



Unconscious bias and diversity training – what the evidence says

Unconscious bias and diversity training commonly feature in organisations' strategies for creating a fairer and more inclusive workplace. It is easy to procure this training - training providers are many and varied - but evidence that their training content and techniques 'works' is lacking. This document provides an overview of research into the design and efficacy of unconscious bias and diversity training. This and other research reviews concludes that training interventions do not seem to be effective at improving diversity outcomes within workplaces.

Unconscious Bias Training (UBT)

Unconscious biases can influence a person's judgement without them being aware of it.

Unconscious bias training in the workplace aims

to make people aware of potentially harmful unconscious biases and to reduce the impact of those biases on their interaction with others.

While some types of unconscious bias training may have some limited effects including creating awareness of an individual's own implicit biases and wider diversity and discrimination issues in the very short-term, there is currently no evidence that this training changes *behaviour* or improves *workplace equality* in terms of representation of women, ethnic minorities or other minority groups in position of leadership or reducing pay inequalities.¹

¹ Atewologun, D., Cornish, T., & Tresh, F. (2018). [Unconscious bias training: An assessment of the evidence for effectiveness.](#) Equality and Human Rights Commission; Girod, S., Fassiotto, M., Grewal, D., Ku, M. C., Sriram, N., Nosek, B. A., & Valantine, H. (2016). Reducing implicit gender leadership bias in academic medicine with an educational intervention. *Academic Medicine*, 91(8), 1143-1150.

The Equality and Human Rights Commission's assessment of the evidence on UBT examined 18 papers and found that:

- UBT is effective for *awareness raising* when using an Implicit Association Test² (IAT) followed by a debrief, or more advanced training designs such as interactive workshops or longer term programmes to reflectively reduce biases.
- UBT can be effective for reducing implicit bias, but there is no evidence that it can eliminate it.
- UBT interventions are not generally designed to reduce explicit bias and those that do aim to do so have yielded mixed results or very small effects.

² An Implicit Association Test measures the strength of associations between concepts (e.g. black people, or old people) and stereotypes (e.g. hard working or slow) or evaluations (e.g. good or bad). For more information, see [here](#) for details on an IAT tool developed by US academics, part of Project Implicit.

- Using the IAT and educating participants on unconscious bias theory is likely to increase awareness of and reduce implicit bias.
- The evidence for UBT's ability effectively to change *behaviour* is limited. Most of the evidence reviewed did not use valid measures of behaviour change.
- There is potential for back-firing effects when UBT participants are exposed to information that suggests stereotypes and biases are unchangeable.

The CIPD³ noted that, while UBT can increase people's awareness and knowledge of diversity issues, this evidence is generally based on self-reported measures, which may not be reliable. Further, there is no conclusive evidence that diversity training changes attitudes – with some studies showing that UBT does not change *explicit* gender stereotypes either. CIPD noted that there is typically no sustained impact on

³ CIPD (2019) [*Diversity Management that Works: An evidence based review*](#)

behaviour and emotional prejudice following UBT, which is not enough in itself to create diverse and inclusive organisations.

Diversity training

Diversity training is designed to raise awareness of diversity issues in the workplace and to promote positive interactions between members of different groups. It can help raise awareness but is unlikely to change behaviour.⁴

⁴ Bezrukova, K., Spell, C.S., Perry, J., & Jehn, K. (2016). A meta-analytical integration of over 40

years of research on diversity training evaluation. *Psychological Bulletin*, 142(11), 1227–1274; Chang,

E.H., Milkman, K.L., Gromet, D.M., Rebele, R.W., Massey, C., Duckworth, A.L. & Grant, A.M. (2019).

The mixed effects of online diversity training. *Proceedings of the National Academy of Sciences*, 116(16), 7778-7783.

Diversity training packages come in a wide range of formats and there is no standardisation of content. A review of corporate diversity training from 1964-2008 found that:⁵

- Diversity training often becomes a check-box exercise. While many diversity training programs were well designed, the cost constraints of larger payrolls can result in content being squeezed into shorter timeframes or facilitated by non-expert internal trainers. Such “tick-box” training is also often evaluated on the basis of the volume of staff trained, rather than the efficacy of the training itself.
- This training left participants without tools for behaviour change and could also generate backlash and potentially activate stereotypes. The researchers noted: “Some of the unintended consequences were that many left confused, angry, or with more animosity

⁵ Anand, R., & Winters, M. F. (2008). A retrospective view of corporate diversity training from 1964 to the present. *Academy of Management Learning & Education*, 7(3),

toward differences. With no formal follow-up, employees were left on their own to interpret and internalize what they had learned. Many interpreted the key learning point as having to walk on egg shells around women and minorities— choosing words carefully so as not to offend. Some surmised that it meant White men were villains, still others assumed that they would lose their jobs to minorities and women, while others concluded that women and minorities were simply too sensitive.”

UBT, Diversity training and backlash risks

Research which looked at 830 medium to large US companies over 30 years has found that mandatory diversity training either does not change the number of women in management positions, or actually reduces it.⁶

⁶ Dobbin, F., & Kalev, A. (2016). [Why diversity programs fail](#). HBR, 94(7/8), 52-60.

This backfiring may occur for a number of reasons. There are a number of hypotheses for why, though it has so far been impossible to establish exact mechanisms. Backfires may occur because:

- people resent being made to do something and so are not receptive to the training;
- the training brings to mind unhelpful stereotypes which people then act upon;
- the training makes people think that the organisation has now solved its diversity problems and that any difference in outcomes or experiences are justified, or at least not due to individuals' biases.

We therefore do not recommend prioritising the use of resources on unconscious bias or diversity training over [alternative interventions](#) which have a more promising evidence base.⁷

⁷ Government Equalities Office and The Behavioural Insights Team (2018) Reducing the gender pay gap and improving gender equality in organisations: Evidence-based actions for employers

Why are UBT and diversity training not effective?

The following hypotheses have been made:⁸

1. In general, short-term educational interventions do not change people – especially where people have acquired biases over a lifetime of media exposure and real-world experience;
2. UBT can actually activate stereotypes, making them more likely to come to mind after the training has finished. This can happen both when we are asked to try to suppress our own stereotypes, or when we are asked to confront them;
3. Training can make majority groups feel left out and which in turn can reduce their support for diversity;
4. People react negatively towards efforts to control them and therefore may be resistant

⁸ Dobbin, F, and Alexandra A. "Why Doesn't Diversity Training Work? The Challenge for Industry and Academia." *Anthropology Now* 10, no. 2 (2018): 48-55.

to UBT as mandatory training which can make them feel disempowered;

5. Training can make employees complacent about their own biases – not taking responsibility for avoiding discrimination following training, perhaps because of a belief that the workplace has been made free of bias;
6. Training may also have a ‘moral licensing’ effect, whereby an individual who attended training (which was ‘good’ for diversity) feels freer to go on to make a decision which does not improve diversity (e.g. hiring a candidate with a similar profile to their existing team) as their original sense of virtue counteracts ongoing efforts to monitor persistent prejudices.⁹

⁹ Bohnet, I. (2016). *What works: Gender equality by design*. Harvard University Press.

What might make UBT and diversity training more effective?

While there is limited evidence, some ideas about how to improve training include:¹⁰

- Avoiding ‘one-off’ training sessions - training should be an ongoing process, involving multiple sessions and different formats;
- Making training voluntary – as evidence suggests that mandatory training can result in backfire. Note that voluntary training may only attract people who are already engaged, though one study found that positive effects of in-depth training became

¹⁰ Atewologun, D., Cornish, T., & Tresh, F. (2018). Unconscious bias training: An assessment of the evidence for effectiveness. Equality and Human Rights Commission. Retrieved from:

<https://www.equalityhumanrights.com/en/publication-download/unconscious-bias-training-assessment-evidence-effectiveness>

more likely to persist once a minimum of 25% of team members participated in it;¹¹

- Integrating training with wider organisational initiatives that seek to debias processes themselves.

Limitations of the evidence base

Hundreds of studies of UBT have been published. These span evaluations and reviews of many different training and research designs. This evidence summary has drawn on meta-analyses and systematic reviews in particular. These use robust systematic methodologies to pool and summarise the evidence across multiple studies at once. These reviews give appropriate weight to those studies in their

¹¹ *Carnes, M., Devine, P.G., Manwell, L.B., Byars-Winston, A., Fine, E., Ford, C.E., Forscher, P. Isaac, C. Kaatz, A., Maqua, W., Palta, M. and Sheridan, J. (2015), 'Effect of an intervention to break the gender bias habit for faculty at one institution: a cluster randomized, controlled trial', *Academic Medicine*, vol. 90, no. 2, pp. 221-30

combined dataset which were conducted with more rigorous methodologies and larger sample sizes.

We have also sought out and referenced studies which seek to investigate real world and behavioural outcomes from UBT and diversity training interventions. This means we look for studies where the researchers captured whether people change their behaviour following the intervention, for example by hiring differently or increasing the representation of minorities in their teams. We place less value on research which evaluates on participant experience alone (e.g. 'did you enjoy the training?', 'do you think the training will help you change your behaviours') as these outcome measures have little relationship to actual behaviour change. These make up a very small minority of the totality of the research that has been conducted on UBT and diversity training.

The limitations of the evidence we have reviewed include:

- **Training programme design varies hugely.** They vary based on whether the training is mandatory or voluntary; training which frames the benefits of diversity in different ways (e.g. the legal imperative, cultural value, business case etc); the mode of delivery (face to face, e-learning, lecture-style, interactive workshops), duration of the intervention (e.g. a one-off hour long session vs an ongoing series of activities conducted over months). This makes it difficult to pool data and to identify whether a particular strategy does in fact work better than another.
- **There is a substantial skew in the evidence towards studies conducted upon university student populations rather than employees in a work setting.** One meta-analysis of 495 studies of procedures that sought to change implicit biases also found that overall, the samples that interventions have been tested on are

not balanced.¹² In their review, sample characteristics were disproportionately students (82%), female (66%) and White (76%). This makes it inadvisable to generalise findings to the general population.

- **There is also an overrepresentation of US-based studies** in the academic record and therefore in meta-analyses. We note that many including this review only reviewed publications written in the English language.
- **There appears to be publication bias** in the studies that have been published, indicating that studies which did not find some kind of positive change in outcomes (whether in terms of attitudes, self-reported changes in behaviours or implicit bias) have

¹² Forscher, P. S., Lai, C. K., Axt, J. R., Ebersole, C. R., Herman, M., Devine, P. G., & Nosek, B. A. (2019). A meta-analysis of procedures to change implicit measures. *Journal of Personality and Social Psychology*, 117(3), 522.

not been entered or accepted for publication. This means that meta-reviews may be overestimating any positive effects that they report.

- **Studies undertaken within work settings frequently use methodologies such as pre-post evaluations or correlation.** These approaches make it impossible to be sure whether the outcomes they report are caused by the presence of the UBT or diversity training intervention, or instead caused by other changes that happened within the organisation during the same time period, or by characteristics of the organisation's existing workplace culture.

In summary, in spite of a huge number of studies having been conducted on interventions which seek to reduce bias and prejudice, no reliably effective approaches have been established. There is a need for robust, repeated behavioural studies of UBT interventions in UK workplaces before the field can reach

consensus on what definitely works and what does not.

Conclusion and next steps

Given the limited evidence on the effectiveness of unconscious bias training, we encourage organisations to:

- Invest in initiatives focused around processes (e.g. recruitment and progression) that have better evidence of efficacy
- Where unconscious training may already be committed to, with associated costs, avoid mandatory ‘one off’ briefing training sessions that risk making the problem worse and ensure that training providers are clear on intended aims and are able to evaluate against relevant outcome measures beyond raising ‘awareness’.

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