

# Unconscious bias in higher education

## **Explanation from evolution**



#### The 100 µs judgement:

- > Friend or foe
- Level of attractiveness
- Dominant or not

A matter of survival.....

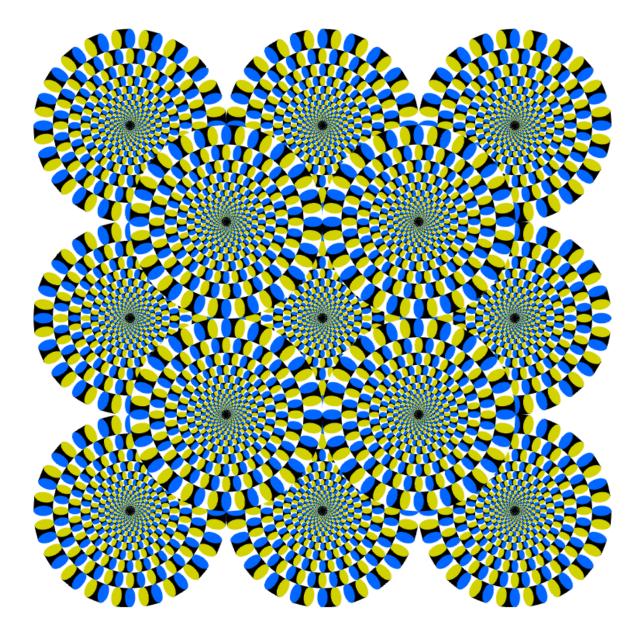
200,000 unconscious thoughts – 1 conscious

## **Gender bias in hiring**



Moss-Racusin, CA, Dovidio, JF, Brescoll, VL, Graham, M & Handelsman, J (2012) 'Science faculty's subtle gender biases favor male students'. Proceedings of the National Academy of Sciences for the United States of America 109(41): 16474–16479

Uhlmann, EL and Cohen, GL (2005) 'Constructed criteria redefining merit to justify discrimination'. American Psychological Society 16(6): 474–480.





# **Psychological explanation**



Unconscious bias refers to a bias that we are unaware of, and which happens outside of our control. It is a bias that happens automatically and is triggered by our brain making quick judgments and assessments of people and situations, influenced by our background, cultural environment and personal experiences

(ECU: 2013 Unconscious bias in higher education)

# **Explanation for 21<sup>st</sup> Century**



Fast thinking people – favour gut reaction

Slow thinking people — favour logical analysis

(implication for Public Engagement– we're not all slow thinkers)

#### The unconscious bias debate



= Unconscious or implicit

Implicit Association Tests (IATs) debate

= Harvard Project Implicit:

https://implicit.harvard.edu/implicit/

# Which characteristics might elicit an unconscious response?



= Gender

= School

= Ethnicity

= Disability

= Religion/belief

= Clothing

= Perceived sexual

= Haircut

orientation

= Piercings/tattoos

= Attractiveness

= Body language

= Age

= Personality

= Accent

= Friends/family



	Very intelligent	Fairly intelligent	Neither intelligent nor unintelligent	Not very intelligent	Not at all intelligent	Don't know	NET: intelligent	NET: unintelligent
Received pronunciation/ Queen's English	31%	32%	27%	2%	1%	7%	62%	3%
Edinburgh	8%	30%	44%	7%	2%	9%	38%	9%
Devon	5%	23%	46%	12%	3%	10%	28%	15%
Belfast	4%	19%	48%	14%	5%	10%	23%	19%
Cardiff	4%	19%	52%	12%	4%	9%	23%	16%
Manchester	4%	16%	50%	17%	5%	8%	20%	22%
Newcastle	4%	15%	46%	19%	7%	9%	19%	26%
London (Cockney)	3%	14%	43%	25%	7%	7%	18%	32%
Birmingham	3%	12%	44%	22%	11%	8%	15%	33%
Liverpool	3%	12%	40%	24%	13%	8%	15%	37%

Source: ITV Tonight programme:

www.itv.com/news/2013-09-25/28-of-britons-feel-discriminated-against-due-

to-accent

#### **Appearance**





Geoffrey Miller

@matingmind



Dear obese PhD applicants: if you didn't have the willpower to stop eating carbs, you won't have the willpower to do a dissertation #truth

2:23pm - 2 Jun 13

#### Risks in teaching



- = Bias in assessment of students' aptitude for science (Spear, M. (1987).
- The biasing influence of pupil sex in a science marking exercise. In A. Kelly (Ed.), Science for Girls? (pp. 46-51).Milton Keynes: Open University Press)

Table 1: Attainment across JACS1 subject areas split by ethnicity

JACS1 Subject Areas	Proportion of graduates in each subject		Good Degree Attainment			First Degree Attainment				
	Non- White	White	Non- White	White	Diff. White Non- white	Non- White	White	Diff. White Non-whit		
Subjects allied to medicine	35.9%	64.1%	67.5%	75.7%	8.2%	15.1%	26.1%	11.0%		
Computer science	25.8%	74.2%	56.4%	71.4%	15.0%	35.9%	38.4%	2.5%		
Engineering & technology	23.0%	77.0%	66.1%	79.4%	13.3%	21.1%	30.4%	9.3%		
Law	22.9%	77.1%	79.8%	88.3%	8.5%	8.7%	16.8%	8.2%		
Social studies	22.0%	78.0%	71.4%	81.8%	10.3%	15.1%	15.2%	0.1%		
Mathematical sciences	20.5%	79.5%	62.2%	66.3%	4.1%	23.5%	31.6%	8.1%		
Business & administrative studies	19.7%	80.3%	81.9%	82.4%	0.5%	13.1%	9.7%	-3.5%		
Combined JACS1 subjects	19.3%	80.7%	69.8%	83.0%	13.2%	9.0%	14.8%	5.8%		
Biological sciences	15.9%	84.1%	68.8%	84.9%	16.1%	10.2%	22.2%	12.0%		
Architecture, building & planning	15.6%	84.4%	72.0%	77.8%	5.8%	N/A	14.8%	N/A		
Physical sciences	12.1%	87.9%	58.5%	66.7%	8.1%	14.6%	29.8%	15.2%		
Languages	10.3%	89.7%	70.0%	79.8%	9.8%	8.5%	10.9%	2.5%		
Geographical Studies	7.3%	92.7%	62.2%	74.1%	11.9%	16.2%	13.7%	-2.5%		
Historical & philosophical studies	7.3%	92.7%	73.2%	84.6%	11.4%	12.7%	14.2%	1.5%		
Education	7.1%	92.9%	N/A	61.5%	N/A	N/A	0.0%	N/A		
Creative arts & design	5.3%	94.7%	92.9%	94.0%	1.2%	21.4%	27.8%	6.3%		
Grand Total	17.7%	82.3%	69.7%	80.2%	10.6%	13.9%	18.6%	4.7%		
N/A – Less than 10 students within cohort										



Professor Aneez Esmail. Manchester University

# BME under attainment in Physical Sciences



- ➤ In the Physical Sciences 12% of students were UK BME and there was an 8% attainment gap.
- Physical Sciences had the largest gap when it came to attaining Firsts (15%)

(The three subject areas with the highest proportions of BME students had good degree attainment levels below the average (78.4%) and within these subjects white UK students outperformed BME UK students.)

## Risks in recruitment and teaching



#### **Assessing Students:**

- = how suitable we think a student is for a particular course
- = how well we think a student will perform on a course
- = how much effort we perceive a student to be making
- = the reasons we assign to students who are performing particularly well and/or who appear to be struggling
- = stereotype threat

#### Risks in appointments and promotions



- = Gendered language in job adverts
- = Requirement for certain responsibilities that are allocated in a biased way
- = Requirement for numbers of papers/grants with no account taken of work breaks
- Requirement for overseas conference talks or collaborations not taking into account limitations due to caring responsibilities

#### **Risks in Recruitment**



= Rapid judgements – gut reaction

Prone to unconscious bias

= Considered judgements – slow thinking

Based on facts and logic

Delay judgements until the next day – sleep on in (and have something to eat!)

#### What can we do about it?

Equality Challenge Unit

- = Accept we are all biased
- = Decide to deal with it individually
  - Break the links in our processing –
     reduce our personal levels of bias
  - Ensure university policies and processes are designed to mitigate the impact of bias wherever possible (Athena/Juno)