

# Debate: Human nature: Universally acknowledged

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Author Philip Pullman talks about his atheism, passion for science, view of consciousness and this extraordinary business of living

Philip Pullman is no scientist; he disliked the subject at school and just managed biology O level. Yet *His Dark Materials* — his award-winning trilogy, which takes on God, human nature and morality — is steeped in the stuff.

The books display Pullman's enduring fascination with cosmology, quantum theory — and Milton's *Paradise Lost*. He explains how the title came about: "The notion of dark matter struck me as an intensely poetic idea, that the vast bulk of the universe is made up of stuff we can't see at all and have no idea what it is. It's intoxicatingly exciting. Then, when I was looking in *Paradise Lost* for the title of the trilogy, I came across this marvellous phrase, 'His dark materials', which fits in so well with dark matter. So I hoped and prayed that no one would discover what this stuff is before I finished the books. And, thank goodness, they didn't."

Then there is Pullman's legendary atheism, which underpins his writing and shapes his view of human existence. Despite the influence of his clergyman grandfather, Pullman became an atheist because he couldn't find a scrap of scientific evidence — "What other kinds of evidence might there be?" he asks sternly — for the existence of God. It also made him sceptical of the notion put forward by his grandfather, and other Christians, that human beings are physical machines housing everlasting souls. This idea of the "ghost in the machine" is similarly disputed by the psychologist Steven Pinker who, with Pullman and a host of other formidable intellects, speaks at today's Body&Soul sponsored symposium on Literature, Science and Human Nature, at the Institute of Contemporary Arts in London ([www.ica.org.uk](http://www.ica.org.uk)).

Pullman is a self-confessed magpie, who plucks ideas from all over the place — science, religion, poetry — then adds a twist. His angels, witches, humans and harpies exist against a convincing backdrop of parallel worlds and dark matter. The whole thing holds water largely because the science roots the fantasy. And it's no coincidence that the most honourable adult character in the trilogy is a scientist.

Intriguingly, Pullman's version of dark matter — he calls it "Dust" — is the equivalent of human consciousness. He explains: "I've taken a leap beyond anything the science justifies — I don't think any scientist has ever come up with the idea that dark matter is conscious! Dust is all the wisdom and consciousness of the world, which has somehow become externalised. You could even say it's an atheist's God. "But it's a mutually dependent thing: to make sure Dust doesn't vanish we have to contribute to wisdom as well as leech from it."

There is nothing nerdy about the science in Pullman's work or his fantasy. It's not tacked on and it doesn't get in the way because it comes from a life-long interest in science rather than research to make sure a scene is accurate. He explains: "When

you're putting this sort of thing in a book you're not doing it to tell the reader about the science but to provide a background for the characters who are doing something else. But you want the background to be solid, so you make it as convincing as you can."

So where does his passion for science come from, if not school? The original spark was lit by a comic strip for junior boffins in *The Eagle* comic. More recently the vogue for popular science writing has served him well. And living in Oxford he is well placed to attend lectures by leading proponents of theories such as "parallel worlds". He says: "It seemed to me that there were a couple of ways in which I could steal a metaphor from science in the way that Coleridge used to go to lectures at the Royal Institution in order to renew his stock of them.

"But I must stress that I can't read the science itself because I can't deal with maths and equations and all that sort of stuff, it's just impassable. But I can read what people have said in terms of explaining science and the extraordinary things that go on when things are very, very tiny. That is very exciting."

Pullman's reading list is impressive: books on quantum theory and sub-atomic physics, some on evolution and loads on consciousness, neurology and the workings of the brain — his most recent passion. It's bound to have had a huge influence on his view of human nature — but then so has literature and good old common sense. Unlike some literary theorists speaking at today's symposium, Pullman has never doubted the existence of human nature although he admits it is a "huge, baggy, elastic term".

He says: "Once you have children it is very hard to believe that they are completely blank slates. They're plainly not. Both of my children are boys, I've never had a daughter, and each of them was born with a clear, distinct and individual personality which was certainly not put in place by me and my wife. I don't believe that we are empty vessels to be filled by social forces entirely. Experience just doesn't allow for that."

Nor does Pullman's reading: Steven Pinker lists some 500 "human universals" which he says turn up in every human society — things such as counting, using tools, thinking there is a difference between people of different ages and so on — which he believes belong to human nature.

But on the other side of the argument — nurture versus nature — Pullman is equally intrigued by the biologist Jonathan Kingdon's work on human evolution, which looks back millions of years and explains how human nature and development may have been affected by the use of tools and fire.

Pullman has less time for literary theorists, and looks back to Jane Austen's unchallenged assumptions about human nature with some envy. "I may be reading it all wrong but I always feel I'm being slightly got at when I read literary theory — there is a sort of accusatory tone in a lot of it which is rather off-putting. A lot of literary theory seems to be grounded in a point of view that says that white middle-aged men are to blame for everything. Well, I have to plead not-guilty to everything.

"On the other hand it's certainly true that civilisation and culture play a part in the

way we behave to one another. And there's no doubt that we have made ourselves different from what we were when we started. This is a matter of observation, because if you treat people well they will behave differently from the way they behave if you treat them badly. It's that simple.

“So I think human nature is partly socially constructed. But perhaps this takes place over hundreds of thousands of years as well as over one generation.”

Pullman is as spellbound by science today as he was as a child devouring *The Eagle*. And he'd like his readers to feel the same kind of awe that he — and his characters — do: “The sense of astonishment at the sheer fact of being alive, and wonder at the revelation of the beauty of the world, which is overlaid for most of us by the sheer business of living. It's very easy to forget how wonderful it is to have nerves and sense organs and to feel extraordinary pleasures — even something as simple as a cool breeze on a hot day. Science shows us many things to wonder at — but then so does poetry, music, love. They're all part of this extraordinary business of having a body and being alive. We shouldn't forget these things.”

*To follow the debate, sponsored by the Federal University of Surrey, pay a visit to [www.roehampton.ac.uk/humannature/](http://www.roehampton.ac.uk/humannature/)*

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