GOD?

Leaving Christianity

Jeff Lewis

Completely Revised & Updated Fourth Edition

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2023-09-12

Print Edition 4

Printed by LuLu.com

Published online at www.jefflewis.net/religion

This book is still dedicated to my wife, for dealing with such a big change in my worldview *after* we'd already been married, and to my daughter, for inspiring me to sort out my view on these issues to be sure that I was raising her properly.

God? Leaving Christianity

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Foreword

I was raised as a faithful, church going Catholic. I never quite agreed 100% with all the Catholic Church's teachings, but I definitely considered myself a Christian, even believing I could feel God's presence when I prayed. I continued my religious practices as I got older - I read the entire Bible, I continued going to mass throughout college and then when I moved down to Texas, and I continued to pray every night. It's not that I never had any doubts in my younger years, but religion and society give you huge incentives to ignore those doubts - the reward of Heaven and the punishment of Hell, the social stigma of doubting religion, and the fact that you're taught all these things from a very young, impressionable age by authority figures that you generally trust, and you don't want to disappoint those people. So, it took me a while to get past all of that and actually look critically at my religion. And when I finally did, although it took several years of research and intense selfreflection, I finally realized that Christianity isn't true. A few years after that, I realized it wasn't just Christianity, but that there most likely weren't any gods at all.

I'd written quite a few essays about religion during my 'deconversion' process, so I decided to put the best of them all together in one place, and I created the first edition of this book in 2010, with a few minor revisions over the next few years. Since then, I've learned more and my views have matured, so I figured maybe it was time to revisit this book and update things. For one, a lot of the newer information I've learned is simply fascinating, so I thought it would be nice to share. But for another, in my zeal to question everything I'd been taught about religion, I was perhaps a bit too eager to accept some ideas that weren't as credible as I might have believed, so this is also a chance to correct some of those issues.

In that first edition, I was trying to show the process I went through, so I included most of the essays with only very light editing. This time around, however, I tried to create more of a unified, coherent book that better reflects my current views, so I updated and rearranged things quite a bit, purged or replaced a lot of the clumsier writing and sections where my views have changed, pulled in a lot of my newer writings, and did a bit of new writing just for this book. (There is an appendix at the end of this book listing the sources I pulled from.)

Like prior editions, I tried to make the book long enough to be informative while keeping it short enough that it's not overwhelming – I have many more points and topics I've written about religion that I could have included. At the very least, I hope it shows the thought that some of us put into leaving behind Christianity.

A Brief Introduction to Non-Belief

Before getting into the meat of the book, I thought I would still include this brief introduction. Although the numbers have dropped since I wrote the first edition of this book, the USA is still a predominately religious nation. As of 2021, per a poll by the Pew Research Center¹, around 63% of the population is Christian and another 6% follows other religions (back in 2007, 78% were Christians). Around 29% of Americans belong to the group that's been dubbed 'nones', which lumps together everybody who isn't a member of a traditional religion, from the 'spiritual but not religious' to the atheists like me. But actual atheists and agnostics are still a pretty small percentage of Americans, just 4% and 5% respectively, so there are still a lot of misunderstandings. For this introduction, I'll try to answer some of the most common questions I hear regarding non-belief and dispel some of the most common myths.

Why are you mad at God?

Non-believers don't believe in any gods. That may sound obvious enough, but there are a fair number of people that just don't seem to grasp that. A lot of people seem to think that non-believers are angry with God, or that they just don't want to follow His rules. But the reality is that we just don't think that a god exists. How can you be angry with something that you don't think is real?

Why don't you believe?

Most non-believers in the USA were formerly religious, and have since shed their belief. There are many different reasons that can lead one to first begin questioning religion – the inconsistencies & contradictions of the Bible, learning about other current religions, learning about ancient religions that predated one's own, etc. However, the main problem with religion to most non-believers is simply the lack of evidence.

¹ https://www.pewresearch.org/religion/2021/12/14/about-three-in-ten-u-s-adults-are-now-religiously-unaffiliated/

This really is the biggest change in mindset from when I was religious. To many religious people (myself included when I was still Christian), faith is all important. But stop and think about this. In almost all other areas of life, we demand evidence. The more fantastic the claim being made, the stronger the evidence we demand. If your friend said they had eggs for breakfast, you'd probably believe them because that's a pretty mundane claim. But if your friend claimed to have eaten breakfast with the president, you'd probably be a bit more suspicious and demand a bit more evidence than simply taking their word for it. Why should we demand less evidence when it comes to matters of religion? To say that a specific book written a few thousand years ago by a specific culture is the divinely inspired word of an all-powerful being that created the entire universe and everything in it, is certainly an extraordinary claim.

The other problem with faith is knowing how to trust it. You may believe very strongly that you're right, but so do countless Muslims, Jews, Hindus, shamans, etc., even right down to believing that they can feel their gods' presences. How can you be so sure that your gut feeling is right and theirs is wrong?

I could go on and on about standards of evidence and the different arguments people use to support their religion, and pointing out all the reasons why nonbelievers don't find those arguments convincing (and I will later in this book). But right now, it's easier to look at it from the following perspective. There are lots of religions out there besides your own, and chances are you believe the religion you do because that's the way you were raised. But if you hadn't been raised that way, then why, out of all the possible religions in the world, do you think you've chosen the correct one? What types of reasons and evidence would it take to convince you that some other religion was true? If a Hindu's exhortation to rely on faith wouldn't convince you of the truth of Hinduism, then don't expect that a Christian's exhortation to rely on faith will convince others of the truth of Christianity.

Can you prove that God doesn't exist?

It is very, very hard to *prove* that something doesn't exist. It's much easier to demonstrate that something exists. That's why you'll often hear the term, 'burden of proof', and that it's up to people making the claim that something exists to prove it, and why non-believers say that it's up to the religious to prove that a god exists, rather than for us to prove that gods don't exist.

Look at it this way. Imagine talking to someone who believes in leprechauns. How would you prove to them that leprechauns weren't real? You could point out that there aren't any reliable sightings of leprechauns, but maybe they've heard stories from friends of people who've seen strange things in the woods. You could mention that rainbows don't have ends, so it's silly to think there might be a pot of gold at the end of one, but maybe they'd say that part of the legend is just a metaphorical moral lesson and not meant to be taken literally. They might even bring up how many people have sincerely believed in leprechauns throughout history. The point is that it's not so much that there's evidence that leprechauns don't exist, but rather that there's a complete lack of credible evidence that they do exist.

Where did everything come from?

We can study the universe, and our studies so far have revealed a long, rich history going back to the Big Bang, but that's as far as we can go, and we don't know what might have come before the Big Bang or what might have caused it. We may never know. That's the simple, honest answer.

When I was still a Christian, the question that always bothered me was, 'Why is there something rather than nothing?' The problem was, even God was a something, so saying that God created the universe still didn't answer the Big Question, since there was still the problem of where God came from in the first place. Saying that God just always existed didn't satisfy my curiosity any more than assuming that the universe itself has always existed.

Besides, there are a lot of things we don't understand, but we don't jump to the conclusion that every unanswered question must mean that a particular religion is true. This is what's known as a God of the Gaps Argument, and it doesn't hold up very well over the long run. If you use gaps in current knowledge to justify your belief in a god, then your god will just get smaller and smaller as we learn more and more and fill in the gaps.

What about your soul? What happens when we die?

Technically, atheism and agnosticism only imply doubt about deities, not the soul. Practically speaking, though, the same demand for evidence that leads most non-believers to doubt the existence of a god also leads them to doubt the existence of souls. On top of that, there's all the evidence that shows just how much the physical processes in our brains control our memories and personalities. If there are such things as souls, it makes you wonder just what they actually do.

Speaking for myself, I can say that the idea of ceasing to exist does bother me some, but that also makes life all the more precious, and gives us that much more reason to make the most of it.

On the other hand, as the saying goes (often credited apocryphally to Mark Twain), "I was dead for millions of years before I was born and it never inconvenienced me a bit."

Aren't you afraid you might be wrong?

No more so than you are. If you're Christian, just consider that Muslims think you're wrong and will end up in Hell. If you're Muslim, just consider that Christians think the same thing about you. And the Hindus think the

Christians and Muslims both have it wrong. Do you stay up at night worrying if you've picked the right religion?

Isn't life meaningless without God?

I hear this quite often, but I'm not sure I understand what people really mean by 'meaning,' or what meaning is added to life if a god did exist. When I was a Christian, I knew I was supposed to be good to other people and to worship God, but that was more of a demand than a meaning. Even if I was part of God's plan, that still just made me a pawn, and I doubted that the grand meaning of the universe was simply to be entertainment for a deity.

Let's go back to the question 'Why is there something rather than nothing?' As I already wrote, God didn't answer that question for me even when I was still a Christian, because a god is still a something. If I can't give a reason for why there's a particular god, then any god that some people believe in is just as arbitrary as the next. It could just as easily be Vishnu, Yahweh, Zeus, Quetzalcoatl, or any of the other ones. Why would the desires of any of those gods provide profound meaning to my life when the properties of those gods are arbitrary to begin with? If Loki were real, and he wanted the meaning of my life to be serving as a prop in an elaborate practical joke, am I obliged to accept that? Am I some type of puppet forced to do what this being wants me to do? Or am I an autonomous being with the capability to decide for myself what I want?

How can you be a good person without religion?

I could be a smart aleck here and ask how you could be a good person *with* religion. If you only do good deeds because you think it might get you the reward of Heaven, or you don't act bad because you want to avoid the punishment of Hell, then those are pretty selfish reasons and most people wouldn't consider your intentions to be very honorable. However, I don't think that's really why most religious people behave morally.

Empathy is innate to the vast majority of people. You don't need a holy book to tell you that hurting somebody is wrong, or that the Golden Rule is a good way to live your life. And most people don't actually derive their morals from studying scripture, anyway. For example, many southerners used the Bible to support slavery in the antebellum south. Now, most people rightly consider slavery to be a horrific institution. Nothing in the Bible has changed. You can still find the same passages that tell you how to treat your slaves, but most people use their own morality to come up with different conclusions than did the slave owners.

Why do you care so much? Why did you bother to write all of this?

Well, the noble reason would be to say that it's for a love of the truth. And honestly, that is a big part of the reason. The universe is such a grand, wondrous place, that's all the more enjoyable when you view it without a filter. Looking back on when I was a Christian, it was almost like I was experiencing the world through a haze, and I do want to share that clear sightedness with others.

There are more pragmatic reasons, though. Thomas Jefferson once wrote, "it does me no injury for my neighbor to say there are twenty gods or no God. It neither picks my pocket nor breaks my leg." If people actually kept their religion private, I probably wouldn't be as motivated to write this. However, when people use religion as an excuse to bomb clinics, fly airplanes into buildings, interfere with school curricula, discriminate against LGBTQ+ folks, treat women as inferior, etc., then I feel obligated to speak out.

There's also the fact that non-believers are still deeply mistrusted in this country. I came to my atheism through honest inquiry. There's nothing dishonest or sinister about my worldview – it's simply the way I think the universe is. I could no sooner *choose* to believe in a god than you could *choose* to believe in fairies. I don't want to live in a society where people question my integrity simply because I believe in one less thing than they do.

Emotional Reasons

Why a Christian Should Feel Okay to Examine Their Religion

The first topic I'll address wasn't actually the first issue that made me start to question my religion, but it makes for a good starting point for this book (now that the brief intro is out of the way). And that is, why was I even a Christian to begin with? Out of all the religions in the world, why choose Christianity in particular? In other words, if I had been born to non-Christian parents in a non-Christian country, and raised to believe in a different religion, is there anything about Christianity that would convince me to convert to it?

Converting others is an important aspect of Christianity. Not only did Jesus tell his followers to do so, but if you believe that acceptance of Christ is the only way to be saved and you actually care about other people, then you should try to convince them to accept Christ so that they can be saved, too. But part of that means expecting people of other religions to question their assumptions and beliefs. If you expect that of other people, it only seems fair for Christians to do the same thing.

If you truly believe that Christianity is correct, and you expect people of other religions to be convinced to convert to Christianity, abandoning whatever religion it was they practiced beforehand, then there must be some compelling reasons. There shouldn't be any danger for a Christian to question their religion and study it critically, since that's exactly what's expected of non-Christians. If these compelling reasons for the truth of Christianity exist, then critical study should only provide a Christian with further evidence that reinforces their belief.

I'm bringing this up as one of the first topics in this book, because it points out that when given the choice between two options, one Christian and one non-Christian, no special concessions should have to be made for the Christian argument. You should be able to approach the choice with an open mind, and choose the option that seems more likely – not approach the choice with a preconception that the Christian option is almost surely right, and put a huge burden of proof on the other option, or to go through a huge amount of rationalization or mental gymnastics to maintain that the Christian option is

correct. If you need to approach the choice "with blinders on," then that argument for Christianity isn't very compelling.

Let me specifically point out that *faith* is not a compelling reason. How many people in religions besides Christianity have just as strong a faith? How many people in those other religions have had spiritual experiences that they truly believed was evidence of their religion? I've watched documentaries of shamans driving themselves into trance-like states, where they're convinced that they're communicating with their gods. What makes their experience worth any less than a Christian supposedly sensing the Holy Spirit?

Where Did Everything Come From

Science does a very good job of explaining the history of the universe back to the Big Bang (which I'll cover more in a subsequent section), but as of right now, anything beyond that is speculation. But whatever might have caused the Big Bang – if anything – the big question is, 'Why is there something rather than nothing?'

When I first heard that question when I was younger, it left me lying awake some nights, even though I was still a faithful Christian back then, because even God is still a something. So, if you propose a god as the cause of the Big Bang, you've just shifted the question one step back. You still have to explain, 'Why God,' and even further, 'Why my God, and not some other religion's god?'

When I was still a Christian, I did believe that the Christian God was the ultimate cause of the universe, whether through the Big Bang, or some precursor that caused the Big Bang (as many Christians still do). I figured that once we got back to a certain point, God did the creating. And that's where the problem of 'Why God?' reared its existential-angst-inducing head.

If we say that everything that exists had to have a cause, then it logically follows that deities would also require a cause. If you want to make an exception for deities, that's just special pleading. How do you justify that exception, and why not just grant that exception to the universe itself (or its precursor)? The philosopher Bertrand Russell summed up this sentiment quite nicely, "It is exactly of the same nature as the Hindu's view, that the world rested upon an elephant and the elephant rested upon a tortoise; and when they said, 'How about the tortoise?' the Indian said, 'Suppose we change the subject.'"

Even from the 'sniff test', gods don't offer a satisfying answer to this question. The only conscious entities we know of came about from ages of biological evolution, preceded by ages of stellar evolution to even make an environment suitable for the development of life. It just seems wildly implausible to imply that the very first thing to exist already had thoughts, feelings, emotions, personality, and omnipotence, and that this being just *was*, fully formed, with no development, out of nothing.

If I dwell on this question too long, I still get that existential angst. There are basically only a few possibilities – the universe/multiverse/creator began with some uncaused cause, the universe/multiverse/creator existed for eternity into the past, the universe/multiverse/creator exist in a closed form without beginning or end boundaries, or the multiverse/creator exist outside of time and concepts like 'before' don't apply. Frankly, none of the possibilities are easy to wrap your head around, god or no god.

But in any case, calling God 'the uncaused cause' is just wordplay, and doesn't explain anything. It certainly doesn't explain why the uncaused cause has the properties it does. God is not a philosophically satisfying answer to the question of why there's something rather than nothing.

Meaning of Life

This is a topic philosophers have pondered for generations, so I'm certainly not going to write the last word. But as I wrote in the brief intro, I really don't understand what type of *profound* meaning a god would add to my life. Worshipping God and following his commands is mere obedience, not purpose. And even if God has a plan for us, does that really create any deep meaning to life? As I said, if we can't explain where a god came from, why that god exists in the first place, or why that god has the particular properties it does, what meaning does it add to our existence to say that we're supposed to serve that god and follow its wishes?

At the risk of playing into the narrative of certain folks who criticize atheists, the realization that my life lacked any type of externally applied cosmic meaning came with a profound sense of liberation.

I've written elsewhere about why I prefer being an adult to being a child. As an adult, I have freedom and agency. I run my own life now. I decide what I want to do for the day, or if I'm allowed to go hang out with friends this weekend, or where to go for vacation, or that maybe it really is about time to go mow the lawn. It's not that I had a bad childhood or overbearing parents (I actually had a great childhood and still have great parents), but there's a certain pride and satisfaction that comes in controlling your own life, and in taking full responsibility for your own actions, both successes and failures.

I felt a similar sense of agency when I became an atheist and realized there was no cosmic puppeteer pulling the strings on my life and controlling my actions and destiny. I'm not claustrophobic in any traditional sense, but the thought of an ever-present power looming over my life and controlling everything makes me understand a bit of that feeling of being confined. It's stifling. When people say trite phrases like 'Everything happens for a reason',

that is not at all comforting to me. It conjures that sensation of oppressiveness – that some other entity is controlling my life instead of me, and that I'm just a pawn or a marionette, at the mercy of the whims of this entity or cosmic force.

Of course, I recognize that many, many things are beyond my control. I'm just one person in a giant world in a giant universe. But it's much more comforting to know that the things beyond my control aren't the results of some master manipulator, but just luck in an indifferent universe.

So, I'm free to apply any personal meaning I want to my life. But frankly, I don't get too philosophical about it. It doesn't change all the very real effects my actions have on those around me. I try to be a good person. I try to be a good husband, father, son, brother, and friend. I find satisfaction in my job, in doing renovations and chores around the house, and even in things like writing essays and this book. I don't feel the need to search for any deeper meaning. While I obviously don't believe the Bible was divinely inspired, I still find wisdom in Ecclesiastes 2:24, "There is nothing better for mortals than to eat and drink, and find enjoyment in their toil."

Source of Morality

How would you determine if the god you worshipped was good or evil? You'd have to evaluate it based on some standard of good and evil independent of the god. If you used the god's own definitions, the whole exercise is kind of pointless and circular. If the god said that it wanted you to torture innocent infants, it wouldn't suddenly make that act good just because the god wished for it. And if you're saying, well, my God would never do that because my God is good, you're implicitly admitting that there's an independent standard of good that your God *meets*, not that your God *defines*.

If you did actually obey and tortured babies, you'd merely be demonstrating your obedience or subservience, not morality. And if you refused, even though the god may have the power to punish you for your disobedience, you'd be taking the moral high road. Might does not make right. We judge whether or not an action is moral not by whether or not a god commanded it, but by the effect it has on others. Right and wrong don't come from divine fiat.

I'm not saying anything at all new here. This type of reasoning goes back at least as far as the ancient Greeks a few centuries before Christianity. Plato summed it up around 400 BC through his character Euthyphro, in what's come to be known for that character as the Euthyphro dilemma. Euthyphro posed the question of "whether the gods love the pious because it is the pious, or whether the pious is pious only because it is loved by the gods." At most, gods are divine enforcers of whatever morality they hold, but not the final arbiters of what is right and wrong.

A more modern philosopher, Bertrand Russel, had this to say on the issue in his famous essay, *Why I Am Not a Christian*:

...if you are quite sure there is a difference between right and wrong, you are then in this situation: Is that difference due to God's fiat or is it not? If it is due to God's fiat, then for God Himself there is no difference between right and wrong, and it is no longer a significant statement to say that God is good. If you are going to say, as theologians do, that God is good, you must then say that right and wrong have some meaning which is independent of God's fiat, because God's fiats are good and not good independently of the mere fact that he made them. If you are going to say that, you will then have to say that it is not only through God that right and wrong came into being, but that they are in their essence logically anterior to God.

Although it means more work, true morality is something we have to figure out for ourselves. There are whole branches of philosophy and ethics dealing with this that I won't delve into here. But in short, it's a combination of our instinctual empathy, fairness, and other such feelings as a cooperative social species and then cultural influences and philosophical reasoning on top of that.

A decent rule of thumb, if perhaps a tad simplistic, would be to follow the Golden Rule – doing for other people what you'd like them to do for you. Throughout the entire world, there are people that live by this philosophy, from various different religions and even those with no religion. You don't need to believe in any gods, let alone the Christian God in particular, to be considered moral under this definition.

There was a study conducted by Gregory S. $Paul^2$ that examined the relationship between the number of people in a nation that believe in and worship a creator, versus different problems that that nation faces. To quote the study:

In general, higher rates of belief in and worship of a creator correlate with higher rates of homicide, juvenile and early adult mortality, STD infection rates, teen pregnancy and abortion in the prosperous democracies... The United States is almost always the most dysfunctional of the developing democracies, sometimes spectacularly so, and almost always scores poorly. The view of the

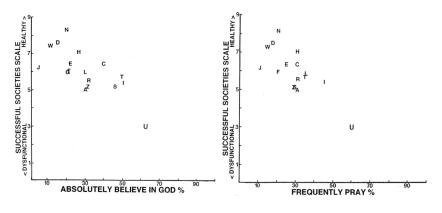
² Paul, Gregory S. (2005). Cross-National Correlations of Quantifiable Societal Health with Popular Religiosity and Secularism in the Prosperous Democracies. *Journal of Religion & Society* (Vol. 7). Retrieved April 2006, from http://moses.creighton.edu/JRS/2005/2005-11.html

U.S. as a 'shining city on the hill' to the rest of the world is falsified when it comes to basic measures of societal health.

Statistics can be taken many different ways, and correlation is not causation, but this study and others like it show that the more godless nations are not doing any worse than the religious nations in terms of societal health, and in fact could actually be considered to be doing better.

In fairness, based on other studies I've seen, it does seem like societal health might drive religiosity more than vice versa. In other words, when things are bad, people look to religion for comfort, but when things are good, people don't have that same desire. But I also suspect that there's a fair amount of a feedback cycle from religion reinforcing those bad conditions.

At any rate, the Paul study still shows that religion does not necessarily lead to higher morality, and abandoning religion certainly doesn't lead to the moral collapse of society.



ABOVE: Figure from the Paul study

Remaining Christian to Avoid Hell

One of the biggest emotional reasons, and one which would have the most dire consequences if the God of the Bible existed, is the fear of eternal damnation to Hell. This is a very hard reason to argue against logically, since it's instilled into most Christians from the time of early childhood, and because the potential outcome carries such high stakes. This particular emotional obstacle was the hardest for me to overcome, personally. However, looking at it logically, if Christianity is false, then this is an empty threat.

And Christianity isn't the only religion with some type of punishment in the afterlife. To quote a humorous but insightful line from the Simpsons, "...what if we picked the wrong religion? Every week we're just making God madder and madder." So, if the threat of eternal damnation is what's inspiring you to

remain religious, and considering that other religions carry similar threats, perhaps it would be a good idea to look at the other reasons that you've chosen that religion, so that you can be really sure that you've chosen the right one.

(This is sometimes referred to as the "avoiding the wrong Hell" problem. I'll also address this topic a bit more in the section on Pascal's Wager.)

The Bible

Realizing the Bible wasn't divinely inspired was one of the major events leading to my abandonment of Christianity. From my own time as a Christian, I realize how hard it can be to look at the Bible critically and objectively. But now, as an outsider, it seems exactly like the type of collection of stories that would develop organically over generations within a bronze age to iron age culture, and nothing at all like a unified, inerrant work inspired by an actual God. There are all types of indications and clues within the Bible itself of how it developed over the generations. The writers' very concept of God changed from section to section. The early parts in Genesis seem like just-so stories that obviously don't match history on a literal level, and later parts like Exodus and the conquest of the Holy Land don't match archaeological evidence. And on top of all that, there are some stories that are just absurd at face value. I'll look at various issues with the Bible in this chapter.

Bible Translations

The more I learned about the Bible, the more I appreciated how the translation can have a significant effect on the meaning. Without being able to understand ancient Greek, Hebrew, or Aramaic, most of us are reliant on translators giving us accurate translations. Unfortunately, not all translations are of the same caliber.

First, there's the issue of what to translate to begin with. It shouldn't come as a surprise to anyone that we no longer have any of the original versions of any books of the Bible. In fact, for some books, even if we had a time machine, it would be difficult to pick an 'original' version. As I'll describe in the next section of this chapter, many of the books of the Bible developed over generations, going through multiple rounds of editing before they became the canonical versions we're familiar with. And some of the stories themselves go back even further, such as Noah's flood being a variation of the Mesopotamian Flood Myth, which originated at least 1000 years before the book of Genesis. And then even once the books did arrive at their more or less canonical form, everything in the ancient world had to be copied by hand, and scribes made mistakes. For all of the books, there are numerous copies in existence, and none of the copies match exactly. So, the translators have to decide on how to combine all the different copies to come up with a text that most closely resembles the 'original'.

And then, even once a text is agreed upon to translate, there's the question of how to accomplish the translation. Languages are not the same as math. They're imprecise, with ambiguities and nuance, double meanings and puns. And different languages have their own nuances. Anyone who's bilingual has known the difficulty of trying to translate directly from one language to another. Sometimes it's easy enough, but other times it's simply impossible to translate the full meaning of a statement without a bunch of additional explanation.

And then, unfortunately, there's the motivation of the translators. For something with as much cultural impact as the Bible, people are going to approach it with different preconceptions. And sometimes, people will let those preconceptions cloud their interpretation. A cautionary example is the New International Version (NIV). It was a project of evangelical Christians who had already decided that the Bible was inerrant, which influenced the way they decided to translate certain passages. To quote the famed New Testament scholar, N.T. Wright:

> When the New International Version was published in 1980, I was one of those who hailed it with delight. I believed its own claim about itself, that it was determined to translate exactly what was there, and inject no extra paraphrasing or interpretative glosses.... Disillusionment set in over the next two years, as I lectured verse by verse through several of Paul's letters, not least Galatians and Romans. Again and again, with the Greek text in front of me and the NIV beside it, I discovered that the translators had another principle, considerably higher than the stated one: to make sure that Paul should say what the broadly Protestant and evangelical tradition said he said.... [I]f a church only, or mainly, relies on the NIV it will, quite simply, never understand what Paul was talking about.

Let's take a look at a specific example, which comes from another biblical scholar, Hector Avalos, and his book, *The End of Biblical Studies*. Avalos discussed the passage in Genesis 2:18-19. Here are three popular translations of that passage. Pay close attention to the timing of the events described (I've put the relevant words in bold).

From the New International Version (NIV):

18 The LORD God said, "It is not good for the man to be alone. I will make a helper suitable for him."

19 Now the LORD God **had formed** out of the ground all the wild animals and all the birds in the sky. He brought them to the man to

see what he would name them; and whatever the man called each living creature, that was its name.

From the King James Version (KJV):

18 And the LORD God said, It is not good that the man should be alone; I will make him an help meet for him.

19 And out of the ground the LORD God **formed** every beast of the field, and every fowl of the air; and brought them unto Adam to see what he would call them: and whatsoever Adam called every living creature, that was the name thereof.

From the New Revised Standard Version, Updated Edition (NRSVUE):

18 Then the Lord God said, "It is not good that the man should be alone; I will make him a helper as his partner." 19 **So** out of the ground the Lord God **formed** every animal of the field and every bird of the air and brought them to the man to see what he would call them, and whatever the man called every living creature, that was its name.

In the NIV translation, the use of the tense 'had formed' in verse 19 makes the timing a bit ambiguous. It's not clear whether God created the animals before or after he created Adam. The KJV definitely seems to imply that the creation of the animals came after Adam. And in the NRSVUE translation, especially using the transition of 'So', it's quite obvious that Adam came first. But the NRSVUE translation presents a contradiction with the creation story presented in the first chapter of Genesis, where animals and birds were created before humans. Something as seemingly minor as verb tense can have major implications for the varying interpretations of the Bible.

Here's what Avalos had to say about the issue:

However, when speaking of the origin of the human male in verse 7, the NIV translates as a simple past tense (formed) the same Hebrew form of the verb (yatzar; ינָער) found in verse 19. Since the Hebrew shows no difference in the form of the verb, the inconsistency in the NIV's translation seems solely motivated by an attempt at nullifying the contradiction.

So, in this example, Avalos confirms the same thing N.T. Wright complained about. It seems the NIV has translated the same word in two different ways, for no apparent reason other than trying to hide a contradiction.

So, what translation should we use? There does seem to be one translation recommended more than others by serious biblical scholars, the New Revised Standard Version (NRSV) or one of its more recent updates (such as the

NRSVUE). I've read and respect Bart Ehrman, and according to the Endorsements section of the NRSV he said, "In my opinion, the New Revised Standard Version is without peer as the best available Bible translation, for both readability and accuracy." Bruce Metzger, who was intimately involved in the creation of the NRSV, of course recommends it. And for implicit recommendations, the New Oxford Annotated Bible, the premier English study Bible, uses the NRSV for its translation, as do most articles I find by serious scholars. So, unless otherwise noted, I will be using the NRSV translation throughout this book, and it's the translation I would recommend if you plan to read the Bible on your own time. (In fact, I would specifically recommend the New Oxford Annotated Bible for all of the additional commentary and notes, which I'll be quoting a few times throughout this book.)

I should probably mention the King James Version (KJV) specifically, since it is the most famous of all English translations. Unfortunately, it has its problems. There were not as many early manuscripts available at the time it was translated, so it's not a translation of the current best guess of the 'original' versions of all the books. Some sections were translated incorrectly. And it's written in an archaic form of English that makes it more difficult for the modern reader to understand. It is rather pretty, at least. And since the translation was done so long ago, it's now in the public domain, so you can quote it to your heart's content without any fear of copyright infringement.

Critical Analysis

The Bible is not a unified, coherent whole. Each book has its own history, its own writers, its own perspective. Even within individual books, there are often multiple sources and a history of editing, and these various authors typically aren't the same authors that were traditionally credited to each book.

The Society of Biblical Literature has created a series of "essays that answer significant and broad questions about biblical studies"³. One of these, *How Was the Bible Formed* ⁴, contains the following brief summary of modern ideas and methods of biblical scholarship to determine how the Bible was written (which I'll note, is very similar to the background given in the New Oxford Annotated Bible and from most other respected biblical scholars that I've read):

³ https://www.bibleodyssey.org/

⁴ https://www.bibleodyssey.org/bible-basics/how-was-the-bible-formed/

The Bible

With the dawn of the modern era, however, scholars began to propose other models for the Hebrew Bible's formation in light of newer reading methods and the textual details they revealed. Scholars in classical studies had developed particular ways of analyzing ancient Greek and Roman literature in order to determine how those texts were composed, when they were written, how they were edited, and what situations brought them about. As early as the 17th century, biblical scholars began to adopt these methods and apply them to the Hebrew Bible. Their analyses first took note of obvious issues in the flow of pentateuchal stories [those stories in the first five books of the Bible] —things like the repetition of a story, multiple introductions or changes in writing style and grammar within a story, or interruptions in plot.

Instead of attempting to resolve these narrative hiccups by maintaining Mosaic authorship, modern scholars saw these bumps as clues to a different model for the Hebrew Bible's composition. This newer model understood the Bible to be the result of an extended writing, editing, and compiling process that brought individual traditions together into larger books over time. These insights were further confirmed by the increase of archaeological data and a growing understanding of how other cultures recorded, edited, and preserved their important texts. Like these other texts, the Bible is likely not the work of prominent individuals. Rather, the Bible is the product of generations of authors and editors who wrote, edited, and supplemented these books across Israelite, Judean, and Jewish history.

This field is broadly known as biblical criticism, not in the sense of trying to criticize biblical stories, but for using critical analysis to try to understand the Bible.

One of the early and still well-known ideas in this field was the documentary hypothesis, concerning who wrote the first five books of the Bible – Genesis, Exodus, Leviticus, Numbers, and Deuteronomy, also known as the Torah or the Pentateuch. While the traditional view is that Moses wrote these books, Moses almost certainly didn't write them. (Moses may not even be a real person.)

By looking at the types of details described in the above passage from the Society of Biblical Literature, it seems that there were four major contributions to these books – the Yahwist (or Jahwist, per German spelling), Elohist, Deuteronomist, and Priestly sources, often abbreviated by their initials, J, E, D, and P. The Yahwist and Elohist sources are named for the term for God preferred in each one – Yahweh in the Yahwist source (usually translated as "Lord" in English translations), and Elohim in the Elohist source (usually translated as "God"). The Priestly source is named for its focus on

priestly matters, while the Deuteronomist source is so named because, among the books of the Pentateuch, it's found only in Deuteronomy (it's also found in the Deuteronomistic history of Joshua, Judges, Samuel, Kings, and the Book of Jeremiah).

One of the clear examples of these different sources, already hinted at in the section on Biblical translations, is the two different creation accounts in the first three chapters of Genesis. The first, the six day creation account from Genesis 1:1 to 2:3, comes from the Elohist source. The second, the Garden of Eden version from Genesis 2:4 to 3:24, comes from the Yahwist source. Of course, it's not merely that they use different names for God, but that all of the details are completely different between the two versions, from the events and order of creation, to the nature of God, humanity, and the creation. Let me quote another essay from the Society of Biblical Literature, *What Is Source Criticism*?⁵ (which also includes a bit about Noah's flood):

Source criticism entails three steps: determining the separate elements that make up a text, reconstructing the sources, and dating them. The first two steps involve taking note of three features within a text: doublets and repetitions, contradictions and tensions, and differences of vocabulary and style. The leading examples are the creation accounts in Gen 1-3 and the flood story in Gen 6-9. In Gen 1-3, two separate accounts of creation (doublets) have been juxtaposed in Gen 1:1-2:3 and Gen 2:4b-3:24, with Gen 2:4a as a linking verse. (The a and b refer to half verses.) The most obvious tension between them is the order of creation where humans are created last and as a group in Gen 1:26-27 but a man and a woman separately in Genesis 2, with plants (the garden) and animals between them. In the flood story, two versions have been intertwined. Doublets are apparent, as in the two sets of reasons for the flood (Gen 6:6-8 vs. Gen 6:11-13). One of the most obvious contradictions concerns whether Noah is to bring one pair of every kind of animal (Gen 6:19) or seven pairs of clean animals and one pair of unclean (Gen 7:2). Such differences in content are reinforced by different styles and sets of vocabulary, including the two distinct names for god-Yahweh and Elohim.

The original version of the documentary hypothesis proposed that these four sources came from four different documents, hence the name documentary, each one written by a different author, and even with proposed dates for when each of these documents were written. But in more recent years, the four different sources are thought of better as different traditions or schools, which themselves were drawing from even older traditions.

⁵ https://www.bibleodyssey.org/bible-basics/what-is-source-criticism/

The Bible

The consensus seems to be that some editor or series of editors combined the stories from all these various traditions into the combined version that we're now familiar with sometime around the Babylonian exile (586 to 538 BC – the biblical version of the events of the exile is described in the final two chapters of 2 Kings and a few other early books of the Bible). This person or group is also known by the term, redactor, and so often referred to as R. To quote the New Oxford Annotated Bible, after noting that much of the source material that the redactor(s) drew from has been lost to history:

Without access to this lost material, it is impossible to suggest in detail how and why the redactor(s), R, functioned in a particular way. It is sufficient to notice that in contrast to modern editing, which is fundamentally interested in developing a single viewpoint, the redaction of the Torah, like the editing of other ancient works, was not interested in creating a purely consistent, singular perspective but incorporated a variety of voices and perspectives and wished to preserve them despite their repetitions and contradictions.

So, the Bible is far from containing a single, unified message inspired by one source. It drew from multiple different traditions with different stories and different theological views, and combined these different traditions into the books we have now.

The Polytheistic Origins of Yahweh

Let's get the name out of the way, first. As discussed above, Yahweh is one of the terms for God in the Bible, and tends to be thought of as his name rather than a title. In Hebrew, it is represented by the four letters, אָהָה, known more formally as the Tetragrammaton. Back in the Middle Ages, some Europeans translated this to JHVH, which is where Jehovah comes from. But most modern scholars prefer YHWH, which then gets vowels added to make Yahweh.

While most Christians and Jews today think of Yahweh of the Bible as the one and only God, this wasn't always the case. Archaeological finds and other clues reveal the way Yahweh and the scriptures about him have developed over the generations, from one god among many in Canaanite polytheism, to the sole monotheistic God of later Judaism. That's the type of thing you'd expect if gods were cultural inventions and were modified over the generations by the cultures telling their stories. It's not at all the type of thing you'd expect if Yahweh actually was the one true God and creator of the universe and everything in it.

Biblical Clues

There are a lot of hints of Judaism's polytheistic origins throughout the Bible, from all the times God refers to 'we' and 'our' in Genesis, to the way the First

Commandment demands that "you shall have no other gods before me" rather than claim that Yahweh is the only god. But one of the most obvious is Deuteronomy 32:8–9:

8 When the Most High[b] apportioned the nations, when he divided humankind, he fixed the boundaries of the peoples according to the number of the gods;[c]9 the Lord's own portion was his people, Jacob his allotted share.

The footnote [b] clarifies that 'Most High' is the "Traditional rendering of Heb Elyon."

There's another version from one of the Dead Sea Scrolls (i.e. not canonical) that's even more explicit:

When Elyon divided the nations, when he separated the sons of Adam, he established the borders of the nations according to the number of the sons of the gods. Yahweh's portion was his people, [Israel] his allotted inheritance.

The ancient Israelites believed that El, or Elyon, was the primary god, and that each of his sons received their own region of the world to rule over. Yahweh, being one of El's sons, received Israel as his share, and so that is why he called Israel "his people."

As the religion morphed over the generations, particularly with the switch to full monotheism following the Babylonian exile (which if you'll recall from above, is also when the redactor(s) did much of the editing to combine the different traditions of J, E, D, and P into the Pentateuch), there's only so much editing the scribes could do to the various stories. Even as Yahweh took on the role of the creator god of the entire world, the scriptures retained the language about Israel being his chosen people (I'm guessing the fact that Israelite scribes were editing Israelite scriptures had a little bit to do with the Israelites remaining the chosen people).

Mesha Stele

Let's move on to archaeological evidence and take a look at the Mesha Stele, dating to around 840 BC, named for King Mesha of Moab who commissioned it, and the corresponding biblical story from 2 Kings 3. The Mesha Stele overlaps quite a bit with the biblical story, but told from the Moabite point of view, and is actually older than 2 Kings. The story of the discovery, destruction, and subsequent restoration of the Mesha Stele is a fascinating story on its own, so I'd encourage you to look it up if you're interested.



ABOVE: The dark portions are what survives of the actual Mesha Stele – luckily an imprint was made before it was shattered to restore the lighter portions

One of the first interesting things about this stele is how similar the language is to ancient Hebrew. Quoting an article from the newspaper, Haaretz⁶:

"They are closer than French and Spanish are," explains Andre Lemaire, a philologist and historian who teaches at the Ecole Pratique des Hautes Etudes in Paris. "We hesitate whether to call them two distinct languages or just dialects."

⁶ https://www.haaretz.com/archaeology/2018-09-13/ty-articlemagazine/.premium/what-yahwehs-first-appearance-in-history-tells-usabout-early-judaism/0000017f-f0a3-df98-a5ff-f3affe360000

Keep in mind the story from the Bible, how Abraham, and his sons Isaac and Jacob were the patriarchs of the Israelites, originating in the land of Ur. They and then their descendants went on to Egypt, then the slavery, then the Exodus, then the 40 years wandering the desert, and finally the conquest of the Promised Land, as outside invaders conquering and displacing the former inhabitants. But this remarkable similarity in language implies that the Israelites weren't outside invaders at all, but that they came from the same broader culture as the Moabites (along with other nearby ancient Near East cultures). Even the practices described within the Mesha Stele are similar to ancient Israelite practices.

Of course, King Mesha credits his god, Chemosh, with his victory over the Israelites. What's interesting is that even the Bible implies in 2 Kings 3:27 that Mesha's sacrifice to Chemosh at the battle at Kir-hareseth turned the battle in the Moabites' favor – a tacit acknowledgement of the Israelite's belief in Chemosh and his power:

Then he took his firstborn son who was to succeed him and offered him as a burnt offering on the wall. And great wrath came upon Israel, so they withdrew from him and returned to their own land.

It's been suggested that the biblical account originally mentioned Chemosh by name, but that this was edited out later when the Israelites transitioned to monotheism.

Here's one of the passages from the Mesha Stele:

And the men of Gad lived in the land of Ataroth from ancient times, and the king of Israel built Ataroth for himself, and I fought against the city, and I captured, and I killed all the people from the city as a sacrifice for Kemoš [Chemosh] and for Moab, and I brought back the fire-hearth of [Daudoh] from there, and I hauled it before the face of Kemoš in Kerioth, and I made the men of Sharon live there, as well as the men of Maharith.

There's a bit of debate over what Daudoh (DWDH) is supposed to represent, but many believe it was another god besides Yahweh who was being worshipped in that Israelite city – indicating that the Israelites were still polytheistic at the time.

Another interesting passage is this one:

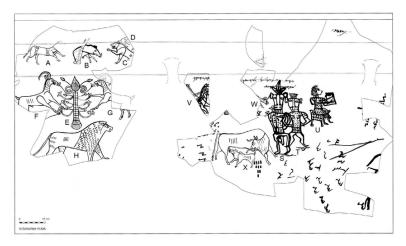
And Kemoš said to me: "Go, take Nebo from Israel!" And I went in the night, and I fought against it from the break of dawn until noon, and I took it, and I killed its whole population, seven thousand male citizens and aliens, female citizens and aliens, and servant girls; for I had put it to the ban of Aštar Kemoš. And from there, I took the vessels of YHWH, and I hauled them before the face of Kemoš.

The Bible

The interesting thing about this passage is that according to the supposed history of Israel as told in the Bible, the Temple of Jerusalem had been built by that time, and all worship of Yahweh was centralized to the Temple. Nobody was offering sacrifices or performing other ceremonies to Yahweh in any other temples, and they certainly didn't have any other 'vessels of YHWH' akin to the Ark of the Covenant. But this passage from the stele shows that Israelites still were in fact worshipping Yahweh in their own local temples with their own vessels. It contradicts the story told in the Bible.

Kuntillet Ajrud Inscriptions

The Kuntillet Ajrud archaeological site dates to some time around the 8th century, BC, and the building was most likely an Israelite state-sponsored project. Archaeologists have found numerous inscriptions and drawings at the site, including mentions of El, Yahweh, Ba'al, and the goddess, Asherah.



ABOVE: A projection drawing of Pithos A, which includes the wording, "I have blessed you by YHWH of Samaria and to [his] Asherata."

One of these inscriptions (on Pithos A) includes:

I have blessed you by YHWH of Samaria and to [his] Asherata.

While another (on Pithos B) includes the similar but slightly different:

I have blessed you by YHWH of Teman and [his] Asherata.

This reveals that at the time, the Israelites believed that Yahweh had a wife or consort, the goddess Asherat. And it should be noted that those two inscriptions weren't isolated oddities – there were plenty of other artifacts from the site that included Yahweh of Samaria, Yahweh of Temen, or Asherat.

The separate mentions of a Yahweh of Samaria and a Yahweh of Teman show, at the very least, and as already stated above for the Mesha Stele, that the worship of Yahweh had not yet been centralized to the Temple of Jerusalem like the Bible story states. But, according to a paper by Nadav Na'aman⁷, the author believes these different Yahwehs actually represent different regional deities with "distinct cultic vessels, rituals and ceremonies." The Yahweh of Samaria was only concerned with Samaria, while the Yahweh of Teman was concerned only with Teman. And further, a certain amount of the Deuteronomistic influence in the Bible was trying to bring these disparate religions and customs together into a unified religion for all of Israel and Judah.

I'll add a quick note, that another inscription contains what's likely a version of the story of Moses and the Exodus, but with "marked differences compared to the canonical biblical story, confirming the assumption of scholars that biblical traditions developed gradually over many years."

Examples of Textual Issues within the Bible

Let me give a few more examples of textual issues within the Bible that further illustrate how it was the result of combining different sources and of development over time.

Goliath

The story of David and Goliath is iconic. While the story is best known from 1 Samuel 17, there's a verse in 2 Samuel 21:19 which states:

Then there was another battle with the Philistines at Gob; and Elhanan son of Jaare-oregim, the Bethlehemite, killed Goliath the Gittite, the shaft of whose spear was like a weaver's beam.

I doubt there were two different Philistines named Goliath who also happened to have spears with shafts "like a weaver's beam." And I doubt that a scribe would have accidentally attributed a story about Israel's most famous king to a much more obscure character. Rather, it seems far more likely this story was originally about Elhanan and was later attributed to the more famous David (the same way pithy sayings in the modern day get attributed to Einstein, Mark Twain, and other famous people who didn't actually say them).

The description of Goliath also seems to have changed over the years. To quote Wikipedia:

⁷ https://www.academia.edu/11659353/The_Inscriptions_of_Kuntillet_Ajrud _Through_the_Lens_of_Historical_Research_UF_43_2011_299_324

The Bible

Goliath's stature as described in various ancient manuscripts varies: the oldest manuscripts, the Dead Sea Scrolls text of Samuel, the 1stcentury historian Josephus, and the 4th-century Septuagint manuscripts, all give his height as "four cubits and a span" (6 feet 9 inches or 2.06 metres), whereas the Masoretic Text gives this as "six cubits and a span" (9 feet 9 inches or 2.97 metres).

The taller reading probably arose through the error of a scribe whose eye was drawn by the number "six hundred" in verse 17:7. A number of other scholars suggest it simply grew as it was being repeated.

And then there's the matter of how Goliath was actually killed. The famous scene from 1 Samuel 17 verses 49 and 50 is that David killed Goliath with a stone from his sling. But the very next verse, 51, states:

Then David ran and stood over the Philistine; he grasped his sword, drew it out of its sheath, and killed him; then he cut off his head with it.

It seems plausible that there might have originally been at least two different versions of this story – one where David (or Elhanan) killed Goliath with the sling, and another with the sword, and that this is some scribe's attempt at combining the two original stories into a single narrative.

To repeat the point I've been making, all of these details point to a story that has changed over generations of retelling, rather than 1 Samuel being an original, divinely inspired work.

Vassal Treaty of Esarhaddon

Scholars have noted plenty of similarities between sections of the Bible and treaties from the era. One example, Chapter 28 of Deuteronomy, contained text that was especially similar to the Vassal Treaty of Esarhaddon (VTE). In fact, certain wording in this section of Deuteronomy is taken almost word for word from that treaty. According to the New Oxford Annotated Bible:

The apparently arbitrary sequence of punishments corresponds to VTE §§39–43, where each curse is associated with a particular Neo-Assyrian god: the moon god Sin with leprosy; the sun god Shamash, blindness; and Dilipat (the planet Venus), rape, dispossession, and pillage.

To see just how similar the wording was to that older treaty, just compare verse 23 of Deuteronomy, "The sky over your head shall be bronze, and the earth under you iron" to paragraphs 63 & 64 of the VTE which state, "May [the gods] make your ground like iron... Just as rain does not fall from a bronze sky..."

Jabal, Jubal, & Tubal Cain

This is a pretty small example, but I like it, and it doesn't seem to get much attention. Here's the passage from Genesis 4:20-22:

Adah bore Jabal; he was the ancestor of those who live in tents and have livestock. His brother's name was Jubal; he was the ancestor of all those who play the lyre and pipe. Zillah bore Tubal-cain, who made all kinds of bronze and iron tools.

Aside from the just-so aspect of where shepherds, musicians, and tool makers come from, this story precedes Noah's flood. It doesn't make much sense to describe where all those professions got their start just to have them all killed off in a few generations. It seems much more likely that this origins story was originally separate from the Noah's flood story, such that then current musicians could claim a direct link to Jubal, for example.

Biblical Contradictions

Much of the information in the preceding sections about the development of the Bible was new to this edition of this book (it's part of what I learned in the years since writing those essays), but I'm keeping the following examples of contradictions from the first edition partly out of nostalgia, because such internal contradictions within the Bible were one of the major reasons that made me first realize that the Bible wasn't divinely inspired. I'm only going to give a few examples here, but you can find *many* examples elsewhere. One of the more extensive lists is included in the Skeptics Annotated Bible.⁸

As you might expect given all the discussion in the previous sections, there are many, many numerical contradictions in the Bible, places where events are mentioned in multiple places in the Bible, and small details like the age of when a king started his reign, or the number of soldiers in an army, will be different between the different versions. To give just one example 1 Kings 4:26 says, "Solomon also had *forty* thousand stalls of horses for his chariots..." while 2 Chronicles 9:25 says, "Solomon had *four* thousand stalls for horses and chariots..." ⁹ Many of these numerical contradictions seem pretty minor, but they show conclusively that the Bible as it exists today isn't inerrant, and any errors should cause one to question the supposed influence of an omnipotent God.

⁸ http://skepticsannotatedbible.com/contra/by_name.html

⁹ Some translations, such as the NIV, hide this by changing the 1 Kings passage to also ready 4,000, and then adding a footnote saying that the original Hebrew reads 40,000. I've already discussed such issues with the NIV.

The Bible

A more significant contradiction that affects the message of the Bible in a non-trivial way concerns whether or not people will be punished for the actions of their parents. Numerous passages deal with this topic, but I'll stick to quoting just two. Exodus 20:5-6 states:

You shall not bow down to them or serve them, for I the Lord your God am a jealous God, punishing children for the iniquity of parents to the third and the fourth generation of those who reject me but showing steadfast love to the thousandth generation of those who love me and keep my commandments.

Compare that to Ezekiel 18:19-20, which states:

Yet you say, "Why should not the son suffer for the iniquity of the father?" When the son has done what is lawful and right and has been careful to observe all my statutes, he shall surely live. The person who sins shall die. A child shall not suffer for the iniquity of a parent nor a parent suffer for the iniquity of a child; the righteousness of the righteous shall be their own, and the wickedness of the wicked shall be their own.

These messages are quite contradictory, with the Exodus passage saying that children will be punished for their parents' sins, while the Ezekiel passage says that they won't, and everyone will be judged for their own actions. This reflects each writer having a very different view of Yahweh's nature.

As one last example, let's move on to the New Testament, and what is necessary for one's salvation – actions, faith alone, baptism, or some combination. Just like above, there are actually many passages dealing with this issue, but again, I'll stick to just two. First, consider Ephesians 2:8-9:

For by grace you have been saved through faith, and this is not your own doing; it is the gift of God— not the result of works, so that no one may boast.

Compare this to 2 Thessalonians 1:7-8:

...when the Lord Jesus is revealed from heaven with his mighty angels in a fiery flame, inflicting vengeance on those who do not know God and on those who do not obey the gospel of our Lord Jesus.

Ephesians states salvation is through faith alone, while Thessalonians implies that you must also obey the gospel. So even within the New Testament, we see different writers expressing very different views, who weren't receiving any divine guidance to reconcile these differences. Obviously, with as many people that have studied the Bible over the centuries, these contradictions haven't gone unnoticed. People have come up with rationalizations to try to explain them, but these rationalizations can get pretty outlandish. In light of the discussion near the very beginning of this book, a person shouldn't have to go through such mental gymnastics – if Christianity is true, and especially if the Bible is divinely inspired, the evidence in favor of it should be compelling.

The Ancient History of the Flood Myth

Noah's flood is one of the more famous stories from the Bible. It's also one of the examples where there are well known older versions of the story that show how it developed.

In the prior section on Critical Analysis, the one excerpt from the Society of Biblical Literature already touched a bit on how the editor of Genesis combined two different, prior versions of the story. As a quick reminder, the New Oxford Annotated Bible states:

The version preserved here is an interweaving of parallel accounts, one of which links with the Priestly traditions of 1.1–2.3; 5.1–32 and the other of which links with the Yahwistic primeval history in 2.4b–4.26. This type of intertwining of traditions is less usual but is necessary here to avoid describing two consecutive floods.

This can be seen in different, conflicting details throughout the story, such as number of animals to take aboard (one pair of each kind vs. seven pairs of the clean kinds), and twice repeating that Noah went into the ark (7:7-9 and again at 7:13-16).

Fortunately, we've been lucky enough to find alternate versions of the flood myth besides just the Yahwist and Priestly versions combined in Genesis. Perhaps the most well-known is the Gilgamesh version, but researchers have found even older versions, including the Epic of Atra-Hasis and the Eridu Genesis, the latter of which is probably the oldest known surviving version of the myth, dating to around the 17th century BC, or around a millennium before Genesis.

Originating from a common source, these stories all share some common themes. The gods become displeased with humanity and decide to wipe out humanity with a flood. A sympathetic god warns the hero so that he can prepare a boat to survive the flood along with his animals and save the human race. Once the flood is over, the hero offers sacrifices to the gods, who are mollified and decide that they'll spare humanity.



ABOVE: The 17th Century Sumerian Tablet with the Eridu Genesis Version of the Flood Myth

Obviously, each variant put its own 'spin' on the story as it evolved in the retellings generation after generation and took its own path in each culture. In the Biblical version, since Judaism had developed into a monotheistic religion, you couldn't have separate gods fulfilling the roles of destroyer and savior, so the one God did both. And while most versions have the flood lasting around a week, the Biblical versions expanded the flood to 40 days in the Yahwist source (Genesis 7:17), and 150 days in the Priestly source (Genesis 7:24).

As far as any historical inspiration, there's no clear consensus. Some people think there might not be any specific event that inspired the myth, because, let's face it, floods aren't exactly rare, so it's not hard to see how people would have incorporated a flood as a plot element. But others think there might be some real event that inspired the story, with ideas ranging from a particularly bad flood in the Tigris-Euphrates river system, rising sea waters at the end of the last ice age, to perhaps an even more catastrophic flood as suggested in the Black Sea deluge hypothesis. (I'll touch on this just a bit more in the section on Creationism, to show how it definitely wasn't an actual world-wide flood as described in Genesis.)

With currently known evidence, the flood story can be traced back to around the 17th century BC and the Eridu Genesis, far predating the version(s) that finally got written down in the Bible. The earliest known version actually developed within a polytheistic religion that didn't even include Yahweh, and we can see how this story changed over the generations, eventually being adapted by Judaism. This is just one more example of how Judaism (and its offpsring, Christianity) were cultural developments over generations, not actual interactions with Yahweh.

Morality of the Bible

In a previous section, I already discussed how gods don't actually define morality, but at most, can be divine enforcers of the rules they prefer (the Euthyphro Dilemma). So here, let's take a look at the morality on display in the Bible. Does the Bible actually present good rules to live your life by, and is the God of the Bible actually a good character? As I wrote in the first edition of this book, when I went through the period of questioning my acceptance of Christianity, the main question I was trying to figure out was whether or not God exists. At the time, it seemed obvious to me that if God did exist, then I should worship him, and if he didn't exist, then there was no need to worship him. It never dawned on me to ask, if God does exist, *should* I worship him?

Slavery

Let's start with slavery. This may not be a contemporary issue, but it is a moral issue that most people can agree upon – slavery is horrific. To treat another person as property, as opposed to a rational, thinking, feeling being, is just plain wrong. If the Bible were a good guide to morality, one would think that it would condemn this practice, especially considering all the mundane aspects of life for which it does have rules.

Unfortunately, the Old Testament never does condemn slavery. It has rules about how to treat your slaves, but it never comes out and says, "Thou shalt not own another human being." Jesus mentioned slavery many times in the New Testament without ever condemning the practice. There are other New Testament passages instructing masters to treat their slaves kindly, and for slaves to remain loyal to their masters. 1 Peter 2:18 even goes so far as to say:

Slaves, be subject to your masters with all respect, not only those who are good and gentle but also those who are dishonest.

About the worst thing said about slavery is in 1 Timothy 10, where slave traders get lumped in with a list of other immoral people. But that brief disparagement of slave *traders* is hardly a condemnation of the entire practice, nor does it address the centuries when Jews were following the Torah before Jesus. In fact, during the Civil War, many southerners used Bible verses as a defense for slavery.¹⁰

¹⁰ http://www.religioustolerance.org/chr_slav.htm

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Some people have tried to argue that the Bible does not *condone* slavery, but rather that since slavery was so entrenched in society at that time, the Biblical rules were meant to prevent the mistreatment of slaves. But when the Bible has rules about what people can eat, what clothes they can wear, what fabric they can use, how they can cut their hair, how exactly to sprinkle the blood and spread the entrails of the animals they've sacrificed, and on and on, you'd think there could have been a mention about not owning people. And it's very odd indeed to think an omnipotent god would be worried about social conventions of the time.

Others have argued that the Bible is not referring to chattel slavery in the same sense as what occurred in recent history in the U.S., but more as indentured servitude (in many versions of the Bible, like the NIV, "slave" has been translated as "servant."). While it is true that some Hebrews did become indentured servants, there were also true slaves in the modern sense who were treated very differently than free men. There are quite a few passages in the Bible that deal with slavery, but it will only take a few to illustrate the intentions of the writers.

First, let's compare the following two passages from Leviticus, the first dealing with how to punish someone for killing a "person," and the second dealing with how to punish someone for killing a "slave." Exodus 21:12 states:

Whoever strikes a person mortally shall be put to death.

While Exodus 21:20-21 states:

When a slaveowner strikes a male or female slave with a rod and the slave dies immediately, the owner shall be punished. But if the slave survives a day or two, there is no punishment, for the slave is the owner's property.

This passage only says that a man should be "punished" for killing a slave, not "put to death." Granted, some believe that the implied punishment is death, but many others believe it implies a lesser punishment. Moreover, consider the rest of the passage. There's a bit more debate on the part about surviving for a day or two. Some translations such as this one imply that it's merely survival, and that there's no punishment if the slave would die on the third day. Other translations imply a bit more "compassion", and that the slave has to be able to recover from the beating within two days. But in either case, the Bible is allowing slave owners to beat their slaves – just setting a minimal limit on how severely. And the very next phrase specifically identifies the slave as property.

There was a distinction between Hebrew slaves and foreign slaves. Hebrew slaves were to be released after six years. The following passage gives some rules on how to treat Hebrew slaves:

When you buy a male Hebrew slave, he shall serve six years, but in the seventh he shall go out a free person, without debt. If he comes in single, he shall go out single; if he comes in married, then his wife shall go out with him. If his master gives him a wife and she bears him sons or daughters, the wife and her children shall be her master's, and he shall go out alone. But if the slave declares, 'I love my master, my wife, and my children; I will not go out a free person,' then his master shall bring him before God. He shall be brought to the door or the doorpost, and his master shall pierce his ear with an awl, and he shall serve him for life. (Exodus 21:2-6)

Notice what type of freedom the Hebrew slave has. If he gets married while serving his master, his wife and children will belong to the master and will not be permitted to go with the man when he gains his freedom. If he wishes to stay with his family, he must pledge his life to his master, remaining his slave for the rest of his life. (And notice how casually the woman is referred to as property.)

There are many other passages of the Bible dealing with slavery, but these illustrate clearly enough the Biblical position on slavery, especially in the Old Testament. Slaves were considered property. It was permissible to treat them differently than free men. A master could beat a slave to within an inch of their life, as long as he didn't kill them (or according to some translations, as long as they lingered for a few days before dying). And even if he did kill them, the punishment wasn't as bad as if he had killed a free man. This certainly calls into question using the Bible as a basis for morality.

Family Values

The family values presented in the Bible are often quite questionable. As with the last section, while there are many biblical passages with problematic messages in this regard, I'm only going to include a few examples.

Tying in with the slavery theme of that last section, consider this passage that immediately follows the previous biblical excerpt:

When a man sells his daughter as a slave, she shall not go out as the male slaves do. If she does not please her master, who designated her for himself, then he shall let her be redeemed; he shall have no right to sell her to a foreign people, since he has dealt unfairly with her. If he designates her for his son, he shall deal with her as with a daughter. If he takes another wife to himself, he shall not diminish the food, clothing, or marital rights of the first wife. And if he does not do these three things for her, she shall go out without debt, without payment of money. (Exodus 21:7-11)

Although there's some minimal 'protection' for the daughter in this passage, it's still abhorrent. It's accepted as a given that a father can sell his own

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daughter to another man. And the daughter's fate afterwards is still almost entirely in the hands of the man who now owns her.

Next, consider this passage on the punishment for a rebellious son:

If someone has a stubborn and rebellious son who will not obey his father and mother, who does not heed them when they discipline him, then his father and his mother shall take hold of him and bring him out to the elders of his town at the gate of that place. They shall say to the elders of his town, 'This son of ours is stubborn and rebellious. He will not obey us. He is a glutton and a drunkard.' Then all the men of the town shall stone him to death. So you shall purge the evil from your midst, and all Israel will hear and be afraid. (Deuteronomy 21:18-21)

That is barbaric. There's simply no excuse to murder a son who doesn't show enough respect to his parents. The message seems to be that authoritarianism and obedience are more important than love and caring.

And for one last example, let's turn to the New Testament:

Whoever comes to me and does not hate father and mother, wife and children, brothers and sisters, yes, and even life itself, cannot be my disciple. (Luke 14:26)

If you heard such language coming from any modern-day religious leaders, it would be a gigantic red flag. This is exactly the way cults function to isolate their members from their families, cutting external ties to promote complete devotion to the cult. Just because Christianity went on to become a major religion doesn't excuse such an extreme message in the Bible. It's certainly not consistent with positive family values.

Genocides

There are numerous cases of genocide in the Bible, where God has commanded his followers to destroy entire cities – men, women, children, and even infants. I'm only going to list a few for illustration. Consider the following passage:

Thus says the Lord of hosts: I will punish the Amalekites for what they did in opposing the Israelites when they came up out of Egypt. Now go and attack Amalek and utterly destroy all that they have; do not spare them, but kill both man and woman, child and infant, ox and sheep, camel and donkey. (1 Samuel 15:2-3)

Next, consider this passage, where God commands the destruction of 60 entire cities:

When we headed up the road to Bashan, King Og of Bashan came out against us, he and all his people, for battle at Edrei. The Lord said to me, 'Do not fear him, for I have handed him over to you, along with his people and his land. Do to him as you did to King Sihon of the Amorites, who reigned in Heshbon.' So the Lord our God also handed over to us King Og of Bashan and all his people. We struck him down until not a single survivor was left. At that time we captured all his towns; there was no citadel that we did not take from them: sixty towns, the whole region of Argob, the kingdom of Og in Bashan. All these were fortress towns with high walls, double gates, and bars, besides a great many villages. And we utterly destroyed them, as we had done to King Sihon of Heshbon, in each city utterly destroying men, women, and children. But all the livestock and the plunder of the towns we kept as spoil for ourselves. (Deuteronomy 3:1-7)

And as one last example (although certainly not the last of the cases in the Bible), consider this passage, which not only advocates mass murder, but also keeping virgin girls so that the men could have their way with them. This is not a direct quote from God, but Moses commanding the Israelites. Still, Moses was acting on behalf of God. And when God spoke to Moses just a few verses later, He only spoke of dividing the spoils of war, not condemning these actions, so it doesn't appear that God had a problem with what the Israelites did.

Moses said to them, "Have you allowed all the women to live? These women here, on Balaam's advice, made the Israelites act treacherously against the Lord in the affair of Peor, so that the plague came among the congregation of the Lord. Now therefore, kill every male among the little ones, and kill every woman who has known a man by sleeping with him. But all the young girls who have not known a man by sleeping with him, keep alive for yourselves. (Numbers 31:15-18)

To put all of these acts into proper perspective, imagine a situation similar to the genocide that occurred in Rwanda in the 1990s. These were murders and rapes carried out by soldiers with knives, swords, and spears. These were messy, bloody, cruel affairs.

The Plagues of Egypt

Let's take a look at a story that most people have a passing familiarity with, but where they don't dwell on the details – the Exodus story, with Moses and Pharaoh and all the plagues. For background, the Israelites were slaves in Egypt (along with other, non-Hebrew slaves). Moses was the one that God chose to save the Israelites (but apparently, not the other slaves), and God sent him to confront the Pharaoh and demand the release of his people. Even before the story gets going in earnest, God stated that he was not going to be up front and honest in this whole affair. In Exodus 4:21, God told Moses, "When you go back to Egypt, see that you perform before Pharaoh all the wonders that I have put in your power; but I will harden his heart, so that he will not let the people go." Keep that in mind as the story goes on. All the pretext about the plagues being punishment for Pharaoh not releasing the Israelites is not true, since God himself was the one taking away Pharaoh's free will to drive the situation.

Anyway, God gave Moses the power to perform a few miracles, to demonstrate that he really was speaking for God and not just some religious fanatic. Try to imagine this story as if it had actually occurred, where Pharaoh is a real leader dealing with all types of matters of state, and doesn't 'know' he's in a story where Moses is the hero. In the modern day, if someone like David Koresh demanded to talk with the President while claiming to be speaking for God, I'm sure the President would want some demonstration or proof before granting him an audience, if he didn't just dismiss the whole thing completely. And considering the consequences of what we know is going to happen with the plagues, it's a pretty important thing. Notwithstanding God controlling Pharaoh's decisions, if God was going to resort to miracles for punishment, it would seem reasonable to try to establish your messenger's authenticity so that Pharaoh understood the gravity of the situation.

On Moses's first meeting with Pharaoh in Exodus 5, he never performed any miracles to establish his authenticity. Lo and behold, Pharaoh didn't take too kindly to a random guy claiming to speak for a god and making demands for a bunch of slaves, leading to the whole making bricks without government provided straw.

In Exodus 7, after God again told Moses that he was going to interfere with Pharaoh's free will by hardening his heart, God had Moses go see the Pharaoh again. This time, he did have Moses perform a 'miracle' to demonstrate that he really was speaking on God's behalf. He had Moses throw his staff down onto the ground, where it promptly turned into a snake. What did Pharaoh do? He had his magicians repeat the same trick. Now granted, Moses's snake went and ate the other snakes. But really, how impressive of a miracle is it when human magicians can do the same thing? Imagine if I claimed to be speaking for God, and used the cup and ball trick as proof. Not very convincing.

With Pharaoh unconvinced, the story moves on to the plagues. The first was turning the Nile into blood and making it undrinkable. That would seem impressive enough, but apparently Pharaoh's magicians were able to replicate this, too. Then came the plague of frogs. But again, Pharaoh's magicians could do the same thing. Then came the plague of gnats. Apparently, turning rivers to blood and calling forth an overwhelming number of frogs were no problem for magicians, but gnats were a bridge too far, and the gnats were what convinced the magicians that this really was "the finger of God!" (Exodus 8:19). Next came the plague of flies, with the effect that "in all of Egypt the land was ruined because of the flies."

Before going on with the rest of the plagues, keep in mind that this was ostensibly an argument between God and Pharaoh. Pharaoh was the ruler of Egypt and making the laws, and the citizens didn't really have that much control, let alone the non-Hebrew slaves. But all these plagues so far have been indiscriminate. The flies that ruined all the land of Egypt ruined it for everybody, right down to the peasant farmers, all because God was having a dispute with their king.

The next plague was even worse – the killing of all the livestock of the Egyptians, while sparing the livestock of the Israelites. Next came the plague of boils on all the people and animals. Perhaps this is referring to non-livestock animals, since the livestock were supposedly all killed in the previous plague, which makes this plague seem especially weird. Either God was punishing all the wildlife in Egypt because of decisions by people, or else the story has a few plot holes. (More than likely, this comes from an editor combining stories from the different J, E, D, and P traditions.)

The seventh plague was the cruelest so far. God sent thunder and hail. He at least had Moses warn the Egyptians, but not everyone believed Moses, and some "left their slaves and livestock in the open field." (Exodus 9:21). God sent such hail that it "struck down everything..., both human and animal; ... all the plants of the field, and shattered every tree in the field." Of course, God spared his Israelites, but none of the other poor, unfortunate non-Israelite slaves who were forced to work out in the open, nor the livestock (which apparently weren't all killed in the fifth plague).

Next came the plague of locusts, eating whatever crops had been spared by the hail. After that came the plague of darkness (again, not for the Israelites).

Finally came the tenth plague in Exodus 12, the most famous of all, the source of the Passover holiday – God killing all the firstborn sons in Egypt. Not just the firstborn of the Pharaoh, or the leaders of Egypt, but "from the firstborn of Pharaoh who sits on his throne to the firstborn of the female slave who is behind the handmill, and all the firstborn of the livestock." Only the Israelites would be spared by using the secret sign – slaughtering a lamb "without blemish" at twilight, and then smearing some of its blood on their doorway. Because that's how omnipotent, omniscient beings determine who's one of their chosen people – lamb's blood smeared on doorways.

And of course, God carried through with this last plague. "At midnight the Lord struck down all the firstborn in the land of Egypt, from the firstborn of Pharaoh who sat on his throne to the firstborn of the prisoner who was in the dungeon, and all the firstborn of the livestock." (Exodus 12:29) Just imagine

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being a slave girl, forced to work for your Egyptian overlords, and having your firstborn son taken away from you by this God of those other slaves.

After that, Pharaoh finally let the Israelites leave. Though it should be noted, the non-Israelite slaves had no such luck. God left them to their slavery in Egypt. Then came Pharaoh's change of heart, sending his army after the Israelites, the parting of the Red Sea, and the rest of the Biblical story.

And throughout all this, God was using his divine will to make Pharaoh act this way, 'hardening Pharaoh's heart' in Exodus 10:20, 10:27, 11:10, and more. In a few places, God even came out and stated his nefarious motivation. In Exodus 9:15–16, he stated "For by now I could have stretched out my hand and struck you and your people with pestilence, and you would have been cut off from the Earth. But this is why I have let you live: to show you my power, and to make my name resound through all the earth." In Exodus 10:1–2, he said, "Go to Pharaoh; for I have hardened his heart and the heart of his officials, in order that I may show these signs of mine among them, and that you may tell your children and grandchildren how I have made fools of the Egyptians and what signs I have done among them — so that you may know that I am the LORD."

This whole story shows the utter immorality of the character of God in the Bible. He didn't establish the authenticity of his messenger when approaching the Pharaoh to make the Pharaoh aware of the true gravity of the situation. He used his divine will to force Pharaoh to act the way he did as a pretext to continue these plagues. He caused indiscriminate suffering among farmers, peasants, slaves, and even the animals of Egypt. He didn't help any of the other slaves, just those of his chosen people. And in the end, he did it all just to show off.

Sacrifice

Even back when I was still a Christian, the role of blood sacrifice in the Bible gave me an uneasy feeling – why would an all-powerful god be concerned with blood sacrifice? How does killing animals forgive you of your own sins? How does killing an animal 'purify' or consecrate anything? What type of moral framework encourages the killing of animals (beyond the practical reasons of food, hides, and other materials)?

I understand the symbolism of sacrifice and giving up something precious to you. And the Bible does describe non-animal sacrifices like grain. But there are many passages, especially in Leviticus, which deal in detail with the actual killing of animals, and in particular blood, that seem to indicate that it's more than just this symbolic gesture that makes a sacrifice important. Consider this passage which explicitly describes a sacred power of blood: For the life of the flesh is in the blood, and I have given it to you for making atonement for your lives on the altar, for, as life, it is the blood that makes atonement. (Leviticus 17:11)

Or consider this description of one type of purification offering. This is much ado about nothing if the sacrifice is merely meant to be a symbolic gesture of giving up something important.

> If it is the anointed priest who sins, thus bringing guilt on the people, he shall offer for the sin that he has committed a bull of the herd as a purification offering to the Lord. He shall bring the bull to the entrance of the tent of meeting before the Lord and lay his hand on the head of the bull; the bull shall be slaughtered before the Lord. The anointed priest shall take some of the blood of the bull and bring it into the tent of meeting. The priest shall dip his finger in the blood and sprinkle some of the blood seven times before the Lord in front of the curtain of the sanctuary. The priest shall put some of the blood on the horns of the altar of fragrant incense that is in the tent of meeting before the Lord, and the rest of the blood of the bull he shall pour out at the base of the altar of burnt offering, which is at the entrance of the tent of meeting. He shall remove all the fat from the bull of purification offering: the fat that covers the entrails and all the fat that is around the entrails, the two kidneys with the fat that is on them at the loins, and the lobe of the liver, which he shall remove with the kidneys, just as these are removed from the ox of the sacrifice of well-being. The priest shall turn them into smoke upon the altar of burnt offering. But the skin of the bull and all its flesh, as well as its head, its legs, its entrails, and its dung- all the rest of the bull-he shall carry out to a clean place outside the camp, to the ash heap, and shall burn it on a wood fire; at the ash heap it shall be burned. (Leviticus 4:3-12)

And there are plenty of passages, such as Noah's sacrifice after the flood, that make it clear that God *liked* the smell of these burnt offerings:

Then Noah built an altar to the Lord and took of every clean animal and of every clean bird and offered burnt offerings on the altar. And when the Lord smelled the pleasing odor, the Lord said in his heart, "I will never again curse the ground because of humans, for the inclination of the human heart is evil from youth; nor will I ever again destroy every living creature as I have done." (Genesis 8:20-21)

There are a *lot* of passages in the Bible that deal with animal sacrifice. Leviticus is page after page of which animals to kill, how to kill them, and then what to do with their blood and body parts afterwards. The God of the Bible quite clearly desired animal sacrifices.

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And let's not forget the cruelty of these practices. They're killing blameless animals, and then, depending on the particular ritual, wasting it all by burning it, without even eating the meat or using the hides. And if 2 Chronicles 7:5 is to be believed, King Solomon sacrificed 22,000 oxen and 120,000 sheep to consecrate the First Temple. Just imagine the carnage. (In reality, at least, let's hope the numbers were exaggerated – if Solomon was even a historical figure.)

What is it about animal sacrifice that would be so pleasing to an all-powerful god? He has the power to do anything he wants, so there can't be anything about a mystical power of blood. And he's omniscient, so he knows if people are truly sorry for their sins or truly grateful for what he's provided, so a sacrifice seems superfluous. And modern versions of Judaism and Christianity get by without any animal sacrifice. So why this barbaric demand for blood? It seems to be a relic from the more primitive traditions from which Judaism evolved. In any case, blood sacrifice hardly seems like a shining moral lesson.

God Acting Badly

It's hard to top the Plagues of Egypt, but here are a few other examples. While not on the same scale as the above genocides, consider the following passage where God sent bears to kill 42 kids, for a crime that doesn't appear to be a very bad one. This passage certainly seems to suggest that God himself sent those two bears to kill those people.

> He [Elisha] went up from there to Bethel, and while he was going up on the way, some small boys came out of the city and jeered at him, saying, "Go away, baldhead! Go away, baldhead!" When he turned around and saw them, he cursed them in the name of the Lord. Then two she-bears came out of the woods and mauled forty-two of the boys. From there he went on to Mount Carmel and then returned to Samaria. (2 Kings 2:23-25)

Revisiting Noah's Flood, I've already discussed the literary history, but just imagine if it had really happened as described in the Bible. Children's books show Noah, his family, and the elephants and giraffes surviving happily on their boat. But just stop and imagine what this scene would have really looked like and all the implications. Think of all the newborn babies, toddlers, precocious seven year olds, expectant mothers, new mothers, proud fathers, newlyweds. Think of the puppies and kittens and baby koalas and cute cuddly polar bear cubs. Think of the hawks and eagles and their fledgling chicks. Think of the ants, and frogs, and freshwater fish. Think of all the life on the entire planet save one boatload full. And now think of them watching the floodwaters come, the fear they felt as they kept climbing to higher ground, wondering when the rising waters would stop. The terror when they finally realized that the waters were going to swallow them, and there was nothing they could do about it. The desperation of parents trying to save their children, of looking for something, anything, to keep their children afloat and keep them from drowning. For a God who could cause anything to happen just through divine will, drowning infants and children seems like an awfully cruel way to cleanse the world of evil. (Not that the rationale is really believable, anyway – civilization couldn't survive if people were uniformly evil.)

Consider the entire book of Job. To win a wager with Satan, proving that Job really was faithful to God out of loyalty and piousness and not merely as a quid pro quo for all his blessings, God allowed Satan to torment Job (and in fact, may have actually contributed a bit himself, as in Job 1:16, especially as the Satan of the Old Testament wasn't exactly the Devil that he would later become in Christianity). First, Satan took away all of Job's possessions, killed his servants, wife, and children, then afflicted him with sores from head to foot that made him suffer so much that he wished his life would end. But Job still remained faithful to God the entire time.

After a lot of speeches about God's greatness and power, in the end, God finally did give everything back to Job - sort of. It really is a callous, proprietary view of his wife and children to imply that everything turned out okay in the end because Job got a new wife and children, as if the deaths of his first wife and children were only a tragedy because they were *his* wife and children, not for their own intrinsic value as human beings.

In my opinion, the overall message of this book is one of the bleakest of the Bible. We're all slaves to the whims of God, whatever they may be. And God isn't particularly concerned with actual justice, nor justifying his actions. He's powerful; we're not. If you've been a good and blameless person, and God decides to make your life absolutely horrible just to test you, there's not a thing you can do about it other than take it. And you better not complain, or even consider blaming God for what he's done to you, because then he might decide to actually punish you and make your situation even worse. It's a universe of might makes right, and God's the mightiest of them all.

As one final example with a bit of personal relevance to me, consider the story of Abraham and Isaac. I was sitting in my pew one Sunday morning, and the reading that day was about God commanding Abraham to sacrifice his only son, Isaac. Abraham took Isaac off to the wilderness alone, tied up Isaac on an altar, and was about to deliver the fatal blow when God finally interrupted and gave Abraham a ram to sacrifice instead (which, going back to the previous section on sacrifice, is still pretty weird – why did God *need* a blood sacrifice of some sort to be satisfied). The lesson is supposed to be about how loyal Abraham was to God, and how he demonstrated his loyalty by going along with God's command up to the point of being willing to sacrifice his son.

But that day, sitting there in my pew, I couldn't help but think that the story would have been so much better if Abraham had refused. Yes, it would have been futile to deny an all-powerful being. But it would have been a testament

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to the profound love of a parent for their child, that even in the face of impossible odds, a father would do everything in his power to defend his son. But the way the Biblical story played out, Abraham instead came off as a spineless suck-up, willing to sacrifice his very flesh and blood, and certainly terrifying Isaac in the process, just to curry favor with the divine boss. That experience that Sunday morning was a sure sign that I was on the path to leaving behind Christianity.

Strange Bible Stories

Some stories in the Bible are actually very strange. I'm sharing a few of them here not so much to mock them, but because there are a lot of people whose knowledge of the Bible comes mostly from church readings and Sunday school, and they're simply not aware of these types of stories.

Talking Donkey

Balaam was a prophet who appeared in a few chapters of the Old Testament. In Numbers 22, he embarked on a trip riding his donkey to visit the king of Moab. Despite God seemingly instructing Balaam to make the trip in verse 20, by verse 22 the next morning, God was angry with Balaam and sent the angel of the Lord to stop him. Three times the angel blocked the path, visible only to the donkey, and three times the donkey turned aside or stopped, and three times Balaam struck the donkey with his staff to resume the journey. But after the third time, this happened:

> Then the Lord opened the mouth of the donkey, and it said to Balaam, "What have I done to you, that you have struck me these three times?" Balaam said to the donkey, "Because you have made a fool of me! I wish I had a sword in my hand! I would kill you right now!" But the donkey said to Balaam, "Am I not your donkey, which you have ridden all your life to this day? Have I been in the habit of treating you this way?" And he said, "No."

> Then the Lord opened the eyes of Balaam, and he saw the angel of the Lord standing in the road, with his drawn sword in his hand, and he bowed down, falling on his face.

Granted, God "opened the mouth of the donkey", but Balaam seemed pretty nonchalant about it. Whereas just about anybody else's response would have been, 'Holy crap, a talking donkey,' Balaam was instead angry with the donkey for embarrassing him.

Chariots of Iron

This one's short, but it's become rather infamous. Among a short listing of military conflicts, there was this passage from Judges 1:19:

The Lord was with Judah, and he took possession of the hill country but could not drive out the inhabitants of the plain, because they had chariots of iron.

If you're looking at this story from the point of view of God being allpowerful, iron chariots don't seem like they should have been much of a problem.

The Quails

My favorite strange story from the Bible is the quail episode from Numbers 11. The story takes place while the Hebrews were wandering the desert for 40 years after the Exodus, and were subsisting mostly on manna, an apparently nutritious but not particularly tasty gift from the Lord. So, the people got a little tired of eating manna day after day and began complaining, wanting some real meat.

The first minorly weird part of the story was Moses's part. He got so frustrated with the complaining that he begged God for help. God's response was to gather up seventy elders, and then "he took some of the power of the Spirit that was on him [Moses] and put it on the seventy elders," so that they could share his burden, as if Moses's spirit were some measurable quantity that could be divvied up. But the sharing only lasted a night, so it was a rather temporary respite.

But then, for the really weird part, it was time for God to deal with the complainers. And he did it in the most petty, vindictive, and violent way you can imagine. First, "a wind went out from the Lord and drove quail in from the sea. It scattered them up to two cubits deep all around the camp, as far as a day's walk in any direction" (keep in mind that two cubits is roughly three feet). So God's response was, 'you want meat, I'll give you meat'. But the people apparently decided to make the best of it, cooking up some of the quail to finally have some variety in their diet. Seeing that his punishment wasn't having quite the effect he'd hoped for, God became even angrier, "while the meat was still between their teeth and before it could be consumed, the anger of the Lord burned against the people, and he struck them with a severe plague," killing them. So, when his over-reaction of dumping three feet of birds on his people didn't have the intended effect, God just went ahead and killed them anyway.

There are lots of bizarre stories in the Bible, but there's just something about that story in particular that I find amusing in a black humor sort of way (though it would be terrifying if true and the creator and ruler of the universe were that vindictive).

Jesus

Another Holy Man – Sathya Sai Baba

Before talking about Jesus, let's consider a different holy man who claimed to be a god incarnate, Sathya Sai Baba. His followers also believe that he said and did many things that, if true, would back up that claim. And not only that, but he only died in 2011, so the eyewitnesses to his supposed miracles are still alive. We're not just talking about secondhand stories from decades after his death like the Gospels, but actual firsthand accounts from real people. Here's a list of some of the miracles his followers believe he has done:

- Healings
- Levitation
- Making objects appear out of thin air (materialisation)
- Changing water into other beverages
- Physically emitting brilliant light
- Being in more than one place at the same time
- Bringing a dead man back to life
- Appearing to some of his followers after his death

There's an official biography of his life, a website full of stories of many of the miracles he supposedly performed¹¹, and if you browse social media, you can find plenty of eyewitness testimonies to his miracles¹².

Now, I very much doubt that Sathya Sai Baba was actually a god. I suspect that you, the reader, are also rather skeptical of his claims and those of his followers. By pure logic, since Christians believe Jesus was the only instance of God taking human form, Jesus and Sai Baba can't both be correct. They could, however, both be wrong.

Sai Baba is far from the only holy man I could have used for comparison. There's Ram Bahadur Bamjan, believed by some to be the reincarnation of the

¹¹ http://saibaba.ws/miracles.htm

¹² https://www.quora.com/Has-anyone-felt-the-power-of-Sai-Baba-personally

Buddha; Sun Myung Moon, who claimed to be a messiah continuing Jesus's work and who wrote new scriptures (Exposition of the Divine Principle); Joseph Smith, a prophet who claimed to have visions of Jesus and visits from angels and who wrote his own new scriptures (the Book of Mormon); Apollonius of Tyana, a contemporary of Jesus whose paragraph-long mini biography is practically identical to Jesus's, but substituting Roman gods for the Jewish God (of course there are plenty of differences in the details); and countless others.

The important point is that most miracle stories can be much more readily explained by earthly causes rather than the actual divine. Magic tricks, sleight of hand, or just plain lying are obvious explanations for some such miracles. Visions are probably explained by altered states of consciousness (exhaustion, grief, the dreamlike state between being awake and asleep, etc.) shaped by a person's background and experiences (what they expect to see). Other stories are similar to urban legends or the telephone game, where they morph in retelling after retelling until they've become much more extravagant than their original versions. But unless you believe Sai Baba actually did perform all the miracles credited to him, it's obvious that there's some non-supernatural explanation.

Keep this in mind as we look a bit more at Jesus in the following sections. When considering arguments supporting Jesus, think about how these arguments might sound if being applied to a different holy man like Sathya Sai Baba, and whether you would still find them convincing. If you simply dismiss the stories about Sai Baba and other 'holy men', what reason do you have to take the stories about Jesus seriously that isn't special pleading. From my point of view, none of the miracle stories are true, and none of those men are God incarnate or one of his prophets.

The New Testament and the Gospels

While I've already spent some time looking at the development and authorship of the Bible in general, let's take a closer look at some of the New Testament writings.

There aren't actually any contemporary accounts of Jesus. The oldest Gospel, Mark, was probably written between 65 and 72 AD, several decades after Jesus would have died. Mathew and Luke were written a few years later, borrowing heavily from Mark's account, with John being the last Gospel to be written. Some of the other books of the New Testament were written earlier, such as Paul's letters. But Paul never actually met Jesus in person, and given the nature of his letters, they're lacking in actual biographical details. And any sources that mention Jesus outside the Bible or other early Christian writings came even later (such as Josephus). In short, we don't have any reliable firsthand accounts of the details of Jesus's life. As far as the Gospels, I can hardly do better than an actual biblical scholar (and I certainly don't have his credibility), so allow me to include some rather lengthy quotes from Bart Ehrman¹³.

Even though we continue to call the Gospels "Matthew, Mark, Luke, and John," we do not know who the authors actually were. Each of the Gospels is completely anonymous: their authors never announce their names. The titles we read in the Gospels (e.g., "The Gospel according to Matthew") were not put there by their authors, but by later scribes who wanted to tell you who, in their opinion, wrote these books. But for well over a century, scholars have realized that these opinions are almost certainly wrong. The followers of Jesus were uneducated, lower-class, Aramaic-speaking peasants from rural Galilee; these books, however, were written by highly educated and well trained, Greek-speaking, elite Christians living in cities in other locations. They were not eyewitnesses to the events they describe, and do not ever claim to be.

Where then did they get their stories? This is the second point to stress. For nearly 100 years scholars have realized that the Gospel writers acquired their stories about Jesus from the "oral tradition," that is, from the stories about Jesus's life, words, deeds, death, and resurrection that had been in circulation by word of mouth, in all the years from the time of his death. The Gospels were written between 70-95 CE — that is 40 to 65 years after the events they narrate. This means that the Gospel writers are recording stories that had been told and retold month after month, year after year, decade after decade, among Christians living throughout the Roman empire, in differing places, in different times, even in different languages.

In this next quote, Ehrman describes a little bit about the previous sources that the gospel writers relied on. This comes from the same type of critical analysis discussed in the previous chapter.

Sometimes, the differences among the Gospels are far larger and fundamental. Let me give just one example that I explain at length in my recent book *How Jesus Became God* (HarperOne, 2015). In the Gospel of John — just to stick with this account — Jesus spends almost his entire preaching ministry explaining who he is. This does not happen in Matthew, Mark, or Luke. In those Gospels, Jesus rarely speaks about himself, except to say that he must go to Jerusalem to

¹³ https://web.archive.org/web/20210801200240/https://thebestschools.org/spe cial/ehrman-licona-dialogue-reliability-new-testament/ehrman-majorstatement/

be rejected by the Jewish leaders, crucified, and then raised from the dead. In those earlier Gospels, Jesus spends the bulk of his time preaching that God's Kingdom is soon to arrive, and explaining both what the kingdom will be like and what people must do in preparation for its appearance.

In John, however, Jesus's preaching is almost entirely about his own identity. Here he makes the most breathtaking claims about himself, repeatedly claiming to be God, to the dismay of his Jewish listeners who regularly take up stones to execute him for blasphemy. You don't find anything like that in the public ministry of Jesus in the other Gospels. But here in John, Jesus says such things as "Before Abraham was, I am" (Abraham lived 1,800 years earlier! John 8:58); "I and the Father are one" (10:30); "If you have seen me you have seen the Father" (14:9). Here, Jesus speaks of the glory that he shared with the Father before the world was created (17:5).

These are spectacular passages, all of them. But did the man Jesus, during his life, actually say such things about himself? Here is a point worth considering. The other three Gospels, Matthew, Mark, and Luke, are all considered to be based on earlier sources. Scholars call these earlier sources Q (a source used by both Matthew and Luke for many of their sayings of Jesus), M (a source used just by Matthew), and L (a source used just by Luke). All of these sources were written much earlier than John, much nearer the time of Jesus's public ministry. What is striking is that in precisely none of these sources or Gospels does Jesus make the exalted claims for himself that you find in John. You will not find these claims in Mark, Q, M, L, Matthew, or Luke.

So, here is the question. If the historical Jesus actually went around claiming that he was God on earth, is there anything else that he could possibly say that would be more significant? That would be the most amazing thing he could conceivably say. And if so, it would certainly be what someone who was recording his words would want their readers to know about him. If that's the case, how do we explain the fact that such sayings are not found in any of our earlier sources? It's not simply that one or the other of them chose not to give these sayings. Precisely none of them give them. But these would be the most amazing things that Jesus ever said. Did all six of these earlier authors simply decide not to mention that part? All of them?

The more likely explanation is that Jesus did not actually say such things. Otherwise, they would have been reported. When Jesus says these things in John, it's because John is putting these words on his lips. You may certainly think that the words of Jesus in John are

Jesus

theologically true, that in fact Jesus was God on earth. But historically, these are probably not things Jesus himself actually said.

And here's one last quote from Ehrman, expanding upon how the stories about Jesus spread by word of mouth before these authors finally heard them and then wrote them down.

> The Gospels are written by highly literate, well-educated, Greekspeaking authors from other parts of the Roman Empire. They are basing their accounts on stories that they have heard, stories that have been told by word of mouth, month after month, year after year, decade after decade.

> You can probably imagine what happens to stories as they are circulated in this way. There was no way for the original eyewitnesses to control what one man told his wife, based on what he heard from a business associate, who had heard stories from his neighbor, who once had a cousin who was married to someone who had known an eyewitness. The stories almost certainly got changed over time. That's why there are so many differences among them.

Such differences and contradictions abound between the Gospels. For example, while Matthew and Luke both give genealogies of Jesus to show his direct descent from King David and the patriarchs, each gives a different list, starting with Jesus's paternal grandfather - Jacob in the case of Matthew and Heli in the case of Luke. According to Mark, Jesus ate the Passover meal with the disciples, got arrested that night, and then was crucified the next morning on a Friday, while in John, he was arrested, tried, and executed the day before Passover, on a Wednesday. Matthew & Mark, Luke, and John each give different last words for Jesus on the cross ("My God, my God, why have you forsaken me?", "Father, into your hands I commend my spirit," and "It is finished.") Each of the four Gospels gives a different account of all the various details of the discovery of the empty tomb (who found it, the time of day, the angels who were there, etc.) And there are many more contradictions about the nativity, his life, and his teachings, just like you would expect from people writing down oral traditions that had been floating around and morphing for a few decades. (Again, see the Skeptics Annotated Bible for detailed lists of such contradictions.)

There were also competing beliefs among the early Christians. There were $Ebionites^{14}$ – Jewish Christians who rejected Paul of Tarsus as an apostate, adoptionists¹⁵ – who thought Jesus was born due to a normal conception and

¹⁴ http://en.wikipedia.org/wiki/Ebionites

¹⁵ http://en.wikipedia.org/wiki/Adoptionists

didn't become the son of God until he was adopted at his baptism (Bart Ehrman has argued that Mark was originally an adoptionist work), Gnostics¹⁶ – who were heavily influenced by pagan mystery religions, and others. What we consider mainline Christianity today is composed of the beliefs of the sect that won out.

All these various Christians didn't realize they were writing 'the Bible'. They were merely writing their own letters, documents, biographies, and their own interpretations of things. It seems that by some time in the second century, mainstream Christianity had reached a consensus on the main writings to accept and to be thought of as scriptures, but the first time this became 'official' was at the Council of Rome in 382, with similar councils in Hippo and Carthage just a few years later, and there's still disagreement between different sects over exactly which books should be considered canon (e.g. why you'll find different Protestant, Catholic, and Orthodox Bibles).

Jesus's Name

This is pretty minor, but interesting enough to mention. Jesus's actual name was probably something more like Yeshua (ye-SHOO-ah), which was pretty common at the time. If you followed the normal path of ancient Aramaic names to present day English, Joshua would be the best translation. But since much of the New Testament was written in ancient Greek, and Greek had different sounds and conventions from Aramaic, Yeshua became 'Iησοῦς (Iésous, yay-SOOS). Then when the Gospels were translated into Latin, 'Iησοῦς became Iesus (YAY-soos). As the letter 'J' emerged in European languages, Iesus became Jesus (YEE-sus) and eventually in English acquired our modern pronunciation of 'J' (JEE-zus). So, while it would probably be more fitting to talk about Joshua son of Joseph, Jesus is the traditional name that everybody knows, now.

The Origin of the Resurrection Story and the Empty Tomb

Given that the relevant events happened around 2000 years ago and we have so little documentation of what might have happened, I doubt we'll ever know the true, complete details of how the story of the resurrection and the empty tomb came to be, but Bart Ehrman proposed a plausible scenario in his book, *How Jesus Became God*.

The first clue is in the seven authentic letters of Paul. These are the earliest Christian writings in the New Testament, and although they weren't intended as biographies, Paul never discussed the story of an empty tomb at all, nor did

¹⁶ http://en.wikipedia.org/wiki/Gnostic

he make any mention of Joseph of Arimathea (the man who donated his own tomb for Jesus's body).

It also would have been very unusual for Roman authorities to allow the burial of a crucified criminal. The whole point of crucifixion was to set an example and leave the body up as a warning. It would have been especially uncommon around Passover, a Jewish holiday associated with unrest towards Roman authorities.

Ehrman's proposal is that after Jesus's crucifixion, his disciples fled back to their hometown of Galilee, and never actually saw what became of his corpse. There, at least a few of them had visions of Jesus and became convinced he had been resurrected. These types of visions are known as post-bereavement hallucinatory experiences (PBHEs) or grief hallucinations, and are actually rather common. At least one study I came across found that six in ten grieving people see or hear dead loved ones¹⁷. And don't forget about the discussion of Sai Baba, where several of his followers have said they've had visions of him in the past decade. In short, it's not at all uncommon for people to believe they've seen dead people.

Once a few of Jesus's followers became convinced he'd been resurrected (likely through private visions by one or a few individuals, not the extensive interactions of the Gospels), the legend grew from there. By the time the Gospel of Mark was written down several decades later, the story of the empty tomb had come about, but then the other three Gospels that came yet later don't agree on the details. Granted, small discrepancies wouldn't be all that shocking even if the story were based on a real event (although they certainly highlight that the Gospels aren't inerrant), but I don't think we need to grant the Gospels undue credence and attempt to rationalize how the tomb wound up empty. There's no need for ideas like comas or disciples stealing the body. It seems far more parsimonious that the story of the empty tomb is just a legend that arose in the decades after Jesus's death, and that there never was an empty tomb in reality.

Let me take a moment to describe a landmark study on cognitive dissonance performed back in the 1950s, and described in the book, *When Prophecy Fails*. A small cult had grown up around Dorothy Martin and her prediction of a coming apocalypse on December 21st, 1954. A group of researchers caught wind of this prophecy beforehand, so decided to study how the cult members would react when it didn't come to pass. A few members became disillusioned and left the cult behind. But the most committed members

¹⁷ https://www.telegraph.co.uk/news/science/science-news/12191947/Six-inten-grieving-people-see-or-hear-dead-loved-ones.html

actually became *more* committed, inventing various rationalizations to explain away the failed prophecy.

I'm sure it was a similar situation with Jesus. He went around preaching about an apocalypse and the coming Son of Man, built up a group of loyal followers, and then got crucified by the Roman authorities. His death would have been shocking to all of his followers. And very likely, some of them did decide to leave the group behind. But the most committed probably would have searched for rationalizations to explain how their leader could have been killed, and grief hallucinations would have been just the catalyst to come up with an explanation.

Purpose of the Resurrection

Let me be blunt. The traditional rationale behind the resurrection doesn't make much sense. To be a tad crude and quote an Internet meme, God sent himself to sacrifice himself to appease himself to save humanity from himself.

What is the point of an all-powerful God sending his son / himself to be crucified, and then being resurrected and ascending into heaven? How does one person's (or god's) death atone for the sins of somebody else, let alone atone for all of humanity? If my daughter committed a crime, would she be absolved of guilt if I volunteered to be tortured and killed? How does the rationale change when it's a god being killed instead of me? Does it go back to the Old Testament notion of animal sacrifice, but Jesus's blood sacrifice was so powerful just because he happened to be the most valuable thing we could kill?

The story also calls into question the notion of God's omnipotence. If God were all-powerful, he wouldn't need to go through any elaborate ritual to forgive humans. He could simply forgive them by divine command. The fact that God is forced to go through with this ritual implies that there are higher powers in the universe constraining what even God can do.

Verses like John 3:16 seem tailor made to distract you from these questions, "For God so loved the world that he gave his only Son, so that everyone who believes in him may not perish but may have eternal life." It's playing on your emotions, trying to make you feel so bad for everything that Jesus had to go through that you feel too guilty to question the whole premise of the story, and you never realize how absurd the underlying rationale for the resurrection story actually is.

But, looking back to Ehrman's proposal for the development of the resurrection story, it makes much more sense. It's not a divine master plan to forgive humanity at all, but a post hoc rationalization by the early Christians to try to make sense of the untimely death of their leader.

Jesus's Failed Prophecies

This is only a short point, but it's worth mentioning the failed prophecies of Jesus. Jesus repeatedly claimed that the coming of the Son of Man was *imminent*, that it would occur within the lifetimes of the people he was preaching to. Some scholars debate over whether the historical Jesus was prophesizing his own return, or if the merging of Jesus with the Son of Man was something that occurred after his death as his legend grew, but he was definitely preaching *somebody*'s dramatic arrival. Here are just a few of the passages where he made this prediction:

For the Son of Man is to come with his angels in the glory of his Father, and then he will repay everyone for what has been done. Truly I tell you, there are some standing here who will not taste death before they see the Son of Man coming in his kingdom. (Matthew 16:27-28)

Truly I tell you, this generation will not pass away until all these things have taken place. (Matthew 24:34)

"Then they will see 'the Son of Man coming in clouds' with great power and glory. Then he will send out the angels and gather the elect from the four winds, from the ends of the earth to the ends of heaven. / "From the fig tree learn its lesson: as soon as its branch becomes tender and puts forth its leaves, you know that summer is near. So also, when you see these things taking place, you know that he is near, at the very gates. Truly I tell you, this generation will not pass away until all these things have taken place. (Mark 13:26-30)

Quite obviously, that generation has passed away, and yet no one ever saw the Son of Man coming in clouds or sending out an army of angels.

The Growing Legend of Jesus as Revealed through the Baptism

If the historical Jesus were merely a popular preacher, his baptism wouldn't have been particularly remarkable. But why would the son of God (or an incarnation of God himself) need to be baptized?

As I've already mentioned, the earliest Gospel in the Bible is Mark, and some scholars like Bart Ehrman have argued that it's an adoptionist work, where Jesus wasn't born the son of God, but was rather adopted by God later in life. Since Jesus was merely a man, Mark described the baptism itself matter of factly, and it was immediately after the baptism when God announced Jesus's adoption:

> In those days Jesus came from Nazareth of Galilee and was baptized by John in the Jordan. And just as he was coming up out of the water, he saw the heavens torn apart and the Spirit descending like a dove

on him. And a voice came from heaven, "You are my Son, the Beloved; with you I am well pleased." (Mark 1:9-11)

The Gospel of Matthew was written a bit later, and that writer had a slightly different interpretation of Jesus, where Jesus had been the Messiah since birth. It was a bit more problematic for the pre-destined Messiah to be baptized, so the writer of Matthew added a small protest from John the Baptist and a rationalization from Jesus:

Then Jesus came from Galilee to John at the Jordan, to be baptized by him. John would have prevented him, saying, "I need to be baptized by you, and do you come to me?" But Jesus answered him, "Let it be so now; for it is proper for us in this way to fulfill all righteousness." Then he consented. And when Jesus had been baptized, just as he came up from the water, suddenly the heavens were opened to him and he saw the Spirit of God descending like a dove and alighting on him. And a voice from heaven said, "This is my Son, the Beloved, with whom I am well pleased." (Matthew 3:13-17)

John was the latest of the Gospels, and had an altogether different view of Jesus much closer to the modern view, of an eternal, divine Messiah who was already in existence at the creation. Baptism is even more problematic for this version of Jesus. So, the writer of John simply omits the actual baptism entirely, and just has John the Baptist make a short speech:

The next day he [John the Baptist] saw Jesus coming toward him and declared, "Here is the Lamb of God who takes away the sin of the world! This is he of whom I said, 'After me comes a man who ranks ahead of me because he was before me.' I myself did not know him; but I came baptizing with water for this reason, that he might be revealed to Israel." And John testified, "I saw the Spirit descending from heaven like a dove, and it remained on him. I myself did not know him, but the one who sent me to baptize with water said to me, 'He on whom you see the Spirit descend and remain is the one who baptizes with the Holy Spirit.' And I myself have seen and have testified that this is the Son of God." (John 1:29-34)

Why all this rationalization and adjustments to the story? Because the actual historical Jesus probably really was baptized, and this was probably well enough known at the time that the Gospel writers couldn't simply ignore it. For the writer of Mark, with his adoptionist perspective, it wasn't all that big of a deal. But as the legend of Jesus grew, the writers of Matthew and John, with their loftier views of Jesus, needed some justification to reconcile their views with this historical reality.

In Defense of The Historical Jesus

This is an oddly controversial topic. On the one hand, you have Christians who, as you might expect, insist that Jesus absolutely was a real historical figure, pretty much as depicted in the Gospels. But on the other hand, you have skeptics who believe ideas ranging from Jesus being a completely mythical invention to Jesus being only very loosely based on a real person or even a group of people. The Mythicists are especially prominent, claiming that early Christians, including Paul, believed Jesus was a completely spiritual being whose struggles took place in a spiritual realm, and it was only in later decades that Christians came to view Jesus as an actual flesh and blood human being who lived and died on Earth. So, in a book promoting atheism, I find myself in the odd position of defending the existence of Jesus the man.

While it's hard to say anything definitive about someone from 2000 years ago with so little evidence of their existence, I do tend to think there probably was a real Jesus who founded the religion.

First of all, it's a rather mundane claim to say that a cult claiming to follow a guy named Jesus, really was founded by a guy named Jesus, and then myths and urban legends grew up around him as the years passed. For example, even though these people really exist(ed), George Washington probably never cut down a cherry tree, Mark Twain didn't say half the stuff attributed to him on the Internet, and Bill Gates is not going to send you \$245 for every person you forward an email to. And that's assuming Jesus wasn't intentionally deceiving people into thinking he was performing miracles (see Sai Baba).

It's not like other stories like Robin Hood or King Arthur whose origins are lost to legend. We can trace it back to copies of letters from Paul who claims to have met Jesus's brother, and who claims to have entered the group just a few years after Jesus died. That's pinpointed a lot more precisely and concretely than other vague legends.

Here are a few lines of evidence that I feel indicate it's more likely than not that there was a real Jesus:

The Nativity – The nativity is actually a weird story that doesn't make a whole lot of sense on its own. No government was performing censuses that required everyone to go back to their home towns. That kind of defeats the point of a census in the first place, which is to find out where people live so you know how to apportion resources. But, if your would-be Messiah came from Nazareth, while your scriptures prophesize that the Messiah would come from Bethlehem, well, there's a reason to make up a story to explain this discrepancy. But, there's no reason to make up this story if it wasn't based on a real person from Nazareth (or, at least, a belief that he was a real person from Nazareth).

The Baptism – As I described in detail in the previous section, it's awkward to show the Son of God getting baptized by a man, and you can see how the story gets adjusted from earlier to later Gospels as the legend of Jesus grew. Like the Nativity story, the only reason to include the baptism and to rationalize it at all is because it was based on a real event that people knew about.

The Crucifixion – Death by crucifixion doesn't really seem like the type of story people would make up about their Messiah. There's even a surviving bit of Roman graffiti mocking Christians for worshipping a crucified God (see the figure on the facing page). And as previously discussed, the whole rationale of the crucifixion and resurrection seems pretty convoluted, and not the type of thing someone would intentionally invent. It seems a lot more plausible that people only invented the rationale after the fact to ease their cognitive dissonance after their leader was unexpectedly killed.

Paul's (Authentic) Letters – Paul never met Jesus, but he was communicating with other followers not long after Jesus's death. He claimed to have met Jesus's brother ("but I did not see any other apostle except James the Lord's brother" Galatians 1:19). And in contrast to what some of the mythicists might claim, Paul actually did write numerous times about Jesus as a man, a blood descendant of King David and the Patriarchs, born of a woman, who was physically executed (Romans 1:3, Galatians 4:4, Galatians 3:16, Romans 9:5, 1 Corinthians 2:8, 1 Corinthians 15:3-5).

Josephus – Josephus was a Roman-Jewish historian. His work, *Antiquities of the Jews*, written a few decades after Jesus would have died, has survived to today thanks to copies. Among other things, he discusses a few Jewish preachers and cult leaders, including a couple brief mentions of the Christian Jesus. Admittedly, it's likely one of these mentions in particular has been exaggerated by later Christian scribes during the copying process, known as the *Testimonium Flavianum*, though the consensus seems to be it was embellished because there probably was some mention of Jesus there originally. The other passage, "the brother of Jesus, who was called Christ, whose name was James" is much more widely accepted as being authentic.

Along with the other New Testament writings (of somewhat questionable reliability, as already discussed), there really isn't that much more evidence for Jesus. But keep in mind that Jesus, the leader of a minor cult, is a much different character than Jesus Christ, Son of God. You wouldn't really expect many literate people at the time to have taken particular note of a minor cult leader. Such leaders were and still are a dime a dozen. How many people in the U.S. knew about Marshall Applewhite or David Koresh before their infamous deaths? Christianity probably didn't attract much attention until it began growing in popularity in the decades after Jesus's death.

And keep in mind how little of any written materials or records still survive from 2000 years ago. We don't have a single Roman record listing anybody condemned to crucifixion, despite knowing it was a widespread practice. We don't even have any surviving contemporary records of Hannibal, and he was a much more important figure than Jesus the minor cult leader. Papyrus and parchment don't do well surviving long term, and the only reason we have most of the material we do is either because of an unbroken chain of scribes over history who made copies before the previous copy disintegrated, or we've been lucky enough to find a handful of documents cached away somewhere that helped to preserve them. Nobody was particularly interested in preserving mere clerical records, so don't expect to find surviving detailed records from a backwater province of the Roman Empire.

Of course, the extreme skeptics and mythicists have their own interpretations of Paul, the Gospels, and sources like Josephus. But I find their rationalizations even more unlikely, and that they introduce even more complications into trying to explain the source of the stories. I'm not 100% certain given the paucity of evidence, but I do think it's fairly likely that there was a real Jesus that served as the inspiration for the legend that grew up around him.



ABOVE: Alexamenos Graffito. Translation: "Alexamenos worships [his] God"

Biblical Literalism, Creationism, Science, Evolution, and the Big Bang

The majority of Christians actually do accept the science of evolution and the Big Bang, but there are still enough who don't that the topic is worth discussing. And even among the Christians who accept evolution and the Big Bang, their arguments to reconcile the Bible with science seem more like a rationalization rather than a natural interpretation of the Bible itself. There are also other biblical narratives that aren't so obviously mythical and seem like they should be historical, but which still aren't true in any literal sense. So, I'd like to explain why we can have so much confidence in archaeology and other studies of the past when they contradict what the Bible tells us.

This topic is also a bit personal. Like most mainstream Christians, I'd always accepted the scientific view of the history of Earth and the rest of the universe, and I rationalized it with the Bible by assuming that the Genesis accounts were figurative, though without ever giving that reconciliation any real scrutiny. I didn't realize how prevalent creationism was until the Intelligent Design movement finally made me aware of its extent, and that realization made me wonder if I was being a bad Christian by accepting the scientific view of the history of the planet and the universe when so many other Christians insisted that you had to accept creationism. So, I researched the topic from both points of view. I learned a whole lot more about evolution than what I was ever taught in high school biology class, and I read various creationist websites to see their arguments. Needless to say, there's a reason why evolution is so overwhelmingly accepted in the scientific community, which only strengthened my acceptance of the scientific viewpoint. And the outlandish and many times dishonest arguments put out by the creationists greatly tarnished their reputation in my eyes. (This is when I first heard the term, Lying for Jesus.)

This whole exercise made me realize that my figurative interpretation of Genesis was a bit strained, and that put me on a path to dig deeper into understanding the Bible and how it came to be. Creationism wasn't the only issue to make me question my faith at the time, but it was one of the big ones.

Confidence in Science

I place a lot of confidence in science. I think it's the best method we have for answering questions with objectively true answers, and I think we can have a high confidence in the answers it gives us. But where does that confidence come from? Throughout the past, people have had explanations for aspects of the universe that they believed were correct, but have since turned out to be wrong (e.g. the Sun orbiting the Earth). Given humanity's history of failed explanations, shouldn't we expect that many of our current explanations are also wrong, and be a little more cautious in our certainty?

One reason to be confident in the scientific process is pragmatic – just look at the results. Science as the formalized discipline that we think of has only been around a few hundred years, getting started in the Renaissance, but not really coming into its own until after the Enlightenment. And look at how fast our technology has progressed in that short time compared to the previous millennia of human existence. We've invented telescopes, steam engines, automobiles, semiconductors, airplanes, computers, TVs, radio, lasers, vaccines, antibiotics, cures for some cancers. We've sent people to the moon. These accomplishments are all based on knowledge that we've learned through science. We wouldn't have been able to accomplish all of that if we didn't have an accurate understanding of reality. Granted, there are other fields of science that haven't yielded practical applications, and possibly never will. The Big Bang may not ever give us any new technologies. But given the technologies we have developed from so many other fields, we know that the methods produce reliable results.

We can also gain confidence by looking at how science works. Broadly speaking, science deals with the 'observable' – anything that leaves evidence that can be studied. In general, you gather evidence, think of ways to explain that evidence, then gather more evidence to test your explanations. Science is formalizing that general process with 'lessons learned' on the best ways to go about that gathering and testing to avoid various potential pitfalls.

Richard Feynman once said, "Science is a way of trying not to fool yourself. The first principle is that you must not fool yourself, and you are the easiest person to fool." There are all types of ways that we can make mistakes in our reasoning, collectively known as *cognitive biases*. They include such things as confirmation bias, the placebo effect, the re-interpretation effect, observer bias, and more. I won't go into detailed discussions here, but you can find long lists of cognitive biases from sources such as Wikipedia¹⁸. A big part of

For another excellent reference, see: http://www.jefflewis.net/double blind gaze.html

¹⁸ http://en.wikipedia.org/wiki/List_of_cognitive_biases

science is recognizing and accounting for all these potential mistakes. Along similar lines, science is not just a search for evidence that confirms your ideas. It's a search for evidence that would disprove your ideas. A big part of science is recognizing when you're wrong.

Science also helps us to think less in terms of absolute certainty, and more in terms of degrees of certainty. If you're being honest with yourself, there's no way to be absolutely certain of anything. Although it would be extremely unlikely, we can't completely rule out the possibility that we're living in The Matrix, or hallucinating, and nothing is as it seems. In normal everyday conversation however, we tend to ignore those types of outlandish possibilities, and say that we're positive of something, even if technically we mean nearly positive - things like the roughly spherical shape of the Earth, the Earth orbiting the Sun, or a water molecule being composed of one oxygen atom and two hydrogen atoms. We should no sooner expect those facts to be overturned than we should expect to wake up on the Nebuchadnezzar fighting alongside Neo¹⁹. Other things we've learned through science don't have quite as much evidence. Dark matter is an example of this. We can say that we're really darned sure that dark matter exists and is the reason why stars' orbits in the galaxy are the way they are, but it's not quite so certain. It would still be really surprising to see dark matter turn out to be false, but not earth shattering. You can keep moving down through levels of certainty through things like String Theory, which doesn't really have any evidence confirming it specifically over other theories, but which is at least consistent with known evidence. If string theory turned out to be false. I wouldn't be all that surprised. You can go even further, and find theories inconsistent with known evidence, such as the supposed link between vaccines and autism, or the aether theory of light. We can be pretty sure that those ideas are false.

Science also makes us think in terms of degree of accuracy. Isaac Asimov wrote a good essay titled, *The Relativity of Wrong*²⁰. Here's a passage I really like from that essay:

When people thought the earth was flat, they were wrong. When people thought the earth was spherical, they were wrong. But if you think that thinking the earth is spherical is just as wrong as thinking the earth is flat, then your view is wronger than both of them put together. 21

¹⁹ For those who haven't watched the movie, this is another Matrix reference.

²⁰ http://chem.tufts.edu/AnswersInScience/RelativityofWrong.htm

²¹ Even if ignoring the surface imperfections due to mountains, valleys, and such, there is a *very slight* bulge due to the spin of the Earth that's greatest at the equator, making the shape just a very tiny bit fatter than a true sphere.

An example I like to use is atomic theory and electrons. Three hundred years ago, nobody even had a notion that electrons existed. Throughout the 1800s, electrical charges and some of the fundamentals of nuclear physics were beginning to be understood. In 1897, J.J. Thompson performed his famous experiments that gave us much more knowledge of the nature of the electron and introduced the plum pudding model of the atom, with negatively charged electrons embedded in a positively charged ball. A decade later Ernest Rutherford introduced the "solar system" model, where electrons orbit the nucleus like tiny planets orbiting a sun. Niels Bohr made a slight improvement to this in 1913, where the orbits were at specific distances defined by quantum mechanics. The current model is that electrons in an atom exist in wave-like orbitals, sort of smeared out in a standing wave thanks to wave-particle duality. And scientists have theorized and discovered subatomic particles that are even smaller than electrons. The current model may also be supplanted, but with each improved theory from Thompson on to the present, we're zeroing in on the truth, and learning about even more particles along the way.

Those are some of the reasons why we can have confidence in what we learn through science. It's produced results that just wouldn't be possible if the methods didn't work. But it's not simply a matter of thinking that everything science reveals is absolutely right – it's recognizing how science works, what explanations are most likely to be true, and how close we should expect those explanations to be to the actual truth. And even after you have a fair level of confidence in your explanation, it's always possible that some new evidence may come along that forces you to rethink that explanation. That's not a shortcoming – it's keeping an open mind. And in your course of finding all this evidence, you may be presented with new questions that need their own explanations.

I'd like to take a moment to briefly discuss the semantics of laws vs. theories, since the way these terms are used in casual conversation isn't the same way they're used in science, and this can generate some confusion. Ideas don't 'graduate' from theories to laws. Laws and theories are separate things. Laws tend to be more focused ideas that can be expressed with a single equation or sentence – think of Newton's three Laws of Motion. Theories tend to be more overarching frameworks that incorporate many ideas and laws. Newton's Laws of Motion are actually just a small part of the overarching theory of Classical Mechanics. Simply being a law or theory doesn't necessarily mean the concept is true. Different laws and theories have different levels of confidence. The Germ Theory of Disease, for example, is pretty much universally accepted, while String Theory is still hotly contested, and Phlogiston Theory (used to explain fire before the understanding that combustion is a chemical reaction) is outright rejected. And a law like Newton's Law of Universal Gravitation is now known to only be a close

approximation under certain conditions, and has been superseded by Einstein's more accurate Theory of General Relativity.

Were You There? Studying the Past

Creationists often try to claim that there's no way to be sure about things that happened in the past because we can't go back and witness them directly. The arguments I've seen are as simple as asking, "Were you there²²," to claiming that science can't study the past because we can no longer experiment on it²³. Many are fond of insisting on eyewitness accounts (and of course, going on to claim that the Bible represents a reliable eyewitness account all the way back to Creation). But this line of thinking reveals a lack of understanding about how science works, not any actual limitations of science. Just because things happened when people weren't around doesn't mean that we can't still know things about them. Based on enough evidence, we can be as sure about events that nobody witnessed directly as we can be about anything. To say that we can be sure about things such as the U.S. Civil War but not about the evolution of life ignores the way that we gather evidence to study things.

An obvious, everyday example is court trials. When a case goes to trial, neither the judge nor the jury were ever at the scene of the crime. They must make their decision based solely on the evidence presented to them by the lawyers, and even in cases without eyewitnesses, they are able to make these decisions "beyond a reasonable doubt." They certainly have enough confidence in their evidence-based decisions to send people to jail for life, and in some cases to even sentence people to death.

More broadly, when things happen, they leave evidence. As per the earlier discussion on the nature of science, you study that evidence to try to determine what it is, exactly, that has happened. Eyewitness accounts can be one line of evidence, but even they aren't absolute proof - just consider

²² http://blogs.answersingenesis.org/aroundtheworld/2006/10/03/studio-60-onthe-sunset-strip-uses-ken-hams-were-you-there/ – "One of the ways I teach children to understand the philosophy of science is to teach them, based on Job 38:4 (when God asks Job, 'where were you when I laid the foundation of the earth') to ask 'Were you there??' when someone talks about millions of years, etc." – Ken Ham

²³ http://sciencetheoryreligion.angelcities.com/index.html – "The contention in this examination of the origins debate is that the debate should have never been placed within science because it cannot be established within its jurisdiction. This online article will continue to explore the indicators that the study of ORIGINS is outside scientific theory and inaccessible by scientific methodology." – unknown author

magicians and optical illusions to show how easily our perception can be fooled. And even with eyewitness accounts, we like other forms of evidence as corroboration to be sure that people are remembering the event correctly. In my day job as an engineer, I've been involved in flight testing. And when comparing the debriefings taken from the pilots *immediately* after the flight when their memories were at their freshest to videos and the flight test data recorded by the aircraft sensors, there were usually discrepancies, sometimes fairly major ones. And between pilots' memories vs. recorded data, you can guess which source we trusted more.

Let's look at an example of studying the past - ice core sampling. We can currently witness the processes forming ice in glaciers and polar ice sheets. We can drill core samples into that ice and study those samples. What we find is consistent with the processes occurring right now, with distinct layers corresponding to yearly and seasonal cycles. We can also find evidence of events documented in historical accounts, such as volcanic eruptions, to verify the dating determined in those core samples. So, here we have a line of evidence about the past independent of historical accounts, but which does match up when compared to historical accounts. The thing is, though, that these ice core samples go back a long way, hundreds of thousands of years in some cases, back beyond the time for which historical records exist. So, if these cores were validated with historical accounts back as far as the historical accounts go, and beyond that, the cores keep going, forming a consistent record, what reason is there to doubt them? And when you further consider that these samples can be compared to ice cores taken from other locations, or even to such things as ocean sediment cores, our confidence in them can be even higher.24

Let's briefly look at the similar creationist argument that studying the past is outside the realm of scientific investigation because you can no longer perform experiments on it. That's merely another example of creationists not understanding how science works. Science only requires evidence, not laboratory experiments. Lab experiments are certainly a useful way to gather evidence when you can do them, especially since they let you control specific variables so precisely, but they're not the only way to gather evidence. So, with every archaeological dig, every astronomer looking into a telescope, every biologist studying DNA, we are compiling more evidence to test the current theories about the past.

The Big Bang

Some people seem to think the Big Bang was invented out of nowhere to try to explain existence without the need for a god. That's not the case at all. For

²⁴ http://www.sciencedaily.com/releases/2000/02/000229074731.htm

one, it was a Catholic priest, Georges Lemaître, who did much of the early, pioneering, theoretical work on the theory, earning himself the reputation as the father of the Big Bang theory. He obviously wasn't motivated by wanting to disprove God. In fact, the theory originally had a bit of a religious connotation since it implied an 'In the beginning...' Because of this, it was an atheist astronomer, Fred Hoyle, who coined the term, 'Big Bang', as a derogatory insult of the theory. Hoyle preferred the Steady State theory, where the universe was eternal without any moment of creation.

But in the end, motivations don't define good science. Evidence does. And it's the evidence that led Lemaître and others to develop and eventually accept the Big Bang theory. So, let's go over a quick, simplified history of how the theory developed.

But first, let's briefly clear up misconceptions about what the Big Bang theory actually is and isn't. It was not a big explosion in space in the way most people think of explosions. It was an expansion of space itself. At some point, roughly 14 billion years ago, space was extremely compressed compared to what it is now – so compressed that the entire visible universe we can see through the Hubble and James Webb space telescopes would have been roughly the same size as a volleyball, and potentially even infinitely compact. The Big Bang theory describes how the universe expanded from this initial hot dense state, not how it got to that state in the first place. And to be clear, what we can see through Hubble and James Webb is only the visible universe – the universe is likely far larger, perhaps infinite. So, the Big Bang wasn't like a ball expanding from a central point, but everything, everywhere, expanding away from everything else. There is no center of the Big Bang. It happened everywhere.

The early 20th century saw several developments that led to the discovery of the Big Bang. In the 1910s, Einstein published his theory of General Relativity, which gave much more insight into the behavior of light and gravity. In that same decade, by looking at the red shift of spiral galaxies, Vesto Slipher and Carl Wilhelm Wirtzwhen independently determined that spiral galaxies were moving away from the Earth (red shift is similar in principle to the Doppler effect that makes a car sound higher pitched when it's coming towards you and lower pitched when it's moving away, but applied to light waves instead of sound waves). Using Einstein's theory, Georges Lemaître (the Catholic priest) came up with a theory of an expanding universe to explain the red shift seen in galaxies. Not long after in 1929, Edwin Hubble published the results of some observations he had made, providing a comprehensive set of data for many galaxies, comparing their red-shift, or the speed they were moving away from Earth, to their distance away from Earth. What he found was consistent with Lemaître's work, that the farther away the galaxies were, the faster they were moving away from us. This certainly seemed to indicate that the universe was expanding, which logically meant that at some point in the past, it was much more compact that it is now.

The theoretical types did some more theorizing, and Lemaître proposed the Big Bang (though Hoyle wouldn't actually coin the term 'Big Bang' until the 1950s). One of the predictions was that there should be left over background radiation due to the initial hot dense state of the universe. For the next several decades, there were refinements to the theory, along with predictions on just what exactly the background radiation should be. Then, in 1964, Arno Penzias and Robert Woodrow Wilson built a radio antenna that they intended to use for radio astronomy and satellite communications experiments. But in trying to do their initial setup and calibration, they discovered that no matter where they aimed the antenna, they picked up a signal. After ruling out loose connections and earthly interference, and then conferring with other physicists, they realized that they'd detected this background radiation that the theoretical physicists had predicted. In more recent years, satellites have been launched into space to make even more accurate measurements of this background radiation, providing detailed maps across the entire sky.

Even from such a brief summary, you can see that it really was the evidence driving the discovery and acceptance of the Big Bang.

But what caused the Big Bang in the first place? Well, no one really knows. Scientists aren't sure if anything came before the Big Bang, or if there even is such a thing as 'before' the Big Bang. There are plenty of ideas, but they're still all conjecture. There are cyclic models, where a previous incarnation of the universe was 'reborn' in our Big Bang, and where ours will eventually give rise to a different incarnation in yet another Big Bang. There are multiverse ideas, where something (colliding branes, quantum fluctuations, etc.) has caused multiple Big Bangs, including the one that marked the birth of our universe. Stephen Hawking could be right, where time exists in multiple dimensions, so there's no boundary to time even at t=0 (like you can't go south of the South Pole, even though there's no discontinuity there). Heck, if I'm wrong about atheism, it could be God himself who caused the Big Bang (as Lemaître and several popes have thought).

The main point is that there is strong evidence supporting the Big Bang itself and the subsequent history of the universe after that moment. The fact that the cause of the Big Bang is still a mystery is just that -a mystery about the cause, not a reason to doubt all the evidence of what came after.

Age of the Earth

Our own planet is roughly 4.5 billion years old. But how did people figure this out? In European scientific circles, at least, the sense of a truly ancient Earth really took hold after Charles Lyell published his multi-volume work, *Principles of Geology*, in the 1830s. There had been debate before then, but Lyell's work was truly influential. In contrast to people who thought that Earth had been shaped by catastrophes literally of Biblical proportion like Noah's flood, Lyell endorsed an idea called uniformitarianism, that

understanding processes occurring in the present and extrapolating those into the past was the key to understanding Earth's history. And when you look at how slow erosion takes place, how long it takes for sediment to build up, how long it takes glaciers to build up from snowfall, and many other processes, it becomes obvious that the Earth is more than just a few thousand years old.

Chalk cliffs are an especially extreme example. Chalk is made up of the shells of tiny algae called foraminifera, and only forms in calm waters where the shells of dead foraminifera can gradually settle down to the ocean floor. And it has to be nearly pure foraminifera shells without any other sediment polluting the deposits, or else it forms a different type of sedimentary rock. The deposits only accumulate at a rate of 1 - 6 cm every thousand years. Just imagine how long it must have taken to form the White Cliffs of Dover - 350 ft tall above sea level, with the full deposits going below sea level more than 1600 ft in places.

But people still couldn't put a number to the age of the planet, yet. They just knew it was ancient (they did know the relative order of the geologic column, but not absolute dates). It was the discovery of radioactivity in the late 1800s that opened up the possibility of accurate estimates. Radioactive decay is the process where an element will decay into one or more lighter elements, and it does so at a predictable rate. This rate is usually described as a 'half-life' - the amount of time it takes for half of the original sample to decay into those other elements. In the next half-life, half of the remaining amount will decay. And on and on. So, for example, let's consider radium (one of the first elements discovered to be radioactive), which has a half-life of 1600 years. If you started out with 16 kg of radium, put it in a time capsule, and had a future generation check on it in 1600 years, there would only be 8 kg of radium left (along with roughly 8 kg of decay products). Have them put it back in the time capsule and check in another 1600 years, and only half of that radium will be left - 4 kg. Another 1600 years - 2 kg. Assuming your time capsule was sealed well enough, there would still be approximately 16 kg of stuff in there, just not all of it radium. Radium decays into radon, which is itself radioactive. Radon decays into polonium, which is also radioactive. There's a whole chain of radioactive decay products, eventually ending up at lead-204, which isn't radioactive, so you'd have a mix of all these various decay products in addition to the remaining radium.

If you can find something like solidified lava or granite, where you know the elements have been 'frozen' in place since the stone solidified, and then carefully measure the proportions of radioactive elements to their decay products, you can figure out how long it's been since the stone formed. Of course, there's more detail to it than that, and you have to use a radioactive element with a half-life appropriate to the age you're measuring (e.g. Radium would only be good for a few thousand years, not millions or billions). It took a little while for people to realize this potential, and a bit longer to perfect the

techniques, but by the 1950s, people had used radiometric dating to come up with an accurate age of the Earth of \sim 4.55 billion years.

This is also handy for dating various events in the distant past. You don't actually need a solidified lava flow or granite bed to do this type of dating (though those will obviously work). Volcanic ash works as well, and this ash can be found lots of places. If you can find suitable dating material below and above a geologic layer, you can bound the ages of that layer – younger than the deeper material, older than the shallower material. Do this enough places in comparison to enough layers, and you can build up a pretty good idea of dates in the past – well enough to know, for example, that there was a mass extinction event around 65 million years ago that wiped out nearly all of the dinosaurs alive at the time (as far as we know, all of them except a few birds).

Evolution and the Origin of Life

Let's start off with a very brief introduction on what evolution is, since there seem to be so many misconceptions out there. Evolution is the changes in the genetics of a population over time. This can range from small adaptations like fur color, to major changes over the long term like fish evolving into land animals. The basis of evolution (or at least, natural selection) is so simple it almost seems obvious:

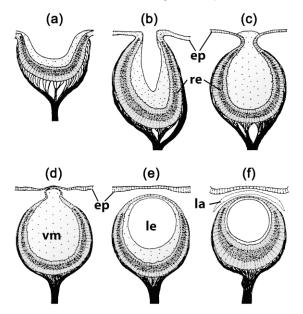
- 1. Organisms have more offspring than what will survive to go on and have offspring of their own.
- 2. There's slight variation among all the offspring, such that some will be more successful at surviving and reproducing than others.
- 3. Given the first two points, it just stands to reason that the genes responsible for those certain offspring being more successful will become more common in the population, while less successful genes will be weeded out.

Let these scenarios play out generation after generation after generation, and they can eventually accumulate into major changes.

To be clear, there's no direction, foresight, or goals to evolution. If a trait isn't beneficial, it won't be maintained for some potential future offspring. Evolution is all about what's successful for an organism in its own lifetime in its environment and niche. And it's not necessarily about being the biggest or the strongest. If food is scarce, for example, it might be better to be smaller so that you don't starve to death. To reiterate, it's all about being the best fit for a particular environment and niche (i.e. the 'fittest').

I don't want to go overboard here describing evolution, but a few examples might help. Let's start with the quintessential example – eyes. At first blush, it may seem hard to imagine how an organ as intricate and complex as an eye

could evolve through these stepwise iterations that evolution requires, but take a look at the figure below. Every single one of the eyes in that diagram can be found in existing, living organisms – all of them snails, actually – illustrating that every single one of those eyes is functional and beneficial to its owner. At the very least, this answers the common quip of 'What use is half an eye?' (Of course, eyes evolved independently in our own vertebrate lineage, with slightly different anatomical details – we're not descended from snails – but the general scenario would have been very similar.)



ABOVE: Examples of Eyes Found in Living Snails, from Futuyma

The first eye (a), is little more than a light sensitive cup. It may not let its owner form an image, but it still lets those snails detect light and the direction the light is coming from. Many, many millions of years ago, an eye very much like that was the most advanced eye that any snail possessed. (In other organisms like starfish, you can find even more primitive eyes, sometimes just light sensitive spots, or in the case of hydra, individual light sensitive neurons.)

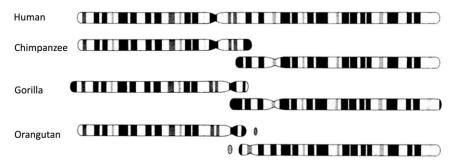
That ancient species of snail with that cup type eye split into two species, and those split into more, and those split into more. In at least one of those lineages, by chance, mutations appeared that made an eye that more closely resembled the second eye in that diagram. But all of its cousin species still had the simpler cup type eye. And all those cousin species with the simpler cup type eyes were still doing a good enough job of surviving and reproducing in their own niches, so they still survived. They weren't going to all suddenly go extinct just because one of their cousins evolved a bit better eye. The new species with the better eye probably had advantages in certain niches, especially those that required being more active, and so probably did pretty well for itself, and proliferated into its own group of species with those better eyes. But only its descendants inherited the genes for that better eye, because they were the only ones that *could*. It couldn't pass those genes on to its cousin species that still had the simpler eyes, only to its own descendants.

This process played out over and over. One of the descendants of the snail with the slightly better eye evolved a slightly better eye itself. And then one of its descendants evolved a better eye, and so on, until eventually, you had snails with eyes like the last one in that diagram, with a lens and everything. But, some of the snails with simpler versions still managed to eke out their own survival, so that today you can find each one of these stages of eye evolution in still living snails. And you can see how it was a gradual process, with each stage only being a small change from the stage before, and each stage being beneficial to that generation of snails.

Of course, not every lineage of snail survived to the present day. There's only so much food and other resources to go around. So, some lineages weren't able to eke out an existence and went extinct. But, new species evolved to take their place, keeping the tree of life filled in.

The other example I'll use is a little more personal – human genetics. You've probably heard that humans and other apes are very closely related. However, humans have 23 pairs of chromosomes, while the other apes have 24 pairs. If we all evolved from a common ancestor, how did we end up with different chromosome numbers?

Well, when researchers looked at the chromosomes of humans and the other apes and stained them with a dye (standard practice for looking at things under a microscope), they found that the banding patterns on our chromosome 2 match up very well with the banding patterns on chromosomes 2A and 2B from the other apes.



ABOVE: Comparing Human Chromosome 2 with Ape Chromosomes 2A and 2B

What's more, chromosomes contain structures at their ends called telomeres, which are basically buffers to protect the chromosomes when they get copied (our cellular 'machinery' isn't perfect, and loses a bit from the end of each chromosome every time a chromosome gets copied – it takes a special process to regenerate the telomeres, which in mammals usually only happens in eggs, sperm, and stem cells). There's also a structure somewhere in the middle of each chromosome called a centromere – the narrow 'bottlenecks' in each chromosome in the figure above. They're a kind of 'handle' for proteins to grab the chromosome. When researchers looked in detail at human chromosome 2, they found the genetic remnants of a centromere and telomeres exactly where you'd expect from comparison to ape chromosomes 2A and 2B. (In fact, all these similarities are why the ape chromosomes are numbered 2A and 2B.)

Another example from our genetics is what's known as a pseudogene – a stretch of DNA that's recognizable as having once been a gene in our ancestors, but which has been damaged by mutation to the point that it no longer works. All organisms actually have many pseudogenes, but I want to mention one in particular that's involved in synthesizing vitamin C – L-gulono- γ -lactone oxidase, or GULO.

All but three lineages of mammals can synthesize their own vitamin C and don't need to get it from their diets like us. The three lineages that can't synthesize vitamin C are anthropoid primates (which includes us), guinea pigs, and bats. All three of those lineages contain a broken form of the GULO gene, but the specific mutations that broke it are different in each lineage, but common to all members of those lineages. In other words, the damage to the GULO gene is the same in all anthropoid apes, but different from the damage in either guinea pigs or bats. Similarly, all guinea pigs share the same damage, which is different from that in primates or bats. And it's the same thing once again for the damage to the gene in bats.

That really is a smoking gun for common descent. When you have the same broken genes in closely related species, and broken in the same way, it's hard to explain in any way besides inheritance from a common ancestor. The chances of those same mutations occurring independently in the same manner in all of the anthropoid primates is simply too unlikely to be taken seriously. So, from a creationist perspective, that would mean all those broken genes would have had to have been present in all anthropoid primates from the very beginning. But why would God have put broken genes into organisms in the first place, and why break them in the same way in all anthropoid primates, but then in a different way in guinea pigs and yet a different way in bats, and in yet more ways in non-mammals that I didn't discuss.

From an evolutionary perspective, on the other hand, it makes perfect sense. The damage occurred once in the common ancestor of anthropoid primates through a particular set of mutations (and presumably wasn't particularly harmful since they were getting enough vitamin C from their diet), and that broken gene was then passed on to all its descendants. At another time in another place, damage of a different sort occurred in some ancestral guinea pig, which was then passed on to all the descendant guinea pigs. And the same thing for bats, and all the non-mammals that have damage to GULO. And when you consider all the other pseudogenes that can be found throughout the tree of life, it's one of the strongest lines of evidence for common descent that there is.

We can also see the processes of evolution playing out in modern times. We see it happen all the time in bacteria and antibiotic resistance. We've observed beak sizes evolving in finches on the Galapagos islands. We've seen lizards on Pod Mrcaru island evolve cecal valves in their intestines in just a few decades since they were introduced to that island in 1971. We've seen speciation events of crayfish, all types of plants, and many insects. These are the exact types of processes that, if repeated for thousands and millions of years, would produce the results consistent with universal common descent.

The origin of life is not technically the same topic as evolution (it's not important to evolutionary biology how life got started – it describes what happens once you already have life), but it does seem appropriate to discuss here. As you'd probably expect, given that life began on Earth somewhere on the order of 4 billion years ago, and that it was more or less chemical reactions that wouldn't leave behind much in the way of lasting evidence, no one really knows exactly how it happened or how long it took. Still, it probably would have taken a very long time from a human scale, so if you were hoping to run an experiment in a lab where you just throw in a bunch of raw chemicals, let them churn for a few weeks, and end up with a protocell, that's probably not going to happen.

There are conflicting ideas on how and where life was mostly likely to have started. Just consider if you wanted to perform an experiment that replicated modern day Earth conditions, what conditions would you use? An ice encrusted mountain peak in Antarctica? A hot spring in Yellowstone? A tidal pool in New England? A hydrothermal vent off the coast of Hawaii? The hypersaline waters of the Dead Sea? The desiccated soils of the Atacama Desert? The Earth is a big place, with lots of different conditions depending on exactly where you are. The ancient Earth was just as big, with just as varying of conditions. So, you have to decide which location you want to simulate in your lab, and hope that you're actually getting the conditions right, since it was billions of years ago and you can't just go to Weather Underground to look up the weather records.

Nevertheless, there are lots of experiments looking at different stages of the emergence of life, testing different ideas about how and where it might have happened. Two leading ideas (though certainly not the only ones) are that life might have gotten started in hydrothermal vents deep in the ocean, since those

provide energy and lots of interesting chemistry, or, harkening back to Darwin's "warm little pond", in small, shallow pools of water on land that produce their own interesting chemistry thanks to UV radiation from the Sun and by going through alternating wet-dry cycles through rainfall and evaporation. To give just one example of the type of research in this field, here's a summary of one scientist who favors the small, shallow pool hypothesis:

> Some of the key evidence in favour of this idea emerged in 2009, when [Dr. John] Sutherland announced that he and his team had successfully made two of the four nucleotides that comprise RNA. They started with phosphate and four simple carbon-based chemicals, including a cyanide salt called cyanamide. The chemicals were dissolved in water throughout, but they were highly concentrated, and crucial steps required UV radiation. Such reactions could not take place deep in an ocean — only in a small pool or stream exposed to sunlight, where chemicals could be concentrated, he says.

> Sutherland's team has since shown that the same starter chemicals, if they are treated subtly differently, can also produce precursors to proteins and lipids. The researchers suggest that these reactions might have taken place if water containing cyanide salts was dried out by the Sun, leaving a layer of dry, cyanide-related chemicals that was then heated by, say, geothermal activity. In the past year, his team has produced the building blocks of DNA — something previously thought implausible — using energy from sunlight and some of the same chemicals at high concentrations.²⁵

Other researchers have looked into other stages, other potential conditions, more chemicals and proteins, the lipids that can form membranes to enclose a cell, and various other pieces to this puzzle. It's also interesting to note that certain organic molecules, including amino acids, have actually been found naturally occurring on meteorites, as just further confirmation that there's nothing magic about biology that's required to make these molecules – it really is all just chemistry (albeit, very, very complicated chemistry).

Of course, you may wonder, if these chemicals can form naturally, why don't we see any new proto-life or precursors today? The answer is that the Earth is already covered in life, and that life is hungry. Bacteria will consume any chemical that's at all useful. There are even bacteria that evolved to eat nylon sometime in the last century since humans invented that particular plastic. Four billion years ago, before there were living cells, all this pre-biotic chemistry could carry on in relative peace, 'leisurely' going through all these

²⁵ https://www.nature.com/articles/d41586-020-03461-4

increasingly complex reactions. But any such precursor molecules that might get produced today get eaten by hungry bacteria before they ever have a chance to produce anything more interesting.

I could go on and on listing evidence for evolution, from fossils to genetics to biogeography to vestigial structures to observed instances of evolution and more. And I could delve into deeper discussions of the mechanisms and principles behind evolution, from mutation and natural selection to punctuated equilibrium to gradualism to genetic drift to neutral theory to Hardy-Weinberg equilibrium to Dollo's Law and even more. But then this would be a book about evolution, not religion, so I suppose I'll leave it at this.

While all of the exact lineages may not be known, and our understanding of the exact mechanisms driving evolution may still be incomplete, there really is no serious doubt that evolution has occurred, is occurring, and will continue to occur, and that evolution explains how all of the life on this planet, including humans, is descended from common ancestors that were alive billions of years ago.

Among humanity's endeavors, science may be young. But in the couple centuries it has been around, it's been practiced by enough people and born out enough practical results that we can be very sure that it works, and that we can trust the results we get from it. We can be as sure about things such as the universe being billions of years old, humans and other apes having a common ancestor, birds evolving from dinosaurs, and the overall view of the geological column, as we can be about things such as the Civil War, or knowing that the Earth revolves around the Sun. Sure, there are still some uncertainties, making our view of the past a bit cloudy, but we're not completely blind, and we do our best to clear away the fog with every new discovery.

Biblical Age of the World

I've seen many of the more liberal Christians imply that the few thousand year old biblical date of creation was merely some type of eccentric exercise by a 17th Century archbishop named James Ussher, and that it's obvious that the Bible is meant to be taken more allegorically or figuratively and not taken at face value. But neither of those assertions is the case.

The Bible does not explicitly state the age of the Earth anywhere. However, if you accept the various books at more or less face value, you can add up different time periods, dates, and ages that are mentioned to come up with a reasonable estimate of a biblically based timeframe for the seven days of creation. Granted, you still need to make a few assumptions to fill in some gaps, but these gaps come in after Abraham, so they're fairly small – nowhere near on the order of thousands of years, let alone millions or billions. Many famous biblical scholars and early scientists made such calculations, including Bede, Hillel II, Hippolytus of Rome, Johannes Kepler, Maimonides, Martin Luther, and Saint Augustine. Most of those estimates clustered around either 4000 BC or 5500 BC, depending on whether they were using the Hebrew Masoretic text or the Greek Septuagint, respectively, based on some differences in people's ages between the texts.

Ussher happened to have been very meticulous and thorough in his calculations, which might have been why his estimate was included in the Bibles published by Thomas Guy starting in 1675, and then later by the Church of England in 1701. It's his inclusion in those popular Bibles that made his estimate so much more well-known than that of other scholars (which led to it being included in even more Bibles, like the Scofield Bible), but he certainly wasn't an aberration in thinking you could trust the Bible's chronology.

Why the Discrepancy Between the Bible and Science?

It really wasn't until 19th century naturalists like Charles Lyell and ideas of uniformitarianism that people realized the Bible's chronology couldn't be accurate and then began interpreting it more figuratively out of necessity. But prior to that, most scholars didn't see any reason inherent to the text of the Bible to question the biblical chronology. Given how widespread the belief was that the Earth was only a few thousand years old, and how many centuries that belief was the consensus, it certainly doesn't seem *obvious* that the Bible implies a different age.

So why the discrepancy? There are a lot of different proposed answers. Young Earth creationists would say that the science is wrong and that the Earth really is only a few thousand years old. But that's simply implausible. Besides a whole host of other reasons, some already discussed in previous sections, pretty much everything we think we know about particle physics and radioactivity would have to be wrong. And I'm not sure how we could design working computer chips or iPhones without a fairly accurate understanding of such things.

There are also Old Earth creationist ideas, such as gap creationism, which posits that each day of creation was a literal 24 hour day, but that there was a very long gap between the first and second days, allowing for the ancient age of the Earth. But this still fails to match the actual history of the Earth (for basically all the same reasons as will be discussed in the next section).

More liberal Jews and Christians don't think the Bible should be taken so literally. Even the Pope himself accepts the Big Bang and an ancient age of the universe. These more liberal Jews and Christians tend to view the early 'history' of Genesis as figurative or allegorical. Some say the seven 'days' of creation were actually seven ages. Some say you're only supposed to take away the big message that God created the universe, but not focus on the details.

But like I wrote above, it doesn't seem obvious that the biblical chronology isn't meant to be taken seriously. It seems that people only do so now because they have to. They've got religious or emotional reasons for believing the Bible has to be true, but they also have the incontrovertible fact that the Earth is 4.5 billion years old, and the universe is even older, so they come up with post hoc rationalizations to try to smooth over the discrepancy. And when you actually look closely at some of these rationalizations, they tend to fall apart (I'll cover this in a little more detail in a bit).

I think the real answer is pretty simple – the Bible is wrong. As discussed in previous sections, the Bible wasn't handed down from on high in its current form – each book has its own history. And for a book like Genesis, it's hard to even pin down what the 'original' version should be. It was put together from multiple sources, each with slightly different beliefs and viewpoints. There are those two different Elohist and Yahwist creation stories right in the first two chapters.

And Genesis was cobbled together from these different sources for the simple reason that it's a human product. The people who wrote the original sources and edited the compilations didn't have any special insights into the universe not shared by other peoples at the time. They had the myths and legends their cultures had invented, and they wrote them down. You should no sooner expect the Bible to be an accurate history of creation than the Popul Vuh or the ancient Greek myth with Gaea.

Problems with a Day-Age Interpretation of Genesis

Let's take a bit of time to look specifically at one of the common ways many people try to reconcile the account of creation in the first chapter of Genesis with what science tells us about the actual history of the universe and our world – that it's meant to be taken figuratively instead of literally. The argument is that the days aren't meant to represent actual, 24 hour days, but are instead meant to represent long ages of time. Some will argue that the actual word used for "day" in Genesis could be translated as either *day* or *age*, and that maybe *age* was the word that should be used there. Others will bring up a passage like 2 Peter 3:8 to show this indefinite use of days, "with the Lord one day is like a thousand years, and a thousand years are like one day." In fact, this figurative interpretation was what I myself believed when I was still a Christian.

Unfortunately, this rationalization has issues. The first, as I've already noted a few times, is that there are two creation myths in Genesis from the separate Elohist and Yahwist sources, and their order of events don't match with *each other*, let alone science.

And even if you focus on just the first creation story, the order of events still doesn't match what we know about the history of our world.

The first obvious issue is that God created light on the first day, but didn't create the Sun until the fourth day. And while I have heard more figurative arguments, like that light and darkness represent good and evil, that doesn't explain the use of the terms, day, night, evening, and morning, which seem to be describing an actual solar day. And of course, in reality, the Sun formed before the Earth, while the Earth and Moon would have formed around the same time.

God created seed bearing plants and fruit bearing trees on the third day (without any explicit mention of any other types of plants anywhere else in Genesis), which is still a day before the Sun to power their photosynthesis, which is a big problem if these days are supposed to represent millions of years. It was also two days before God created any birds (which some flowers need for pollination), and three days before land animals (which some seeds need for germination).

The order of creation of animals doesn't match their evolutionary history, either, with birds being created on day 5, and land dwelling animals on day 6, when in reality birds evolved from land dwelling animals. And there's no mention at all of bats, insects, or fungi (unless you lump them in with other organisms and chalk it up to a language issue). And of course, there's absolutely no mention of bacteria or other single celled organisms.

There's also the issue of the worldview this story seems to present – the writer almost certainly was referring to a flat earth. I'll actually quote a few verses here to show the actual language. First, consider the acts of day 2:

6 And God said, "Let there be a dome in the midst of the waters, and let it separate the waters from the waters." 7 So God made the dome and separated the waters that were under the dome from the waters that were above the dome. And it was so. 8 God called the dome Sky. And there was evening and there was morning, the second day.

And then of day 4:

14 And God said, "Let there be lights in the dome of the sky to separate the day from the night, and let them be for signs and for seasons and for days and years, 15 and let them be lights in the dome of the sky to give light upon the earth." And it was so. 16 God made the two great lights—the greater light to rule the day and the lesser light to rule the night—and the stars. 17 God set them in the dome of the sky to give light upon the earth, 18 to rule over the day and over the night, and to separate the light from the darkness. And God saw that it was good. 19 And there was evening and there was morning, the fourth day. Keeping in mind how Genesis developed and the worldview of surrounding cultures of the same time, not to mention other biblical passages, this makes much more sense if you acknowledge that the ancient Israelites believed in a flat earth, with a literal dome as the sky²⁶. This is actually a common belief among many "scientifically naive peoples",²⁷ because without the scientific knowledge to know what the sky actually is, it really does look like a blue dome above your head. And archaeological findings show that other Ancient Near East cultures actually did believe in a flat earth covered by a dome, itself covered in water. When you read the account of day 2 and day 4, notice how much better this language fits with that worldview rather than trying to shoehorn it into modern science. (And keep in mind that in the real universe, day 4 would represent well over 99.99999% of everything being created, since the Earth is only one planet in a mindbogglingly vast universe.)

So, the day-age theory or "a day in the life of God is like a thousand years to man" interpretations don't hold up to scrutiny. They don't match up with what science tells us of the history of the universe as far as star and planet formation, nor of the evolutionary history of life. But even ignoring that, there would have been no way for plants to survive an entire age without having the Sun for photosynthesis, or the animals that they required for pollination, germination, and seed dispersal. And frankly, if you're not already invested in taking the story seriously, it simply reads like so many other creation myths.

Last Thursdayism

Another attempt to reconcile the Bible with the evidence of an ancient Earth was formalized in 1857 by Philip Henry Gosse, known as the Omphalos hypothesis (omphalos is just the Greek word for belly button). His reasoning went that if God was capable of making a fully formed adult person without going through all the normal growth and development (e.g. a belly button), then he could have just as easily made a universe fully formed with the appearance of old age, with the 'scars' of erosion, supernovae, sedimentary layers, starlight in mid-travel between their 'originating' star and the Earth, etc. All those things just present the illusion of an ancient universe, when in 'fact', the universe is only a few thousand years old.

Of course, nobody liked his answer. From a scientific point of view, it meant all evidence was worthless. For all we knew, the universe could have been

²⁶ Once again, I'll note that the NIV uses different words for this translation to obfuscate the possibility of a literal dome.

²⁷ https://web.archive.org/web/20190913133849/http://faculty.gordon.edu/hu/ bi/ted_hildebrandt/OTeSources/01-Genesis/Text/Articles-Books/Seely-Firmament-WTJ.htm

created last Thursday by some trickster deity, giving all of us false memories, and there's no way you could prove otherwise, earning this line of reasoning the slightly derisive nickname of 'Last Thursdayism'. From a religious point of view, it meant God was a liar, creating an appearance to intentionally deceive all us people into thinking the universe was something it wasn't.

While it's rare to find modern day creationists who advocate for the full version of the Omphalos hypothesis, it is somewhat common to incorporate aspects of it, such as the starlight in mid-travel from stars. This is especially odd for supernovae that are billions of light years away. Supernovae are exploding stars. Did God just create the appearance of an explosion that never actually happened?

But in truth, once you allow for magic and dishonesty at that level, you can't really disprove the Omphalos hypothesis. You can say it's outlandish and silly, and that there's no way to distinguish it from other silly ideas like the Matrix. But an omnipotent being is, well, omnipotent, and could do whatever it wanted. Including creating the universe last Thursday.

Noah's Ark

Let's visit Noah's Flood one last time, since it's another well-known Bible story, and one that's a frequent theme of creationists. I already discussed the literary history of this story earlier and how it developed from prior legends from other cultures, and how even the Bible combines two variations from the Yahwist and Priestly sources. That should be enough to make it clear that this obviously isn't a literal historical story.

But for the people who still take the story seriously, there are some very obvious reasons why it couldn't have happened the way it's told in the Bible. I don't want to belabor this, so I'll just present a few of the reasons here in a list:

- There's simply not that much water to cover all land, even if every last glacier and ice cap were to melt.
- How did all the animals get to the ark in the first place, and then back to their home ranges? How did koalas get from Mt. Ararat to Australia, and how did sloths get all the way to South America, with entire oceans in the way?
- There's no way to fit all species on the ark, let alone with enough food to survive for 150 days (or the specialty diets some animals require). And just imagine Noah's small team of 8 people trying to feed that many animals and shoveling all that manure. The National Zoo in Washington D.C. has their hands full keeping up with just

2700 animals and a staff of hundreds – with modern equipment, no less.

- Some modern creationists resort to 'kinds' instead of species to get around the above limitation (which still leaves a lot more animals than is plausible), but that introduces a new problem since evolution doesn't work anywhere nearly rapidly enough for those kinds to diversify into all the modern day species in just a few thousand years, let alone to generate the level of genetic diversity we see in all those species from a starting point of just 2 or 14 founding members.
- There's no way to build a seaworthy wooden ship that big. The largest wooden ship ever made, the Wyoming, was only around 5,000 tons, required modern materials like steel to hold it all together, and it still sank in heavy seas because wood just wasn't able to handle all the flexing and buckling. The ark would have had to have been 10x bigger to carry all those animals and food (even allowing for 'kinds' instead of species).
- The Bible story doesn't describe how plants would have survived the flood. Those of us lacking a green thumb know just how temperamental certain houseplants can be, and houseplants are relatively easy to maintain compared to more exotic plants.
- How would fish have survived? Whether the flood waters eventually ended up fresh, brackish, or salty, plenty of species require a specific salinity and so wouldn't have survived.
- How did all the lice, ticks, tapeworms, and other such parasites survive? Those must have been some sickly animals on board the ark. And don't forget some parasites can only survive in people, so Noah and his family must have been pretty uncomfortable.
- There were other ancient civilizations around at the time the Bible says the flood would have happened, and their historical records continue uninterrupted it seems they didn't notice being drowned.
- And of course, there's simply no evidence for a world-wide flood in the geological record.

NOMA

There's a common attempt to wall off science and religion as separate fields that shouldn't interact. You might here it as a saying like, "The Bible teaches us how to go to heaven, not how the heavens go." It was also the position of the late biologist Stephen Jay Gould, who proposed his idea of nonoverlapping magisteria (NOMA), where science dealt with "the factual character of the natural world", while religion dealt with "the equally important, but utterly different, realm of human purposes, meanings, and values."

But religions make all types of factual claims. Did Jesus exist, perform miracles, and come back from the dead? Did God lead the Jews out of Egypt as a pillar of fire and cloud? Do miracles occur in the modern day? These aren't merely questions of purpose and value. They're claims about things that have supposedly happened. And as I've discussed throughout this book, such claims are most definitely in the realm of science. If they did actually happen, there should be evidence that we can study through science. Or if there's no evidence to study, then why should we take the claims seriously?

Moreover, science isn't limited to the concrete and the physical. You can, in fact, study non-physical subjects like love and other human emotions through such means as polling and questionnaires. People's self-reported experiences are a type of evidence. You don't need a fancy instrument to detect love. We know love exists because of the overwhelming number of people who say they've experienced that emotion, and because we can see how it affects their actions.

Presumably, spiritual knowledge is open to the same type of study. If there are actual, real spiritual forces at work in the universe, you would expect a certain consistency in how people experienced these forces. So you could do the same types of polling and questionnaires to understand how these spiritual forces interact with and influence people. Even if we couldn't devise an instrument to measure those forces, we could still understand them from people's self-reported experiences, or through any other detectable influences these forces had on the world (e.g. if visitors to Lourdes had any better outcomes than a control group).

But when you have people from various different religions, from Christianity to Islam to Hinduism to Buddhism to all the various folk religions, all claiming spiritual experiences for their disparate religions, it certainly calls into question the true spirituality of those experiences. You have to also consider that those experiences are due to more earthly causes that are being misinterpreted and then shaped through cultural expectations.

Anything that has an observable effect on the world, whether through human experience or physical consequences (e.g. answered prayers) can be studied through science. But you have to make the case that your spiritual explanation fits the evidence better than more earthly explanations.

And finally, I see no reason to assume that religion is the proper field to address "human purposes, meanings, and values." In previous sections, I've already described why I don't think belief in gods actually contributes to those questions. Besides, we have philosophy, ethics, secular humanism, and so many non-religious fields that we can look to to address those issues. And for 'spiritual' needs, we don't need religion to visit an art exhibit, read and ponder philosophy, practice mindfulness, and socialize with friends and family for human connection. These can all be secular pursuits.

Questions About the World Around Us

When I was still a Christian, I was bothered by how many Bible stories resembled "just-so" fables. But once you understand the history of how the Bible was a product of its culture, these passages make more sense. They really are the attempts of a pre-scientific people to answer questions about the world around them. Let's take a look at just a handful of these questions, and compare the answers that science gives us, to the answers that one might get from a literal reading of the Bible.

What causes rainbows?

Science – It's caused by diffraction of light rays as they pass through water droplets.

Bible – They're a sign of the promise God made to Noah that he would never again cause a global flood (Genesis 9:8-17).

Where did people come from?

- Science Through evolution, over countless generations, due to slight differences between each generation, life has branched from a common ancestor into all the forms we see today, including humans. We are just one branch on this great tree of life, distant cousins of every living organism on Earth.
- Bible On the sixth day of creation, God made us in his image, as a special creation to rule over all the earth (Genesis 1:26).

Why are there so many languages?

- Science Because language changes slowly over time (compare the English of Shakespeare to the English of Mark Twain to the English of today), as groups of people spread across the Earth and became separated, the accumulation of these slight changes over the generations in the isolated populations eventually gave us all the languages we have today.
- Bible God created all those different languages at the same time he destroyed the Tower of Babel, so that man would never again be able to organize to build such a tall structure (Genesis 11). (The Tower of Babel story also raises the question of why God would be upset by a tall building in the first place.)

Why do we get sick?

- Science Most diseases are caused by various germs bacteria, viruses, or fungi. Others are caused by poisons, while yet others are caused by malfunctions of our own bodies (like cancer).
- Bible People get sick because they're possessed by evil spirits. This is especially evident from the multitude of passages in the New Testament where Jesus or his followers cure people by exorcising the evil spirits. There are too many passages dealing with this to list them all, but Matthew 8:31 is a good example, which also shows cruelty to animals.

Why don't snakes have any legs?

- Science Through evolution, subsequent generations from an ancestral reptile gradually grew smaller and smaller legs to adapt to their environment (possibly an aquatic or subterranean habitat), until eventually their legs disappeared altogether (almost some snakes still have vestigial hind limbs).
- Bible Because the serpent tricked Eve into eating the apple, God cursed the snake to crawl on its belly and eat dust for the rest of its life (Genesis 3:14).

While science will never answer every mystery, it still seems pretty clear that science is the best approach to answering objective questions, while the Bible is a cultural product of its time.

Christianity in the Context of an Ancient Universe

One of the problems I had with Christianity even when I was still a Christian is looking at it in the context of the age of the universe. Consider that it's been around 14 billion years since the Big Bang, the Earth is 4 ½ billion years old, and modern humans have been around for around 100,000 years (depending on where you want to draw the dividing line from our ancestors). Why did God wait until around 6,000 years ago to reveal himself? And why was this revelation to a small herding society in the Middle East? And then why, after waiting 12 billion, 999 million, and 994 thousand years after the initial creation to reveal himself (or even 94,000 years after humans first appeared), was he so quick to make a new covenant just a few thousand years later?

I think the real answer is a point I've been making repeatedly – the God of the Bible is the mythical creation of a particular culture, not an actual, real being, let alone the creator of the entire universe. It's just odd, though, when you try to think about it accepting the biblical accounts at more or less face value.

And this same question applies to so many other religions besides Christianity. Why have they all started sometime within the past few thousand years, when the universe is so ancient, and humans have been around for so long?

Inventing a Role for God / Human Arrogance

Christianity tells us that humanity was God's ultimate goal for the universe, but once you get past the initial creation of the universe, science does give us a pretty good idea of how we came to be. From the initial expansion of the Big Bang, to the formation of the solar system, to abiogenesis, to evolution, science can help us understand where we came from. And that calls into question God's role in the history of the universe. Did he 'front-load' the universe at the instant of the Big Bang, so that all of the atomic/chemical/physical reactions from that point on would result in humanity? Has he been tinkering almost imperceptibly with the universe throughout history to guarantee the evolution of humanity?

From the Big Bang on, there's no need to invoke God to explain the evolution of humans. But to accept the science and still accept Christianity, you end up having to invent mechanisms to allow for God. Looking at this now as a non-Christian, this whole concept seems to be horribly conceited – to believe that the entire universe, in its almost unimaginable vastness and with its nearly incomprehensible age, should exist solely for the benefit of humanity.

Apologetics and Other Religious Arguments

Given modern English, apologetics may sound a bit like people feel almost embarrassed for their position, but it comes from the ancient Greek legal term for the defense, *apologia*, and it's actually the technical term for "the religious discipline of defending religious doctrines through systematic argumentation and discourse." ²⁸ So, let me take some time to address some of the more common apologetics and religious arguments.

Before getting into specifics, though, let me make a few general points. The first is one I've repeated several times already. The question of religion is not merely Christianity vs. atheism. Between Christianity, Judaism, Islam, Hinduism, Buddhism and then the many, many folk religions, there are thousands of different options. Even if it was possible to do so, it's not enough to prove that natural explanations are insufficient and that there must be some supernatural cause. You have to then make the case for your particular religion. This is a bait and switch that some apologists pull all too often. They'll attempt to make a case for a general sentient creator, but then in the next breath ascribe all kinds of additional properties to this general creator that just happen to coincide with their holy book, as if it was somehow self-evident that the 'uncaused cause' doesn't want me to eat bacon cheeseburgers.

Another general point has to do with arguments that rely on the motivations of early Christians. For one, consider the religious landscape at the time Christianity was getting started. They weren't trying to win over skeptical atheists and agnostics, or people who doubted the supernatural in general. The early converts to Christianity would have been Jews or Roman pagans. The challenge in converting Jews would have been convincing them that Jesus was the fulfillment of the Messianic prophecies, while the challenge in converting Roman pagans would have been limiting their belief to just one God. For someone who grew up believing the labors of Hercules, it wouldn't have been too difficult to believe someone else walked on water or turned water into wine.

²⁸ https://en.wikipedia.org/wiki/Apologetics

As one last general point, don't engage in special pleading for your particular religion. A rule of thumb I like to use with people who have questions or arguments that they think support the Christian God is to ask them to substitute 'Zeus' in place of 'God' and see if the question still makes sense. If it seems silly to them with an obviously mythological being, it will seem silly to an atheist with God. (e.g. I once saw a question online, "Wouldn't an atheist first have to believe in God in order to deny His existence and not believe in Him?" Just imagine that question being asked about Zeus, instead.)

Pascal's Wager

I've put a magical incantation on this paragraph. By reading this far, you are now cursed. Your soul will be tormented for eternity, unless you send me \$100, upon which the curse will be lifted.

So, there are now four possibilities, as summed up below. Now, I know that technically giving up \$100 isn't completely neutral, but compared to eternity, it's practically nothing, so I'm counting it in effect as neutral.

	Curse True	Curse False
Send me \$100	Your soul is safe	Neutral
Don't send me \$100	Your soul is tormented	Neutral

So, the only truly bad possibility is when you don't send me \$100. The only good possibility (lifting the curse) is when you send me \$100. And if the curse turns out to be false, well, you haven't really lost anything truly substantial by sending me the \$100 just in case, especially when compared to something with as big of stakes as the eternal fate of your soul.

Do you think it's worth sending me \$100 just in case the curse turns out to be true?

For as many ways as you can think of to dismiss my curse, there are at least that many ways you can dismiss Pascal's Wager – the more formal title of the argument that you should believe in God just in case, named for the philosopher Blaise Pascal who popularized it in a book he wrote in the 1600s. It often gets presented with a similar table that looks like this:

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Apologetics and Other Religious Arguments

	God Exists	God Doesn't Exist
Believe in God	Your soul is safe	Neutral
Don't believe	Your soul is	Neutral
in God	tormented	Neutral

For one, it's not like it's equal odds that my curse is true or false. The probability that my curse really is true is minuscule, while the probability that it's false is overwhelming. So, even though the claimed consequences are infinite, is it really worth worrying about something that for all practical purposes is false? Based on everything else I've written in this book, I believe the odds of a capital-G God like in the Bible to be pretty miniscule, so I worry about threats of Hell about the same as you should worry about my curse.

For another, the costs aren't really negligible to most people. \$100 is a decent chunk of change that most people aren't willing to hand over just in case. Religions have their own costs, from rituals to limitations on behavior to dietary restrictions to more literal costs of tithing. Finite though they are, these costs are still significant from the perspective of a human life. Unless the threat is credible, they're higher costs than a lot of us are willing to entertain.

For another, what if someone else saw my 'curse', thought it sounded like a good scam, and issued a similar curse? And then somebody else did the same thing? And then, before you know it, there are thousands of curses lurking everywhere, just waiting for you to stumble across them. Do you send each person \$100? What if one of the curse writers tailors their curse, saying that you can only lift their curse by sending money to them and nobody else? What if a bunch of the curse writers do that? Now, you've got to decide which curse is the most credible, and pin your hopes on the fact that you've picked the right person to send \$100 to. That simple table I made with only 4 possible outcomes doesn't come close to capturing the number of possibilities as if you had 1000 people issuing such curses. With so many possible religions out there, some of which demand exclusivity, you're making a similar decision – rejecting thousands of possibilities to pin all your hopes on one.

Going beyond my curse analogy, all-knowing gods might care about your motivations and sincere beliefs. Even if you go through the motions of religion just in case, God would see through your behavior and know that your belief wasn't sincere. If God was more interested in faith than actions, simply going through the motions isn't going to save you. (Conversely, if he's more interested in actions than faith, then your belief or lack thereof is a nonissue.)

So, when something is so unlikely that for all practical purposes it can be dismissed as false, it's not worth paying a non-negligible cost just in the extremely unlikely case it turns out to be true. And the question of gods is not a mere dichotomy – whether or not God exists. There are hundreds, even thousands of possibilities, many mutually exclusive, so you're having to pick one option to pin your hopes on. You're betting on extremely long odds even if any gods did exist. Just live your life and be a good person for its own sake.

Even though Pascal's wager may appear clever at first blush, it's unlikely to convince people who have given much thought to the question.

Okay, for the extremely superstitious, I hereby lift my curse. But if you'd still like to send me \$100...

Kalam Cosmological Argument

This is one of the more well-known 'sophisticated' apologetics. It goes something like this:

- 1. Whatever begins to exist has a cause.
- 2. The Universe began to exist.
- 3. Therefore, the Universe has a cause.

I've already touched on aspects of this earlier, and how God doesn't provide a meaningful answer to the cause of the universe, but let's look at the specifics.

This argument falls apart right in the first line with an unfounded assumption. How do we know that "Whatever begins to exist has a cause?" What have we ever observed beginning to exist to justify that claim? On an everyday level, everything we interact with has existed since the start of the universe – the material has simply been rearranged.

For example, if I take a sheet of paper and fold it in half, it's mere word play to say that a *folded* piece of paper began to exist because of my actions. There was already a piece of paper. I simply adjusted its configuration slightly. All the carbon, hydrogen, oxygen, and various other atoms within that paper are simply the result of rearranging wood pulp. The trees that supplied the wood pulp were simply rearranging particles from the soil, rainwater, and the atmosphere. Keep going back, and all the matter-energy making up everything we interact with has existed since at least the Big Bang.

Or... maybe not. Virtual particles are constantly 'beginning to exist' and subsequently nearly instantaneously decaying. There are actual, measured effects from these particles, such as the Casimir effect, so they're not just a thought experiment. And there doesn't really seem to be a cause to virtual particles. As far as we can tell, they just begin existing for no reason.

So, virtual particles seem to indicate that maybe things can exist without a cause. But if we didn't know about virtual particles, we've never seen

anything else begin to exist, so how can you make generalizations about something no one has ever observed.

The second line is also an unfounded assumption. We have no idea if the universe began to exist or not. We know the history of the universe back to the Big Bang. Maybe it did start to exist then. Maybe the Big Bang was just a singularity that makes it impossible to determine what happened before, and the universe has existed for an eternity into the past. Maybe time is a cycle, and we'll end up repeating the Big Bang in the future/past. We just don't know.

Sure, the third statement follows logically from the first two assumptions, but if the assumptions aren't true, then the result isn't necessarily true, either. And even if it were, it just results in 'a cause'. Maybe the cause was two colliding branes in a higher dimensional space. I don't think colliding branes are most people's definition of a god.

The Ontological Argument

This is another well-known 'sophisticated' argument, which goes like this:

- 1. It is possible that a maximally great being exists.
- 2. If it is possible that a maximally great being exists, then a maximally great being exists in some possible world.
- 3. If a maximally great being exists in some possible world, then it exists in every possible world.
- 4. If a maximally great being exists in every possible world, then it exists in the actual world.
- 5. If a maximally great being exists in the actual world, then a maximally great being exists.
- 6. Therefore, a maximally great being exists.

This one also fails in the first line. You can't just assert that something's possible. Maybe it's not possible. How do you know?

The real whoppers come in the subsequent lines, saying that if something's possible, then it must exist. That's just completely unfounded.

And what is a maximally great being, anyway? What attributes make a being maximally great? Are consciousness and emotion maximally great? Or are those human frailties, and a maximally great being would simply exist without thoughts or emotions or intents? And which particular god? Is Vishnu more maximally great than Yahweh? Is a pantheon of gods more maximally great than a solitary god? How do you get from the Ontological Argument to any particular religion?

Miracles

Miracles are, of course, one of the common arguments people use as evidence for religion. I've mentioned them briefly in a few previous sections, but let's discuss them in a bit more detail. There are many things you need to consider before believing that a miracle is actually real or evidence for your religion.

First, the evidence that the miracle occurred must be strong and convincing (as Carl Sagan said, "Extraordinary claims require extraordinary evidence.") Consider Prahlad Jani²⁹. He was an Indian yogi who claimed to have gone 70 years without eating or drinking. Or Ram Bahadur Bamjan³⁰, who some claim is the reincarnation of the Buddha, who similarly claimed to go long periods without eating. Jani's and Bamjan's claims both looked rather suspicious once outside investigators looked into them (they were probably sneaking food when no one was looking). There was a crucifix at Our Lady of Velankanni Church in Mumbai³¹ where, in 2012, 'holy water' dripped from the feet of Jesus, attracting hundreds of faithful to collect this miraculous water. Upon investigation, it turned out to be from a leaky pipe. Or consider Adele Brise³², who claimed to have seen and spoken to an apparition of the Virgin Mary back in 1859, leading to a shrine at the site that still attracts pilgrims. But the two other women with her didn't see anything. There are many explanations for Brise's vision, from hallucinations to deceit, all of which are more likely than an actual miracle. If a claimed miracle is to be believed, the evidence for it must be strong and convincing, not mere hearsay, and not explainable by more mundane causes (or trickery).

Merely unlikely events aren't miraculous, either. In a world of nearly 9 billion people, even events with a one in a million chance are going to happen often enough. As the traditional example goes – my chances of winning the lottery may be a million to one, but *somebody* still manages to win every week. Given enough opportunities, unlikely events will inevitably happen to someone. If you want to make a case that unlikely events are actually

http://www.skepdic.com/skeptimedia/skeptimedia90.html

 $http://en.wikipedia.org/wiki/Ram_Bahadur_Bomjon\#Feats_of_inedia$

²⁹ http://www.esowatch.com/en/index.php?title=Prahlad_Jani

³⁰ http://www.foxnews.com/story/0,2933,450564,00.html

³¹ http://www.slate.com/articles/health_and_science/new_scientist/2012/07/a_ statue_of_jesus_oozing_holy_water_an_indian_skeptic_debunks_miracle.ht ml

³² http://www.shrineofourladyofgoodhelp.com/htmPages/g_hst_p3.html

miraculous, you have to somehow show that religious influences are affecting them more than you would expect from chance.

Other, stranger seeming 'miracles' can also be explained naturally. When researchers have studied speaking in tongues, for example, they've found that the speakers are actually using sounds that they're already familiar with from their own language (e.g. a native English speaker won't make the guttural vocalizations of German or French). Further, to quote Wikipedia³³, "where certain prominent glossolalists had visited, whole groups of glossolalists would speak in his style of speech." All this certainly makes it appear to be a learned behavior.

Faith healing requires multiple caveats. First, you would need to show strong evidence that a person was actually healed, and that it wasn't just the placebo effect, a momentary reduction of subjective symptoms, or (in the worst cases) fraud. And spontaneous remission of diseases really does happen occasionally, prayer or no prayer, so you have to show that your faith healer is healing people at a greater rate than a control group with a placebo. And frankly, I've always found it a bit fishy that faith healers only seem to heal symptoms that are either subjective or invisible. As Emile Zola once noted, "The road to Lourdes is littered with crutches, but not one wooden leg." Show me an amputee with a regrown limb, and I'll be a little more impressed.

Prophecy also deserves a mention. For all the reasons discussed earlier in this book about how the Bible was written, Biblical prophecies aren't very convincing because the various books themselves aren't reliable. When a Gospel is writing down what are in effect urban legends from decades after Jesus was alive, how much do you really trust any claim in that Gospel that Jesus actually fulfilled a prophecy? And for all we know, a historical Jesus might have even been trying to act in ways that could be seen as fulfilling prophecy. Even for prophecies yet to be fulfilled, the prophecies themselves must be specific. If every generation interprets a prophecy to be applicable to events happening in their own time, then it's probably because the 'prophecy' was worded so vaguely as to mean practically anything (kind of like horoscopes or Nostradamus). Especially in regards to more modern day prophets, they need to have a decent accuracy. Even a broken clock is right twice a day. If someone throws out enough prophecies, some are bound to come true. Finally, prophecies must be unlikely, or something that would be very difficult to predict otherwise. It's not very profound to prophesize that the next round of presidential candidates will stretch the truth during their campaigning.

³³ http://en.wikipedia.org/wiki/Glossolalia

As I've pointed out a few times, many claims for the divine cross religious borders. If a Christian and a Hindu have both experienced what they believe is a miracle, which one of them should we trust more? Should the Christian and Hindu miracle claims be counted equally? Doesn't it seem more likely that there are more earthly causes that are being misinterpreted? (And atheists like me still experience good luck – we just chalk it up to chance, not divine intervention.)

From a Biblical perspective, consider how even the stories about miracles show a decrease in grandeur over time. In Genesis 3:8, God literally walked with Adam and Eve. He didn't hide his presence. Moses parted the Red Sea. The walls of Jericho came a tumblin' down. The miracles in the Old Testament aren't subtle. By the time you get to the New Testament, they're still fairly impressive, but a bit toned down. Jesus walked on water and healed the blind and the lame, and the disciples spoke in tongues. And when Jesus was resurrected, he only stuck around for forty days and only revealed himself to his faithful followers (isn't that convenient). In the modern day, as we've learned more and more about the universe around us, and as documentation of events has become better and better, miracles have become even more minor. It makes it seem like it's easier to tell tall tales about ancient times that are harder to fact check, but you have to make newer stories less dramatic so that they're not so easily rejected. In other words, Old Testament stories had grown over generations, so by the time the final editing took place during the Babylonian Exile, any supposed events were ancient history. New Testament stories about Jesus were written largely within living memory, so the legends couldn't be quite so grandiose or people would have known that they weren't true. And now, in the modern day with cameras, newspapers, and all the other methods we have to verify the reliability of stories, miracles tend to be pretty mundane

Honestly, once you weed out the myths, hoaxes, and other explainable phenomena, it seems like there haven't actually been *any* miracles. But this brings up another issue – since there weren't any actual miracles in the past, if anything that seemed like a miracle were to all of a sudden start happening, we would have to ask, 'why now?' It would benefit us to be especially skeptical, and consider all the possible alternative sources of that revelation.

Considering all the other reasons I've given throughout this book to doubt religion, even if something 'miraculous' were to happen, there are alternative supernatural explanations that would seem more likely – telekinesis, fortune tellers, healers, etc. The same skepticism that led me to atheism also makes me extremely doubtful of those other powers, but if there were convincing evidence that such 'miracles' were real, I would want to see research done into their actual causes. I would be very hesitant to accept any type of religious explanation when religions seem so unlikely for so many other reasons. There are more types of miracles I could have discussed, and many more specific examples, but this gives a sense for what it would take to convince a skeptic that miracles might actually be real. They must be well documented, not explainable by natural means, and more than simply unlikely events. And even if a supposed miracle was well documented, there are other (probably more likely) possibilities to rule out before accepting it as evidence for religion, and even more work to show that it's evidence for your particular religion instead of one of the many others.

Christianity Makes X Unique Claim

I once read a book by Sean McDowell, *More Than a Carpenter*, where he argued that only Christ claimed to be God, while Mohammed, the Buddha, and Confucius never made any such claims, and that the uniqueness of this claim was somehow evidence for Christianity.

Setting aside all the countless other religious figures who have made such $claims^{34}$ – so what? Every religion has some unique aspect differentiating it from other religions. If it didn't, it wouldn't be a separate religion. So, it seems a bit silly to point out a unique aspect of Christianity as if that's proof that Christianity is true.

Free Will and The Problem of Evil

The Problem of Evil is, simply put, how can there be so much evil and suffering in the world if God is good, all-knowing, and all-powerful? It's not an argument for atheism, per se. It just suggests that God can't be all three of those things. Either he doesn't want to stop evil, he doesn't know how to stop it, or he doesn't have the power to do so. Evil is perfectly compatible with fickle, aloof, not quite all-powerful gods like in the Roman pantheon, or with a trickster god like Loki.

This question is so old and well-known that it actually predates Christianity. Epicurus proposed a version of it some time back around 300 BC. In Christianity, there's actually a special branch of apologetics devoted just to it, *theodicy*. One of the most commonly suggested solutions is free will – that by granting people free will, some will choose to commit evil, and so the only way God could prevent evil would be to prevent free will.

This free will defense fails on several fronts.

If God really was all-knowing and all-powerful, you'd have to assume that he created everything about the universe precisely the way he wanted it. This

³⁴http://en.wikipedia.org/wiki/List_of_people_who_have_been_considered_deities

includes human nature. Without some type of innate nature or personality, we'd be like a computer without any operating system or programs, an inert piece of hardware that doesn't do anything. We need some type of 'programming' to give us the motivation to do *something*.

To use a somewhat vulgar example to illustrate the difference between innate human nature and free will, I have no desire to sniff your butt. I'm not exercising my free will to avoid performing such an odd act. I have no desire or temptation to do so in the first place. But, if I'd been born a dog instead of a person, I probably would be sorely tempted to sniff your butt. That's what dogs do. An individual dog that's been well trained may be able to make a choice about whether to give in to that temptation or not. But the temptation itself is a part of canine nature. It's innate, and something they have no control over. Us people have a different set of (sometimes overlapping) innate desires that are part of our human nature. But we don't get to choose that human nature. It is, at least per some Christians, the way we were created.

On top of their baseline natures, every living being has its own personality and specific innate characteristics bestowed on it by God. It's not like God is playing a game of Dungeons and Dragons, rolling multi-sided dice to randomly determine someone's dexterity, wisdom, kindness, charisma, etc. God gives every soul the exact traits that he thinks they should have.

So, if we are tempted to do bad things, it's because God 'programmed' us that way. He's the one who instilled that temptation in us in the first place. He could have easily created us *without* a temptation to do bad things, or 'programmed' us with good personalities from the get go, but he instead created all of us with a conflicting set of noble and selfish impulses. If you think human nature is flawed, that seems to be more the fault of the creator than the creations. (Of course, the conflicting instincts are perfectly reasonable from an evolutionary perspective. You need to be selfish enough to spread your own genes, but cooperative enough to survive in human society to be able to reap all the benefits that come from that society.)

God also created the playing board. He controls the setting and the rules. 'Natural evils', or the suffering due to natural causes, occur because that's the way God decided to make the universe. The fact that Earth has weather that causes hurricanes and plate tectonics that cause earthquakes, or that our bodies are made up of cells with DNA that can mutate to cause childhood cancer, are all because God created the world that way on purpose.

On top of all that, God throughout much of the Bible was a pretty hands on type who was all the time directly intervening in human affairs, from inperson visits throughout Genesis, to the Exodus of Egypt and the parting of the Red Sea, to sending fire and brimstone to utterly destroy Sodom and Gomorrah, to setting Elijah's bonfire alight to prove his existence over that of Baal, to performing miracle after miracle as Jesus. He certainly showed a willingness to get involved when he wanted to. If the Bible really were to be believed, it seems God was more interested in lighting Elijah's bonfire than in stopping the Holocaust.

Finally, I presume most Christians believe we'll still have free will in Heaven. So, unless they think that the free will in Heaven produces just as much evil as the free will here on Earth, then it would seem God *is* capable of producing a realm where free will can exist without evil. Why not just go straight to designing beings worthy of Heaven and skip all the theater with Earth and the eventual torture, especially when our Earthly lives are such a tiny, insignificant fraction of what eternal existence would be.

Related to that final point, why set up the universe with this dichotomy of eternal results, anyway? There's nothing inherent to the cosmos that says people *need* to be punished in Hell for eternity. That's merely what God decided to do to them. Even if he has his reasons for creating flawed people in the first place, he could at least have some type of rehabilitation in the afterlife so that the 'bad' people could eventually rejoin polite society in heaven. Even oblivion would be less cruel than eternal torture.

Another 'solution' to the Problem of Evil proposed especially by creationists is the Fall of Man, often shortened to just the Fall. According to this idea, the world as originally created by God was perfect, with no death or suffering. Even all the animals were vegetarians. But then, to actually quote Answers in Genesis³⁵, "Adam's disobedience toward God brought about several significant changes that affect not only each and every one of us but also creation." Death, suffering, decay, and all of the natural evils that exist are because of Adam and Eve's sin.

Similar to what was pointed out above, even according to this story, God would have created the world, the Garden of Eden, Adam and Eve and the Serpent, and everything else exactly the way he wanted it. And then, he put the one thing that could wreck the entire situation right in the middle of the garden – the Tree of Knowledge of Good and Evil. He didn't even put a fence around it.

Keeping in mind that Adam and Eve wouldn't have known good from bad before eating from the tree, and that the Serpent's devious personality was obviously known to God since God's the one who created the serpent in the first place, it's hardly a surprise that they ate the fruit.

³⁵ https://answersingenesis.org/blogs/simon-turpin/2016/06/27/five-effects-ofthe-fall-in-genesis-3/

Now, God could have lectured Adam and Eve and used it as a teaching moment now that they actually understood good and evil. Being all powerful, he could have 'reset' the universe and started over with more obedient creations or a garden that didn't have a self-destruct fruit right out in the open.

But instead, he cursed ALL women, not just the one who ate the fruit, to have painful childbirth, and to be ruled over by their husbands. He cursed ALL men to endless days of toil. He kicked humanity out of the garden. And the Fall precipitated all manner of other negative consequences on the whole universe, including disease, genetic mutation, and even natural disasters³⁶. And remember, an all-knowing God created the universe the way he wanted it, so the consequences of the Fall must have been intentional, or at least a known failure mode. It certainly seems like God was setting Adam and Eve up for failure on purpose. (Or more likely, the story came from an earlier tradition where gods weren't perfect, but I doubt the creationists would see it that way.)

Why Do Atheists Focus on Christianity over Other Religions

In the US and Europe, Christianity is the majority religion. Here in the U.S., as of 2021³⁷ the population was roughly 63% Christian, followed by around 1% each for Judaism, Islam, Buddhism, and Hinduism. Our representatives in the Senate and House are even more skewed, at around 85% Christian in each body (even higher if you count the Mormons and Unitarians). Guess which religion has the most influence and capability to impact my life. I don't have to sit through Muslim prayers at the start of PTA meetings. I don't find a copy of the Tao Te Ching in every hotel room dresser. Nobody is making monuments of the Ten Yamas and Five Niyamas to display in front of courthouses. But rest assured, we don't believe those other religions, either.

A Famous Scientist Believed in God – Are You Smarter than Them?

Western society has only recently begun to shift away from Christianity, so nearly everyone in western society a few hundred years ago was a Christian. And admitting to atheism a few hundred years ago could get someone burned at the stake, or at the least publicly shunned or ostracized, so there weren't many outspoken heathens. So pointing to any famous scientist from a few hundred years ago like Isaac Newton (who was in fact a Nontrinitarian, not a mainstream Christian) isn't going to carry much weight.

³⁶ https://answersingenesis.org/suffering/natural-disasters/

³⁷ https://www.pewresearch.org/religion/2021/12/14/about-three-in-ten-u-s-adults-are-now-religiously-unaffiliated/

It's more appropriate to look at scientists from the modern day. Of course, you can find plenty of famous scientists who either do or don't believe in God. So rather than get into a battle of dueling geniuses, it's better to look to statistics from polls, and how scientists in general compare to the general public.

According to a Pew poll from 2009³⁸, when 83% of Americans still believed in capital G God, only 33% of scientists did. And only another 18% of scientists believed in a more vague "universal spirit or higher power". And among the more elite scientists of the National Academy of Sciences, even back in 1998, only 7% believed in a "personal God"³⁹.

This is telling, because despite drawing from the same population as the general public, scientists were so much less likely to believe in God. The people who devote their careers to understanding how the world works apparently don't see much need or place for God in their explanations. And given that trends have seen traditional religious belief in the U.S. dropping so rapidly in the past couple decades, I would suspect that belief among scientists is even lower by now.

Fine Tuning of the Universe

This is an argument that if physical laws or constants were just *slightly* different, the universe might not be able to support life at all. And so, the argument goes, some conscious entity must be responsible for fine tuning these laws and constants to support life.

What arrogance! I touched on this in the section on science, but it's such a self-centered view to think that the universe exists for the purpose of us humans and other living things. Maybe if things were different, there might not be any conscious beings. Or maybe there would be, just not in any way that we would recognize. Or maybe multiverse ideas are correct, in which case it's rather obvious that conscious entities would only exist in the universes capable of supporting conscious entities. But in any case, that's just the way it is. The fine tuning argument is in essence just saying, if things were different, then they'd be different.

The author, Douglas Adams, had a more humorous take on this:

...imagine a puddle waking up one morning and thinking, 'This is an interesting world I find myself in, an interesting hole I find myself in, fits me rather neatly, doesn't it? In fact it fits me staggeringly well, must have been made to have me in it!' This is such a powerful idea

³⁸ https://www.pewresearch.org/religion/2009/11/05/scientists-and-belief/

³⁹ https://www.nature.com/articles/28478

that as the sun rises in the sky and the air heats up and as, gradually, the puddle gets smaller and smaller, it's still frantically hanging on to the notion that everything's going to be alright, because this world was meant to have him in it, was built to have him in it; so the moment he disappears catches him rather by surprise. I think this may be something we need to be on the watch out for.

The universe was not made for us. We evolved to fit the universe.

Communist China, Communist Russia, and Nazi Germany

Sometimes, people will try to tar all of atheism by pointing to atheistic regimes like the Soviet Union and the killings and human rights abuses they committed, implying that atheism is what led those governments to be so horrible.

To clear up one common error in many such arguments, Nazi Germany wasn't atheistic. Hitler's own religious views may not have been orthodox Christianity, but he wasn't an atheist, either. And more importantly, Germany as a whole was overwhelmingly Christian, so Hitler still paid lip service to Christianity in public, convincing the masses of Germans to go along with his ideas as Christian values. Wehrmacht soldiers actually had the phrase, "Gott mit uns" (God with us) on their belt buckles.

But we shouldn't get into pissing contests over whether Soviets or Nazis killed more people. Both were utterly disgusting. And it misses the main danger – not their belief or lack of belief in gods or traditional religions, but in their authoritarianism and their demand of complete devotion to the state.

Such regimes don't care about the literal truth of religions – they only see religions as either tools or obstacles. Just look at how Russian leadership flip-flopped – opposing religion under the Soviets, but now having a cozy relationship with the Russian Orthodox Church under Putin. The Soviets didn't oppose religion so much for ideological beliefs, but because the church was a threat to their power. As soon as the church supported Putin, then the government was fine with it.

The danger is authoritarian governments. Whether such governments support Christianity as in the Nazis (at least via lip service to the populace), atheism as in the Soviets, or Islam as in ISIS is secondary to the authoritarianism.

Deathbed Conversions, No Atheists in Foxholes

There almost seems to be a cottage industry inventing stories of atheists who've had deathbed conversions, and the saying that there are no atheists in foxholes gets repeated so often it's become a cliché. The idea behind both seems to be that deep down, atheists really do believe in God and will turn to him in moments of desperation. Of course, studies and surveys have been done on this, and as a matter of fact, yes, there are plenty of atheists in foxholes⁴⁰. And even if some folks do resort to prayer, it only shows that people in the throes of desperation will turn to *anything*. It's Marx's "opium of the people", but for an acute risk rather than chronic suffering.

The closest story I have from my own life was when a friend of mine had a massive stroke. I felt helpless the first night, and was desperate to do *anything* I could to help. This was several years ago, so I was still a bit more recent of a 'convert' to atheism, and my religious upbringing and urge to pray poked through. But even by that point, I knew the concept of Yahweh was so ridiculous that praying to Yahweh felt about as effective as sacrificing a chicken to Aslcepius. I wasn't about to seek out every religion's god of healing to pray to them 'just in case'. They were all obvious superstition and wouldn't have done a lick of good. I finally settled on praying to my grandparents, because I figured if there was any truth at all to anything religious, they would be the souls that might be paying attention to me and worrying about me. The rational side of me knows it was silly, but I was desperate, and people do silly things when they're desperate.

As a side note, my friend did survive that stroke, but was a changed person after that, and never did recover fully. They died a few years later. Strokes suck.

Quoting Scripture

If atheists thought that the Bible was a reliable source, we'd already be Christians. But we don't, so we're not. Citing scripture as proof is nearly pointless. It's like trying to prove Mormonism by quoting the Book of Mormon, or Buddhism by quoting the Buddhavacana. Quoting scripture is only useful to those who already believe it – it is almost literally preaching to the choir.

Liar, Lunatic, or Lord

There's a cute little saying that Christians sometimes use to defend the divinity of Jesus, 'liar, lunatic, or lord'. It's often attributed to C.S. Lewis, though the argument goes back further than him. The reasoning goes that anyone who spoke the way Jesus did has to fit one of those three choices. But,

⁴⁰ https://ffrf.org/campaigns/atheists-in-foxholes

in keeping with the alliteration, there's a fourth choice that they leave out, 'legend' 41 .

I've already discussed this a bit in the section on how the Gospels developed, but some apologists, such as McDowell in that one book I already mentioned, insist that a myth as complex as Christ could not have formed in so short a time. In recent times, though, with social media, QAnon, COVID-19 conspiracy theories, flat Earthers, people who doubt the moon landings, 9/11 truthers, and on and on, we've seen elaborate modern day myths form over the course of months and even weeks. And that's with newspapers and worldwide communication that make it easy to fact check stories. It's not hard to see how a legend about Jesus could have arisen quickly, especially in a time when stories were spread by word of mouth, and when people were even more open to religious and superstitious explanations.

So, in addition to the triple L trilemma options of liar, lunatic, or lord, we need at least one more option - legend.

Who Would Die for a Lie?

Some apologists, such as McDowell in that book I've mentioned a couple times now, try to say that the early Christian martyrs' willingness to die for their beliefs demonstrates the truth of those beliefs. After all, who would die for a lie?

But it's very easy to find examples of other people who were willing to die for strongly held beliefs that were nevertheless wrong, such as Jonestown, Heaven's Gate, or all the myriad jihadist suicide bombers. A person's willingness to die for a cause is a measure of their passion, but sadly, not a good indication of whether or not they were correct.

And not to belittle the early Christians who really were killed for their beliefs, the truth of what actually happened is a bit murky. There probably were at least some early martyrs, but the stories have probably been embellished and exaggerated, so we'll never know just how many actually died for their beliefs, or did so *willingly*.

Argument from Popularity

You'll sometimes see people pointing to the number of Christians as an indication of credibility, which admittedly, is often a useful rule of thumb in

⁴¹ I came up with the 'Liar, Lunatic, or Lord... or Legend' alliteration on my own, but clearly, it's a fairly obvious play on words. A little googling found that many others have used this one before me.

other areas of life. But there are several reasons this isn't convincing regarding religion.

First, and most importantly, reality is not determined by popular vote. The National Science Foundation releases a report every couple years on Science and Engineering Indicators. As one small part of the report, they'll ask the public general questions to gauge scientific literacy. Americans only do so-so on the results. For example, in 2018⁴², less than half of Americans knew that electrons are smaller than atoms, and more than half thought that lasers work by focusing sound waves. (In fairness, the European Union doesn't do much better.) But the majority of Americans being wrong about those facts doesn't change reality, and it's not going to sway my understanding of electrons or lasers. Likewise, it's entirely possible for the majority of Americans to be wrong about religion. Public opinion doesn't determine reality.

For another, this type of argument is usually pretty local or regional. For example, back 20 years ago when the US was still around 85% Christian, some people would point to that 85% without thinking of the broader world outside the U.S. Because worldwide, only around 31% of people are Christians. That does happen to be the religion with the largest following, but it still means that more than 2/3 of the world's population doesn't believe in Christianity, or to put it another way, that more than twice as many people don't believe in Christianity as do. And if current trends continue, Islam is on track to become the most popular religion around 2070. That doesn't mean that come 2071, Islam will now become the true religion. No, it's far better to look to the actual reasons and evidence, not popularity.

Finding Solace in Religion

First of all, finding solace in religion would be nothing more than an argument from consequences, only describing how a belief in religion would make people feel, not whether or not the religion were true.

But I've even seen a handful of *atheists* imply that some people need religion. This has been criticized as the Little People argument, since it would seem to imply that atheists are somehow intellectually superior, or somehow better able to face the truth of a godless universe, while the 'little people' need to hold on to their comforting delusions about religion because they couldn't handle the truth of reality. It's less about tolerance for differing beliefs, and more of a condescending attitude towards 'inferior' people who need to cling to religion.

⁴² https://ncses.nsf.gov/pubs/nsb20207/table/7-1

I think more of most people than that. I'm not going to imply that they're too weak to face reality and need to find solace in comforting falsehoods. They're grown, mature adults, and just as capable of living in reality as I am. I'm not going to patronize them.

And like I've written elsewhere, while it might have taken me a few years to become fully comfortable with being an atheist, now that I am, I'm happier than I was as a Christian. So it's not just that I think everyone is capable of facing reality. I think that in the long run, it's actually more comforting.

Additional and Closing Thoughts

I have a few more things to write, but it's a little tougher to figure out how to group all these remaining topics by category, so I'm just going to add them all here in the last section as a hodge podge.

What's the Point of Intercessory Prayer?

Years ago at one of my daughter's Girl Scout meetings at a local church, one of the girls asked what the "Prayer Requests" wall was about. I had to bite my tongue not to say out loud, "Because God wouldn't know those people were having problems unless somebody told him."

Intercessory prayer might make sense if you believe in imperfect or fickle gods, who may or may not follow the daily events of our personal lives, and who may or may not care what happens to us. But that's not the type of god most Christians believe in. They believe that God is all-knowing, allpowerful, and that he has a perfect plan for us, so what could you hope to achieve through prayer? God doesn't need earthly informants. It's not as if it's a popularity contest, and he's going to count votes to determine his divine intervention. And it really is less than humble to ask the almighty to change his divine plan simply because you don't like it.

There's a pretty famous line in the Lord's prayer about 'thy will be done.' There was also the story of Jesus praying on the Mount of Olives, "Father, if you are willing, take this cup from me; yet not my will, but yours be done." And that was Jesus himself praying. If even God the Son wouldn't ask God the Father to change his plans, doesn't it seem a bit presumptuous for a mere mortal to ask?

I understand the real reason and motivation. People are simply desperate and looking for help wherever they can find it. It just stands in so sharp of a contrast to the God Christians claim to believe in.

How Monotheistic Is Christianity?

Christianity claims to be monotheistic. But if it weren't for the Christians' own insistence on this term, would people really say that Christianity only had one god?

You've got the primary god of heaven with three avatars in Yahweh, Jesus, and the Holy Spirit. Then you've got the primary god of the underworld, Satan, who is powerful enough that he rules over his own realm, he fought a war with Yahweh, his influence competes with Yahweh's in the physical world, he apparently makes occasional visits to heaven to make bets with Yahweh (see Job), and he is prophesized to fight another war with Yahweh at some point in the future.

Then you've got a hierarchy of lesser deities in heaven and the underworld. Two of the heavenly lesser deities are mentioned by name in the Bible, Gabriel and Michael, and one of the underworld lesser deities is also mentioned by name, Abaddon (Lucifer was also named, but most Christians consider him to be the same character as Satan). Outside the Bible, many more of these lesser deities are named. The most famous such heavenly lesser deities are probably Raphael, Uriel, Saraqael, Raguel, and Remiel from the Book of Enoch, though there are many more. The underworld lesser deities aren't quite as well known, but there are still plenty of named demons in various Christian traditions, such as Asmodee and Belzebuth from the *Dictionnaire Infernal* or others in the aforementioned Book of Enoch.

And then you get a whole other class of minor deities in the Catholic saints. Whereas the Greek pantheon has minor deities like Brizo, protector of sailors, Priapus, god of garden fertility, and Acratopotes, god of unmixed wine, the Catholic panoply has St. Elmo, patron saint of sailors, St. Ansovinus, patron saint of gardens, and St. Vincent of Saragossa, patron saint of winemakers.

Christians can quibble over semantics and say their religion only has one God, but they certainly seem to have a lot of other divine beings that would be called gods in any other religion.

Do We Have a Soul? What Happens When We Die?

If we have any type of spiritual or dualistic soul, then it must somehow be separate from our bodies. But we also know that, at least in everyday life, our bodies and our brains are what define us. Neuroscientists have studied the brain, and are beginning to understand how it works (of course, it's complicated). They're beginning to tease out which parts of our brains are responsible for different abilities and perceptions and personality traits. Stimulate a part of the brain and you can induce spiritual experiences. Stimulate another part of the brain and you can evoke memories. Remove or damage part of the brain and you can change personality – just look to unfortunate stroke victims or people suffering from Alzheimer's. Get a brain

tumor and you can become a murderer. Drink alcohol that affects your brain chemistry and you can have a really enjoyable night (though you may pay for it the next morning).

The list goes on. On a mechanistic level, at least, our brains are responsible for so much of what we do and experience, and are the direct immediate cause of voluntary actions. If there's something external like a soul that's not just a mere observer, but which actually influences our behavior, it must somehow be influencing the brain. If it's not influencing the brain, then it's not influencing all those ways we know the brain controls our memories, perceptions, behaviors, actions, etc. So, if you want to address the possibility of a soul properly, study the brain, and look for ways it functions that cannot be explained by normal biology, chemistry, or physics. That would at least demonstrate that there's something beyond our physical brains that controls our personality. The next step would be to try to determine ways to study how that influence works, which would go a long way towards making a case for a soul. But in the meantime, it seems like our physical brains are responsible for our consciousness and experiences.

One of the most famous examples in these types of discussions is a man by the name of Phineas Gage. Gage was a foreman in charge of blasting for the railroad. In 1848, he was involved in an accident, where an explosion sent a tamping iron through his head, destroying a part of his brain in the process. He survived the incident, but had a completely different personality afterwards. He became essentially a different person because of physical damage to his brain.

But consciousness is still so mysterious. I know that my seat of consciousness is different from yours, because I only experience my own thoughts and emotions. And it certainly seems like consciousness is an emergent property that requires the complexity and interactions that go on within our brains, as implied by the fact that anesthesia and blacking out seem to suspend our consciousness. But just exactly how much complexity and feedback is required for a system to experience consciousness? Can it be any system, or are there properties of certain systems/materials that are necessary for true consciousness as opposed to merely very complex automatons. Anyone who's ever had a dog or cat can be pretty sure that they experience consciousness. But what about an ant, or a spider? What about plants? They don't have brains, but they do have feedback mechanisms and they do respond to their environments. Could those processes create a form of consciousness? What about non-biological systems, like a sufficiently complex computer?

If we imagine our brains as made of legos, and we were able to take them completely apart and rebuild them, piece by piece, exactly the same way they were before, would it be the same seat of consciousness as before we took it apart? Or would it be a new seat of consciousness that just happened to share the same memories and thought patterns as the previous mind? If it was the same seat of consciousness, what about if we took it apart, and rebuilt it, but mixed the pieces up? This piece that was originally in the hippocampus now goes into the thalamus, and this piece from the parietal lobe now goes into the frontal lobe, and this piece from the temporal lobe now goes into the corpus callosum... Would that still generate the same seat of consciousness?

What if you gradually replaced pieces one at a time, until eventually you'd replaced all of them? You know – metabolism driving a constant turnover of many of the chemicals in our brains. Is the seat of consciousness continuous, or does it slowly shift with this constant turnover of legos? Is the feeling of a permanent self really just an illusion, after all? (This one's often called the Ship of Theseus, for a similar thought experiment keeping an old ship in repair by replacing one worn out plank at a time.)

What if you took apart the brain, and put it back together, still as a brain, but with a different design that encoded different memories and a different personality? Is the seat of consciousness tied to the legos themselves, even if it was a mind with completely different traits? Or will this new design create a new seat of consciousness?

What if you took twenty of these brains, took them apart, mixed all the pieces up, and built twenty new brains (or forty new, smaller brains, or one gigantic brain)? Would that, in a sense, create a continuation of the previous seats of conscious? Or would they be entirely new seats of consciousness?

Those are the mysteries for me when I think about what type of existence might await 'my' death. All my memories and personality as encoded in my brain will be gone, but the building blocks will still exist, and may someday get incorporated into new minds. The blocks themselves will be scattered, so there won't ever again be a single mind created out of the exact same set of legos, but some of those legos may end up in a squirrel, and some may end up in a worm, and some may end up in an owl, and some may even end up in another person – though most will probably end up in bacteria or plants. But, for the parts of my brain that do eventually end up getting incorporated into another brain, is that in some sense a continuation of my current seat of consciousness?

And what does that say about me now? Brains have been around on the planet for hundreds of millions of years. Am I, in a sense, the blending and continuation of countless previous seats of consciousness?

Or is the emergence of consciousness unique to each particular configuration? If you blow out a candle and then re-light it, it's a new flame. Perhaps when I die, there won't be any continuation in any sense of my seat of consciousness, and this one life really is all we get. But in the end, even if it is, this universe

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of ours truly is a wondrous place. I'm glad, however it comes about, that I get to experience it.

Why Atheism

Speaking frankly, religions are made up. I believe I've made the point sufficiently for Christianity throughout this book, especially in the sections that looked at how the stories and even concept of God have evolved over time. But other religions have similar histories.

Consider an older religion that doesn't have a whole lot of adherents these days – the ancient Egyptian gods. I don't think most people look at those gods and think, maybe the ancients did have some real interaction with a divine force, and this is what they took away from it. I think most people look at those gods and think, these were the myths that developed in ancient Egypt to help explain the unknown.

It's a similar case when you look at gods from other cultures, from the Mayans to the ancient Greek pantheon to Norse mythology to the Maori and more. And it's why so many of these religions have gods for specific aspects of the world. Take rain or weather gods, for example – Tlaloc of the Aztec, Chaac of the Mayans, Thor of Norse paganism, Zeus in Greek mythology, Indra in Hinduism, etc. People invented those gods because weather is so important to agricultural societies but the ancients didn't understand it, not because there's an actual god that controls weather that interacted with all these various societies. It's not the old fable of the blind men and the elephant, but rather those societies doing their best to understand natural phenomena in a pre-scientific world.

And there's also the pattern of how religion developed, not to mention the very fact that they have, in fact, developed. People implicitly chalk up hunter gatherer religions as obvious superstition. But, 50,000 years ago, such obvious superstitions would have been the only religions. The more 'advanced' religions grew out of these earlier precursors. And new religions continue to spring up like Scientology and Mormonism, while existing religions and gods, you'd expect people to zero in on the truth, not continue diversifying their beliefs.

The very concept of gods grew out of these made-up mythologies, not out of any actual interactions with a divine force. Gods aren't a plausible hypothesis to explain things about the universe that are merely lacking in supporting evidence. They're products of the human imagination, just one more type of mythical being. And to imply that out of all the other obviously fictitious ideas humans have invented, like genies, elves, leprechauns, wood nymphs, pegasuses, or any of the rest, that the concept of gods alone needs to be taken seriously as an actual possibility, is merely special pleading. Regarding the label of atheist vs. agnostic⁴³, I really do prefer atheist. In the section on science, I already discussed how there really isn't any such thing as 100% certainty of anything. But in most conversations in everyday language, people don't get hung up on the outliers of certainty. I'd say I'm 'certain' the Earth is roughly spherical, even if philosophically, I might admit there's a tiny possibility I'm living in the Truman Show and have been completely misinformed about the true nature of the universe. And if I tell someone else I'm 'certain' the Earth is roughly spherical, they don't in turn get all philosophical about how I can't know for sure, and that if I can't be absolutely, 100% positive, then I have to be agnostic about the shape of the planet. Similarly, I'm pretty sure, but not absolutely 100% sure, that Bigfoot and the Loch Ness Monster don't exist, and that UFOs are just misidentified mundane objects. But I'm not going to call myself a Bigfoot agnostic, a Loch Ness monster agnostic, or a flying saucer agnostic.

But for some reason, when the topic turns to religion or gods, all of a sudden these fine distinctions seem important to some people. The discussions don't get treated like other knowledge claims. Reasonable certainty is no longer enough. If there's doubt, any doubt at all, then surely you must be an agnostic and not an atheist.

I'm not going to mince words and treat this one truth claim differently from others. We can't have absolute certainty about anything, and gods are rather low on the list of likely possibilities. So if I was going to be agnostic about gods, then I'd have to be agnostic about *everything*, and then you've diluted the meaning of 'agnostic' to where it doesn't really differentiate anything. It's more of a general worldview than a position on a particular topic.

How to Handle Atheism with Children

The very idea of raising a child as an atheist would strike some religious people as outrageous, as some type of indoctrination and pushing your atheistic beliefs on them. But this double standard highlights the special treatment people expect for religion. Why should it be okay to teach your child that there's a God who massacred 99.99% of humanity in Noah's Flood and is going to send most people's souls to be tortured in Hell for not believing in him, but that it's wrong to suggest that maybe there aren't really any gods at all?

Truth be told, I did stress about how to handle this when my daughter was younger, not wanting to push my beliefs on her. But in hindsight, while I'd

⁴³ Certain pedants will argue over the technical distinctions of atheism and agnosticism, insisting that they're not mutually exclusive. But I'm more interested in how words are commonly used in practice.

Additional and Closing Thoughts

still advise against indoctrinating your kids, my advice now to younger parents would be to err on the side of atheism. Simply put, once your kids grow up, they'll make their own decisions on these matters. It's not really traumatic at all if they decide to convert *to* religion. But given the fear of Hell that comes along with Christianity, it can be very traumatic to convert *away* from religion.

The way I see it, one of the main responsibilities of parenting is to raise your kids to be well-functioning, independent adults, and that starts with teaching your kids certain values and basic facts as a foundation. Be kind. Don't be prejudiced. Follow the Golden Rule. 2+2=4. The Earth is a sphere. The Declaration of Independence was signed in 1776. etc. I hope nobody sees those lessons as dogmatic.

But for almost any topic you can imagine, there will be at least some people who disagree – flat earthers, conspiracy theorists, Holocaust deniers, etc. You shouldn't try to shield your kids from hearing those people. But you don't have to respect those beliefs, either. You don't have to try so hard at being neutral or postmodern that your kids question whether or not the Earth is flat or if the KKK is a decent organization. You have to draw the line somewhere.

As I think I've made clear, I'm very, very confident that Christianity is not true – as confident as I am that the Earth is a sphere, or that the Loch Ness monster isn't real. Basically, I see studying religion as a branch of anthropology. Should I avoid frank discussions about how Judaism developed over time or how the Bible was edited over the centuries simply because it might offend some people? Am I supposed to treat this one aspect of mythology differently than others like Zeus or Horus?

You should still teach your kids to be respectful of *people*, even if you don't respect those people's *beliefs*, whether it's religion or sports or politics. They can still argue with them, but those arguments should be respectful discussions. (Of course, there's a time and place for everything, and sometimes righteous indignation can be called for, instead.)

The world's a complicated place. You do your best to raise your kids so that they'll be well functioning adults, acting appropriately for the situation. You do give them a foundation of values and knowledge, but you don't have to pussy-foot around topics that other people are passionate about like religion. Still, your approach shouldn't be dogmatic. They're going to grow up and encounter new ideas you might not have even known about, and very likely at least a few things you were wrong about. They'll need to know how to approach these things on their own and make their own decisions.

And like I said, if your kids do decide later in life to become religious, that's far less traumatic than going the other way.

A Note of Caution for Online Research

As shocking as this may sound, random websites on the Internet are not always the most reliable sources of information. Plenty of amateur scholars post their critiques of religion, and these critiques can be exaggerated, sloppy, or even just downright wrong. (And yes, I'm fully aware of the irony of warning about amateur scholars when I am one myself in regard to religion.)

The areas that seem to be the most prone to such errors are those that suggest pagan roots to beliefs about Jesus or later Christian traditions. To be clear, there is some truth to this, which is what makes these claims so tempting to believe. Yule traditions, for example, really do come from Germanic pagan roots which were later adopted into Christmas traditions. But Christmas trees and Easter eggs really do seem to be folk traditions that originated among Christians without any pagan precursors. Similarly, some gods predating Jesus do show some similarities, such as having a human mother and a divine father, or dying and somehow coming back to life. But some of these motifs are merely because they're such common plot elements that are easy to 'reinvent' over and over, not necessarily because Christians were inspired directly by or copying those earlier religions. There are many websites which even have bulleted lists detailing the similarities between Christ and other gods, which would seem to indicate that Jesus was practically identical to these earlier gods. But when I've researched those claims further, many turned out to be rather tenuous or exaggerated.

This is good advice for any research, but especially so for a topic that inspires such passion – be careful to get information from reputable sources, and better yet, try to verify it from other reputable sources.

When I Finally Left Christianity

This book has mostly been about rationale and evidence, so now that I'm nearly done, let me talk about how I felt when I did finally realize that I was no longer a Christian.

It took me a long period of reflection to finally get to that point. And even when I was there logically, it still took me a little while longer to get past the emotional aspect of it, particularly the fear of Hell and the sense of disrespecting my parents, grandparents, and great grandparents, but I finally just had to admit to myself that the God of the Bible was an invention of people.

When I finally did admit this to myself, it came with a great sense of relief, while at the same time a great burden of responsibility. On the one hand, I no longer had to worry about all the numerous, and sometimes seemingly arbitrary, rules of the Bible. I could do yardwork on Sundays without fear of dishonoring the Sabbath; I could accept scientific theories on evolution and the origins of the universe without compromise; I could eat whatever food I

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felt like, even on Fridays during Lent; I didn't have to worry about my non-Christian friends going to Hell; I no longer had to feel conflicted about insisting on equal rights for LGBTQ+ people.

But on the other hand, it meant there was no one watching out for us, and no promise of a perfect afterlife. For all of the people on this planet that are living in horrible conditions, there's no God that's going to make their lives better, or give them a reward in Heaven after they die. If I want to see their lives improved, then it's up to those of us with the power to do something about it. And since this one life is all we get, I better hurry up and do it before it's too late. So, after I rejected Christianity, I felt a *greater* responsibility to help my fellow humans, since that's the only help they're going to get.

Admitting to myself that Christianity was a human invention was like a flood gate breaking open. It gave me a whole new perspective on life, and an outsider's view on Christianity. I could see, almost with new eyes, all the logical compromises I had been making to myself to accept Christianity. I could look at the Bible objectively, without the preconception that everything in it must be true, and see how it was written by a primitive people without much knowledge of the way the universe actually worked. Genesis made sense. I could enjoy Biblical stories on the same level that people enjoy other mythology.

While it may seem obvious to me now that Christianity isn't true, I remember what the process was like for myself, and how difficult it is to abandon a religious belief into which you've been indoctrinated your whole life, especially when virtually the entire society that surrounds you holds to those beliefs. But it is possible. And even if it took me a few years to get to this point, I'm happier now as an atheist than I was as a Christian, and I'd like for others to have that feeling.

'Spirituality' and The Big Questions

I may no longer be "religious," but it doesn't mean I don't still care about the Big Questions I worried about when I was. I didn't become an atheist just because I didn't like going to church Sunday mornings, or because I didn't want to have to follow the rules anymore. I became an atheist because that's the way I think the universe really is.

I'm not going to include the picture here because I don't think it would turn out well given the printing process, but if you're at a computer or have your phone on you, look up the "JWST Deep Field", and take some time to marvel at that picture. It's a photo taken by the James Webb Space Telescope, looking at a tiny patch of the sky equivalent in size to a grain of sand held at arm's length – absolutely miniscule compared to the entirety of the sky. And yet, the photo is absolutely full of entire galaxies – over 100,000 galaxies, each of which contains millions to billions of stars and countless planets, and at distances and ages so great that I can't really wrap my mind around it -14 *billion* light years. It's magnificent and humbling at the same time, to get a glimpse of the sheer scale of the universe, and knowing my tiny, essentially insignificant role in the grand scheme of things. I'm a bit overcome when I study such pictures too long. But I wouldn't call that experience 'spiritual' in anything but a metaphorical sense, because there's nothing literally magical or mystical about it. The reality of our universe is profound enough without needing supernatural forces.

And I still worry about how I should be living my life. How much of my time should I spend helping others, and how much should I worry about making myself happy? How do I decide who to help? How do I balance helping those in need vs. my responsibilities to family and friends?

And I still ponder philosophical questions like why there's anything at all. Why did the Big Bang happen? What are all the exact details of how solar systems and planets developed, and how precisely did life on Earth get started and evolve into all the diversity we see around us today?

I'm no longer religious, and I'm not going to follow arbitrary rules and dogma just because a book tells me to. But I still wonder about all the same big questions I wondered about when I was religious. I still want to know how everything works, and why things are the way they are. And I still see all the beauty in the world around me.

Appendix – Other People's Comments

From time to time, I'll run across a comment on some website that expresses a sentiment nearly perfectly. I had a longer list of such quotes in the earlier editions of this book, and was considering deleting this section entirely. But reviewing these quotes again, the ones I've kept really do offer unique and insightful perspectives.

Eucharist to an Inuit

source: http://scienceblogs.com/pharyngula/2006/12/the_courtiers_reply.php# comment-299077

Posted by: Keith Douglas | December 26, 2006 12:14 PM

I remember hearing a story from an Inuit friend of mine who when she first attended a Catholic mass heard this guy standing in front of a bloody statue that we should eat of a person's flesh. To an Inuit, like to most humans not god-soaked, cannibalism is at best a last, desperate act of the desperately starving. To ask people to do it when they are obviously well fed and to glorify in it (the statue) was an act of barbarity. Yes, yes, I know that "sophisticated" believers don't take the Eucharist literally. But that's the point - they have to transform its meaning because the plain one is horrifying to (almost) everyone.

Religion is Weird

Source: http://scienceblogs.com/pharyngula/2009/01/jack_chick_explains_the _cracke.php#comment-1299348

Posted by: Russell | January 6, 2009 11:55 AM

What I find weird is that religious sects can laugh at the oddities in other sects, while taking their own rites so seriously. The protestant believes that God sacrifices himself, in the guise of his son, to himself, to save us from himself. Now *that* makes perfect sense. But to say a bit of that ritual sacrifices is magically enacted in each mass [referring to Catholic's belief in the Eucharist] -- well, that's just weird. Both the Catholic and the protestant laugh at the Mormon's magical underwear. None of them can fathom how the Muslim believes the Quran is the literal word of God, though all believe they have his words in the anonymous writings of the gospels.

Religion is weird. And the weirdest thing about it is that those who believe the weirdest things have utterly no sympathy with those who believe a slightly different set of weird things.

The Value of Life

Source: http://scienceblogs.com/pharyngula/2008/12/marketing_evolution.ph p#comment-1245710

Posted by: patrickhenry | December 6, 2008 2:05 PM

I've attempted to explain (without much success) that our existence is more valuable when viewed as the result of evolution than as a miracle. If we can be created merely with a divine thought, then wiped out (as with Noah's Flood), and then whimsically re-created again, where's the value in that? Life is cheap, a throw-away toy.

We're special because we're at the tail end of an enormously long, perhaps improbable, never-to-be-repeated chain of events, and we've got intelligence and free will. We're unique. Even if we're not the only intelligent life in the universe, we're certainly rare. That means we're precious. We're the icing on the cake. We're irreplaceable in the whole cosmos. How could anyone ponder that and even think about futility?

Why the Theory of Evolution Doesn't Dictate Morality

Source: http://scienceblogs.com/pharyngula/2009/11/i_get_email_48.php#comment-2086284

Posted by: Sastra | November 18, 2009 7:16 PM

Unfortunately, I mislaid my Atheist Moral Directive and accidentally wound up taking my morals from the Theory of Gravity, instead of the Theory of Evolution. Now I have to keep throwing people out of windows, because things are supposed to fall.

They don't much like it, and it's hard work -- but it's the Law.

Yes, Yes, There *Might* Be a God

Source: http://scienceblogs.com/pharyngula/2009/11/the_deep_rifts_simply_c all_us.php#comment-2060775

Posted by: CJO | November 9, 2009 5:23 PM

...Atheism in the face of inevitable epistemological uncertainty says, in effect: yes, yes, there *might* be a god, but why isolate that 'maybe' out of all the other unprovable absurdities that the human imagination has invented throughout history? It *might* be turtles all the way down, too. ...

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Appendix – Various Quotes on Free Thinking, Religion, and Science

I am free because I know that I alone am morally responsible for everything I do.

- Robert A. Heinlein

The only problem with being the unfashionable atheist is that if we are right we never get the chance so say 'told you so'!

- Anonymous

For me it is far better to grasp the universe as it really is than to persist in delusion, however satisfying and reassuring.

- Carl Sagan

If God made us in His image we have certainly returned the compliment. - Voltaire

Faith is believing what you know ain't so. - Mark Twain

I contend we are both atheists, I just believe in one fewer god than you do. When you understand why you dismiss all the other possible gods, you will understand why I dismiss yours.

- Stephen F. Roberts

The fact that a believer is happier than a sceptic is no more to the point than the fact that a drunken man is happier than a sober one. The happiness of credulity is a cheap and dangerous quality.

- George Bernard Shaw

Reality is that which, when you stop believing in it, does not go away.

- Philip K. Dick

Be thankful that you have a life, and forsake your vain and presumptuous desire for a second one.

- Richard Dawkins

I distrust those people who know so well what God wants them to do because I notice it always coincides with their own desires.

- Susan B. Anthony

It ain't the parts of the Bible that I can't understand that bother me, it is the parts that I do understand.

- Mark Twain

I do not fear death, in view of the fact that I had been dead for billions and billions of years before I was born, and had not suffered the slightest inconvenience from it.

- Anonymous (though often credited apocryphally to Mark Twain)

Pray: To ask that the laws of the universe be annulled in behalf of a single petitioner confessedly unworthy.

- Ambrose Bierce

The great thing about being the only species that makes a distinction between right and wrong is that we can make up the rules for ourselves as we go along. - *Douglas Adams*

The system of life on this planet is so astoundingly complex that it was a long time before man even realized that it was a system at all and that it wasn't something that was just there.

- Douglas Adams

All opinions are not equal. Some are a very great deal more robust, sophisticated and well supported in logic and argument than others.

- Douglas Adams

I'd take the awe of understanding over the awe of ignorance any day. - Douglas Adams

Isn't it enough to see that a garden is beautiful without having to believe that there are fairies at the bottom of it too?

- Douglas Adams

The worthwhile problems are the ones you can really solve or help solve, the ones you can really contribute something to. ... No problem is too small or too trivial if we can really do something about it.

- Richard Feynman

It doesn't seem to me that this fantastically marvelous universe, this tremendous range of time and space and different kinds of animals, and all the different planets, and all these atoms with all their motions, and so on, all this complicated thing can merely be a stage so that God can watch human beings struggle for good and evil — which is the view that religion has. The stage is too big for the drama.

- Richard Feynman

Physics is like sex. Sure, it may give some practical results, but that's not why we do it.

- Richard Feynman

Appendix – Various Quotes on Free Thinking, Religion, & Science 117

Our imagination is stretched to the utmost, not, as in fiction, to imagine things which are not really there, but just to comprehend those things which are there.

- Richard Feynman

Poets say science takes away from the beauty of the stars — mere globs of gas atoms. Nothing is "mere". I too can see the stars on a desert night, and feel them. But do I see less or more? The vastness of the heavens stretches my imagination — stuck on this carousel my little eye can catch one-million-year-old light. A vast pattern — of which I am a part... What is the pattern or the meaning or the why? It does not do harm to the mystery to know a little more about it. For far more marvelous is the truth than any artists of the past imagined it. Why do the poets of the present not speak of it? What men are poets who can speak of Jupiter if he were a man, but if he is an immense spinning sphere of methane and ammonia must be silent?

- Richard Feynman

I have a friend who's an artist, and he sometimes takes a view which I don't agree with. He'll hold up a flower and say, "Look how beautiful it is," and I'll agree. But then he'll say, "I, as an artist, can see how beautiful a flower is. But you, as a scientist, take it all apart and it becomes dull." I think he's kind of nutty. [...] There are all kinds of interesting questions that come from a knowledge of science, which only adds to the excitement and mystery and awe of a flower. It only adds. I don't understand how it subtracts.

- Richard Feynman

You see, one thing is, I can live with doubt and uncertainty and not knowing. I think it's much more interesting to live not knowing than to have answers which might be wrong. I have approximate answers and possible beliefs and different degrees of certainty about different things, but I'm not absolutely sure of anything and there are many things I don't know anything about, such as whether it means anything to ask why we're here, and what the question might mean. I might think about it a little bit and if I can't figure it out, then I go on to something else, but I don't have to know an answer, I don't feel frightened by not knowing things, by being lost in a mysterious universe without having any purpose, which is the way it really is so far as I can tell. It doesn't frighten me.

- Richard Feynman

Science is a way of trying not to fool yourself. The first principle is that you must not fool yourself, and you are the easiest person to fool.

- Richard Feynman

Science alone of all the subjects contains within itself the lesson of the danger of belief in the infallibility of the greatest teachers in the preceding generation ... Learn from science that you must doubt the experts. As a matter of fact, I can also define science another way: Science is the belief in the ignorance of experts.

- Richard Feynman

We absolutely must leave room for doubt or there is no progress and no learning. There is no learning without having to pose a question. And a question requires doubt. People search for certainty. But there is no certainty. People are terrified—how can you live and not know? It is not odd at all. You only think you know, as a matter of fact. And most of your actions are based on incomplete knowledge and you really don't know what it is all about, or what the purpose of the world is, or know a great deal of other things. It is possible to live and not know.

- Richard Feynman

It is interesting to contemplate a tangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent upon each other in so complex a manner, have all been produced by laws acting around us. These laws, taken in the largest sense, being Growth with Reproduction; Inheritance which is almost implied by reproduction; Variability from the indirect and direct action of the conditions of life and from use and disuse: a Ratio of Increase so high as to lead to a Struggle for Life, and as a consequence to Natural Selection, entailing Divergence of Character and the Extinction of less-improved forms. Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows. There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.

- Charles Darwin

The world is a thing of utter inordinate complexity and richness and strangeness that is absolutely awesome. I mean the idea that such complexity can arise not only out of such simplicity, but probably absolutely out of nothing, is the most fabulous extraordinary idea. And once you get some kind of inkling of how that might have happened, it's just wonderful. And . . . the opportunity to spend 70 or 80 years of your life in such a universe is time well spent as far as I am concerned.

- Douglas Adams

Appendix – Source Essays

I quoted or adapted a lot of different things I'd written for other sources for this book. Unlike the first edition which basically incorporated previous essays with minimal editing, I cut up and adapted those previous writings quite a bit this time around. I tried to include all of those sources, but if I did happen to miss any, they're almost surely available either somewhere on my personal website or at my Quora profile:

- http://www.jefflewis.net/
- https://www.quora.com/profile/Jeff-Lewis-48

The various individual sources are listed below:

- http://jefflewis.net/blog/2005/12/problems_with_dayage_interpret.html
- http://jefflewis.net/blog/2008/04/further_musings_on_the_soul.html
- http://jefflewis.net/blog/2008/08/pascals_wager.html
- http://jefflewis.net/blog/2009/10/reasons_for_strong_atheism.html
- http://jefflewis.net/blog/2009/10/whats_the_point_of_intercessor_1.html (the essay & the comments)
- http://jefflewis.net/blog/2010/02/confidence_in_scientific_knowl.html
- http://jefflewis.net/blog/2010/03/how_monotheistic_is_christiani.html
- http://jefflewis.net/blog/2010/09/liar_lunatic_or_lord_or_someth.html
- http://jefflewis.net/blog/2011/02/reliance_on_bible_translations.html
- http://jefflewis.net/blog/2011/03/standards_of_evidence_for_reli.html
- http://jefflewis.net/blog/2011/04/book_review_more_than_a_carpen.html
- http://jefflewis.net/blog/2012/10/friday_bible_blogging_-_genesi.html
- http://jefflewis.net/blog/2012/10/friday_bible_blogging_-_introd.html
- http://jefflewis.net/blog/2014/01/friday_bible_blogging_-_job_31.html
- http://jefflewis.net/blog/2016/03/genetic_evidence_for_evolution.html
- http://jefflewis.net/blog/2017/03/understanding_evolution_-_deve.html
- http://jefflewis.net/confidence_in_historical_knowledge.html
- http://jefflewis.net/philosophy4.html
- https://atheismnow.quora.com/Atheists-what-are-your-top-5-reasons-fornot-believing-in-God-and-or-Christianity-Please-answer-with-somethingbesides-31
- Comments from https://divineatheist.quora.com/Are-atheistssubconsciously-afraid-of-God-12
- https://divineatheist.quora.com/Atheists-if-you-were-told-you-were-terminally-ill-would-you-start-believing-in-God-out-of-desperation-426
- https://divineatheist.quora.com/Atheists-what-does-this-quote-mean-to-you-For-God-so-loveth-the-world-that-He-gaveth-His-only-begotten-Son-sothat-wh-231
- https://divineatheist.quora.com/Atheists-you-always-make-the-argumentthat-the-world-is-too-broken-for-an-all-powerful-and-all-loving-God-toexist-but-19

- https://divineatheist.quora.com/Can-morality-exist-without-God-in-thepicture-24
- https://divineatheist.quora.com/Do-atheists-believe-that-a-bunch-ofelectric-impulses-in-our-brain-neurons-is-what-creates-our-consciousness-If-so-do-18
- https://divineatheist.quora.com/Does-the-passion-death-and-resurrection-of-Jesus-Christ-make-sense-to-each-and-every-individual-13
- https://divineatheist.quora.com/Do-you-even-as-atheists-agnosticswhatever-still-experience-moments-that-could-best-be-described-asspiritual-14
- https://divineatheist.quora.com/How-can-atheists-say-that-God-is-evilenough-to-make-humans-fail-while-Christians-say-variety-naturally-breedchoice-Is-14
- https://divineatheist.quora.com/How-can-we-explain-the-story-of-Noahs-Ark-through-a-scientific-lens-1
- Comments from: https://divineatheist.quora.com/I-answered-this-question-3-years-ago-My-opinion-has-not-changed-The-Gospels-make-unverifiedclaims-about-Jesus-but-th
- https://divineatheist.quora.com/If-Adam-and-Eve-were-the-first-humanbeings-how-come-in-every-depiction-of-them-they-have-belly-buttons-6
- https://divineatheist.quora.com/If-you-are-pretty-sure-but-not-absolutelysure-that-there-are-no-gods-why-not-self-identify-as-an-atheistic-agnostic-9
- https://divineatheist.quora.com/Science-can-prove-only-physical-existence-things-What-about-spiritual-knowledge-6
- https://divineatheist.quora.com/What-makes-you-so-sure-there-is-no-such-thing-as-a-God-23
- https://divineatheist.quora.com/Why-do-some-people-believe-there-is-no-God-but-whenever-they-are-on-their-death-bed-they-seek-for-salvation-Why-do-they-24
- https://divineatheist.quora.com/Will-they-not-study-and-think-Atheism-is-the-height-of-illogicality-When-I-look-at-the-solar-system-I-see-the-eart-6
- Comments from: https://freethoughtblogs.com/pharyngula/2022/12/25/i-had-to-say-what-i-think-of-jesus-mythicism/
- https://www.quora.com/As-someone-who-thinks-the-idea-of-a-creator-isabsurd-and-only-theists-take-things-on-faith-what-intelligent-and-wellthought-out-response-can-you-give-to-the-points-raised-by-Kent-Hovindin-this-4-minute-video/answer/Jeff-Lewis-48
- https://www.quora.com/Atheist-Parents-what-do-you-tell-your-childrenwhen-if-they-ask-about-God-Do-you-let-them-choose-a-path-of-their-ownor-teach-them-there-is-no-God-And-if-so-isnt-that-almost-as-dogmatic-asforcing-religion/answer/Jeff-Lewis-48
- https://www.quora.com/Can-atheists-name-an-example-one-of-a-Bibledifficulty-in-the-New-Testament/answer/Jeff-Lewis-48

- https://www.quora.com/Do-atheists-believe-that-the-laws-of-logic-don-tapply-to-the-classical-arguments-for-the-existence-of-God-ontologicalcosmological/answer/Jeff-Lewis-48
- https://www.quora.com/Do-you-have-to-believe-in-the-existence-of-Godto-deny-it/answer/Jeff-Lewis-48
- https://www.quora.com/Have-we-ever-thrown-lots-of-essential-moleculesin-a-vat-of-prehistoric-earth-conditions-and-see-if-life-begins/answer/Jeff-Lewis-48
- https://www.quora.com/How-is-it-that-the-Bible-explains-the-earth-to-be-6-000-to-8-000-years-old-when-we-know-that-dinosaur-bones-are-at-least-65-million-years-old-This-isn-t-the-only-example-of-our-planet-s-age-by-any-means-either/answer/Jeff-Lewis-48
- https://www.quora.com/If-God-created-all-of-us-why-does-he-only-call-Israel-his-people/answer/Jeff-Lewis-48
- https://www.quora.com/If-Jesus-wasnt-resurrected-where-did-his-physicalbody-go/answer/Jeff-Lewis-48
- https://www.quora.com/If-youre-an-atheist-do-you-believe-there-was-sucha-person-as-Jesus-or-was-he-just-a-figment-of-someonesimagination/answer/Jeff-Lewis-48
- https://www.quora.com/I-m-a-Christian-writing-an-unbiased-article-essayabout-Whether-or-not-Jesus-was-who-he-claimed-to-be-for-school-Canyou-give-me-some-basic-ideas-I-don-t-want-to-plagiarise-so-don-t-get-intodetail/answer/Jeff-Lewis-48
- https://www.quora.com/Is-Christianity-a-polytheistic-religion-becausethere-are-God-the-Father-God-the-Son-and-the-Holy-Ghost/answer/Jeff-Lewis-48
- https://www.quora.com/What-do-people-who-do-not-believe-in-theexistence-of-God-say-about-the-Bible/answer/Jeff-Lewis-48
- https://www.quora.com/What-do-you-think-really-happens-after-we-die/answer/Jeff-Lewis-48
- https://www.quora.com/What-showed-you-you-re-an-atheist/answer/Jeff-Lewis-48
- https://www.quora.com/Where-do-you-find-the-meaning-of-your-life-asan-atheist-Do-you-even-need-it/answer/Jeff-Lewis-48
- https://www.quora.com/Why-are-you-an-atheist-Isn-t-it-more-realistic-tobe-an-agnostic-since-in-truth-we-don-t-know-for-sure/answer/Jeff-Lewis-48
- https://www.quora.com/Why-do-we-blame-God-for-the-bad-things-and-not-Satan/answer/Jeff-Lewis-48

A Note from the Author

I grew up in a religious house. We went to church every Sunday; my mother was director of the CCD program; my brothers and I were even altar boys. This wasn't all just ceremony. I sincerely believed in God and Jesus, and thought I could feel His presence when I prayed.

But as I got older, I began to question my religious beliefs, and eventually realized that I'd been mistaken. There was no moment of epiphany. The gradual realization came after several years of research and intense self-reflection. During the course of that transformation and afterwards, I wrote a lot about my thought process and reasoning. I collected, chopped up, edited, and reassembled many of those writings, and then added a bit more to create this book.

I realize there are already essays and even entire books on this subject by philosophers and famous scientists who are much more well-known than me, but I figure it doesn't hurt to add one more voice. Perhaps it will strike a chord with some readers, and help them to see things differently. Even for those not questioning their faith, I would hope this book shows the thought that goes into abandoning one's religion, and allows them to at least respect and tolerate, if not agree with, atheists.

This latest fourth edition is a major revision, with a lot of editing, purging, and new material, correcting some of the short-comings in the previous edition, and hopefully creating a better overall book.