Unconscious bias in the primary classroom

While you're waiting, write down the first name of ten children that are most memorable as your 'best' students throughout your teaching career.

Joe Shimwell, Primary Science Outreach Specialist, Think Physics @llewmihs joe.shimwell@unn.ac.uk



Read, make notes and prepare for a short quiz!

A builder, leaning out of the van, shouts "nice legs" to a nurse passing by. The same nurse arrives at work, and casually mentions this to a senior doctor. The doctor said, "I'd never say that". The doctor has two grown up children who are 22 and 30. They get on very well. One is a Sergeant in the Army; the other is training to be a beauty therapist. The doctor divorced last year and is currently dating someone else.



		True ?	False ?
1	The builder was driving a van		
2	The van was travelling quicker than the nurse		
3	There was at least one man in the van		
4	Not every man mentioned in the passage would shout 'nice legs'		
5	The doctor and his wife are no longer married		
6	The doctor has a new girlfriend		
7	The doctor's son is in the army		
8	The youngest child is training to be a beauty therapist		
9	At some point in the text a man spoke to a woman		
10	A woman was shouted at		



Unconscious bias is a wonderful thing

As humans, we often make instinctive decisions about people

Race Age Gender

Disability

Accent

Job title

Our brains are hard-wired to rapidly categorise people instinctively, we use obvious characteristics to do this.

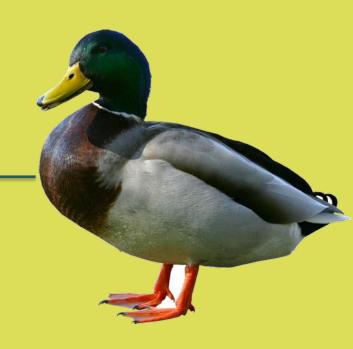
Education Weight Religion



Unconscious bias - it just might save your life!

Our unconscious bias is an automatic decision making process – it is a 'danger detector'

Our brains are bombarded with millions of pieces of sensory data ever second – it cannot possibly process them all, so we make quick assumptions



Duck! It's better to be safe than sorry.

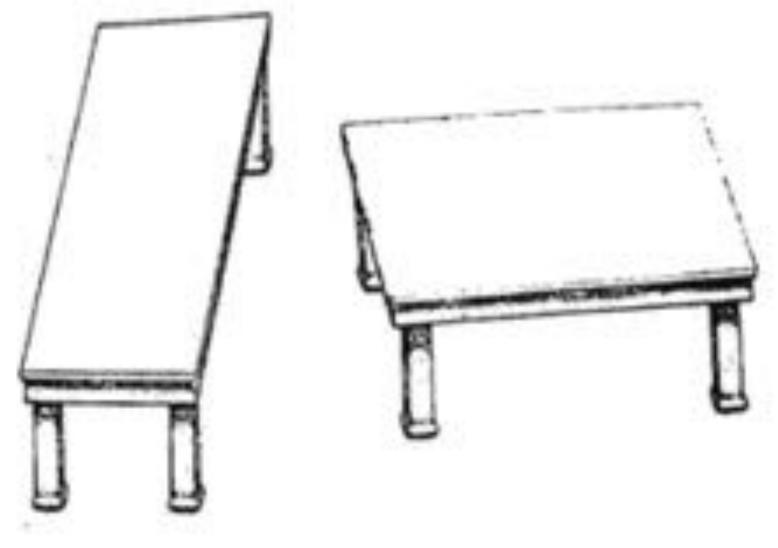


Social categorisation

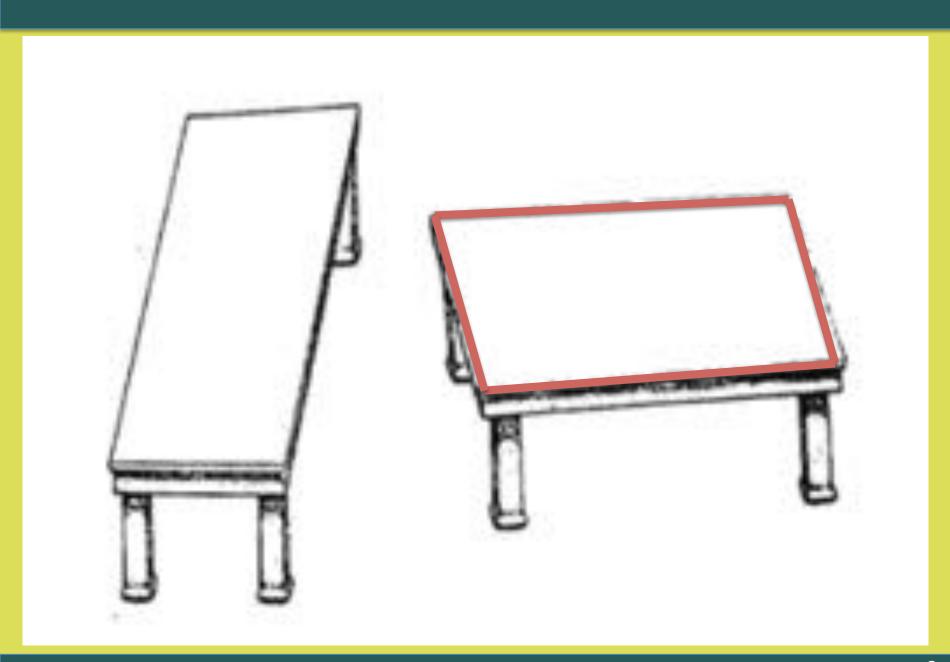
People form categories with which to prejudge others and other groups of people based on their prior experiences with a group, but also from what they have seen and heard, much of which they will absorbed unconsciously during the course of their lives.



Unconscious bias is powerful stuff!









So far...

- We all have unconscious biases.
- They are important, they keep us alive.
- They are difficult to shake (even when we know about them).
- Our biases of other people are formed through social categorisation.



And now for something completely different...

Boys are 4 times more likely than girls to study physics at A-Level.

On average, men earn 23.2% more than women.

87% of the STEM workforce is male.

12% of KS3 girls aspire to be a scientist when they are older.

Girls outperform boys in almost all subjects at GSCE.

Girls who study
Physics A-Level
achieved better A*- C
grades than boys.

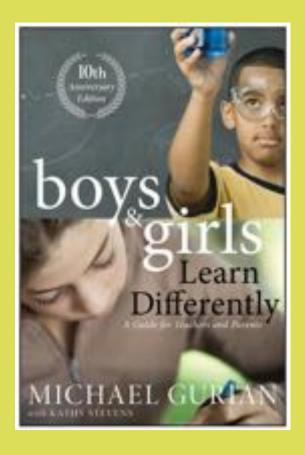
Do any of these facts interest, worry, concern or surprise you?



Inequality on an enormous scale, but where does it come from?



Male and female brains





Male and female brains

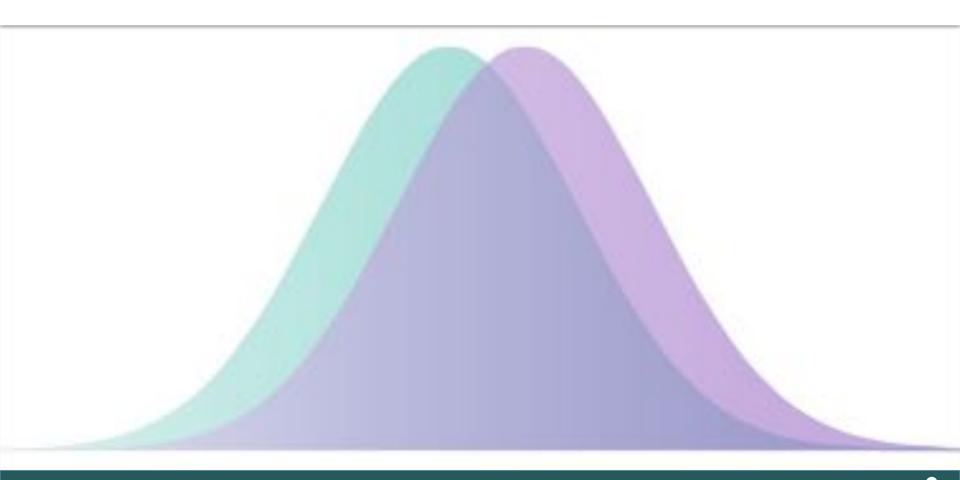
Researchers analysed over 1400 MRI brain scans to look at similarities and differences in structure.

"Our results demonstrate that regardless of the cause of observed sex/gender differences in brain and behaviour (nature or nurture), human brains cannot be categorized into two distinct classes: male brain/female brain"

Joel et al.,(2015), PNAS, 112 (50) 15468 -15473



There are greater differences within genders than between genders.





So where else might this gender inequality come from?

Cognitive social learning theory – psychological gender differences are a result of females and males receiving different rewards, punishments, people's tendency to imitate same-gender models.

Perhaps the issue is rooted in society and incorporated into our unconscious biases!



Boys and Girls

Not a challenge...

5 words to describe a stereotypical boy / girl.

5 words to describe a stereotypically male / female career.



Magnetic Cirls Talk

Complement your Nessonal Literary range are with these favourite Carls words

the DANK region, was borney follow according to the PAR.

clothes hairband heart love sparkle perfume beads necklace furry lipstick ribbon handbag wand glitter fairies fluff candy flowers wings sherbet bubbles sweets pink make-up skipping magic dancing ballet bunnies rainbow ladybird lemonade stars sky shoes chocolate doll party secret diary hair jewels princess queen tiara ice-cream teddy music sunshine birds butterfly sugar angel diamond cooking friends

www.bitgamagis.com

Boys Talk

Compliment your National Linerary range with these favourise Boys words

a DENIT response to the beauty PDN and arranged resulting from the PDN

racing moon helicopter aeroplane tractor money lorry wizard conkers frogs sticks mud dirt spiders snails stones bubbles sweets flags magic pand string grass rugby bug dogs caterpillar cobweb worms dinosaur dragon bike scooter forest treasure climbing swinging skeleton running ghost trees swimming lawnmower treehouse blue football chocolate car

www.fitApenagiv.com







A few shocking?! findings...

- On average, teachers give boys more time than girls to answer questions in class.
- Feedback given to girls about their work is usually focussed on presentation, feedback to boys is focused on content and how to improve.
- Boys are more likely than girls to raise their hands in class than girls.
- White males tend to get more attention from the teacher than other groups.
- When teachers are asked to remember their 'best' students, the answers are overwhelmingly males.

 Sadker & Sadker, 2009



In the classroom, have you ever heard?

"He's a typical boy writer."

"What a pretty dress you're wearing today Sophie." "I need two strong lads to help me carry these books."

"OK guys, pens down." "You're being very kind there Emily."

"Don't be such a girl Josh."



A note on gendered language

Gendered words in titles:
Chairman,
Fireman,
Policeman,
Postman,
Cleaning lady,
Dinner lady.

The generic 'he'.

'Man' - used to mean humankind. 'Man' - as a verb, a 'manned' mission.

'Guys'

Our use of gendered language reinforces the stereotypes which are inherent in our unconscious biases – the subtle languages choices we make in our classes are very important!



What can we do about it?

In your next scheme of work

- Include examples of males and females as role models.
- Embed diversity into all schemes of work
- Choose texts and examples that are non-gendered.

As a subject leader or department

- Provide literature that does not promote one gender over another.
- Provide access to role models: male and female.
- Instil a culture of equity and equality across a department.

During your next lesson

- Count the number of boys and girls you ask questions to.
- Use non-gendered language.
- Provide answering time to both boys and girls.

Across the school

- Challenge gender stereotyping.
- Displays should be used to counter gender bias.
- Challenge sexist language (with children and staff)



What are you going to do about it?

In Monday's lesson?

In your next scheme of work?

Across your Key Stage?

Across the school?



A closing thought... didn't we fix this in the 60s 70s 80s 90 00s?

This is a huge societal issue and cannot be solved by the educational system alone. As teachers we have a responsibility to provide the best opportunities for the young people we teach, regardless of gender. Knowledge (and acceptance) of our unconscious biases and breaking down social stereotypes will help our children realise the full potential that they posses regardless of gender.



Further reading:

This presentation - thinkphysics.org/pstt2016

Sadker and Sadker – Still Failing at Fairness

Cordelia Fine - Delusions of Gender

IOP - Opening Doors

Test your unconscious bias - https://implicit.harvard.edu/implicit/

Google's take on unconscious bias - https://www.youtube.com/watch?v=NW5s_-NI3JE

Get in touch:
joe.shimwell@unn.ac.uk
@llewmihs

