



Beau's biography

Beau Lotto

Neuro-[Scientist](#) and Founder and CEO of Lab of Misfits Studio

Dr Beau Lotto is a globally renowned neuroscientist as well as Founder and CEO of Lab of Misfits Studio, the world's first neuro-design studio.

Beau Lotto's Background

The lab creates unique real-world 'experiential-experiments' that places the public at the centre of the process of discovery. By spanning social and personal boundaries between people, brands and institutions, the Lab's aim is to create, expand and apply their insights into what it is to be a perceiving human.

Public engagement, in the broadest sense, is at the core of what Beau does. By enabling people to experience what it is to be a scientist, Lotto's aim is to encourage them to see science not as an academic investigation but as a way of being that is relevant to every aspect of their lives.

Beau Lotto has always looked outside the lab [environment](#) in order to collaborate with those who share his interest in exploring different ways of seeing – and doing – things, be they scientist, artists, musicians, educationalists, designers or entire businesses. As a result, his domain is as much a creative studio as a lab, whose output ranges from art installations and visual illusions to workshops designed for corporate leaders.

Lotto's ambitious ideas about the relevance of science to ordinary people have taken him to places where few other scientists have ventured – including into exhibition space inside the world's best-known Science Museum, in London, where Lab of Misfits was resident from 2010–12. While at the museum, Lab of Misfits pushed public engagement in science to new levels by involving the public directly in experiments. Lotto's [education](#) programme led to the publication of the first-ever, peer-reviewed scientific paper written by school children.

Beau Lotto is currently a Professor at University London Goldsmiths College and a Visiting Scholar at NYU.

In 2017, Beau Lotto published his first major book, *Deviante The Science of Seeing Differently*. He draws on over two decades of pioneering research to explain that our brain hasn't evolved to see the world accurately.

Beau's talks

- **innovation**

There are two aspects to innovation: efficiency and [creativity](#). I.e. the ability to create novel solutions to a meaningful problem and ability to realise that solution. Indeed, innovation is itself inherent in both of these processes. In recent decades we focused – at times almost exclusively – to efficiency.

- **Leadership**

What makes a good leader? When asked this question of a diverse audience, I'll receive many, many different possible qualities that are 'essential'. Here we will address these questions from the perspective of behavioural neuroscience, and consider a new answer: the quality of a leader is defined by how he/she leads others into uncertainty.

- **Data**

There is no inherent value in any piece of information! Data is meaningless. Why? This is because the brain deals with meaning and not information since information doesn't tell you what to do.

In fact THE fundamental challenge that the brain evolved to solve is to take meaningless data and make it meaningful. This is true even at the most fundamental level of our senses: seeing light. Which is why we never see the world in any direct sense.

Instead what we see is the meaning of information grounded in our personal, cultural and evolutionary histories. And it's the historical meaning of stuff that we literally see, experience and know (not the stuff itself). Here we'll explore – and experience – how to see new meaning in data that has always been there, but remains hidden.

The result will be an understanding of the principles by which the brain makes the meaningless meaningful.

- **Change**

There is no inherent value in change. Whether change is good or bad is – like everything else in life – context-dependent.

Here, using principles in behavioural and perceptual neuroscience, we'll explore what lives at the heart of change: why it's often essential for Success but equally the most feared of human activities. Indeed, to ask 'why?' is historically the most dangerous thing you can do. Hence, organisation, businesses, religions and even our education systems are designed to reduce question-asking.

And yet all revolutions (and revelations) begin with a joke ("you mean it could be different from this?"). In this talk, we'll see how and why questions and metaphor are mediators of change; what makes a good question; and how change – when properly pursued – has no direction or goal. Which means change is personal and – when properly considered – inevitable.

- **Risk/Uncertainty**

Arguably one of the most dangerous things one can experience in life is doubt. During evolution, if your ancestors weren't sure whether that 'thing over there' was a predator, well ... it would be too late for them. Thus, we hate doubt ... and that's usually a good idea (throughout evolutionary history).

We are genetically programmed to do so: Sea-sickness, and indeed most of our mental health problems being direct manifestations of our fear. The deep irony, however, is that nothing interesting begins without it. So taking the risk to step into uncertainty is an essential aspect of

adaptation, which we know is at the root of success in all natural systems. What's more, nature also tells us when it's best to risk uncertainty.

So how to deal with uncertainty is the fundamental problem that your brain evolved to solve. Here we discuss in a highly experiential way how and why everything is uncertain, and nature's solution to it.

- **Education**

Success in most educational systems is measured by the ability to memorise and reiterate facts. This is because education is in the service of society and businesses, which emphasizes efficiency over creativity. Schools – like business, then, focus on answers not questions through a competitive – not collaborative – environment. Getting the right answer and prosecuting it efficiently through competition is in fact a good strategy in a stable world. The problem is that our world is different ... it's complex, uncertain and evolving. Which is why to succeed in nature requires being adaptable to change (creativity). A necessary corollary of this view is the we need to teach not **what** to see, **but why to look?**

Here using the neuroscience of perception, we will explore this new way of thinking about education through concrete examples in the world of science education where children became the youngest published scientists in history. Born out of our research on perception, we will discuss a framework for a learning that is based on an openness to uncertainty and discovery that influences not just the way schools educate, but even the very architecture and design of schools.

Conceptual framework

Our framework is called 'Seeing Myself See', which recognises the importance of perception, of experience and imagination in shaping who we are as an individual – and also has the capacity to foster a different kind of learning: 'this is how you see it now, but with a bit of courage it is possible for you to see it differently'. In this way children are guided away from the admittedly more comfortable black and white view of the world, to the more challenging, but a more enlightening realisation of the greys in between.

The 5 'C's

We have distilled the idea of 'Seeing Myself See' in the context of education into five principles, which we call the 5 C's: Compassion, Community, Choice, Creativity and Courage. These principles provide the intertwined threads of a tapestry, the actual colours and textures of which must be woven by the individual school. We argue that these principles can be achieved only if they become what we call the actual 'ecology of education'. They are as much about teaching as learning, since teaching compassionately teaches compassion; teaching creatively teaches creativity; by guiding children rather than instructing them, they learn freedom and responsibility to choose; and situating one's students in the context of a community enables the learner to become a unique part of a whole.

- [Branding](#)

Imagine having a relationship with someone and treating them as the average man or woman. Not surprisingly, it's not going to work for very long. The value of any relationship is defined by how well you 'know' someone: the more nuanced, creative and personal the narrative, the more essential it becomes.

Branding is about creating a narrative and way of being that enables a brand to have a relationship with their audience. But brands treat people as averages, hence their stories do not foster what the brain truly needs to feel valued, meaningful and loyal. Understanding the mechanisms and principles of behavioural neuroscience that enable relationships to start, as well as what is needed to maintain them (which are not the same thing) is essential to any brand. And key to this is authenticity.

So how can brands be authentic? How can they understand themselves and communicate that to their audience? Who is your audience ... at the human level? Are there general principles we can

use? These are the questions with which we will engage in a highly experiential way through the neuroscience of perception.

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