



YOUR KINDLE NOTES FOR:

Outgrowing God: A Beginner's Guide

by Richard Dawkins

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95 Highlights

Highlight (Yellow) | Location 62

Of the major religions that survive today, Hinduism is also polytheistic, with thousands of gods.

Highlight (Yellow) | Location 80

Those three religions, Judaism, Christianity and Islam, are often grouped together as the 'Abrahamic' religions, because all three trace back to the mythical patriarch Abraham, who is also revered as the founder of the Jewish people.

Highlight (Yellow) | Location 132

'Isn't it remarkable that almost every child follows the same religion as their parents, and it always just happens to be the right religion!'

Highlight (Yellow) | Location 152

Deists don't believe in any of the thousands of named gods of history. But they believe in something a little more definite than pantheists do. They believe in a creative intelligence who invented the laws of the universe, set everything in motion at the beginning of time and space, and then sat back and did nothing more: just let everything happen according to the laws that he (it?) had laid down.

Highlight (Yellow) | Location 174

There are so many different faiths. How do you know the holy book you have been brought up with is the true one? And if all the others are wrong, what makes you think your holy book isn't wrong too?

Highlight (Yellow) | Location 196

Before writing was invented and before scientific archaeology started, word-of-mouth storytelling, with all its Chinese Whispery distortions, was the only way people learned about history. And it's terribly unreliable. As each generation of storytellers gives way to the next, the story becomes more and more garbled. Eventually, history – what actually happened – becomes lost in myth and legend.

Highlight (Yellow) | Location 213

This lack of facts about Jesus in Paul's letters makes historians wonder. Isn't it a little odd that Paul, who wanted people to worship Jesus, says almost nothing about what Jesus actually said or did?

Highlight (Yellow) | Location 248

No serious scholar today thinks the gospels were written by eye-witnesses, and all agree that even Mark, the oldest of the four gospels, was written about 35 or 40 years after the death of Jesus. Luke and Matthew derived most of their stories from Mark, plus some from a lost Greek document known as 'Q'. Everything that is in the gospels suffered from decades of word-of-mouth retelling, Chinese-Whispery distortion and exaggeration before those four texts were finally written down.

Highlight (Yellow) | Location 341

The word Matthew quoted as 'virgin' was *almah* in Isaiah's Hebrew. *Almah* can mean virgin; but it can also mean 'young woman' – rather like the English word 'maiden', which has both meanings. When Isaiah's Hebrew was translated into Greek in the version of the Old Testament called the Septuagint, which Matthew would have read, *almah* became *parthenos* – which really does mean 'virgin'. A simple translation error spawned the entire worldwide myth of the Blessed Virgin Mary, and the Roman Catholic cult of Mary as a kind of goddess, the 'Queen of Heaven'.

Highlight (Yellow) | Location 441

As I said, most, though not all, historians think Jesus existed. But that isn't saying much. 'Jesus' is the Roman form of the Hebrew name Joshua or Yeshua. It was a common name and wandering preachers were common. So it's not unlikely there was a preacher called Yeshua. There could have been many. What is not believable is that any of them turned water into wine (or mud into sparrows), walked on water (or lengthened a piece of wood), was born to a virgin or rose from the dead.

Highlight (Yellow) | Location 567

God wanted the Egyptian king, the Pharaoh, to set the Israelite slaves free. You might have thought it would be within God's powers to change Pharaoh's mind miraculously. He deliberately did the exact reverse, as we shall see. But first he put pressure on Pharaoh by sending a series of ten plagues to Egypt. Each plague was nastier than the last, until eventually Pharaoh gave up and freed the slaves. Among them were a plague of frogs, a plague of painful boils, a plague of locusts, and darkness for three days. The final plague was the clincher, and it's this one the Passover commemorates. God killed the eldest child in every Egyptian household, but 'passed over' the houses of Jews, sparing their children. The Israelites were told to paint their doorposts with lambs' blood, so the angel of death could tell which houses to avoid on the child-slaughtering spree. You'd think that God, being all-wise and all-knowing, might have been able to tell which house was which.

Highlight (Yellow) | Location 582

Poor Pharaoh. God ‘hardened his heart’ in order to make him refuse to free the Israelites, specifically so that God could do his Passover trick. God even told Moses in advance that he would make Pharaoh say no. And the blameless firstborn children of the Egyptians were all killed as a result.

Highlight (Yellow) | Location 590

Most of the apparent history in the Old Testament was written much more recently – between 600 and 500 BC, many centuries after the events they purport to describe.

Highlight (Yellow) | Location 593

Well, here’s a nice anachronism in the book of Genesis. Genesis says Abraham owned camels. But archaeological evidence shows that the camel was not domesticated until many centuries after Abraham is supposed to have died. Camels had, though, been domesticated by the time of the captivity in Babylon, which is when the book of Genesis was actually written.

Highlight (Yellow) | Location 611

If the tale of Noah were true, the places where we find each kind of animal should show a pattern of spreading out from the spot where the biblical Ark finally came to rest when the flood subsided – Mount Ararat in Turkey. Instead, what we actually see is that each continent and island has its own unique animals: marsupials in Australia, South America and New Guinea, anteaters and sloths in South America, lemurs in Madagascar. What were those people in Kentucky thinking? Did they imagine that Mr and Mrs Kangaroo came bounding out of the ark and hopped all the way to Australia without having any children on the way?

Highlight (Yellow) | Location 679

The founder was a man from New York State called Joseph Smith. He claimed that in 1823 an angel called Moroni told him where to dig up some golden plates which had ancient writing on them. Smith said he did so, and translated the writing from an old Egyptian language into English. He did this with the aid of a magic stone in a magic hat. When he looked in the hat, the stone revealed to him the meaning of the words. He published his English ‘translation’ in 1830. Weirdly, the English was not the English of his own time but the English of more than two centuries earlier, the English of the King James Bible.

Highlight (Yellow) | Location 688

You’d think Joseph Smith’s use of archaic English would have been enough to arouse people’s suspicions that he was a fake. That plus the fact that a court had earlier found him guilty of fraud. Nevertheless, he soon attracted followers, and now he has millions. Not long after Smith was murdered in 1844, his cult grew into a major new religion, under a charismatic leader called Brigham Young. Moses-like (you see how myths borrow from earlier myths), Brigham Young led his followers on a wandering pilgrimage to find a promised land. It turned out to be the state of Utah.

Highlight (Yellow) | Location 707

But it was still possible for devout Mormons to keep faith with it, for the original papyruses were supposed to have been lost when the Chicago museum that housed them caught fire in 1871. Unfortunately for Joseph Smith, not all the papyruses were destroyed. Some of them were rediscovered in 1966. By this time, scholars understood the language in which the documents were written. When they were properly translated, by both Mormon and non-Mormon scholars who actually knew the language, it turned out they were about something completely different. Nothing to do with Abraham at all. Joseph Smith's 'translation' was an elaborate, and obviously deliberate, hoax.

Highlight (Yellow) | Location 712

So, we positively know that Smith's Book of Abraham was a fake translation of manuscripts that really existed. Isn't it rather likely that his earlier 'translation' of the Book of Mormon, using a magic stone in a magic hat, and working from 'golden plates' which mysteriously 'disappeared' so that nobody else could see them, was also a fake?

Highlight (Yellow) | Location 771

Many tribal myths, including the Adam and Eve myth, have a poetic beauty. But there's one thing I unfortunately have to repeat, because too many people don't realize it: they are not true. They aren't history.

Highlight (Yellow) | Location 776

No educated person today thinks either the Adam and Eve myth or the Noah's Ark myth is literally true. Plenty of people do, however, believe in the Jesus myths (like Jesus rising from the grave), the Islamic myths (like Mohammed riding a winged horse) or the Mormon myths (like Joseph Smith translating golden tablets). Do you think they are right to do so? Is there good reason to believe those – any more than the myth of the Garden of Eden? Or Noah? Or John Frum and the cargo cults? And, if you believe the myths of your own faith, whichever faith you happen to have been brought up in, why are those myths any more likely to be true than the myths of other faiths, believed equally fervently by other people?

Highlight (Yellow) | Location 791

But wait; why was there a worldwide flood in the first place? God was angry with the sinfulness of humankind. All except Noah, who 'found favour in the eyes of the Lord'. So God decided to drown every man, woman and child, plus all the animals except one pair of each kind. Not so sweet after all?

Highlight (Yellow) | Location 801

God bet Satan that Job would go on being good and go on loving and worshipping him, even if he lost all his good fortune. God gave Satan permission to test Job by depriving him of everything.

Highlight (Yellow) | Location 828

Your father had to prove to God that he loved God so much that he was even prepared to kill you if God ordered him to do so. He had to prove to God that he loved God even more than he loved his own dear child. As soon as God saw that your father was really, really prepared to go through with it, God intervened just in time. Gotcha!

Highlight (Yellow) | Location 890

Why doesn't God seem to speak to people any more, as he did to Abraham? In parts of the Old Testament he seemingly couldn't keep his mouth shut. He seemed to speak to Moses almost every day. But nobody hears a peep from him today – or if they do, we think they need psychiatric help. Did that in itself ever make you wonder whether those old stories might not be true?

Highlight (Yellow) | Location 926

Now kill all the boys. And kill every woman who has slept with a man, but save for yourselves every girl who has never slept with a man. (Numbers 31: 17–18)

Highlight (Yellow) | Location 940

The Christianity of St Paul – and that means of almost all modern Christians – regards everybody – you, me, everyone who ever lived or ever will live – as 'born in sin'.

Highlight (Yellow) | Location 943

Paul and the other early Christians believed that we all inherit the sin of Adam, the first man, who was tempted by Eve, the first woman, after she in turn was tempted by a talking snake. As we saw in Chapter 3, their sin was to eat a fruit which God had expressly forbidden them. This terrible sin – so terrible that it provoked God to drive them out of the Garden of Eden and condemn them and their descendants to a life of hard labour and pain – is thought to be inherited by all of us.

Highlight (Yellow) | Location 951

Born in sin, the only way we can escape everlasting damnation in the fires of hell is by being baptized and 'redeemed' by the sacrificial death of Jesus. Jesus's death was a sacrifice, like an Old Testament burnt offering, to appease God and ask him to forgive all human sin, especially the 'Original Sin' of Adam in the Garden of Eden.

Highlight (Yellow) | Location 960

You might wonder why, if God wanted to forgive us, he didn't just forgive us.

Highlight (Yellow) | Location 964

God wanted to forgive the sins of humankind, most prominently including the inherited sin of Adam (who never existed). But God couldn't just forgive. That would be too simple. Too obvious. Somebody had to pay for the forgiveness, in an act of sacrifice. And humanity's sin was so colossal, it couldn't just be an ordinary act of sacrifice. Nothing would do except the torture and agonizing death of God's own son Jesus. Yes, Jesus came down ('down'?) to Earth specifically so that he could be whipped and crucified, nailed to a wooden cross to die in agony and thereby pay for the sins of humanity. Nothing less than the blood sacrifice of God himself – for Jesus is regarded as God in human form – would be enough to pay for the great burden of Sin hanging round the neck of humanity.

Highlight (Yellow) | Location 985

The doctrine of atonement, which Christians take very seriously indeed, is so deeply, deeply nasty that it deserves to be savagely ridiculed. God is supposed to be all-powerful. He created the expanding universe, galaxies hurtling away from one another. He knows the laws of science and the laws of mathematics. He invented them, after all, and he presumably even understands quantum gravity and dark matter, which is more than any scientist does. He makes the rules. The one who makes the rules has the power to forgive whomever he likes for breaking them. Yet we are asked to believe that the only way he could think of to persuade himself – himself – to forgive humans for their sins (most notably the sin of Adam, who never existed and therefore couldn't sin) was to have his son (who was also himself) tortured and crucified in the name of humanity.

Highlight (Yellow) | Location 997

God's whole plan was that Jesus had to be crucified, and so he had to be arrested. The betrayal by Judas was necessary to the plan. Why have Christians traditionally hated the name of Judas? He was only playing his part in God's plan to redeem the sins of humankind.

Highlight (Yellow) | Location 999

the entire Jewish people has suffered persecution through the centuries because Christians have blamed them for the death of Jesus.

Highlight (Yellow) | Location 1024

the biblical books were written long after the events they claim to describe. If there were any eye-witnesses, most of them would have been dead by then. But that doesn't affect the main point of this chapter. Whether or not God is a fictional character, we are entitled to choose whether he's the kind of character we'd like to love and follow,

Highlight (Yellow) | Location 1040

There are voters who would be somewhat reluctant to vote for a Catholic, or a Muslim, or a Jew. But they still would prefer any of those to an atheist. Atheists are bottom of the list, even if the atheist is highly qualified in all other ways.

Highlight (Yellow) | Location 1074

And the fascinating result was this. In weeks when there were eyes above the price list, people were more honest. The takings in the honesty box were nearly three times as great as in the 'control' weeks when the customers had only flowers 'looking' at them.

Highlight (Yellow) | Location 1101

What do you think of people who threaten children with eternal fire after they are dead? In this book I don't normally give my own answers to such questions. But I can't help making an exception here. I'd say those people are lucky there is no such place as hell, because I can't think of anybody who more richly deserves to go there.

Highlight (Yellow) | Location 1110

Non-believers can also be very generous. The top three philanthropic givers in the world, Bill Gates, Warren Buffet and George Soros, are all non-believers.

Highlight (Yellow) | Location 1150

Anybody is free to hang up the Ten Commandments privately in their own home. The constitution rightly guarantees private freedoms like that. But is it constitutional to stick them on the public wall of a state court-house? Many legal experts think not.

Highlight (Yellow) | Location 1162

First Commandment: You shall have no other gods before me.

Highlight (Yellow) | Location 1171

Second Commandment: You shall not make for yourself an idol in the form of anything in heaven above or on the earth beneath or in the waters below.

Highlight (Yellow) | Location 1179

Third Commandment: You shall not misuse the name of the Lord your God, for the Lord will not hold anyone guiltless who misuses his name.

Highlight (Yellow) | Location 1184

Fourth Commandment: Remember the Sabbath day by keeping it holy.

Highlight (Yellow) | Location 1204

Fifth Commandment: Honour your father and your mother, so that you may live long in the land the Lord your God is giving you.

Highlight (Yellow) | Location 1207

Sixth Commandment: Thou shalt not kill.

Highlight (Yellow) | Location 1235

What the Sixth Commandment originally meant was ‘Thou shalt not kill members of thine own tribe.’

Highlight (Yellow) | Location 1238

Seventh Commandment: Thou shalt not commit adultery.

Highlight (Yellow) | Location 1244

Eighth Commandment: Thou shalt not steal.

Highlight (Yellow) | Location 1246

Ninth Commandment: Thou shalt not bear false witness against thy neighbour.

Highlight (Yellow) | Location 1250

Tenth Commandment: Thou shalt not covet thy neighbour’s house, thou shalt not covet thy neighbour’s wife, nor his manservant, nor his maidservant, nor his ox, nor his ass, nor any thing that is thy neighbour’s.

Highlight (Yellow) | Location 1264

Saudi Arabia, as I write, has only just passed a law allowing women to drive. A married woman is still not allowed to open a bank account without her husband’s permission. She is not allowed out of the house unless accompanied by her husband or by a male relative – who can be a tiny male child. Just picture the scene: a grown woman, university-educated perhaps, has to ask her eight-year-old son for permission to leave the house. And he has to come with her to serve as her male ‘protector’. Those woman-hating laws are inspired by Islam.

Highlight (Yellow) | Location 1273

And that’s precisely why we shouldn’t be getting our morals, our ‘right and wrong’, our ‘do and don’t’ from the Bible. And as a matter of fact we don’t get them from the Bible. If we did, we’d still be stoning people to death for working on the sabbath. Or for worshipping the wrong gods.

Highlight (Yellow) | Location 1275

‘But’, some may say, ‘that’s just the Old Testament. Let’s get our morals from the New Testament instead.’ Well, yes, that might be a better idea. Jesus said some pretty nice things, in the Sermon on the Mount, for instance.

Highlight (Yellow) | Location 1322

That’s a favourite dodge of theologians, had you noticed? If you don’t like something in the Bible, say it’s only symbolic, it never really happened, it’s a metaphor to convey a message. And of course they get to choose which verses are metaphors and which are to be taken literally.

Highlight (Yellow) | Location 1362

If we have some independent criterion for deciding which biblical verses are good and which bad, why bother with the Bible

Highlight (Yellow) | Location 1369

Like all other animals, we humans are the product of hundreds of millions of years of evolution. Brains evolve like all other parts of the body. And that means that what we do, what we like doing, what feels right or wrong, also evolve.

Highlight (Yellow) | Location 1387

The dominant moral values of the twenty-first century, in which we are now living, are noticeably different from those of even a hundred years ago. They’re even more different from those that prevailed in the eighteenth century. Then, keeping slaves was simply what people did

Highlight (Yellow) | Location 1411

President Lincoln said this, in 1858: I will say, then, that I am not, nor ever have been, in favor of bringing about in any way the social and political equality of the white and black races;

Highlight (Yellow) | Location 1419

It’s a poor historian who would condemn Lincoln and Darwin and Huxley as racists. They were as near to being non-racist as men of their time ever got.

Highlight (Yellow) | Location 1467

Absolutists think some things just are right and some things just are wrong. No argument. Rightness or wrongness is just a fact,

Highlight (Yellow) | Location 1471

Consequentialists judge right and wrong differently. You'll have guessed from the name that they care about the consequences of an action.

Highlight (Yellow) | Location 1482

But I'm a consequentialist. I ask who suffers. You can define a fertilized egg as a human being if you like. But it doesn't have a nervous system, so it can't suffer. It doesn't know it's been aborted, feels no fear or regret.

Highlight (Yellow) | Location 1490

Yes, I agree that depriving the embryo of future life is a consequence. But since the cell doesn't know about it, and feels no pain or regret, why worry? Also, every time you refuse to have sex you are potentially depriving a future human being of the opportunity for a life.

Highlight (Yellow) | Location 1496

But if you talk about a fertilized egg as 'a particular individual person', you're implying an indivisible entity. Do you know any identical twins? They start off as one fertilized egg. Then later they split and become two individuals.

Highlight (Yellow) | Location 1522

Not 'When does it become human?' but 'When does it become capable of feeling pain and emotion?' And there is no sudden moment when that happens. It's gradual.

Highlight (Yellow) | Location 1688

Every pixel is either red, blue or green, and every pixel can be turned on or off, brightened or dimmed, under the control of the TV set's electronics.

Highlight (Yellow) | Location 1817

When we get cold, we get goosebumps. That's because our ancestors were hairy. When they got cold, each hair rose to thicken the layer of air trapped by the hairs that would keep us warm.

Highlight (Yellow) | Location 1887

A baby cheetah always inherits its genes from its parents. But we're now talking about a new baby in which one gene, a gene which affects the claws, isn't quite the same as the parental version. It changed at random. The gene has 'mutated'. The process of mutation itself is random – it is not specifically guided towards improvement. Most mutant genes, in fact, make things worse. But some – as in our example of the slightly longer claws – happen to make things better. And in that case, the animals (or plants) that possess them are more likely to survive, and pass on their genes, including the mutant ones. That's what Darwin called natural selection

Highlight (Yellow) | Location 1899

The larger the mutation, in any direction, the greater the likelihood that it will damage the animal's performance. Large mutations are bad. Small mutations approach a 50 per cent chance of being good.

Highlight (Yellow) | Location 1907

We (that is, our human ancestors) made carthorses, by choosing to breed from the largest individuals in successive generations. We made Falabellas by breeding from the smallest. Generation by generation, we made all the breeds of dogs from wolf ancestors. We made Great Danes and Irish Wolfhounds by breeding from the largest as the generations went by. We made Chihuahuas and Yorkies by breeding consistently from the smallest. Starting with the wild cabbage, which is an ordinary, nondescript wild flower, we made Brussels sprouts, cauliflowers, kale, broccoli,

Highlight (Yellow) | Location 1980

every single one of us can look back at our ancestors and make the following proud claim: not a single one of my ancestors died young. Plenty of individuals died young, but they are not the ones that became ancestors. Not a single one of your ancestors fell over a cliff, or was eaten by a lion, or died of cancer, before living long enough to have at least one child.

Highlight (Yellow) | Location 1993

An excellent seeing device like a human eye cannot spring spontaneously into existence. That would be too improbable, like throwing a hundred pennies down and getting all heads. But an excellent eye can come from a random change to a slightly less excellent eye. And that slightly less good eye can come from an even less good eye.

Highlight (Yellow) | Location 2239

If DNA is not a blueprint of a baby, what is it? It's a set of instructions for how to build a baby,

Highlight (Yellow) | Location 2399

we are likely to mistake a shadow for a burglar; we are unlikely to mistake a burglar for a shadow. We have a bias towards seeing agents, even when there aren't any. And religion is all about seeing agency all around us.

Highlight (Yellow) | Location 2457

Each bird learned a different superstitious habit, repeating whatever it happened to do before food arrived by chance. And that, it seems likely, is how our ancestors developed the habit of, say, praying, or sacrificing a goat, to cure a child of a fever. The other resemblance between Skinner's pigeons and humans is that, in different parts of the world, local peoples develop different superstitious beliefs.

Highlight (Yellow) | Location 2479

human pattern-seekers had to strike a balance between two risks: the risk of noticing a pattern when there isn't one (superstitious false positive) and the risk of failing to notice a pattern when there is one (false negative). A tendency to notice patterns was favoured by natural selection. Superstition and religious belief were a byproduct of that tendency.

Highlight (Yellow) | Location 2622

But our entire life is dominated by our dependence on other people with different skills. And the brain rule 'When in doubt, be nice' is still present in our brains. Along with other equally ancient accompanying brain rules such as 'Be prepared to be suspicious unless you have built up a relationship of trust'.

Highlight (Yellow) | Location 2653

Every time you drink a glass of water, there's a high chance you'll drink at least one molecule that passed through the bladder of Julius Caesar.

Highlight (Yellow) | Location 2656

All the water in the world is continuously being recycled by evaporation, rain, rivers and so on. Most of it is in the sea at any one time, and all the rest of the world's water gets circulated through the sea as the decades go by. The number of water molecules in a glassful is about 10 trillion trillion. The total volume of water on the planet is about 1.4 billion cubic kilometres, and that corresponds to only about 4 trillion glassfuls.

Highlight (Yellow) | Location 2661

Which is why it's safe to say you've drunk some of Julius Caesar's pee. Of course, there's nothing special about Julius Caesar. You could say the same of his friend Cleopatra. Or Jesus. Or anybody, provided there's been enough time for recycling to have taken place.

Highlight (Yellow) | Location 2665

Air is recycled in the same kind of way as water, only faster, and the same kind of calculation works here too. The number of molecules of air in a lung is hugely greater than the number of lungs in the world. You have almost certainly breathed in atoms that were breathed out by Adolf Hitler.

Highlight (Yellow) | Location 2674

According to Isaac Newton, every object in the universe is attracted to every other object by gravity. The force of the attraction is proportional to the masses of the two objects (think of mass, for the moment, as rather like weight – there is a difference, but we'll come to that in a moment) multiplied together. The cannonball is much more massive than the feather, so gravity will exert a stronger force on it. But the cannonball needs more force than the feather to accelerate it to the same velocity. The two exactly cancel out, with the result that feather and cannonball hit the ground together.

Highlight (Yellow) | Location 2690

That gives you the clue as to why cannonballs (and men and weighing machines) float around weightless in the space station. Many people think it's because they are a long way from Earth and therefore beyond the pull of Earth's gravity. That is utterly wrong. It's a very common mistake. Actually, the pull of Earth's gravity is nearly as strong in the space station as it is at sea level, because the space station is not so very far away. The reason objects in the space station are weightless is that, like the person who has jumped out of a plane sitting on the weighing machine, they are continuously falling.

Highlight (Yellow) | Location 2695

'The moon is weightless and continuously falling around the Earth?'

Highlight (Yellow) | Location 2703

Why are planets round? Gravity pulls them inwards from all directions.

Highlight (Yellow) | Location 2736

You, and the chair you sit on (the table you eat off, the solid rock you stubbed your toe on) consist almost entirely of empty space. You cannot be serious! But it's true. All matter consists of atoms, and every atom consists of a tiny nucleus orbited (for want of a better word, although it's a bit misleading) by a cloud of far tinier electrons. Between them – nothing but empty space.

Highlight (Yellow) | Location 2744

Think of an experience from your childhood. Something you remember clearly, something you can see, feel, maybe even smell, as if you were really there. After all, you really were there at the time, weren't you? How else would you remember it? But here is the bombshell: you weren't there. Not a single atom that is in your body today was there when that event took place...

Highlight (Yellow) | Location 2754

It follows from Albert Einstein's Special Theory of Relativity. If you set off in a spaceship at nearly the speed of light, and came back after your onboard calendar told you you'd been away 12 months, you would have aged only one year while all your friends back on Earth had died of old age. The world would be hundreds of years older, but you would be only one year older. Time itself on the spaceship, including all clocks and calendars on board, as well as the ageing process, would slow down as far as people on Earth were concerned. But not as far as everyone in the spaceship was concerned.

Highlight (Yellow) | Location 2766

The Copenhagen Interpretation says that some events, quantum events, haven't happened until somebody looks to see whether they have happened.

Highlight (Yellow) | Location 2777

According to the Many Worlds Interpretation, the world is continuously splitting into trillions of alternative worlds. In some of those worlds the cat is already dead. In other worlds the cat is alive. In some of those worlds I am already dead.

Highlight (Yellow) | Location 2794

The world behaves exactly as you would expect it would, if there were no supreme being, no supreme consciousness, and no supernatural. And my best judgment tells me that it's much more likely that we invented God than that God invented us.

Highlight (Yellow) | Location 2844

Darwin's and Galileo's and Wegener's intellectual courage should inspire us to go further, in the future. All those examples of apparently ridiculous propositions turning out to be true should give us new courage when we face the remaining big puzzles of existence. How did the universe itself begin? And where do the laws that govern it come from?

Highlight (Yellow) | Location 2940

Earth has to be in the Goldilocks Zone because we exist. And we couldn't exist unless our planet was in the Goldilocks Zone.

Highlight (Yellow) | Location 2942

physicists have good reason to suspect that our universe is one of many universes in a 'multiverse'.
