

My name is Elizabeth Wynn, I'm the Equality and Diversity Manager at the Babraham Institute, and today I'm going to be talking about mindfulness and bias. I'm going to briefly introduce those concepts, talk about the research, and also give a few ideas on how you can use mindfulness practices to interrupt your own unconscious biases.

Starting with, what is mindfulness? Mindfulness, as we currently use the term in the West today, developed from Buddhist practices and moral concepts. What it really boils down to is an awareness of the present moment without distraction or judgement. So, becoming aware of your own thoughts and feelings and the physical sensations around you. Paying attention to those without making any judgements around it.

Or, to flip it on its head, mindfulness is taking breaks from living in your head, from constantly being caught up in your own thoughts. And mindfulness is not operating on autopilot all the time.

One misconception about mindfulness: mindfulness does not, is not the same thing as meditation. Meditation is one technique that's used to practice mindfulness, and it's probably the most common and well known, but they aren't exactly the same thing.

As you're probably aware, mindfulness has lots of benefits for the person practicing it. Mental health benefits like less stress and depression, physical benefits like better sleep and, and also better focusing (I need to do some mindfulness don't I!) but it also has benefits interpersonally and that's what we're going to be talking about today, regarding bias.

So to quickly talk about what unconscious bias is. I think anyone who is familiar with equality and diversity issues will have heard of unconscious bias so hopefully this isn't too boring and repetitive for most people.

Unconscious bias is a stereotype about a certain group. It's an unconscious and automatic process and it reflects the associations we learn from the culture we grow up in. Here's a fun little example.

[A comic from XKCD: In the first frame, 2 male stick figures stand at a blackboard. One is writing $\int x^2 = \pi$ and the other says, 'Wow, you suck at math.' In the second frame, a female stick figure is writing the same equation on the board and the male onlookers says, 'Wow, girls suck at math.']

The, there are two important things to emphasise when we're talking about unconscious bias. First of all, it's completely natural. It's a function of the way our brain processes information and everyone has unconscious biases. But just because it's completely natural doesn't mean we can't or shouldn't do anything about it. In order to create a more fair and equitable society, everyone needs to take responsibility for becoming aware of and actively taking actions to mitigate their own unconscious biases.

The reason we like to focus on unconscious biases a lot in equality and diversity work is because unconscious biases limit people's potential and prevent us from making the best decisions. That's really what it boils down to.

So hopefully now that we're familiar with those two concepts, however briefly, we can now move on to looking at the research around mindfulness and bias. There has been a lot of research into this area so I just have a couple of studies here to give an example.

So first of all, mindfulness meditation caused a decrease in implicit race and age bias, as measured by implicit association tests. Implicit association tests, if you're not familiar, are where you're given words, different words, and it measures how long it takes you to make links between them. So if you

are quick at making links between negative words and being older and positive words and being younger, then you're exhibiting an age bias, and the mindfulness meditation decreased that bias.

Another example, practicing lovingkindness meditation – so lovingkindness meditation is a really specific type of mindfulness meditation where you have a mantra that you repeat, where you're sort of projecting lovingkindness, first of all, towards yourself then towards someone you know, to like someone you're close to, then towards an acquaintance, and then towards a stranger or the entire world. That's an example of what loving kindness meditation looks like – and lovingkindness meditation has been shown to reduce bias against homeless people amongst non-homeless people, whereas discussing the principles did not.

This last study looked at something called linguistic intergroup bias, which is basically the idea that we tend to use more positive words for people in our in-group and less positive words for people in our out-group. And the, this study found that mindfulness meditation reduced bias language choices in favour of one's in-group and against one's out-group. So, reducing that bias.

Something that's really interesting and notable is that the first and final study, the mindfulness meditation they did was a 10 minute mindfulness meditation session right before the test and that was enough, just 10 minutes was enough, to produce significant differences.

The middle study with the lovingkindness meditation was longer term, I believe it was six weeks of once a week doing a half hour meditation session or discussion group.

Mindfulness meditation or mindfulness has been shown not only to change attitudes, but also behaviours.

A follow up to the first study involved white participants doing a mindfulness session and then taking part in a trust game where you have some hypothetical money and you decide if you would trust lending it to another person. And those who had done mindfulness were more likely to trust Black people than those who hadn't.

An example of lovingkindness meditation changing behaviour. In lovingkindness meditation, training made participants five times more likely to offer their seat to a stranger in visible distress than those who did not receive the training.

So this is just an example of the research out there showing that mindfulness has an impact not only on biased attitudes, but behaviours as well.

There are limitations to these types of studies. For example, I didn't find any that looked particularly long term. Doing a 10 minute mindfulness session demonstrably has immediate effects, but I'd be quite doubtful if that has any effects further down the line. There weren't any studies that looked at, you know, someone regularly doing mindfulness for a year, anything like that.

And when it comes to the participants, I think a lot of the studies were either self-selecting or university students with all those attendant biases involved there, or yeah the attendant group involved there.

However, there is a lot of research that shows this had a definite effect.

As to the how or why of this things do get a bit more speculative here, but researchers do have ideas about how this happens.

First of all, compassion and non-judgement. As I said when I was explaining what mindfulness is, it's about developing an attitude of non-judgement towards yourself, towards your own thoughts and

feelings and treating yourself with compassion and understanding. And when you are practicing this towards yourself, as those attitudes become more natural to you, then you're also more likely to treat other people with that same non-judgement and compassion. And of course with lovingkindness meditation, fostering compassion for other people is the entire point.

Decreases amygdala reactivity. So a lot of studies on mindfulness, which aren't looking at bias specifically but looking at how it affects the brain, find that, for example, in fMRIs, in fMRI studies, practicing mindfulness decreases amygdala reactivity.

To explain what this has to do with bias, I'm going to give a really simplified little neurobiology lesson here. In decision making we have sort of two main pathways that are involved. The prefrontal cortex is used for rational, thought-out decisions and the amygdala is used for instinctive decisions. That's the fight or flight part of our brain.

So when we use our instinctive decision making, we're more likely to make biased decisions than when we use our prefrontal cortex and think things through and be rational. So regularly practicing mindfulness decreases the amount that we use our amygdala pathway. So if you regularly practice mindfulness, you're less likely to use that pathway which involves bias. Very simplified explanation of that.

Another, perhaps simpler, way of thinking about it is that because mindfulness is the opposite of autopilot and unconscious biases are an automatic process, you can see how it's difficult for them to exist at the same time. When you're making efforts to be mindful, you're not going to be making those same sort of automatic decisions.

So that was a brief couple of ideas about how practicing mindfulness reduces bias. Now I'm going to talk about how you can put this into practice, how you can use mindfulness to interrupt bias.

One of the first and most obvious things is to incorporate regular mindfulness practices. There are lots of different ways you can do this. Formally, you could regularly do something like meditation or yoga.

There are some informal little things you can include. For example, if you try to notice every time you stand up from your chair. It's actually really difficult. It sounds simple, but I challenge you to do it. But that's an example of a way you can be mindful every day, like in your everyday life without setting aside a specific time and really formal way of doing it.

Another thing you can do is change where you work, or their route you take when you go for a walk. And this is just to stop the autopilot. If you have a walk you do regularly, you'll probably notice how you don't even think about where you're making your turns, for example. Whereas if you're going a new route you need to focus more. It gets you out of that autopilot. And the same thing for, you know, if your desk is set up in your in your office, just take your laptop to your living room or your dining room. A new environment means you have to pay attention to things.

If you are at BI, and I think most of the people attending right now are, mindfulness is our current wellbeing focus. So if you go to the wellbeing pages of the intranet, you'll find a lot more information about mindfulness there and how you can put it into practice.

Another thing you can do is a 5 to 10 minute mindfulness session before making important decisions. So a couple of those studies I referenced did show how just a 10 minute mindfulness session had significant impacts on reducing bias. So if you have to make an important decision,

maybe something like, you're on a hiring committee making that decision. Just doing a small mindfulness session beforehand will make it less likely that bias will impact your decisions.

Finally, take a short break between tasks and don't multitask. Multitasking actually is less productive than focusing on tasks one at a time. The idea here again is giving something your full attention so that you aren't letting your brain take automatic shortcuts, because the shortcuts that our brains tend to rely on are the ones that have the potential to be biased.

Those were my top tips for using mindfulness to interrupt bias.

Thank you all for coming.