.

Perhaps this occurs for two reasons. Firstly, it is an easy way out to attribute the cause of these problems to other people's unconscious beliefs because they are not aware of such beliefs and therefore can't be held accountable for them, i.e. no-one is to blame. Secondly, the men and women who believe unconscious bias is the main or sole cause of poor treatment of women do not perhaps observe the degree of conscious sexism that does occur in business. Men who are consciously sexist have learned to be careful about what they say in front of women (and perhaps vice versa), which means that women do not observe the amounts of sexist behaviour that does occur in business, government and academia. Hence many of the authors of articles on this topic, who are mostly women, underestimate the degree of conscious sexism prevailing in our workplaces and attribute sexist behaviour solely to unconscious bias.

## Unconscious bias training

Unconscious bias is reflected in our prejudices and stereotypes that are deeply seated within us as a result of our genetics and our socialisation. In increasingly popular "unconscious bias training", employees take tests which indicate where their biases are, the rationale being that, once we are aware of our previously unknown biases, we can train ourselves to think differently and make less biased judgements and decisions. So the general but superficial view is that unconscious bias training removes or reduces our unconscious biases simply because we have become aware of them.

Some large organisations have stated in their recent annual reports that they have put their staff through unconscious bias training, and that is a good start, but the real question is: what are they then doing to

assist their staff to deal with their unconscious biases and how are they addressing the conscious biases which we are all subject to? Certainly, training which increases our awareness of our unconscious biases is useful but is insufficient on its own to bring about greatly improved employment practices.

Most organisations which have written policies and procedures for recruitment, performance appraisal and promotion of staff believe that they manage these key processes well and that their decisions are based on “merit”, which they regard as an objective concept but is actually very subjective. Unfortunately, current data on the number of women in middle and senior positions in industry and academia in Australia indicate that these beliefs are ill-founded and that gender bias is prevalent in many such organisations. For example, a 2016 report from KPMG found there had been no improvement at all in the past five years in the number of female executives in the top 100 companies listed on the ASX. In both 2011 and 2016, only 5% of CEOs and 10% of COOs/deputy CEOs were women, while for CFOs, the number had actually fallen, from 8% in 2011 to 6% in 2016. These numbers are appallingly low, given that research shows women are just as good at business as men and just as ambitious. The problem is not only due to unconscious bias, as many commentators continue to claim, but to both conscious and unconscious bias and a lack of understanding of how bias can affect our decisions about people and the resulting effect on organisational culture.

## Corporate culture

Institutional barriers to the progress of women in organisations can arise from the past actions of members of staff, particularly those in management. Managers’ views and decisions about people can be biased unintentionally (unconsciously) or deliberately (consciously) and over time these views and decisions form part of an organisation’s culture. For example, it is common to have a corporate culture which accepts stereotype thinking, e.g. men make good leaders and women good carers. This culture is reinforced when all or most of the senior management positions (other than HR perhaps) are held by men, a common situation in many organisations. The problem arises when such stereotypes are applied to individuals, because this may be completely inappropriate. Members of a promotion panel might not promote a woman into a senior leadership position if they believe the stereotype about women not being good leaders, or if it is part of the corporate culture that women are not suitable for such senior positions and the panel members feel pressure to conform to this culture, even if their inclination is to promote the woman.

Modelling of an organisation with eight levels of management from the very bottom to the very top, which initially had an equal number of men and women at the bottom level, shows that a mere 1% bias against women in all promotion decisions produced almost twice as many men than women in the second top-level reporting to the CEO. A 1% bias in decision-making is undetectable in practice, but this modelling showed the significant effect which a minimal amount of bias can have when management makes systematic decisions about its staff. Further refinement of the algorithm should allow organisations to model their own staff numbers and calculate the average level of bias in their promotion decisions. It will be interesting to see if Australian management is interested in such an analysis of their organisations’ practices.



## Women in STEM

The severe lack of women in Australia's science, technology, engineering and maths (STEM) sector is of ongoing concern to governments, industry and academia. For example, the practising engineering profession in Australia is only about 10% female, by far the lowest percentage of all the major professions. Properly addressing and mitigating unconscious and conscious bias will be critical to ensuring workforce sustainability in the longer term by helping address the attrition of women from the STEM workforce, attracting the next generation of female STEM professionals and building workforce capacity for the future.

## Mitigation of bias

Unfortunately, there is little evidence that consciously realising an unconscious belief or association is sufficient to mitigate it. It may do so in some cases. Some unconscious biases can be extremely deep-seated because they are genetically inherited, e.g. in-group bias. Unfortunately, there is some evidence that unconscious bias training can reinforce cognitive biases and prejudice. Bringing an unconscious belief or association to the conscious level does not necessarily remove it from the unconscious mind or change it. In fact, if the unconscious belief is aligned with a conscious belief, it will reinforce the unconscious belief, so that if someone who is consciously sexist discovers he/she is unconsciously sexist as well, his/her beliefs at each level are unlikely to change and could be strengthened. It's also possible to have conscious and unconscious beliefs remaining unaligned with each other, which will cause confusion in the mind of the person when a relevant situation arises. So it is a complex scene and different biases need different treatments to mitigate their different causes.

To return to the recruitment scenario discussed initially, best practice would be for the recruitment panel to discuss their own biases before interviewing candidates, to have at hand a description of biases most relevant to recruitment, their causes and their mitigation, and after the interviews, to discuss how the panel mitigated their own biases in a very transparent process managed by the Chairperson of the panel. How long will it take for business, government and academia to adopt such practices?



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