

# A note about unconscious bias for committees electing new fellows

This note was prepared by **Professor Uta Frith FRS FBA FMedSci**, Emeritus Professor of Cognitive Development, Institute of Cognitive Neuroscience, University College London

Why worry? Men make up the majority of the Fellowship (82%) and of the pool of current candidates (70%). A man is a classic fit with the Fellowship. A woman less so, and somebody from an ethnic minority even less. For Sectional Committees it is useful to know that a 'classic' candidate triggers the so-called 'availability heuristic', which results in a preference for the familiar. Second, there is a desire for affiliation, ii, iii which means implicitly favouring those who are like us and those who belong to a more socially dominant group. V

How do Sectional Committees judge excellence? We like to believe we have reliable objective criteria for excellence, and it is hard to admit that we actually rely largely on subjective reasons for making a judgment about excellence. V, Vi We justify our intuitive evaluations by drawing on objective evidence, such as bibliometrics, or number of prizes awarded. But we usually do this post-hoc. Vii, Viii It has been suggested that candidates from underrepresented populations are subjectively evaluated more sceptically. It has also been pointed out that the language used in letters of reference can be subtly condescending. X, Xi These factors may enter unconsciously into initial subjective evaluations.

It is sometimes easy to identify the top candidates in a given list. However, the **candidates who make up a middle field are often too similar to each other to tell apart in terms of excellence**. It is here where subjective impressions and biases have their biggest effects. If you have a difficult signal to discriminate in a detection task, you are more influenced by irrelevant response biases.<sup>xii</sup> There is never a shortage of post-hoc justifications that put down minority candidates as being just that little bit less electable, drawing on the 'availability heuristic' and the 'desire for affiliation'.

There is another bias, one of the best established in this field: **we all believe that we are less biased than other people and have better arguments**. XIII, XIV We also believe we are less subject to conflict of interest than others. For example, 61% of doctors thought pharmaceutical industry promotions did not affect their prescribing; only 16% believed this to be true for other doctors. XV

We can never ever be unbiased because this is how the brain works. \*vi, \*vii Once we admit that subjective factors play into the judgement of nominators, referees, as well as committee members, we can be more sceptical of our feelings. We can't help it that our feelings are subtly biased against minority candidates. It's precisely because there are so few of them. It means they fall outside the norm, always an awkward place to be. \*viii And here is another twist: diverse teams feel less comfortable and that's why they perform better. \*xix As an empirical study demonstrated, the mere presence of socially distinct newcomers motivates the behaviour of 'old-timers' so that can convert affective pains into cognitive gains. \*xx

See below references for additional resources on unconscious bias.

<sup>1</sup> Tversky A, & Kahneman D (1973). Availability: A heuristic for judging frequency and probability. Cognitive Psychology 5, 207-232.

Insel TR & Fernald RD (2004). How the brain processes social information: Searching for the social brain. Ann. Rev Neurosci. 27, 697-722.

iii Baumeister RF & Leary MR (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. Psychological Bulletin 117, 497-529.

iv Hirschfeld LA (2001). On a folk theory of society: children, evolution and mental representations of social groups. Personality and Social Psychology Review 5(2), 107-117.

COMETS (2014). Excellence as a policy in research.

http://www.cnrs.fr/comets/IMG/pdf/excellence as a policy in research-co-referral comets 27.05.14.pdf vi European Platform of Women Scientists (2008). The "Excellence" debate: a round-up of responses thus far. http://epws.org/the-excellence-debate-a-round-up-of-responses-thus-far/

vii Mercier H & Sperber D (2011). Why do humans reason? Arguments for an argumentative theory. Behavioural and Brain Sciences 34(2), 57-74.

viii Hall L, Johansson P & Strandberg T (2012). Lifting the veil of morality: Choice blindness and attitude reversals on a self-transforming survey. PloS one 7, e45457.

ix O'Connor P & O'Hagan C (2015). Excellence in university academic staff evaluation: a problematic reality? Studies in Higher Education 41(11), 1943-57.

\* Schmader T, Whitehead J. & Wysocki VH (2007). A linguistic comparison of letters of recommendation for male and female chemistry and biochemistry job applicants. Sex Roles 57(7-8), 509-514.

xi http://benschmidt.org/profGender/

xii Frund I, Wichmann FA, & Macke JH (2014). Quantifying the effect of intertrial dependence on perceptual decisions. J Vis 14.

xiii Pronin E, Berger J, & Molouki S (2007). Alone in a crowd of sheep: asymmetric perceptions of conformity and their roots in an introspection illusion. J Pers Soc Psychol 92, 585-595.

xiv Hart W et al. (2015). Fuelling doubt and openness: Experiencing the unconscious, constructed nature of perception induces uncertainty and openness to change. Cognition **137**, 1-8.

\*V Steinman MA, Shlipak MG, McPhee SJ (2001). *Of principles and pens: attitudes and practices of medicine* 

housestaff towards pharmaceutical industry promotions. Am J Med 110(7), 551-7.

xvi Trouche E et al. (2015). The selective laziness of reasoning. Cognitive Science doi:10.1111/cogs.12303

xvii Clark A (2013). Whatever next? Predictive brains, situated agents, and the future of cognitive science. Behavioural and Brain Sciences 36, 181-204.

xviii Catalyst (2007). The Double-Bind Dilemma for Women in Leadership: Damned if You Do, Doomed if You Don't. http://www.catalyst.org/system/files/The\_Double\_Bind\_Dilemma\_for\_Women\_in\_Leadership\_Damned if\_You\_Do\_Doomed\_if\_You\_Dont.pdf

xix Rock D & Grant H (2016). Why Diverse Teams Are Smarter. Harvard Business Review, November 04. https://hbr.org/2016/11/why-diverse-teams-are-smarter

xx Philips, Liljenquist & Neale (2009). Is the Pain Worth the Gain? The Advantages and Liabilities of Agreeing With Socially Distinct Newcomers. Pers Soc Psychol Bull 35, 336-350.

## Unconscious bias training and resources

#### Implicit Association Tests

'Project Implicit' is an ongoing research project being undertaken at Harvard University with the aim of measuring preferences of individuals for certain social groups over others. Depending on how quickly participants respond to elements of the questionnaire provides information on implicit associations that the participant may hold. The questionnaires, or 'implicit association tests' can be accessed here: <a href="https://implicit.harvard.edu/implicit/selectatest.html">https://implicit.harvard.edu/implicit/selectatest.html</a>

### Training modules

- The Equality Challenge Unit works to further and support equality and diversity for staff and students in higher education institutions across the UK.
   <a href="http://www.ecu.ac.uk/guidance-resources/employment-and-careers/staff-recruitment/unconscious-bias/">http://www.ecu.ac.uk/guidance-resources/employment-and-careers/staff-recruitment/unconscious-bias/</a>
- The EW Group, a diversity consultancy, provide a series of eLearning modules and run ILM accredited professional development courses for championing equality, diversity and inclusion in organisations. <a href="http://theewgroup.com/about-us/">http://theewgroup.com/about-us/</a>
- Pearn Kandola are a business psychology consultancy specialising in diversity. They
  provide training modules on understanding bias, and host workshops. More information on
  these can be found on the following webpages: <a href="http://www.pearnkandola.com/diversity-consulting/diversity-&-inclusion-workshops/">http://www.pearnkandola.com/diversity-consulting/diversity-&-inclusion-workshops/</a> and
  <a href="http://www.pearnkandola.com/images/Understanding\_bias1.pdf">http://www.pearnkandola.com/images/Understanding\_bias1.pdf</a>
- Google provides links to guides and further articles on raising awareness and tackling unconscious bias. Google's five guides on 'unbiasing': <a href="https://rework.withgoogle.com/subjects/unbiasing/">https://rework.withgoogle.com/subjects/unbiasing/</a>

## Videos and social media links

- The Royal Society have covered this space, with videos on understanding bias <a href="https://youtu.be/dVp9Z5k0dEE">https://youtu.be/dVp9Z5k0dEE</a> and Making better decisions in groups <a href="https://youtu.be/pt0hoizsHaw">https://youtu.be/pt0hoizsHaw</a>
- Facebook has published a series of videos on 'managing bias': https://managingbias.fb.com/
- Google, have also published in this area, with a short video on implicit bias: https://www.youtube.com/watch?v=NW5s -NI3JE&feature=youtu.be

#### Blog posts and articles

- HRX are a social-tech firm providing technology solutions to address unconscious bias in the workplace. They have a blog page <a href="https://hrx.tech/blog/">https://hrx.tech/blog/</a> and a Twitter page
   <a href="https://twitter.com/HRxTech">https://twitter.com/HRxTech</a> dedicated to providing information on unconscious bias and diversity.
- Harvard Business Review cover this topic in depth in a number of articles. Provided here
  are links to two articles on perceived bias and the impact on employees, and why diverse
  teams are 'smarter'. <a href="https://hbr.org/2017/08/when-employees-think-the-boss-is-unfair-theyre-more-likely-to-disengage-and-leave?platform=hootsuite">https://hbr.org/2017/08/when-employees-think-the-boss-is-unfair-theyre-more-likely-to-disengage-and-leave?platform=hootsuite</a>
- <a href="https://hbr.org/2016/11/why-diverse-teams-are-smarter">https://hbr.org/2016/11/why-diverse-teams-are-smarter</a>
- Google publish a lot of information in the field of unconscious bias. The company has an
  official blog with two short articles on unconscious bias and diversity.
  <a href="https://googleblog.blogspot.co.uk/2014/09/you-dont-know-what-you-dont-know-how.html">https://googleblog.blogspot.co.uk/2014/09/you-dont-know-what-you-dont-know-how.html</a>
- <a href="https://googleblog.blogspot.co.uk/2015/05/doing-more-on-diversity.html">https://googleblog.blogspot.co.uk/2015/05/doing-more-on-diversity.html</a>

- Dr Jennifer Raymond (Stanford University) writes in Nature on acknowledging gender prejudice in science.
  - https://www.nature.com/nature/journal/v495/n7439/full/495033a.html
- Natalie Woodford from GlaxoSmithKline writes about the need to address the working environment, rather than the common approach of staging interventions for the individual. <a href="https://www.linkedin.com/pulse/clean-pond-well-fish-natalie-woodford">https://www.linkedin.com/pulse/clean-pond-well-fish-natalie-woodford</a>
- A briefing paper published by the Wellcome Trust and the University of Sheffield on diverse
  and inclusive research communities, and their impact on biomedical and health research.
  <a href="https://wellcome.ac.uk/sites/default/files/the-diversity-dividend-briefing.pdf">https://wellcome.ac.uk/sites/default/files/the-diversity-dividend-briefing.pdf</a>