

# Why Can't the World's Greatest Minds Solve the Mystery of Consciousness?

“Right now you have a movie playing inside your head,” says philosopher David Chalmers. It’s an amazing movie, with 3D, smell, taste, touch, a sense of body, pain, hunger, emotions, memories, and a constant voice-over narrative. “At the heart of this movie is you, experiencing this, directly. This movie is your stream of consciousness, experience of the mind and the world.”

This is one of the fundamental aspects of existence, Chalmers says: “There’s nothing we know about more directly... but at the same time it’s the most mysterious phenomenon in the universe.” What is the difference between us and robots? Nobody knows the answers.

Chalmers believes the questions answered so far – mainly, about what parts of the brain do which bits of processing – are the “easy” (in comparison) problems. The hard problem is why is it that all that processing should be accompanied by this movie at all. Read more about “The Hard Problem of Consciousness” in the article below:

## Why Can't the World's Greatest Minds Solve the Mystery of Consciousness?

[By Oliver Burkeman](#) | [The Guardian](#)

*Philosophers and scientists have been at war for decades over the question of what makes human beings more than complex robots*

One spring morning in Tucson, Arizona, in 1994, an unknown philosopher named [David Chalmers](#) got up to give a talk on [consciousness](#), by which he meant the feeling of being inside your head, looking out – or, to use the kind of language that might give a neuroscientist an aneurysm, of having a soul.

Though he didn't realize it at the time, the young Australian academic was about to ignite a war between philosophers and scientists, by drawing attention to a central mystery of human life – perhaps *the* central mystery of human life – and revealing how embarrassingly far they were from solving it.

The scholars gathered at the University of Arizona – for what would later go down as a landmark conference on the subject – knew they were doing something edgy: in many quarters, consciousness was still taboo, too weird and new agey to take seriously, and some of the scientists in the audience were risking their reputations by attending. Yet the first two talks that day, before Chalmers's, hadn't proved thrilling. "Quite honestly, they were totally unintelligible and boring – I had no idea what anyone was talking about," recalled Stuart Hameroff, the Arizona professor responsible for the event.

"As the organizer, I'm looking around, and people are falling asleep, or getting restless." He grew worried. "But then the third talk, right before the coffee break – that was Dave." With his long, straggly hair and fondness for all-body denim, the 27-year-old Chalmers looked like he'd got lost en route to a Metallica concert. "He comes on stage, hair down to his butt, he's prancing around like Mick Jagger," Hameroff said. "But then he speaks. And that's when everyone wakes up."

The brain, Chalmers began by pointing out, poses all sorts of problems to keep scientists busy. How do we learn, store memories, or perceive things? How do you know to jerk your hand away from scalding water, or hear your name spoken across the room at a noisy party? But these were all "easy problems", in the scheme of things: given enough time and money, experts

would figure them out.

There was only one truly hard problem of consciousness, Chalmers said. It was a puzzle so bewildering that, in the months after his talk, people started dignifying it with capital letters – the Hard Problem of [Consciousness](#) – and it's this: why on earth should all those complicated brain processes *feel* like anything from the inside?

Why aren't we just brilliant robots, capable of retaining information, of responding to noises and smells and hot saucepans, but dark inside, lacking an inner life? And how does the brain manage it? How could the 1.4kg lump of moist, pinkish-beige tissue inside your skull give rise to something as mysterious as the experience of *being* that pinkish-beige lump, and the body to which it is attached?

What jolted Chalmers's audience from their torpor was how he had framed the question. "At the coffee break, I went around like a playwright on opening night, eavesdropping," Hameroff said. "And everyone was like: 'Oh! The Hard Problem! The Hard Problem! That's why we're here!'" Philosophers had pondered the so-called "mind-body problem" for centuries. But Chalmers's particular manner of reviving it "reached outside philosophy and galvanized everyone. It defined the field. It made us ask: what the hell is this that we're dealing with here?"

Two decades later, we know an astonishing amount about the brain: you can't follow the news for a week without encountering at least one more tale about scientists discovering the brain region associated with gambling, or laziness, or love at first sight, or regret – and that's only the research that makes the headlines.

Meanwhile, the field of [artificial intelligence](#) – which focuses on recreating the abilities of the human brain, rather than on what it feels like to be one – has advanced

stupendously. But like an obnoxious relative who invites himself to stay for a week and then won't leave, the Hard Problem remains. When I stubbed my toe on the leg of the dining table this morning, as any student of the brain could tell you, nerve fibers called "C-fibers" shot a message to my spinal cord, sending neurotransmitters to the part of my brain called the thalamus, which activated (among other things) my limbic system. Fine. But how come all that was accompanied by an agonizing flash of pain? And what is pain, anyway?

Questions like these, which straddle the border between science and philosophy, make some experts openly angry. They have caused others to argue that conscious sensations, such as pain, don't really exist, no matter what I felt as I hopped in anguish around the kitchen; or, alternatively, that plants and trees must also be conscious.

The Hard Problem has prompted arguments in serious journals about what is going on in the mind of a zombie, or – to quote the title of a famous 1974 paper by the philosopher [Thomas Nagel](#) – the question "What is it like to be a bat?" Some argue that the problem marks the boundary not just of what we currently know, but of what science could ever explain. On the other hand, in recent years, a handful of neuroscientists have come to believe that it may finally be about to be solved – but only if we are willing to accept the profoundly unsettling conclusion that computers or the internet might soon become conscious, too.

Next week, the conundrum will move further into public awareness with the opening of Tom Stoppard's new play, [The Hard Problem](#), at the National Theatre – the first play Stoppard has written for the National since 2006, and the last that the theatre's head, Nicholas Hytner, will direct before leaving his post in March. The 77-year-old playwright has revealed little about the play's contents, except that it concerns the question of "what consciousness is and why it exists", considered from the perspective of a young researcher

played by Olivia Vinall. Speaking to the Daily Mail, Stoppard also clarified a potential misinterpretation of the title. "It's not about erectile dysfunction," he said.

Stoppard's work has long focused on grand, existential themes, so the subject is fitting: when conversation turns to the Hard Problem, even the most stubborn rationalist's lapse quickly into musings on the meaning of life.

[Christof Koch](#), the chief scientific officer at the Allen Institute for Brain Science, and a key player in the Obama administration's multibillion-dollar initiative to map the human brain, is about as credible as neuroscientists get. But, he told me in December: "I think the earliest desire that drove me to study consciousness was that I wanted, secretly, to show myself that it couldn't be explained scientifically. I was raised Roman Catholic, and I wanted to find a place where I could say: OK, here, God has intervened. God created souls, and put them into people."

Koch assured me that he had long ago abandoned such improbable notions. Then, not much later, and in all seriousness, he said that on the basis of his recent research he thought it wasn't impossible that his iPhone might have feelings.

[Read the rest of the article \(there's a bunch more\)...](#)