

## A mind-altering experience

**Part one:**

**02:00**

Michael Mosley: I'm on my way to Cardiff and I'm feeling apprehensive. I'm about to take a class A hallucinogenic drug. In the past, this drug and others like it were used in experiments which were designed with a very sinister purpose - to achieve total mind control. The drug I'm going to be given is psilocybin – the active ingredient of magic mushrooms. Normally taking psilocybin would be illegal. But in this case, Professor David Nutt and his team from Imperial College are doing a scientific study, the first of its kind in the UK.

Michael Mosley: So am I going to enjoy this?

David Nutt: I think so, most people do, most people get something positive from it. You've had no bad reactions, so certainly, don't worry about what your going to feel, so I think you may enjoy it.

Michael Mosley: It's just a bit odd having your consciousness played with...

You do it all the time, don't you? Every time you go out and get drunk you're changing your consciousness

OK

Michael Mosley: The team are expecting PS to have a significant impact on me. So I'm put through physical and psychological tests.

Doctor/Researcher: Would you describe yourself as a spiritual person?

Michael Mosley: Em A bit

Doctor/Researcher: And would you describe yourself as a mystical person?

Michael Mosley: No

Doctor/Researcher: So I'm going to prepare the drug now, that tiny amount in there, can you see it?

Michael Mosley: Just

Doctor/Researcher: Yep that's it. 3.5 mg so you get 2mg...

Michael Mosley: So that's going to be it

Doctor/Researcher: That's it. That's all it is, but it does quite a lot.

Michael Mosley: Surprisingly enough, David Nutt believes that by changing the brain psilocybin mind-bending properties may help psychiatric disorders like depression. Before they test it on patients the team want to find out exactly how it acts on normal brains, like mine.

Doctor/Researcher: It can be quite dramatic, the last volunteer we had had really quite a dramatic response and he said it was probably the strangest experience of his life. He said that his whole sense of self dissolved and he only existed as a concept.

Michael Mosley: I'm not sure I'd with to only exist as a concept. So... we shall see.

I'm starting to wonder what kind of trip I'm going to have. I am placed in a brain scanner so the team can map in detail how my brain reacts to psilocybin, then the drug is injected. The result? Well it would turn out to be one of the strangest and most unusual experiences of my life.

**Part two: (3'00)**

Michael Mosley: For many years there was diminished scientific interest in the mind-altering properties of hallucinogenic drugs. Now, half a century on, things are changing. As part of an experiment, I have been injected with psilocybin, the active component of magic mushrooms. Professor Nutt and his team look on as the drug races through my system. They want to understand exactly how the drug works on my brain.

Doctor/Researcher: ...10 on that scale is extremely intense....it depends how anxious he feels now... He'll be hallucinating, certainly, and might be seeing colours and swirling patterns probably some bodily feelings as well. His body might feel slightly different, maybe a kind of floating sensation.

Michael Mosley: Inside the machine, I was convinced I could levitate, make the walls of the scanner dissolve and fly up to the stars at supersonic speed. It was all rather beautiful.

Doctor/Researcher: Ok Michael we're all finished I'll come and get you out.

Michael Mosley: Although the effects of psilocybin had largely worn off I had an uncontrollable urge to talk and talk.

That was very strange I had to say... because it was sort of I though whoah, whoo...etc  
And talk and talk... (...)

Michael Mosley: My results will be merged with scans from other volunteers to identify the precise areas inside the brain where the drug is active.

David Nutt: And you see there are essentially sort of three big blue blobs. What blue means is that the activity of the brain, the blood from the brain has shut down

Michael Mosley: has switched off.

David Nutt: And we thought when we went into this study, we thought that this drug would activate, certainly different parts of the brains to those, but we don't find any activation anywhere, all we find are reductions in blood flow.

Michael Mosley: David Nutt believes that the areas of the brain that are being switched off are critical to the experience I have just had. The blobs in the middle are the part of the brain that tell us who and what we are. When these were dampened down, I was released from everyday constraints.

David Nutt: You are able to break free from the normal constraints of what you are, which is, you know, "I'm a father I've got to get home in an hour and a half, I've got to make this programme"

Michael Mosley: The fact it dampens activity in these areas may provide clues as to how psilocybin could be used to treat depression.

David Nutt: And one of the things we think, is that, if in conditions, say like depression or maybe OCD when people get locked into a mind-set which is maladaptive, these regions may be overactive, so maybe dampening those down will help people move into another mind-set, which might be better hopefully.

Michael Mosley: So if you wanted to shift somebody who is profoundly depressed out of that mind-set something like this might conceivably...

David Nutt: Well it is conceivable, absolutely; we need to do the experiments. But that's part of the rationale; that it helps take you from this rigid, sort of motoric process of thinking into something that may actually be more positive.

Michael Mosley: The idea that you could use a psychedelic drug like psilocybin to treat depression is certainly surprising. If it works then one advantage is, it works fast.

David Nutt: Well, you changed immediately. Whether it will produce immediate changes into a depressed person, we don't know but if it did it would be wonderful, wouldn't it? Particularly, if you could hold onto those and maintain them.

Michael Mosley: It may turn out that hallucinogenic drugs do have a part to play in mind control but as a therapeutic tool to help patients think more positively ...