



Alchemist or zombie?

LW: There seem to be three principal themes in your work – parapsychology, memes and consciousness. And I'd like to talk about all of these things in turn. But, first, can I ask you do you feel these three themes are interconnected?

SB: Well, I do now, but I don't think I did until very recently. When I suddenly got infected with the meme meme [more of this below] and wrote *The Meme Machine* and got so excited about all those ideas, I didn't see any connection with parapsychology. Then all those years that I taught the course on consciousness, and finally when I realised I just had to write a textbook on consciousness, I didn't see that these were connected. But now when I look back I can see that it's all driven by the central mystery of the nature of mind. This is also true of my ventures into parapsychology.

LW: So you mean you're really a kind of 'alchemist'.

SB: Yes. I like that!

LW: Let's move on to parapsychology – you gained one of the first PhDs in parapsychology. It's a controversial area. What got you interested in that in the first place?

SB: Personal experience. I went up to Oxford in 1970 as an undergraduate to read Physiology and Psychology... I was just so thrilled being there, and everything was exciting, and I joined the Psychical Research Society. One night we had a ouija board session all evening. I was really tired and went back to a friend's room, smoked a joint, which of course we did all the time in those days, and suddenly found myself going down a tunnel towards a bright light. Then a friend said to me 'Where are you, Sue?' And I thought where *am* I? And I realised I was on the ceiling looking down – it was a classic out-of-body experience.

At the time it convinced me that I have a soul, and even convinced me of telepathy, clairvoyance, and all sorts of paranormal phenomena. It was this experience that drove me into parapsychology and into 25 years of trying to understand what had happened to me. I'm still convinced that this was a fascinating experience in terms of what's happening in the brain, but it is not paranormal and I never in all those

An interview with SUE BLACKMORE by Lance Workman.

years found any convincing evidence of the paranormal. At least it started me on the central mystery of consciousness, which 37 years later still drives me.

LW: You became sceptical of parapsychology and in the 1990s you moved on to 'memes', which is a term that Richard Dawkins introduced in *The Selfish Gene*. Can you tell us what you mean by a meme and why you got into that?

SB: I got into it because a student wrote me an essay on consciousness and memes just when I got ill with chronic fatigue, and I was in bed for nearly a year. Having read this essay I re-read *The Selfish Gene* and I also read Dan Dennett's book, *Darwin's Dangerous Idea*, which says a lot about memes. I suddenly understood this really quite obvious point, that what Darwin saw, the principal of natural selection, doesn't just apply to genes – it can apply to anything that's copied with variation and selection. So it applies to ideas and skills, habits and stories, and anything that passes around in culture from person to person. These are memes and they are selected by people choosing to copy and pass them on – or not. So, from that point of view, you can see the world as full of memes, competing with each other to be copied, and this allows us to apply Darwinian thought to understanding the social world as well as the biological world.

To me, memes are both an exciting and a rather chilling idea. I now look at the planet and see the memes as a powerful evolutionary force using our brains to copy themselves. Memes are eating

up the resources of the planet. They use up coal and oil and belch out carbon monoxide. The whole problem of us killing the planet is actually the memes using up and extracting the resources for their own selfish sake. And because it's an evolutionary process it has no foresight; it can't see where it's going – a beautiful idea but a scary idea.

LW: The 'meme meme' as you put it earlier – the very concept of the meme is a powerful one – but some people are not at all keen on it. Why do you think that is?

SB: I think there are two main reasons. First, some people just don't get it – they imagine that memes are some abstract concept that was invented out of nowhere. I think they have missed the whole point. The point is, it's information being copied – these words I'm speaking to you now, or when they appear in print, these are memes. It's really not something esoteric, it's just information being copied. Second, the idea is scary, because when you really apply Darwinian thinking to all the information we pass around in culture you

realise it's a very reductionist approach, which many people hate. And it threatens our traditional views of the nature of self and free will. Now, I think both of these problems have to be challenged.

LW: Although you are clearly still passionate about memes you've moved on to exploring consciousness. It seems to have come back into vogue – why do you think consciousness has become sexy again?

SB: Partly because we now have more tools for understanding the way the brain works and partly because behaviourism ran its course. When I was a student you couldn't mention the word consciousness, and behaviourism was still going strong. Behaviourism had a lot going for it, but it can't do everything. It ran out of steam and died, quite rightly so, and people then began to say well, let's talk about consciousness again.

The other reason is all the tools we now have for looking into the brain. fMRI scans and PET scans, for example, give us a lot of insight as to what is going on in the brain that we simply didn't have 50, 20 or even 10 years ago. These show ever more starkly how difficult the mind/body problem is – it's an old problem going back thousands of years. The more we understand about how the brain works, the

more mysterious it seems to be. Here are you and I experiencing this room. I believe that you are having an experience, which I cannot tap into – although I can imagine it. But I don't know whether you are really a zombie.

LW: You're not the first person to suggest that! On a more serious note, David Chalmers distinguishes between the easy problems and the hard problems of consciousness. But Daniel Dennett says there is no hard problem. Where do you stand on this?

SB: I'm with Dan all the way. I think Dave Chalmers did us all a service by making that distinction because it forces us to think. As he puts it, there appear to be 'easy problems' like perception, learning and memory and then the 'hard problem' of consciousness itself. This suggests that consciousness is an added extra – something that we might have evolved without; that is, we might all have been zombies with all of the other bits working but no light on inside. Now I think that's

'we're the only species...that is capable of widespread generalised imitation'

nonsense, and dividing the mind into easy and hard problems is not the way forward, but Dave has helped me to think about that, and Dan has helped me to see a way through, without falling for all of those little traps. There is no separate hard problem.

LW: A couple of years ago you made a programme with Channel 4 on consciousness by studying a number of great apes. Did making that programme change your mind about consciousness?

SB: It was a typical television experience. They ask you to come and make a programme about the intelligence of apes. Then they call it 'The Cleverest Ape in the World' and send you off to choose between a few captive apes! I think meeting 'Chantek' the orang-utan was the most extraordinary experience. He'd been learning American Sign Language for 26 years, but all he said was 'Give me banana', 'Give me apple'. So I did.

LW: He spent most of his time asking for food. Was that true of the other apes you looked at?

SB: Yes it was all about give me, give me. And I think it taught me just how wide is the gulf between humans and other species. It's wonderful to see intelligent species doing these things and those chimpanzees, orang-utans and gorillas did amazingly clever things. But they don't imitate. It's only if you can imitate, that is, copy behaviour from one to another, that you can build on the results of another individual. It's only if you can imitate

that you have memes and therefore begin cultural or memetic evolution. That's why we humans are so different from every other species on the planet. I learnt a lot by watching those amazing animals – but mainly about how big the gulf between us is.

LW: So you think that imitation is the one thing that sets us apart – or is that too simplistic?

SB: Yes, if I had to pick one thing it would be imitation. Some apes can do it but very poorly indeed. I like to think of the capacity to imitate in purely informational terms. There's information in arm movements, in speech, in whatever, and here is a machine that is capable of extracting that, storing it, and reproducing it. When I say imitation is what makes us human, people think it's perverse. But I really think it is. It's happened before with vision, you know, we open our eyes and see the world, so we think vision is easy. But decades of artificial intelligence research has shown us that actually vision is an incredibly difficult computational problem for a brain to solve, and it uses an awful lot of brain to do it. I'd say it's the same with imitation; because it comes so naturally to us, we belittle it and think it's easy, but it isn't – we're the only species on the planet that is capable of widespread generalised imitation.

LW: So, you've done parapsychology, you've done memes, and you've done consciousness. What's next for Sue Blackmore?

SB: I have an enormous curiosity and thirst about the nature of mind. I've been meditating for 25 years now and at the moment I'm writing a book about Zen It's a great way of looking into the nature of experience. I think we need to bring together the neuroscience that's going so fast in understanding the brain better, with personal experience. We need the objective science and we need the subjective experience and somehow we need to bring those together – they're miles apart at the moment.

LW: I think I can see now why you might think of yourself as an alchemist!

SB: An alchemist – or maybe a zombie – who knows!