Richard Dawkins (b. 1941)
East African-born British Zoologist; the Charles Simonyi Professor for the Public Understanding of Science at Oxford University; Fellow of New College; Fellow of The Royal Society

An atheist before Darwin could have said, following Hume: "I have no explanation for complex biological design. All I know is that God isn't a good explanation, so we must wait and hope that somebody comes up with a better one." I can't help feeling that such a position, though logically sound, would have left one feeling pretty unsatisfied, and that although atheism might have been logically tenable before Darwin, Darwin made it possible to be an intellectually fulfilled atheist.

-- Richard Dawkins, The Blind Watchmaker, p. 6

A friend, an intelligent lapsed Jew who observes the Sabbath for reasons of cultural solidarity, describes himself as a Tooth Fairy Agnostic. He will not call himself an atheist because it is in principle impossible to prove a negative. But "agnostic" on its own might suggest that he though God's existence or non-existence equally likely. In fact, though strictly agnostic about god, he considers God's existence no more probable than the Tooth Fairy's.

Bertrand Russell used a hypothetical teapot in orbit about Mars for the same didactic purpose. You have to be agnostic about the teapot, but that doesn't mean you treat the likelihood of its existence as being on all fours with its non-existence.
The list of things about which we strictly have to be agnostic doesn't stop at tooth fairies and celestial teapots. It is infinite. If you want to believe in a particular one of them -- teapots, unicorns, or tooth fairies, Thor or Yahweh -- the onus is on you to say why you believe in it. The onus is not on the rest of us to say why we do not. We who are atheists are also a-fairyists, a-teapotists, and a-unicornists, but we don't have to bother saying so.

-- Richard Dawkins, following a list of excerpts from hate mail sent to the editor of Freethought Today, after she won a separationist court battle, in "A Challenge To Atheists: Come Out of the Closet" (Free Inquiry, Summer, 2002) paragraph division added ††

Perhaps the best of the available euphemisms for atheist is nontheist. It lacks the connotation of positive conviction that there is definitely no god, and it could therefore easily be embraced by Teapot or Tooth Fairy Agnostics. It is less familiar than atheist and lacks its phobic connotations. Yet, unlike a completely new coining, its meaning is clear. If we want a euphemism at all, nontheist is probably the best.

The alternative which I favor is to renounce all euphemisms and grasp the nettle of the word atheism itself, precisely because it is a taboo word carrying frissons of hysterical phobia. Critical mass may be harder to achieve than with some non-confrontational euphemism, but if we did achieve it with the dread word atheist, the political impact would be all the greater.

-- Richard Dawkins, following a list of excerpts from hate mail sent to the editor of Freethought Today, after she won a separationist court battle, in "A Challenge To Atheists: Come Out of the Closet" (Free Inquiry, Summer, 2002) ††

By all means let's be open-minded, but not so open-minded that our brains drop out.


I am against religion because it teaches us to be satisfied with not understanding the world.

-- Richard Dawkins (attributed: source unknown)

Religion teaches the dangerous nonsense that death is not the end.

-- Richard Dawkins, "Religion's Misguided Missiles" (September 15, 2001)

Faith is the great cop-out, the great excuse to evade the need to think and evaluate evidence. Faith is belief in spite of, even perhaps because of, the lack of evidence.

-- Richard Dawkins (attributed: source unknown)

Faith is powerful enough to immunize people against all appeals to
pity, to forgiveness, to decent human feelings. It even immunizes them against fear, if they honestly believe that a martyr's death will send them straight to heaven.
-- Richard Dawkins, The Selfish Gene

Yes, testosterone-sodden young men too unattractive to get a woman in this world might be desperate enough to go for 72 private virgins in the next.
-- Richard Dawkins, "Religion's Misguided Missiles" (September 15, 2001)

If death is final, a rational agent can be expected to value his life highly and be reluctant to risk it. This makes the world a safer place, just as a plane is safer if its hijacker wants to survive. At the other extreme, if a significant number of people convince themselves, or are convinced by their priests, that a martyr's death is equivalent to pressing the hyperspace button and zooming through a wormhole to another universe, it can make the world a very dangerous place. Especially if they also believe that that other universe is a paradisical escape from the tribulations of the real world. Top it off with sincerely believed, if ludicrous and degrading to women, sexual promises, and is it any wonder that naïve and frustrated young men are clamouring to be selected for suicide missions?
-- Richard Dawkins, "Religion's Misguided Missiles" (September 15, 2001)

My last vestige of "hands off religion" respect disappeared in the smoke and choking dust of September 11th 2001, followed by the "National Day of Prayer," when prelates and pastors did their tremulous Martin Luther King impersonations and urged people of mutually incompatible faiths to hold hands, united in homage to the very force that caused the problem in the first place.

My point is not that religion itself is the motivation for wars, murders and terrorist attacks, but that religion is the principal label, and the most dangerous one, by which a "they" as opposed to a "we" can be identified at all.

It is fashionable to wax apocalyptic about the threat to humanity posed by the AIDS virus, "mad cow" disease, and many others, but I think a case can be made that faith is one of the world's great evils, comparable to the smallpox virus but harder to eradicate.
-- Richard Dawkins, The Humanist, Vol. 57, No. 1
To describe religions as mind viruses is sometimes interpreted as contemptuous or even hostile. It is both. I am often asked why I am so hostile to organized religion.


I don't think God is an explanation at all. It's simply redescribing the problem.

We are trying to understand how we have got a complicated world, and we have an explanation in terms of a slightly simpler world, and we explain that in terms of a slightly simpler world and it all hangs together down to an ultimately simple world.

Now, God is not an explanation of that kind. God himself cannot be simple if he has power to do all the things he is supposed to do.

-- Richard Dawkins, "Nick Pollard interviews Richard Dawkins" (Damars: 1999) ††

If people think God is interesting, the onus is on them to show that there is anything there to talk about. Otherwise they should just shut up about it.

-- Richard Dawkins (attributed: source unknown)

[Excerpt (of sorts)]
The universe we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil and no good, nothing but blind pitiless indifference.


[Passage (if you will)]
The total amount of suffering per year in the natural world is beyond all decent contemplation. During the minute that it takes me to compose this sentence, thousands of animals are being eaten alive, many others are running for their lives, whimpering with fear, others are slowly being devoured from within by rasping parasites, thousands of all kinds are dying of starvation, thirst, and disease. It must be so. If there ever is a time of plenty, this very fact will automatically lead to an increase in the population until the natural state of starvation and misery is restored. In a universe of electrons and selfish genes, blind physical forces and genetic replication, some people are going to get hurt, other people are going to get lucky, and you won't find any rhyme or reason in it, nor any justice. The universe that we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil, no good, nothing but pitiless indifference.
People sometimes try to score debating points by saying, "Evolution is only a theory." That is correct, but it's important to understand what that means. It is also only a theory that the world goes round the Sun -- it's just a theory for which there is an immense amount of evidence.

There are many scientific theories that are in doubt. Even within evolution, there is some room for controversy. But that we are cousins of apes and jackals and starfish, let's say, that is a fact in the ordinary sense of the word.

You cannot be both sane and well educated and disbelieve in evolution. The evidence is so strong that any sane, educated person has got to believe in evolution.

It is absolutely safe to say that, if you meet somebody who claims not to believe in evolution, that person is ignorant, stupid or insane (or wicked, but I'd rather not consider that).

Not a single one of your ancestors died young. They all copulated at least once.

The enlightenment is under threat. So is reason. So is science, especially in the schools of America. I am one of those scientists who feels that it is no longer enough just to get on and do science. We have to devote a significant proportion of our time and resources to defending it from deliberate attack from organized ignorance. We even have to go out on the attack ourselves, for the sake of reason and sanity. Of course, excellent organizations already exist for raising funds and deploying them in service of reason, science and enlightenment values...But the money that these organizations can raise is dwarfed by the huge resources of religious foundations such as the Templeton Foundation, not to mention the tithe-bloated, tax-exempt churches.
... Textbooks describe DNA as a blueprint for a body. It's better seen as a recipe for making a body, because it is irreversible. But today I want to present it as something different again, and even more intriguing. The DNA in you is a coded description of ancient worlds in which your ancestors lived. DNA is the wisdom out of the old days, and I mean very old days indeed.

... What changes is the long programs that natural selection has written using those 64 basic words. The messages that have come down to us are the ones that have survived millions, in some cases hundreds of millions, of generations. For every successful message that has reached the present, countless failures have fallen away like the chippings on a sculptor's floor. That's what Darwinian natural selection means. We are the descendants of a tiny élite of successful ancestors. Our DNA has proved itself successful, because it is here. Geological time has carved and sculpted our DNA to survive down to the present.


It really comes down to parsimony, economy of explanation. It is possible that your car engine is driven by psychokinetic energy, but if it looks like a petrol engine, smells like a petrol engine and performs exactly as well as a petrol engine, the sensible working hypothesis is that it is a petrol engine. Telepathy and possession by the spirits of the dead are not ruled out as a matter of principle. There is certainly nothing impossible about abduction by aliens in UFOs. One day it may be happen. But on grounds of probability it should be kept as an explanation of last resort. It is unparsimonious, demanding more than routinely weak evidence before we should believe it. If you hear hooves clip-clopping down a London street, it could be a zebra or even a unicorn, but, before we assume that it's anything other than a horse, we should demand a certain minimal standard of evidence.


Either it is true that a medicine works or it isn't. It cannot be false in the ordinary sense but true in some "alternative" sense. If a therapy or treatment is anything more than a placebo, properly conducted double-blind trials, statistically analyzed, will eventually bring it through with flying colours. Many candidates for recognition as
"orthodox" medicines fail the test and are summarily dropped. The "alternative" label should not (though, alas, it does) provide immunity from the same fate.

[Alternative medicine is defined as] that set of practices that cannot be tested, refuse to be tested or consistently fail tests.
-- Richard Dawkins, quoted from Carl E Bartecchi, "Be Wary of Alternative Medicine" (Denver Business Journal: January 10, 2003) ††

Each week The X-Files poses a mystery and offers two rival kinds of explanation, the rational theory and the paranormal theory. And, week after week, the rational explanation loses. But it is only fiction, a bit of fun, why get so hot under the collar?

Imagine a crime series in which, every week, there is a white suspect and a black suspect. And every week, lo and behold, the black one turns out to have done it. Unpardonable, of course. And my point is that you could not defend it by saying: "But it's only fiction, only entertainment".

Are science and religion converging? No. There are modern scientists whose words sound religious but whose beliefs, on close examination, turn out to be identical to those of other scientists who straightforwardly call themselves atheists.

To an honest judge, the alleged convergence between religion and science is a shallow, empty, hollow, spin-doctored sham.

I believe that an orderly universe, one indifferent to human preoccupations, in which everything has an explanation even if we still have a long way to go before we find it, is a more beautiful, more wonderful place than a universe tricked out with capricious ad hoc magic.
-- Richard Dawkins, Unweaving the Rainbow (contributed by Ray Franz)

Blindness to suffering is an inherent consequence of natural selection. Nature is neither kind nor cruel but indifferent.
-- Richard Dawkins, on describing how one need only look upon nature where the wasp lays her eggs inside the body of a living caterpillar in order to dispense with the idea that the Universe is supervised by a benevolent deity, in The Devil's Chaplain (2004)

The feeling of awed wonder that science can give us is one of the
highest experiences of which the human psyche is capable. It is a deep aesthetic passion to rank with the finest that music and poetry can deliver. It is truly one of the things that make life worth living and it does so, if anything, more effectively if it convinces us that the time we have for living is quite finite.


Science boosts its claim to truth by its spectacular ability to make matter and energy jump through hoops on command, and to predict what will happen and when.

-- Richard Dawkins, from "What is True?" in *The Devil's Chaplain* (2004)

Our leaders have described the recent atrocity with the customary cliche: mindless cowardice. "Mindless" may be a suitable word for the vandalising of a telephone box. It is not helpful for understanding what hit New York on September 11. Those people were not mindless and they were certainly not cowards. On the contrary, they had sufficiently effective minds braced with an insane courage, and it would pay us mightily to understand where that courage came from.

  It came from religion....

-- Richard Dawkins, "Religion's Misguided Missiles" (September 15, 2001)

To fill a world with ... religions of the Abrahamic kind, is like littering the streets with loaded guns. Do not be surprised if they are used.

-- Richard Dawkins, "Religion's Misguided Missiles" (September 15, 2001)

The present Luddism over genetic engineering may die a natural death as the computer-illiterate generation is superseded.... I fear that, if the green movement's high-amplitude warnings over GMOs turn out to be empty, people will be dangerously disinclined to listen to other and more serious warnings.


That there is a continuous link from humans to gorillas, with the intermediate species merely long dead, is beyond the understanding of speciesists. Tie the label Homo sapiens even to a tiny piece of insensible embryonic tissue, and its life suddenly leaps to infinite, incomputable value....

  Self-styled "pro-lifers," and others that indulge in footling debates about exactly when in its development a foetus "becomes" human, exhibit the same discontinuous mentality. "Human," to the discontinuous mind, is an absolutist concept. There can be no half
measures. And from this flows much evil.

Society bends over backward to be accommodating to religious sensibilities but not to other kinds of sensibilities. If I say something offensive to religious people, I'll be universally censured, including by many atheists. But if I say something insulting about Democrats or Republicans or the Green Party, one is allowed to get away with that. Hiding behind the smoke screen of untouchability is something religions have been allowed to get away with for too long.

Over the centuries, we've moved on from Scripture to accumulate precepts of ethical, legal and moral philosophy. We've evolved a liberal consensus of what we regard as underpinnings of decent society, such as the idea that we don't approve of slavery or discrimination on the grounds of race or sex, that we respect free speech and the rights of the individual. All of these things that have become second nature to our morals today owe very little to religion, and mostly have been won in opposition to the teeth of religion.

I suspect the reason is that most people ... have a residue of feeling that Darwinian evolution isn't quite big enough to explain everything about life. All I can say as a biologist is that the feeling disappears progressively the more you read about and study what is known about life and evolution. I want to add one thing more. The more you understand the significance of evolution, the more you are pushed away from the agnostic position and towards atheism. Complex, statistically improbable things are by their nature more difficult to explain than simple, statistically probable things.
-- Richard Dawkins, from The New Humanist, the Journal of the Rationalist Press Association, Vol 107 No 2

I became a little alarmed at the number of my readers who took the meme more positively as a theory of human culture in its own right -- either to criticize it (unfairly, given my original modest intention) or to carry it far beyond the limits of what I then thought justified. This was why I may have seemed to backtrack.
It's been suggested that if the supernaturalists really had the powers they claim, they'd win the lottery every week. I prefer to point out that they could also win a Nobel Prize for discovering fundamental physical forces hitherto unknown to science. Either way, why are they wasting their talents doing party turns on television?


Certainly I see the scientific view of the world as incompatible with religion, but that is not what is interesting about it. It is also incompatible with magic, but that also is not worth stressing. What is interesting about the scientific world view is that it is true, inspiring, remarkable and that it unites a whole lot of phenomena under a single heading.

-- Richard Dawkins (attributed: source unknown)

More generally it is completely unrealistic to claim, as Gould and many others do, that religion keeps itself away from science's turf, restricting itself to morals and values. A universe with a supernatural presence would be a fundamentally and qualitatively different kind of universe from one without. The difference is, inescapably, a scientific difference. Religions make existence claims, and this means scientific claims.

There is something dishonestly self-serving in the tactic of claiming that all religious beliefs are outside the domain of science. On the one hand, miracle stories and the promise of life after death are used to impress simple people, win converts, and swell congregations. It is precisely their scientific power that gives these stories their popular appeal. But at the same time it is considered below the belt to subject the same stories to the ordinary rigors of scientific criticism: these are religious matters and therefore outside the domain of science. But you cannot have it both ways. At least, religious theorists and apologists should not be allowed to get away with having it both ways. Unfortunately all too many of us, including nonreligious people, are unaccountably ready to let them.


In childhood our credulity serves us well. It helps us to pack, with extraordinary rapidity, our skulls full of the wisdom of our parents and our ancestors. But if we don't grow out of it in the fullness of
time, our ... nature makes us a sitting target for astrologers, mediums, gurus, evangelists, and quacks. We need to replace the automatic credulity of childhood with the constructive skepticism of adult science.

-- Richard Dawkins (attributed: source unknown)

To show how real astronomical wonder can be presented to children, I'll borrow from a book called *Earthsearch* by John Cassidy, which I brought back from America to show my daughter Juliet. Find a large open space and take a soccer ball to represent the sun. Put the ball down and walk ten paces in a straight line. Stick a pin in the ground. The head of the pin stands for the planet Mercury. Take another 9 paces beyond Mercury and put down a peppercorn to represent Venus. Seven paces on, drop another peppercorn for Earth. One inch away from earth, another pinhead represents the Moon, the furthest place, remember, that we've so far reached. 14 more paces to little Mars, then 95 paces to giant Jupiter, a ping-pong ball. 112 paces further, Saturn is a marble. No time to deal with the outer planets except to say that the distances are much larger. But, how far would you have to walk to reach the nearest star, Proxima Centauri? Pick up another soccer ball to represent it, and set off for a walk of 4200 miles. As for the nearest other galaxy, Andromeda, don't even think about it!

Who'd go back to astrology when they've sampled the real thing

-- astronomy...?


I had always been scrupulously careful to avoid the smallest suggestion of infant indoctrination, which I think is ultimately responsible for much of the evil in the world. Others, less close to her, showed no such scruples, which upset me, as I very much wanted her, as I want all children, to make up her own mind freely when she became old enough to do so. I would encourage her to think, without telling her what to think.


We are going to die, and that makes us the lucky ones. Most people are never going to die because they are never going to be born. The potential people who could have been here in my place but who will in fact never see the light of day outnumber the sand grains of Arabia. Certainly those unborn ghosts include greater poets than Keats, scientists greater than Newton. We know this because the
set of possible people allowed by our DNA so massively exceeds the set of actual people. In the teeth of these stupefying odds it is you and I, in our ordinariness, that are here.


After sleeping through a hundred million centuries we have finally opened our eyes on a sumptuous planet, sparkling with colour, bountiful with life. Within decades we must close our eyes again. Isn't it a noble, an enlightened way of spending our brief time in the sun, to work at understanding the universe and how we have come to wake up in it? This is how I answer when I am asked -- as I am surprisingly often -- why I bother to get up in the mornings. To put it the other way round, isn't it sad to go to your grave without ever wondering why you were born? Who, with such a thought, would not spring from bed, eager to resume discovering the world and rejoicing to be a part of it?

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