Leaders in SHAPE: Simon Baron-Cohen

Speaker: Simon Baron-Cohen FBA

Chair: Saba Salman

As part of the Leaders in SHAPE series, psychologist and leading expert on autism Simon Baron-Cohen joins Saba Salman to discuss his life, career and latest book The Pattern Seekers*.*

This talk is available to watch on YouTube

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Saba Salman [00:01:15] Hello, everybody. It's a pleasure to welcome you to the latest *Leaders in SHAPE* event. *Leaders in SHAPE* is a series of British Academy events featuring leading lights in academia and beyond. For those who are unfamiliar, SHAPE stands for social sciences, humanities and the arts for people and the economy. *Leaders in SHAPE* features people who are making huge strides and creating influential work in these fields – in subjects that help us to understand ourselves, others and the world around us.

My name is Saba Salman. I'm a journalist, author and editor, and I cover social affairs – broadly speaking – the disability issues and neurodiversity. I'm also the chair of the charity Sibs, which supports the disabled, and supports brothers and sisters of disabled people. I'm also the very proud sibling of Raana, who is my younger sister, who is neurodivergent and has a learning disability.

Today's event is also part of the British Academy's Summer Showcase, which started today. This is a free festival of ideas for curious minds and brings the best research to life in a range of fields – history, psychology, sociology and more. So all of this week there are online talks, demonstrations, discussions, self-guided audio walks, all sorts of things that you can find out more about on the website. You can also have a look at the Academy's social media channels for more information.

So returning to today's event, it's my pleasure to introduce Simon Baron-Cohen. Simon is a cognitive neuroscientist and Professor of the Departments of Psychiatry and Psychology at the University of Cambridge, where he is also the Director of the Autism Research Centre. Simon has authored five books and we're going to discuss his latest work *The Pattern Seekers*. He's also written over 600 scientific, peer-reviewed articles.

Today we're going to talk about Simon's life and career, right from the beginnings of his work as a graduate through to where he is now, and hopefully beyond, for about half an hour. Then we're going to open up to questions – so if you do have a question, please share it with us via the Q&A tab which is at the bottom of your screen.

Simon, welcome! It is a pleasure to have you here. I want to start by going back 35 years to the start of your career. As a graduate, you taught autistic children in a special school, and this was at a time in the 1980s, when there wasn't much known about autism. It's a condition that was only diagnosed here in the UK in the 1960s, so it was a burgeoning field. Let's start by finding out "why?" Why autism? Why psychology? Why the interest in people who think differently?

Simon Baron-Cohen FBA [00:04:43] First of all, thank you very much for having this conversation with me today. I'm looking forward to it. So, back in the 1980s, autism wasn't really a word that people had heard about. People used to often mishear it. If I said that I was working with autistic kids, they might ask "artistic kids?" And I would say "no, autistic". It wasn't a kind of everyday household word. But there I was, working in a small unit, just six kids and six teachers.

So, it was a kind of an experimental unit because the headteacher at the time was an innovator. She wanted to try to develop methods that might be helpful for autistic kids. And there wasn't really much around. So it was like an incubator – if you like – for teaching methods.

There were video cameras in every classroom of the school so that we could go back and watch the films at the end of each school day to see what had worked and what hadn't worked. What had caused a little connection with a child or what had caused a meltdown or a tantrum. It's just kind of learning by doing.

Saba Salman [00:06:06] It's really interesting you mentioned that not a lot was known about autism. Certainly today we talk about the autism spectrum and there are models of support right across that board. How things have changed in terms of that awareness? I'm thinking particularly of public figures that talk about their experience as an autistic person or [their] family members. What did that look like in the 1980s in terms of understanding?

Simon Baron-Cohen FBA [00:06:38] A huge amount has changed in terms of our understanding of autism. So – just for the benefit of people listening and watching today – autism is now understood to be a neurodevelopmental condition that affects social skills and communication and leads an individual to think differently.

Back then, there was quite a lot of blame on the family. Particularly blaming mothers in that psychoanalytic tradition of presuming that the mothers hadn't provided the right emotional environment for the child to develop social relationships. There wasn't much acknowledgement that this was a biomedical condition.

It took quite a few years before there was an acceptance that genes play a major part in autism. And if we fast forward to today, we now know that there are lots of genes involved which change brain development. It's not just genetics but it's a sizable part of the cause of autism.

Also back then, we didn't really have this concept of a "spectrum". Kids were given a diagnosis of autism – you either had it or you didn't have it, so it was very binary, very categorical. Today, we recognise autistic traits that run right through the population. We've all got some. It's a matter of degree and – if you've got a lot of autistic traits – are they causing you difficulties such that you might need a diagnosis?

So you're absolutely right. We now hear of people like Chris Packham on British TV – the nature documentary maker. Greta Thunberg, as well as being a climate crisis activist, is also autistic. So we now see very different types of people included in the autism spectrum to back then, when many of the people with a diagnosis of autism also had learning difficulties, and maybe minimal language. Today, we recognise that autism can occur with or without learning difficulties and with or without good language.

Saba Salman [00:09:07] I think that's quite an interesting area to talk about as someone whose sister would be regarded as neurodiverse or neurodivergent, who has a high level of support need. As you say, that spectrum runs from somebody who would be regarded – or

regard themselves – as emotive, very capable and not in need of a diagnosis or formal support, right through to somebody who might have complex needs plus a learning disability.

I wonder how helpful it is to have those public figures you mentioned – and I know you have written a huge amount in your other books about the importance of that – talking about, effectively, their superpower? What does that do to somebody whose talents and skills are perhaps more latent and who requires more support?

Simon Baron-Cohen FBA [00:10:07] I think what we're talking about is differences in the complexity of people's needs. So, I mentioned those two individuals – Chris Packham and Greta Thunberg. Although they can function – to the extent that they can make documentaries or meet world leaders to call them to action in the climate crisis – they're very vocal, very intelligent but they also have their struggles, and here's the critical point which is that you shouldn't really have a diagnosis unless you're struggling in some way.

If you're managing just fine, you don't need the diagnosis. The diagnosis is there to signal that you need support. In the case of Greta, she had depression and anorexia as a teenager. In the case of Chris, he's very open about his own depression, even suicidality. Both of them have done remarkably well but both of them have struggled with their mental health probably because their autism wasn't being supported sufficiently.

Saba Salman [00:11:24] I'd like to discuss some of those issues which I know your own research in recent years has looked at – the quality of life and the well-being aspect that demands a support need. But to go back to your earlier career, you moved from teaching into research. I was thinking of your early research, in particular the mindblindness theory and the E-S or empathising-systemising theory. I thought it would be useful for everyone to hear a little bit more about those seminal aspects of your research, if you could talk about those?

Simon Baron-Cohen FBA [00:11:59] Sure, the reason I made the shift from teaching into research was that working with these kids was very fulfilling – to have those relationships and have the joy of being a teacher. Any teacher will tell you that it is a joy. But it also did pique my curiosity about what's causing these kids to be very different.

You could have a child who was very logical, very talented in certain areas like mathematics or music, and yet was quite socially unaware. It was almost like there was a disassociation between different parts of the mind. Whereas in a typical child, their social skills are progressing in line with their other cognitive skills, in autism, these two things seem to be independent almost so that you could be delayed or even disabled when it comes to social awareness and communication.

So my PhD was all about mindblindness exploring this idea that autistic kids have difficulties in putting themselves into someone else's shoes – imagining someone else's thoughts and feelings – which is really essential for both social interaction and making sense of the social world and communication. I went on to test this in a range of different ways experimentally.

A lot of other research has come out of that tradition. It's sometimes called the theory of mind – does the child have a typically developing theory that other people have minds with thoughts, beliefs and emotions that are different to the child's own mental states? Later, I extended that into looking at not just the disability in autism but also the cognitive strengths, in particular, in something I call "systemising" which is the ability to understand a system.

It might be a mathematical system like a pattern of numbers. It might be a musical system – a kind of understanding of an instrument or a pattern of musical notes. It might be a computer. It might be a natural system like understanding – as Chris Packham does – all the wonders of the natural world, "what goes on in a garden pond?" for example.

Autistic people seem to have excellent attention to detail. They seem to have a fascination with systems, and how systems work. They like to look at something and take it apart to understand all the variables inside the system. Sometimes they might put it back together again – and maybe we'll come onto this – because when you understand the system and you take it apart into its constituent parts, you can sometimes reassemble those parts in new ways, which I argue in my new book is the basis of the invention.

For a long time, a lot of the research was about the areas that autistic people find difficult – social skills, communication – and to some extent neglected of the areas in which they think differently, and sometimes actually better than the rest of us.

Saba Salman [00:15:45] We will definitely come on to what you've just mentioned – this idea of playing to someone's strengths – and the potential of that, not just for that individual, but for society and communities as a whole.

While we're on the subject of your theories, I think it's interesting to bring up some of the criticism that has been levelled at your work. I'm thinking particularly of some of the press articles that describe you both as influential and controversial, particularly with reference to the extreme male brain concept which essentially describes the male brain as systemising – as you've just said – but the female brain as empathising.

That has led to some comments that it's neurosexist. It's a neurosexism theory. It also could potentially lead to women being misdiagnosed or underdiagnosed and just playing to those gender stereotypes. I just wondered – you mentioned your latest work, which is talking about people's talents and where we are if we nurture those – how do you cope, or how did you cope, with those criticisms and the challenges of that? Does it disappoint you? Does it frustrate you? How do you respond?

Simon Baron-Cohen FBA [00:17:11] So back in the late 1990s, I became interested in the link between research and psychology that looked at typical sex differences on average. If you took a group of girls and a group of boys, on average, did you see any differences, and the same with men and women, and the research in autism, and I did see some connections that I wanted to explore.

We've known for quite a long time that girls, on average, talk earlier than boys. Girls on average developed faster in their social skills. We also knew that boys were overrepresented in autism clinics. They were going to a diagnosis in clinics for language delay, so clinically

delayed language, for example, not talking by three years old. I was interested in what was the relationship between these two areas of research that weren't really connecting.

We started talking about the theory of mind but I broadened it to the concept of empathy, so not just recognising what someone might be thinking and feeling, but also reacting emotionally to what someone is thinking and feeling, and we developed various measures of both empathy and systemising.

We gave these tests to large groups in the population, and we've recently published one that was 600,000 people using the empathy quotient and the systemising quotient – the questionnaires where you just answer questions about how easily can you empathise and how interested are you in systems.

Sex differences do emerge but I have to use two little words which are "on average". That's to say they don't apply to all males. They don't apply to all females. It's just if you look at these two groups, they're not identical. They're overlapping – if you're familiar with the concept of the bell curve in the population – these are kind of overlapping bell curves. But in a large population like 600,000 men and women, you do see statistically significant differences.

So back to your question about the controversy. I think anyone that conducts research in the area of sex differences is unavoidably walking into an area that is going to be controversial and is very open to being misunderstood, misquoted and misrepresented. The findings, which have been widely replicated, show that on average females score higher on empathy measures and males score higher on systemising measures.

The link with autism is that we find autistic people score below average on empathy measures and intact or even above average on systemising. So that was the notion behind this idea that autism might be an extreme of the typical male profile. But I do recognise that the language itself is problematic. With the history of discrimination against women in the workplace and in many spheres of society, even studying sex differences can be like a red rag to some people.

These days, I'm more prone to using different terminology to just acknowledge the risks when talking about a male brain or a female brain. So I talk more about a type "S" brain or a type E brain, which are more neutral terms. We find that more women have a type "E" brain and more men have a type "S" brain.

I think maybe where the controversy came from was that some people assumed that I was talking about all males and all females. Of course, any statement about the genders that you could make that applies to everyone of that gender would be discrimination. That was never part of the theory. If you prejudge somebody on the basis of their sex, in terms of what kind of mind they have, that would be sexist. That would be discrimination, and I'm very open about standing up against discrimination and sexism but the theory can be misunderstood in that way.

Saba Salman [00:22:26] Thank you for being so honest with that answer. I think there is definitely a wider conversation around the language of difference and how that's changed even in the last 10 to 15 years. I think the other issue – and it goes back to some of those societal differences – is this idea that, actually, instead of a person who is autistic being

unable to empathise with a non-autistic person, the non-autistic person needs to have a little more empathy for someone whose brain is wired differently.

Simon Baron-Cohen FBA [00:22:59] So let's just talk about empathy for a minute because empathy seems to have these two different aspects. There's the recognition aspect – can you recognise what someone is thinking or feeling? And then there's the response element – do you have a response to how someone is thinking and feeling? And it seems like autistic people have got an intact response element in their "empathy circuit", if you like. Once they know that somebody else is suffering, it upsets them just like it does anybody else and they want to do something about it.

That disability seems to be in the recognition element – being able to read faces or draw inferences about what someone might be thinking or feeling. So that's back to what we talked about earlier, the mindblindness or the theory of mind difficulties. It seems to be specific to that. And I think you're absolutely right that these days, the autism community is talking about the double empathy problem.

While we scientists may have found that autistic people struggle to read facial expressions, for example, or vocal intonation, equally, non-autistic people may not be making the effort to understand what's it like to be autistic. What's it like to be that person, to be overwhelmed by information, to experience the world with sensory hypersensitivity, to have difficulty in coping with unexpected change. I think empathy is a two-way street and part of the shift in understanding autism is about meeting halfway.

Saba Salman [00:24:55] I'm glad you raised the double empathy issue. For anyone who wants to go away and find out a bit more, that's the work of an autistic academic – Damien Milton. I know that it's something that's particularly of interest to autistic people and their allies.

I wanted to go from the theory to the practical impact. I was thinking of the Asperger's diagnosis clinic that you started in 1999 – a thousand or so people were able to have a diagnosis of Asperger's as a result of that – and also your questionnaire, the "autism quotient" which indicates through 50 questions if somebody is on the autism spectrum. Looking back at those developments and those particular milestones, are there one or two that you feel are particularly significant?

Simon Baron-Cohen FBA [00:26:04] In terms of creating that clinic, it was really to meet the needs of what we call the "lost generation". There are lots of people who missed out on a diagnosis in childhood or in their teens. Maybe they didn't seek a diagnosis until adulthood, so, for the first part of their life, they were not getting support and then they get their very late diagnosis.

That clinic was kind of specialising – still does it's here in Cambridgeshire – in the very late diagnosis because back in those days, we tended to think of autism as a childhood-onset condition, which it is, but not everyone gets their diagnosis in childhood for various reasons. There might be a stigma that prevents people from seeking a diagnosis. It may be that the

signs of their autism are quite subtle and the clinicians are just not aware that this could be autism.

The person might get misdiagnosed as having something else, like anxiety or even psychosis, or they may have just been muddling through with family support and when the time came to make that step to independence in adulthood, they suddenly found that they couldn't cope.

So, I think it's very important that clinicians are aware that autism may be first diagnosed at any point in life. We had "patients" coming to the clinic in their 60s for the first time discovering that they had been autistic all their lives, but they hadn't had a name for it.

You mentioned this measure, the "autism spectrum quotient" or the "AQ". So that's another questionnaire which we developed. We use that as a screening instrument. It's not diagnostic. But if you score high, and you're having some struggles, then you might go to your GP and say, "Can I have a referral for a diagnosis?" So it really just counts how many autistic traits you've got and – as I said earlier – we all have some.

So again, it's on a bell curve. Autistic people just tend to score much higher than other people. It may be linked to my new book that we'll talk about. When we gave the autism spectrum quotient, the AQ, to those 600,000 people in the population, we found a sex difference that males on average – those two little words again – scored slightly higher on the AQ than females. This is something that's been found in literally dozens or hundreds of studies now.

But we also found that people who work in STEM – science, technology, engineering and maths – have more autistic traits on average than people who don't work in STEM, which is a little hint of a link between autistic traits and the aptitude for invention or understanding systems.

Saba Salman [00:29:29] Definitely, we will be asking about your book. Just before that though, I wanted to squeeze in a question that deserves a much longer debate, but it's about COVID. I just wanted to bring you back to what's happening now and the fact that the inequalities that already face autistic people, particularly those with high-end complex support needs – education, employment, housing, social care, support – that's been hugely intensified by the pandemic.

I just wonder how we dismantle some of those barriers that were already so significant before the pandemic? What can we do? Thinking of all of the well-being and the quality of life issues that a lot of your work touches on.

Simon Baron-Cohen FBA [00:30:18] Do you mean for autistic people?

Saba Salman [00:30:20] Autistic people, specifically autistic people who have a higher support need. So I'm thinking, for example, autistic people were among those who were initially in the pandemic given "do-not-resuscitate" orders. Also, if you had a learning disability and happened to be autistic you were not a priority for vaccination, despite the fact

that you were six times more likely to die from the virus. So just to take those and there are many other issues, as we know.

Simon Baron-Cohen FBA [00:30:52] You and I have something in common in that we both have sisters with quite complex learning difficulties. Those two examples you just gave – that do-not-resuscitate example and do not vaccinate – both of them are forms of discrimination. We have to call it as it is. People with learning difficulties should be entitled to the very same rights as everybody else, and it's shocking to learn that that kind of discrimination still goes on.

We have legislation that is meant to protect people with disabilities to ensure that their rights are not violated, like the Equality Act, for example. And to my mind, these would be two very good examples of a violation of their human rights. Yeah, that's a brief reaction.

Saba Salman [00:32:04] I think, to turn to some of those better life opportunities, I did want to – before we open up to questions – talk about your latest book. So this is it. I hope everyone can see that it's *The Pattern Seekers: A New Theory of Human Evolution*. In it, there are many bold phrases that stick in mind but one of them was where you write "the genes for autism drove the evolution of human invention".

So we're talking at the complete opposite end of what we've just been discussing – COVID and all those sorts of issues, but this is about creating the right environment and making the most of people's skills and talents. I wonder if you could tell us briefly about that, the theory and the aims behind the book?

Simon Baron-Cohen FBA [00:32:58] Well, maybe I'll just jump straight to that quote that you just started with because we had the opportunity to work with a company called 23andme which is a personal genomics company, some of you will have heard of it, where you can pay 100 dollars to find out what genes you are carrying.

When I said that we had asked people in the population to take the empathy quotient and the systemising quotient, we also included people who were customers of that company, so we also had their DNA. We could look at, first of all, was there a partly genetic basis to systemising – the ability to understand how systems work – and empathy? Then secondly, do any of those genes overlap with the genes that have been identified for autism?

The surprising result was that there was an overlap between the genes for systemising and the genes for autism. So that quote – that the genes for autism have driven human progress – actually, the evidence for that lies in our DNA. That's part of the evidence. But the book explores this big question which is "Is there a link between autism and the capacity for invention?" And it celebrates, first of all, humans as a species. That we seem to be sort of unstoppable inventors.

For the last 70,000 to 100,000 years, Homo sapiens, modern humans, have been inventing unstoppably. I date it to about 70,000 to 100,000 years ago because, in the archaeological record, you suddenly see what I call "generative invention". Not just inventing a simple stone tool, like our ancestors had been doing for millions of years, but suddenly, you see the bow

and arrow, the first jewellery, the earliest musical instrument, sculptures, paintings, and the list goes on and on. Humans, Homo sapiens, suddenly seem to be inventing unstoppably.

In my book, I argue that this was to do with a revolution in the brain, a “cognitive revolution” which was the development of the systemising mechanism. We talked about that earlier. The systemising mechanism basically looks for patterns in the world, hence the title of the book. Not just any patterns but very special patterns which I call “if and then” patterns.

If we take the example of the first musical instrument which was a flute made out of a hollow bone from a bird. The systemising mechanism in the human brain can latch onto patterns in the world, and it can reason, “if I blow down this hollow bone and I cover one hole, then I’ll make a particular note. But if I blow down the hollow bone and cover two holes, I’ll make another note”. It’s this kind of experimenting with patterns that I think is the basis of why humans show “generative invention” – the ability to invent in multiple ways. And we’re still inventing today, obviously with the invention of the COVID vaccine.

Autistic people seem to have a talent for identifying these patterns, and a strong interest in playing with these patterns to kind of rearrange them to see if a system could be different and may produce a different kind of output. Maybe a more efficient output, but it’s just playing with patterns. And so that gives you a little flavour of what the book is about.

Saba Salman [00:37:28] I’m glad you covered that context because I know that the book touches on possible solutions in a post-pandemic world based on innovators such as those you outline in the book. I’m going to turn quickly now to questions. We’ve got a lot of them, so apologies if we don’t get through all of them but one leads quite nicely from talking about creativity and systemising. This is a question from Natalie who says, “Does creativity or type of creativity differ between male and female individuals with autism?”

Simon Baron-Cohen FBA [00:38:04] I’m not aware of any sex differences in autism in terms of creativity. In that very big study, I told you we had 600,000 non-autistic people take part but we also had 36,000 autistic people. It’s one of the largest studies of autism that has been conducted, and what we found was that autistic people are more likely to have a type “S” brain. They lean more towards systemising than empathy, or even an extreme type “S“, so scoring very high on systemising relative to empathy, but we didn’t find sex differences within the autism community.

Saba Salman [00:38:49] There’s an interesting question here that picks up perhaps on some of the things we are talking about in terms of dismantling the barriers and making for a more equitable life for a person with autism. This question is “Do the empathy and systemising findings have implications for education in terms of different teaching styles for boys and girls?”

Simon Baron-Cohen FBA [00:39:11] Yeah, absolutely. Maybe we should just remind people of the context that many autistic kids drop out of school because they have a miserable time coping in mainstream classrooms. Mainstream education doesn’t really accommodate

neurodiversity. There's one method given to all 30 kids in the class. Usually, it's a method that involves social skills that you're learning from a teacher. You're looking at the teacher's face. You're listening to his or her language. There's a lot of hustle and bustle in that social environment, and for autistic people that may not be their preferred way of learning.

So one of the implications of this theory for education is that if we can identify kids – whether they're autistic or not – who have a different learning style very early on, kids who might prefer to learn through solitary play, or learning just by doing, but not necessarily learning in a social or by a very communicative context, maybe we should be providing different kinds of teaching materials and different teaching methods for different kinds of minds.

What we found in our big study was that you can basically subdivide any population into five different brain types. We've talked about type "E" and type "S". There's a third one called type "B" for "balanced" that seem to have a mix of both empathising and systemising skills at equivalent levels. And then the extremes. But we should be able to identify these learning styles, these differences in the way children process information, at a very early point.

In that way, we can tailor teaching materials to the child. Education has always been about taking an individualised approach. We can't necessarily do that for every individual but we could go some way towards that by recognising different profiles in any classroom, and just making sure that each child is in what would be their optimal comfort zone for learning because if someone is stressed, they're not going to learn.

Saba Salman [00:41:44] Absolutely. And I think – as you say – we have the evidence that this works. There's a demand for that response from families and individuals. It's just the actual response that's somewhat lagging, to put it mildly. Just going back to something we discussed earlier about autistic people who may also have an additional support need in terms of social care or learning. Someone's asking "Why are some people with learning disabilities also autistic? Is there any connection between the two conditions?" And someone else asking "Could there be a connection between physical disability and autism?"

Simon Baron-Cohen FBA [00:42:23] Yeah, this is a great question. So, what we now understand is that some people may just have autism alone, but many autistic people have co-occurring conditions. In medicine, sometimes they're called co-morbidities, but it's an ugly term, so we just used the word "co-occurring" and that can be a learning disability. It could be a physical or medical condition like epilepsy or gastrointestinal pain. Quite why one individual might have these multiple conditions and another one not is likely to lie in the area of prenatal biology, particularly genetics.

We're just starting new research to look at whether there are subgroups in the autism population based on their genetics, but also may be based on pregnancy factors which could affect both, brain development and physical development, and lead to these different subgroups in the population. So the short answer is, this is still an area of active research. We don't yet know, but there certainly are some genes which predispose to learning disabilities.

Saba Salman [00:43:49] It's very interesting to know where your next area of work lies as well, which was one of the questions we didn't quite get around to looking at. I think we have time for one, possibly two additional questions. We have a question here about the fact that you referred – in our earlier conversation – about all of us having autistic traits. So could you list the most common autistic traits in non-autistic people? Is that possible?

Simon Baron-Cohen FBA [00:44:22] So when I say that we've all got some autistic traits, this goes back to that measure I mentioned, which sounds a bit circular because it's putting all the onus on this questionnaire to define what we mean by an autistic trait. But the questions would include things like "I would prefer to go to a library than a party". And you're just asked whether you agree or disagree with each statement. For some people, it's their worst nightmare to go to a party and have to socialise. And it's their idea of heaven to go to a library and just spend quiet time. That just gives you an example of an autistic trait.

This questionnaire has 50 such questions. Another one might be about how easily you can remember people's phone numbers, especially the long mobile phone numbers that we have these days, and some people can do that effortlessly. You could ask them "what's so-and-so's number?" And they can just reel it off.

So these are differences in attention to detail, patterns in numbers. Should call them autistic traits – they're just traits, really, aren't they? And we grouped them as "social". Some of them are "attentional" – about how you allocate your attention. Some of them are to do with memory. But if you add them all up, what you find is how many of these traits you have, and autistic people tend to have a lot more of them. So in the general population, people on average score 15 or 17 out of 50. Autistic people tend to score about 30 or higher out of 50. It just gives you an idea of the magnitude.

Saba Salman [00:46:09] It's interesting that you referred again to autistic traits. And so much of what we've discussed today goes back to the language of difference and how things have moved on, even looking back at your career over the last three decades. I know we have many more questions, which I'm afraid we haven't got time for, but thank you to everybody who's sent in their questions for Simon.

Really fascinating discussion. Thank you so much, Simon Baron-Cohen for your time. Thank you to everybody for joining and for questions. I just want to remind everyone that the Summer Showcase is on all of this week. Go to the website and social media for more information.

The next *Leaders in SHAPE* event is with Bridget Kendall, ex-BBC correspondent and Master of Peterhouse, Cambridge, and that's on July the 12th. Thank you, everybody. Thanks again, Simon and British Academy team and hope everybody enjoys the rest of the afternoon and evening.

Simon Baron-Cohen FBA [00:47:11] Thank you.

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