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**Daniel Dennett**

# Philosopher Daniel Dennett on AI, robots and religion

Over lamb and a large glass of red in London, he discusses consciousness — and why Descartes got it wrong

**Lunch with the FT**

8 HOURS AGO by: **John Thornhill**

It would be hard to confuse Daniel Dennett for anyone other than a philosopher. With his voluminous white beard, imposing frame, and jolly demeanour, he cuts a distinctive figure in the sleek restaurant atop London's National Portrait Gallery. It is a hazy, sunny day as we gaze out across the rooftops. The Union Flag hangs limply over the Houses of Parliament.

As a thought experiment (so beloved of philosophers), I try to picture Dennett in a tunic and sandals orating in the Athenian agora a couple of millennia ago. Yup, that one works. As it is, our modern-day philosopher is dressed in a button-down blue shirt and a grey herringbone jacket and is carrying a splendid walking stick.

With the enthusiasm of a born storyteller, Dennett



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recounts how he found the stick while tramping through the woods on Outer Long Island, Maine, in 2006 and has been using it ever since. He has inscribed it with the names of the places he has visited, including

Costa Rica, the Mekong Delta, and Kalaallit Nunaat (Greenland). “I’m a little tottery on my legs,” the 74-year-old says. “This was invaluable on the tundra.”

But, as I quickly discover, the intellectually omnivorous professor from Tufts University is fully abreast of all the changes and challenges of the times. Conversation sweeps through the latest advances in neuroscience and artificial intelligence to the impact of social media and our Trumpian age.

As one of the world's most renowned philosophers, Dennett has spent five decades thinking deeply and writing about the human condition, most notably consciousness. But his theories are acquiring increasing resonance as we fret about the rise of the robots and the creation of thinking machines. AI experts tend to draw a sharp distinction between machine intelligence and human consciousness. Dennett is not so sure. Where many worry that robots are becoming too human, he argues humans have always been largely robotic. Our consciousness is the product of the interactions of billions of neurons that are all, as he puts it, "sorta robots".

"I've been arguing for years that, yes, in principle it's possible for human consciousness to be realised in a machine. After all, that's what we are," he says. "We're robots made of robots made of robots. We're incredibly complex, trillions of moving parts. But they're all non-miraculous robotic parts."

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The next thing to cross our consciousness is the menu. After some prevarication, Dennett plumps for the rump of lamb and thick-cut chips. I choose cod and lentils. He orders a glass of Ciello Rosso (large). I settle for a Chardonnay (similarly proportioned).

Among rival philosophers, Dennett is sometimes depicted as the great "deflationist" for arguing that [consciousness is](#)

just a “bag of tricks” ([https://www.ted.com/talks/dan\\_dennett\\_on\\_our\\_consciousness#t-22502](https://www.ted.com/talks/dan_dennett_on_our_consciousness#t-22502)). Everyone believes they are an expert on consciousness because they think they are conscious. But Dennett is here to tell them they are wrong. He is the spoilsport at the party who points out how the magic tricks are done. Don’t even try him on such concepts such as mysticism, the soul, or God.

So why did he become a philosopher? He says that when he was a freshman at college he read Descartes’ *Meditations*. “I thought: ‘This is fascinating but it’s wrong. I’m going to see if I can show what’s wrong with it.’ More than 50 years later I’m still working on it.”

Dennett was convinced that Descartes’ dualism — the idea that an immaterial mind interacts with a material body — was a “cul-de-sac”. To illustrate the dualist delusion, he makes an improbable reference to the cartoon character, Casper the Friendly Ghost, who could both walk through walls and catch a baseball with his ghostly hand. “There was a latent contradiction built into the very idea of Casper the Friendly Ghost and basically that’s what’s wrong with dualism. Nobody’s ever solved that problem remotely satisfactorily.”

Dennett’s latest book, *From Bacteria to Bach and Back* (<https://www.youtube.com/watch?v=IZefk4gzQt4>): *The Evolution of Minds*, which develops his ideas on the theme of consciousness, largely springs out of two “strange inversions of reasoning” — one by the naturalist Charles

Darwin, the other by the computer scientist Alan Turing. I ask him to explain.

The term “inversion of reason”, he says, came from one of Darwin’s 19th-century critics, outraged at the biologist’s counterintuitive thinking. Rather than accepting that an absolute intelligence was responsible for the creation of species, the critic denounced Darwin for believing that absolute ignorance had accomplished all the marvels of creative skill. “And of course that’s right. That’s exactly what Darwin was saying. Darwin says the nightingale is created by a process with no intelligence at all. So that’s the first inversion of reasoning.”

I notice Dennett is sporting a Darwin lapel badge in the shape of a fish. Early Christians used the symbol because the Greek initials for Jesus Christ, Son of God, Saviour spelt out the word for fish, *ichthus*. Dennett says one of his friends challenged him to come up with a similar acronym for Darwin. Opting for Latin and employing two Us for a W, he devised: *Delere Auctorem Rerum Ut Universum Infinitum Noscas*. (Destroy the author of things to understand the infinite universe.) That pretty much sums up his own thinking, he says.

In the late 2000s, he emerged as one of the “Four Horsemen of the New Atheism” alongside Richard Dawkins, Sam Harris, and the late Christopher Hitchens. Dennett’s own inversion of biblical reasoning was that man had created God in his own image. But he expresses

sympathy for well-meaning believers who experience a crisis of faith.

While writing a book on religion, Dennett worked with the researcher Linda LaScola, who interviewed dozens of clergymen about what they privately believed. “It’s just breathtaking,” he says. “I think in every case these were people who were trapped by their own goodness. What happens when you don’t believe in it any more, which happens to a lot of them. They are in a real moral bind.” Their subsequent book, *Caught in the Pulpit* (2013), has been turned into a play. I ask him what doubts he has about his own beliefs, which he expresses so pungently. Does he ever ask himself whether he is totally wrong? He cheerfully replies that he asks that question all the time. “It’s part of a philosopher’s modus operandi,” he says.

We return to his second great inversion of reasoning, conceived by Alan Turing, who similarly overturned the common sense of the mid-20th century. Turing argued it was possible for a computer to achieve competence without comprehension: it could do perfect arithmetic without ever knowing what arithmetic was. We may not always think it, but that can also be true of humans. How many scientists working on fragmentary parts of the Manhattan project knew that they were creating an atomic bomb?

Dennett toys with the idea, as philosophers are wont to do, and explains that in fact you can build a kind of

comprehension out of the competence of a basic computer. “Does it understand? Well, not really, but it’s as good as. It’s a sort of understanding,” he says.

One thought experiment proposed by AI experts involves replacing biological neurons in our brains with electronic ones. At what point would electronic consciousness supersede natural consciousness, if at all? But that’s not much of a dilemma for Dennett.

“The idea that you couldn’t do that is the idea that some part of the brain is — to use a nice term from economics — non-fungible. But we’ve no reason to believe that at all.” Still, he adds, what is possible in principle is not necessarily possible in practice, at least for the time being.

Dennett has long been a follower of the latest research in AI. The final chapter of his book focuses on the subject. There has been much talk recently about the dangers posed by the [emergence of a superintelligence \(http://next.ft.com/content/46d12e7c-4948-11e6-b387-64ab0a67014c\)](http://next.ft.com/content/46d12e7c-4948-11e6-b387-64ab0a67014c), when a computer might one day outstrip human intelligence and assume agency. Although Dennett accepts that such a superintelligence is logically possible, he argues that it is a “pernicious fantasy” that is distracting us from far more pressing technological problems. In particular, he worries about our “deeply embedded and generous” tendency to attribute far more understanding to intelligent systems than they possess. Giving digital assistants names and cutesy personas worsens the confusion.

“All we’re going to see in our own lifetimes are intelligent tools, not colleagues. Don’t think of them as colleagues, don’t try to make them colleagues and, above all, don’t kid yourself that they’re colleagues, (<http://next.ft.com/content/51d964c6-11dd-11e6-91da-096d89bd2173>)” he says.

Dennett adds that if he could lay down the law he would insist that the users of such AI systems were licensed and bonded, forcing them to assume liability for their actions. Insurance companies would then ensure that manufacturers divulged all of their products’ known weaknesses, just as pharmaceutical companies reel off all their drugs’ suspected side-effects. “We want to ensure that anything we build is going to be a systemological wonderbox, not an agency. It’s not responsible. You can unplug it any time you want. And we should keep it that way,” he says.

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In spite of his extended replies, which pour out in perfectly formed paragraphs, Dennett has succeeded in polishing off his lamb far faster than I have dispatched my cod.

A chocolate pot soon arrives, which he also tackles with relish, while I spoon up luxuriant vanilla rice and poached quince. Dennett, a frequent visitor to London, declares he has always liked the restaurant because of its lightness, views, and convenience.

We plunge straight back into one of his other great



preoccupations: the impact of digital technology on our societies. In a [2015 essay \(https://ase.tufts.edu/cogstud/dennett/papers/Dennett\\_Roy.pdf\)](https://ase.tufts.edu/cogstud/dennett/papers/Dennett_Roy.pdf) co-written with Deb Roy, a professor at the Massachusetts Institute of Technology, Dennett compared our times with the Cambrian explosion, an era of extraordinary biological innovation that occurred half a billion years ago. One hypothesis had it that the world was suddenly flooded with light, forcing animal life rapidly to evolve or — in most cases — die.

Employing the Cambrian explosion as a stunning analogy, he suggests that the blinding light of transparency from digital technologies is having a similar effect on life today. “Every human institution, from marriage to the army to the government to the courts to corporations and banks, religions, every system of civilisation is now in jeopardy because of this new transparency.”

The “membranes” protecting these institutions have been permeated and we are emerging into a world where it is near-impossible to keep secrets. Where some ideologues may consider this to be a good thing, Dennett argues it is having terrible consequences. “People haven’t really come to grips with the fact that it’s not just personal privacy that matters, it’s also institutional privacy,” he says.

**Portrait Restaurant**

**National Portrait Gallery, St**

To take just one relatively innocuous

**Martin's Place, London WC2H****OHE**

Sparkling water £3.50

Set course menu x 2 £55

Rump lamb

Chocolate pot

Cod

Rice pudding

Chips £3.75

Large Chardonnay £9.50

Large Ciello Rosso £9.50

Double macchiato £3.10

Tea £3.10

Portrait Fund donation £1

**Total (inc service) £99.38**

example, he says it's vital that everyone receives the employment numbers from the Department of Labor at the same time, rather than through a series of leaks. "It's harder to protect your reputation for reliability than to damage it. It turns out that, as usual, offence is cheaper than defence," he says.

"Everybody who

cares about the preservation of any institution has to stop everything, ring the alarm bell, and start thinking about how to preserve that 'membrane' in a way that is morally permissible."

Even worse, from Dennett's viewpoint, is that the US has elected a president who is accelerating that erosion of trust in institutions, starting with the presidency itself. "He's undermining the credibility of himself, the courts, Congress, the media. He's a one-person cultural vandal,"

he says.

The arms race between deliberate deception and our capacity to protect ourselves from it is hugely unbalanced and we're in danger of losing

Dennett is so concerned by the political situation that he is devoting much of his time to exploring ways to

protect the truth in societies and restore trust. "The arms race between deliberate deception and our capacity to protect ourselves from it is hugely unbalanced and we're in danger of losing," he says.

I suggest that philosophers are straying into contentious territory whenever they start talking about truth, a concept that has been furiously debated for millennia. He acknowledges that politics involves normative judgments but that decisions must be grounded in objective facts. He rails against those philosophers who forget that they rely on objective truth thousands of times a day. "Even postmodernists get furious if their health insurance is misrepresented to them. They don't say: 'Oh, that's just one of those conversations, ha, ha.' They say: 'Damn it! You just told me a lie, now you fix it!'"

But how is it possible to protect truth in such a glaringly open world? Dennett replies that if he knew the answer he wouldn't be sitting in a restaurant talking to me. But he says that he and some like-minded colleagues are working

on the problem. He refers to another thought experiment that a billionaire once threw at him. What would Dennett do if he was given \$1bn?

Dennett argued that he would try to set up an international, self-policing, co-operative “truth source”. It would be like some kind of combination of the Reuters news agency, the Wikipedia online encyclopedia, and the Snopes website for debunking urban myths. “It would be the place to go to check out your hunch when something is too good to be true. That’s what I’d do with \$1bn, I would endow that,” he says.

Dennett did not persuade that billionaire to part with his money. But if there are any others out there, he is awaiting your call. He stresses the urgency of rebuilding “islands of trust” in communities before building out from there.

Over a double macchiato (for him) and tea (for me), we discuss the role of philosophers in society. He is fervently of the view that philosophers should not retreat to their ivory towers but immerse themselves in the real world.

He draws a sharp distinction between those who do philosophy and those who do philosophy appreciation. “In some places, you learn to identify and classify all the different ‘isms’. Forget it! Imagine you discovered stunning, incontrovertible evidence of an attempted coup d’état and you went to the FBI and they looked at it and said: ‘This is a very interesting example of early 21st-

century conspiratorialism.’ But it’s bloody true!

“What’s really important is: do I believe it, is it true, does it matter? If you lose sight of that then you’ve sort of abandoned the whole point of philosophy.”

*John Thornhill is the FT’s innovation editor*

*Illustration by James Ferguson*

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