

'We are not in control'

Jon Sutton enjoyed a curry with **Bruce Hood** (University of Bristol), Royal Institution Christmas Lecturer and author of new book *The Self Illusion*

Has presenting the Royal Institution's Christmas Lectures opened doors for you?

The response was excellent, and now I'm looking at how I can build on it. I've been given an opportunity, and I think that psychology could do with an even stronger profile, so I'm hoping to try to take what I've got out to the masses a bit more. Not necessarily just with television – I'm doing projects that involve science centres, and the RI has just introduced a teacher's package based on the lectures. I want to develop something for the general public too.

We had an event in April, for more than 300 children from deprived schools in Bristol. We bussed them in to the university, gave them a version of the Christmas lectures and an evaluation, and we're going to follow up at six months to do a proper empirical assessment of impact.

Your new book, *The Self Illusion*, lends itself very well to introductory lectures. There's a clear theme and argument, but you cherry pick from so many different areas...

I'm not actually saying anything that is that new. I'm putting it together in a framework that we don't normally think about. Psychology is all about unconscious processes. Most neuroscientists agree that the brain is a complex, multifunctional system, and we all know that when things start to break down, the personality and identity of the individual fractionates. So I don't think I'm saying anything bizarre. But to the layman in the street, when you confront them with the idea that they are not an integrated individual but rather a collection, then that seems a really strange notion.

But does it, really? Do most people find your idea, that 'the self is a constantly changing story', that surprising?

People think of themselves as a character on a journey through life. So they see

themselves as a protagonist, a central individual in control, making choices and being influenced by individuals. But that creates the problem of the homunculus, the individual at the centre. I still think there's this misconception of the self as the individual in the first place, when in fact it's this emergent property of all the other things that come together. That's what I'm challenging.

In just about every area of psychology, there's a lot of evidence that we're not necessarily in control, we're very much influenced by those around us... so I definitely pay lip service to all those areas of psychology, all the classic studies of Asch, Milgram, etc. Even though they are controversial, they still demonstrate that people are malleable. Even though participants in these studies may be role playing, they're still doing something that is interesting psychologically. When you combine that with all the new stuff, the neuroscience, I think there's a very interesting story.

As psychologists, we forget that intuitions often clash with the science, so this book was about trying to bring together the sheer overwhelming evidence that people do behave differently, and they certainly don't behave as they think they would behave... we do have this idealised notion of what we think we're like, but change the constraints and the context and we find ourselves doing all manner of things.

We're dancers not statues.

That's right. Or we leap away from ships that are sinking, and then we judge people for that, and say that they're lacking moral fibre or they're not being true to themselves. We say 'I wasn't myself last night?' Well, if you weren't yourself, who were you?... We all want a culprit, and that culprit is the self.

The book made me think that you're a bit of a knowledge magpie, picking out the shiny titbits, and so many great real-life examples as well.

Absolutely. I think you've always got to make it relevant to a general audience, and references to pop culture always help. I think *The Matrix* is an amazing film! It tackles some very profound issues. What is reality? What is illusion? How could we ever tell the difference? If you adopt the materialist position, which I do and most neuroscientists do, the answer is you would never know, because we are a product of the brain.

The book is packed with those shiny titbits, from doppelgänger hamsters, to forcing students to watch torture, to asking people attitude questions at the height of masturbation. What's your own favourite psychology study?

I have to say that last one, the Dan Ariely study. To even get that past an ethics committee, strikes me as unbelievable! Although I do like the ego depletion work of Roy Baumeister, I'm fascinated by that. He actually believes in the self, he thinks there is an individual. I'm not convinced by the strength of the effects, but I do think it's plausible that if you abstain or stop yourself from doing things then there are rebound effects. Certainly I know that. But whether it's this 'glucose muscle', I'm not so sure.

Given how immersed you are in knowledge, and how many influential colleagues you have worked with over the years, do you think that your self is more of a construct than most?

I think knowing and writing about the self as a constructed narrative, I can't escape the subjective experience that I feel I'm an individual. On reflection I like to reinterpret a lot of my behaviour in terms of the narrative of the self, but ultimately I don't think it's going to change the way that anyone behaves, because that's the whole point – we've evolved a brain that deals with selves and deals with individuals. We have all these moral systems that necessitate the existence of an individual, so to completely abandon that is really a folly. However, they are attempting to do that in neuroethics – there are moves in the States, for example, to keep going for defence pleas that deny culpability based on some neuroscience of the mind.

Yes – in the book you cover examples like Charles Whitman, Ken Parks, even Mary Bale the 'cat in bin' lady, of people committing antisocial acts with mitigating factors of mind.

Where do you stand on free will and responsibility for those kinds of acts?

I don't think that any of the new science is going to change, or should change,

how we treat others. If you have a judicial system that is premised on individual responsibility, that in itself is a good thing because it creates another set of factors that are fed into the multitude of decision-making processes. Because we have a legal system, it's another thing you take into consideration, it's put into the mix. So trying to say that no one is responsible, because it's a multitude of factors, that simply doesn't work. It's not really feasible to look for every antecedent that has fed into someone's behaviour: there would be too many degrees of freedom.

I suppose some people are concerned that the biological determinism angle will trump everything else.

Exactly, this is uncharted territory. In many instances I can imagine that we would readily accept that someone with a brain tumour is not responsible, because it seems to be a very obvious, physical, parasite almost. But describing someone's circuitry as 'over-reactive', that doesn't sound the same, that's not like an alien system. So we have all these naive conceptions about what it is to be an individual, what cancer is... people talk about it like it's an alien invader, but of course it's your own cells just changing and mutating. So you do have to conceptualise individuals as independent of the forces which are exerted upon them.

In the book you talk about reconnecting with that biological matter, through the experience of holding a human brain. Is that something you would advocate for everyone in psychology?

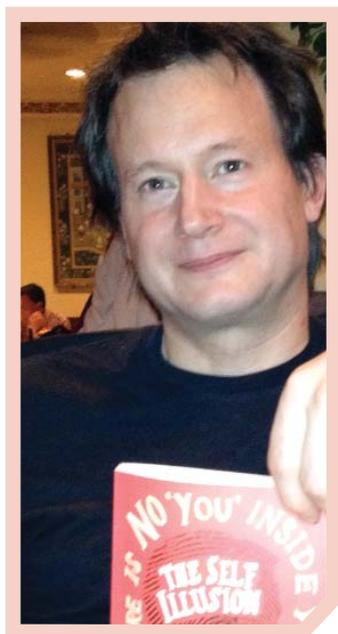
Would you learn anything additional in terms of the neuroanatomy, which you may have studied already? Probably not. What you do get, as soon as you see the physical structure, is a real insight into the problem you're facing! There are no arrows, no boxes with diagrams, it's a lump of very densely packed tissue. There's an emotional component to

brain anatomy that just makes you more humble, in terms of the problem you're trying to unravel.

The complexity of it, but also the simplicity – like any other complex network, it boils down to on/off switches.

Yes. Whenever I talk about materialism, or that the mind is a product of the brain, a lot of philosophers in particular regard that as reductionism, too simplistic.

I think they just don't understand the complexity of the structure they're trying to demean. It really is phenomenal. Dan Wolpert told me there are more possible connections with just 500 neurons than estimated atoms in the observable universe! As psychologists, we tend to be in awe of the hierarchy of science, with mathematics up there, then physics and chemistry... but we should be a little bit more bullish about what we're trying to do, which is understand a really complex system.



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The development of the connections is at its peak in childhood. Is that when you see the construction of the self as at its peak as well?

I think there are milestones, or periods of significant change. I don't think the infant has a sense of self that we would recognise. I think they have self-monitoring and can be aware of their own movements, so they have conscious awareness of the correlates of their activity, but I don't think they have a self-story. I think that fits with the work on infantile amnesia and also self-recognition, which doesn't really appear until quite late.

Would that suggest that self-construction is at its peak around the 'reminiscence bump', the tendency for older adults to have increased recollection for events that occurred during their adolescence?

It turns out you can facilitate infant memory if you talk to your children. Charles Fernyhough talks about the evidence that different cultures have different cut-off points for memory. In the Far East where they describe the child's day and engage in elaborate storytelling, they've got better memories. So I think that fits with the general idea that you have to construct an autobiographical memory in terms of all the information.

I think it's true to say that during adolescence, children have to establish their identity separate to that of their parents. I think that explains a lot of their teenage rebellion, that attempt to mark their own territory out. I've certainly seen that in my own children!

Do you sometimes feel you know too much about yourself and others?

I think psychology has given me an insight into some of my weaknesses. We do have this persona which we present to the outside world. I think everyone has anxieties, concerns, and I think understanding that is a powerful way of thinking. When you understand that other people have social anxiety... some people can be paralysed with fear about speaking in front of others. Understanding the importance that we place on self value from others has helped me in many ways.

Your presence on the social networking site Twitter is interesting from that point of view, because it's a way of performing in public and sharing your anxieties.

I remember a study which created two Twitter personas, one who just tweeted random academic pieces of information, and one who interspersed it with little bits of gossip. Clearly the one with gossip ended up with more followers. So I think the social brain is a gossiping brain. The power of Twitter is this illusion it creates that you have a personal relationship with the people that you follow. It's to do with self-affirmation again... we like to think that if we have something to say, we're on that soap box and we're not alone.

At two o'clock in the morning, in your converted barn...!

You do have to be careful, because after a bottle of Merlot it does go completely to pot, and then you have to eat humble pie! If they could build a breathalyser into Twitter I'm sure it would be a lot better! But there again, people are too fearful that their persona is somehow corrupted by things said indiscreetly... clearly you have to be careful, but we all like a bit of personality!

interview

Do you think that's pretty close to your true self?

Yes, everyone knows I'm a terrible gossip!

You reckon you spend half your waking life online. Does it worry you, in a Susan Greenfield-esque way, or do you embrace the way that is changing your self? In the book, you say, 'Who we are will increasingly become shaped by the mediums in which we exist. Some people find this scary. For many it is liberating.' Which camp do you fall in?

I'm the liberating guy. I do think there's an interesting issue, and I'm not sure how it's going to play out. Certainly the younger generation are spending more and more time social networking. I try to make a case in the book that that is returning us to a situation where we have more interaction, whereas previously media were always one directional – books were read, TV was watched, radio was listened to. Now people can actually start to take part, it's re-establishing a bi-directional form of communication. And now it's not just amongst 12 people, it's a thousand people; it's not just your neighbours, it's across continents. That's a totally different dynamic about how information is distributed.

What might be paradoxical is that rather than giving you a broader viewpoint, what it in fact might be doing is leading to greater extremism. If you think about it, if you hold an extreme view, normally you would be socially isolated, but with the internet you can find someone who holds those same views. So I think we might see more examples of extremism facilitated by the communication the internet provides. When you get grouping, you get the dynamics of polarisation.

I get a bit uncomfortable about the way that seems to be happening with a liberal population. You expect it to happen almost, with a conservative population, but there is a 'Twitterati', of which you are part, that seems able to marshal a liberal wrath of frightening speed and intensity.

I happen to agree with you... it's almost like cyberbullying, you can build up and attack someone on the flimsiest of evidence.

Psychologists, of all people, should be alive to that...

You were born in Toronto. Your mother is Australian, your father was Scottish, and you've lived and worked around the world, with so many of 'the greats'. I've been very fortunate. I really do think I've got the best job in the world. I hate to

use the word 'blessed', because as you know I'm not much of a religious person, but I feel very fortunate to have had the career I've had.

Of all those people, who has had the biggest impact on your 'self'?

Without a doubt, Susan Carey at Harvard. She's a formidable thinker and she has been so influential and so highly regarded, not just by people in her field but outside as well. She has a great stable of graduate students who are now in top positions in the States: Paul Bloom, Karen Wynn, these are all her students.

Presumably you're creating the same kind of stable now with your students?

No, I don't think I am to be honest. The American system is very different to the British system. You tend to have just one or two graduate students at a time, whereas in the American system they will have these big labs with five or six. I haven't actually stayed in one place for long enough to do that, and the funding's never actually been that good in the UK to do that.

What are your views on the Research Evaluation Framework in terms of impact? You've had more than most with the RI Christmas Lectures, but that's not going to count for anything?

Well it will actually, because 20 per cent is due to public engagement or impact...

... but doesn't it have to be traced back to a specific research paper?

We're putting a case forward on my activities, because you can trace it back to the book, *Supersense*, and there are some papers which are in that. I think it would be relatively unfair to deny the impact of that whole activity.

That's just it, I thought that was a great example of how the system was unfair, so it's great to hear that.

We're looking to make that argument. I think it's quite unusual for scientists to write popular books, so I don't think it would have factored in as an obvious criterion. As for the whole REF thing... I do think academics need to take stock of where they are. We are publicly funded, and we shouldn't forget that. I think it does help sometimes to sit and consider what kind of influence you're having. So I'm not totally against the whole idea of being accountable, but I think this whole idea of a massive process seems an overly bureaucratic way of doing it. Dorothy Bishop at Oxford did that interesting blog and column in *The Psychologist* about people bringing in marketing people to

streamline their REF which does seem ludicrous. We mustn't forget that less than 1 per cent of this country's GDP goes into science funding, so it does seem to be a lot of effort for a very small piece of pie.

So, who are you?

I'm a number of things. I'm a father, I'm a male, I have all these attributes I can describe. Do I have a core as a self? I think I do... I feel I'm struggling all the time, I feel I'm inadequate. When you start to read about great people in your research for a book, you hear about Kant, the philosophers, Helmholtz, or you meet people like Carey, inevitably you feel that you're inadequate.

And that's a core part of your self, that feeling of inadequacy?

Yes, and time running out. I'm always in a hurry, I'm the most impatient person. I try to instil that in my students, they know that if they hand me work it will be turned around within 24 hours. If there's any delay in the process it's not because of me. I'm impulsive as well. Sometimes I'm a little too quick off the mark to criticise, or I'm less generous. But ultimately, what I do has worked to some extent. And I think I'm transitioning out of a pure research role into one that is trying to broaden in a public way, and I think that's good, I think we need more people like that. Psychology needs to punch above its weight. I'm really frustrated by the way psychology in this country has been portrayed as a little bit common sense – some of the most interesting questions, which are psychological questions, are not common sense. So I do see a purpose now, to move towards that impact aspect.

And in doing that, you're getting the positive feedback that should reduce that core sense of inadequacy.

That's true, but as soon as you put yourself out in the public limelight you do attract a lot of criticism. There are some people who don't think that academics should have to justify themselves, or market or do public engagement. But I think they're just living in the wrong era.

I think it's very difficult to balance that engagement role with being a good academic, and I'm not sure I'm going to be able to do that. But at this time when psychology funding has been really slashed, rather than just sitting on my own and lamenting that, I'm going to redirect, be flexible, put my efforts somewhere else. Hopefully we may get someone in the corridors of power who understands why it's so important to support social sciences research.